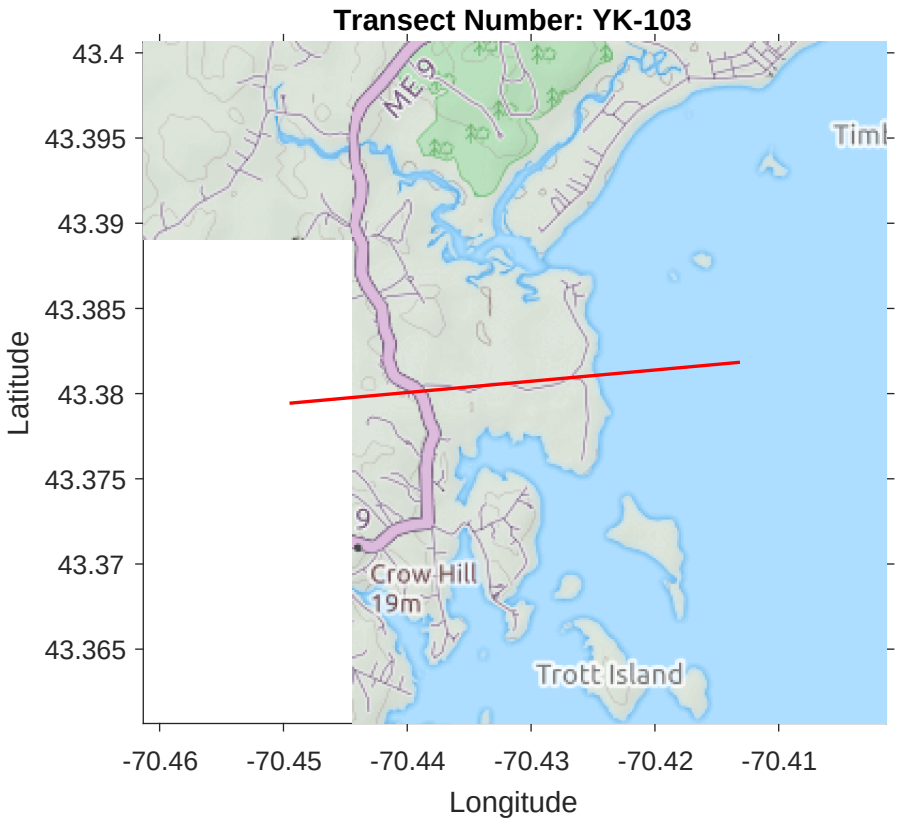
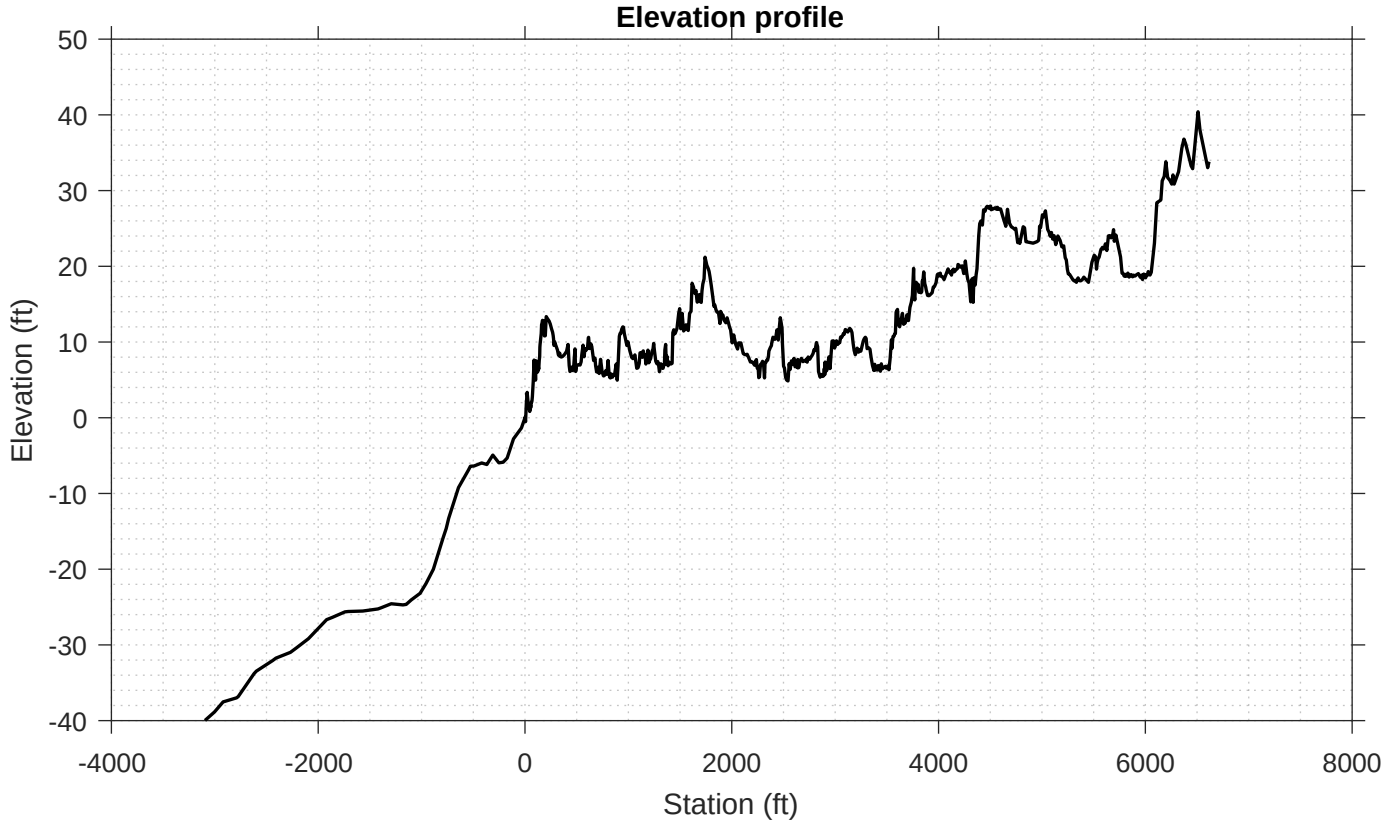

Transect Number: YK-103
43.4
43.395
43.39
43.385
43.38
43.375
43.37
43.365
Latitude
ME 9
Timl
9
Crow Hill
19m
Trott Island
-70.46
-70.45
-70.44
-70.43
-70.42
-70.41
Longitude


Elevation profile
50
40
30
20
10
0
-10
-20
-30
-40
Elevation (ft)
-4000
-2000
0
2000
4000
6000
8000
Station (ft)

DATA LOG FOR TRANSECT ID: YK-103

PART 1: USER INPUT

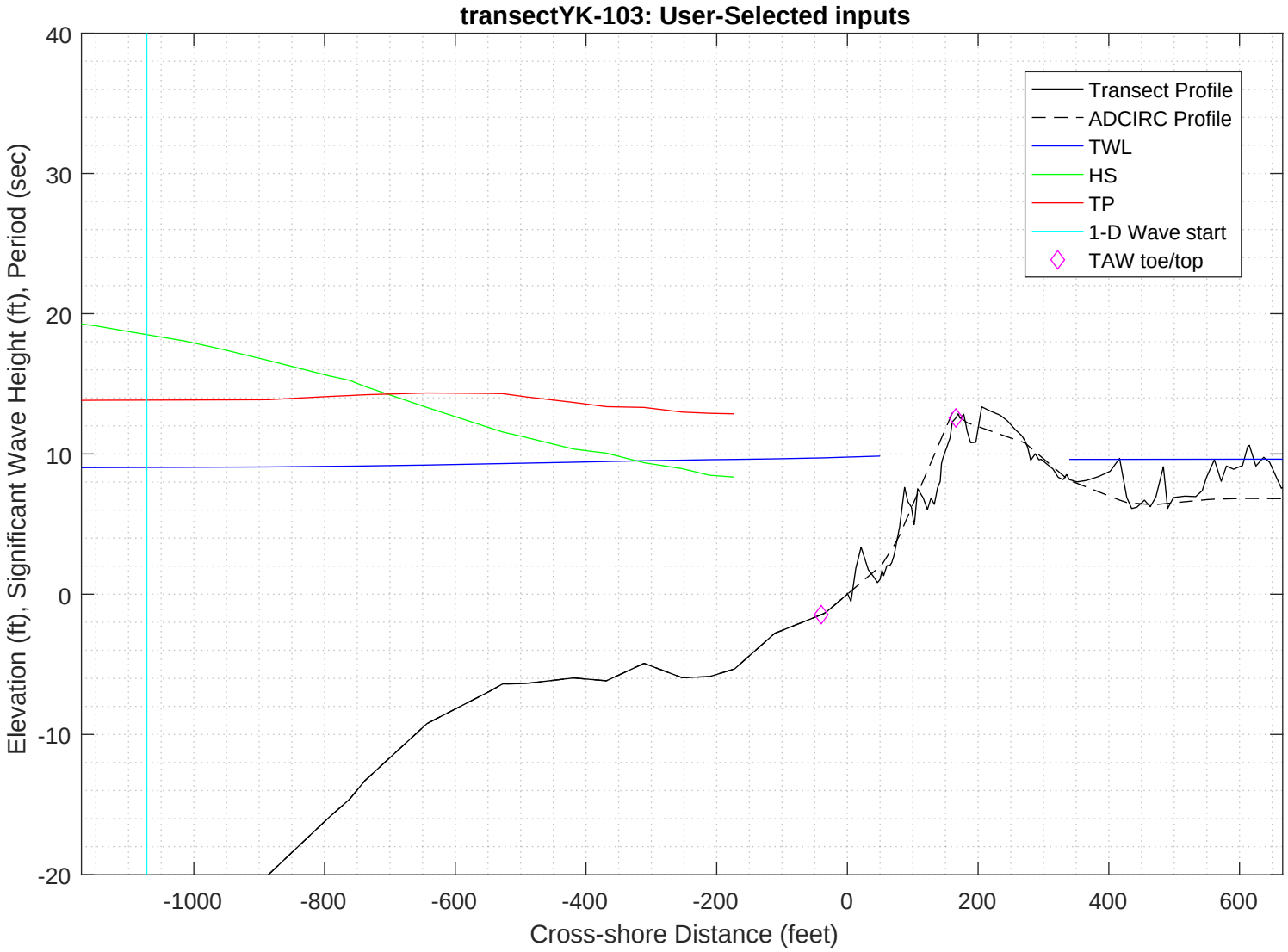
SWAN 1-D / WHAFIS input

station: -1072 ft
LON: -70.4207 deg E
LAT: 43.3813 deg N
Bottom ELEV: -23.7732 ft-NAVD88
TWL: 9.0423 ft-NAVD88
HS: 18.5094 ft
TP: 13.8399 sec
Wave Direction bin: 180 deg CCW from East (90 deg sector)
Transect Direction: 183.7844 deg CCW from East

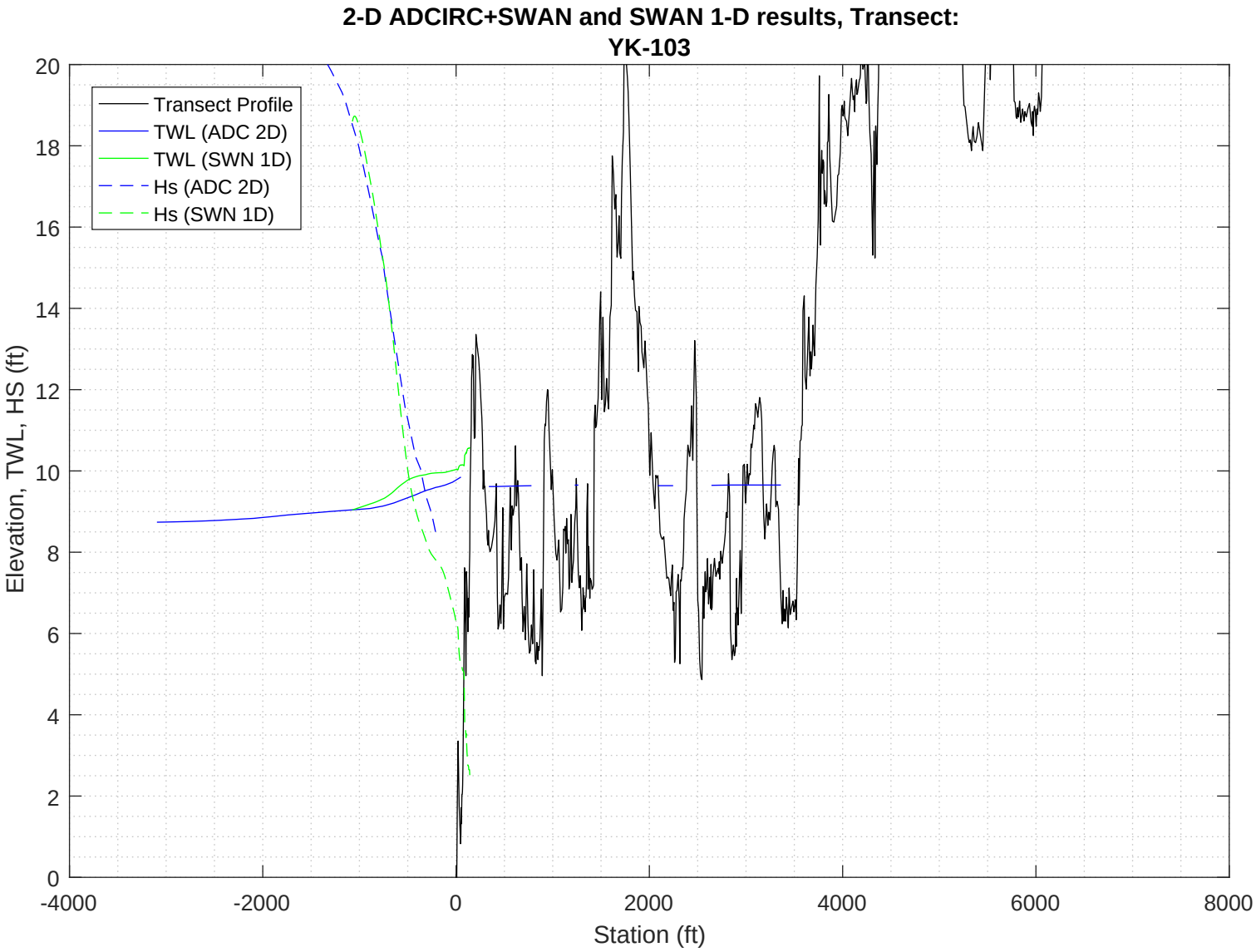
TAW/RUNUP input

toe sta: -40 ft
toe elev: -1.4589 ft-NAVD88
top sta: 166 ft
top elev: 12.5722 ft-NAVD88
Wave and water level conditions at toe to be calculated in SWAN 1-D

PART 1 COMPLETE


transectYK-103: User-Selected inputs
Transect Profile
ADCIRC Profile
TWL
HS
TP
1-D Wave start
TAW toe/top
Elevation (ft), Significant Wave Height (ft), Period (sec)
Cross-shore Distance (feet)
40
30
20
10
0
-10
-20
-1000
-800
-600
-400
-200
0
200
400
600

```
_____________________________________________________________
PART 2: SWAN 1-D

swan input grid name: 2_swan/gridfiles/YK-103zmeters_xmeters.grd
swan file name:       2_swan/swanfiles/YK-103.swn
swan output name:     2_swan/swanfiles/YK-103.dat

Boundary Conditions:
    TWL- 2.7561 meters
    HS-  5.6417 meters
    PER- 13.8399 seconds

Batch File: 2_swan/swanfiles/runswan.dat

SWAN maximum additional wave setup: 1.5373 feet
SWAN output at toe:
    SETUP- 0.96939 feet
    HS-    6.6846 feet
    PER-   13.8007 seconds

PART 2 COMPLETE_____________________________________________


SWAN maximum additional wave setup: 1.5373 feet
SWAN output at toe:
    SETUP- 0.96939 feet
    HS-    6.6846 feet
    PER-   13.8007 seconds

PART 2 COMPLETE_____________________________________________
```


2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
YK-103
Transect Profile
TWL (ADC 2D)
TWL (SWN 1D)
Hs (ADC 2D)
Hs (SWN 1D)
Elevation, TWL, HS (ft)
Station (ft)
20
18
16
14
12
10
8
6
4
2
0
-4000
-2000
0
2000
4000
6000
8000

1

```
                    Execution started at 20200401.174318


                    ---------------------------------------
                                    SWAN
                    SIMULATION OF WAVES IN NEAR SHORE AREAS
                             VERSION NUMBER 41.20A
                    ---------------------------------------


 PROJECT '2018FemaAppeal' '1'
    '100-year Wind and Wave conditions'
 ! -- SET commands ------------------------------------------------------
  SET DEPMIN=0.01 MAXMES=999 MAXERR=3 PWTAIL=4
  SET LEVEL 0
  SET CARTESIAN
 ! -- MODE commands -----------------------------------------------------
  MODE STATIONARY ONED
 !-- COORDINATES commands-----------------------------------------------
 COORDINATES CART
 !
 !  --  computational (CGRID) grid commands -------------------------------------
 !                                   xlenc=length of grid in meters
 !  mxc = number of mesh cells (one less than number of grid points)
 !CGRID REGular [xpc]  [ypc]  [alpc]  [xlenc]   [ylenc]  [mxc]  [myc] &
 !      [ CIRcle|SECtor[dir1] [dir2] ] [mdc] [flow] [fhigh] [msc]
  CGRID REGULAR   0      0       0      370       0.   370     0    &
        CIRCLE                          36    0.03    0.8     30
 Resolution in sigma-space: df/f =  0.1157
 ! -- READgrid ---- not used in 1-D mode ----------------------------------
 ! -- INPgrid commands  -------------------------------------------------------
 !INPgrid BOTtom REGular [xpinp] [ypinp] [alpinp] [mxinp] [myinp] [dxinp] [dyinp]
 !
  INPGRID BOTTOM REGULAR    0       0        0      370   0      1       1
 !READinp BOTtom [fac]  'fname1'  [idla]  [nhedf]  [FREe|FORmat[form]|UNFormatted]
  READ    BOTTOM   -1. '../gridfiles/YK-103zmeters_xmeters.grd'    1      0       FREE
 !-------------------------------------------------------------------------
 ! -- WIND [vel] [dir]
 WIND      25.1  0
 ! -- BOUnd SHAPespec
 BOUND SHAPE JONSWAP 3.3  PEAK DSPR POWER
 ! -- BOUndspec
 ! BOU SIDE W CCW CON FILE 'swanspec.txt' 1
 BOUN SIDE W CCW CONSTANT PAR   5.6417     13.8399     0  2
 !-- BOUndnest1  - optional for boundary from parent run
 !-- BOUndnest2
 !-- BOUndnest3
 !-- INITial -- usest to specify initial values
 !
```

```
!---------------- P H Y S I C S ------------------------
!-- GEN1 [cf10] [cf20] [cf30] [cf40] [edm1pm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edm1pm] [cdrag] [umin] [cfpm]
    GEN3 KOMEN
!   whitecapping ( on by default)
!-- WCAPping KOMen [cds2] [stpm] [powst] [delta] [powk]
    WCAP KOM
!   quadruplet wave interactions
!-- QUADrupl [iquad] [lambda] [Cn14] [Csh1] [Csh2]
! -- BREaking CONstant [alpha] [gamma]
     BREAK    CON       1.      0.73
!-- FRICtion JONswap CONstant [cfjon]
    FRIC     JONSWAP CON       0.038
!-- TRIad [itriad] [trfac] [cutfr]   [a]  [b]  [urcrit] [urslim]
! TRIAD        1      0.65    2.5    0.95 -0.75  0.2       0.01
  TRIAD
!-- VEGEtation [height] [diamtr] [nstems] [drag]
!-- MUD [layer] [rhom] [viscm]
!- LIMiter [ursell] [qb] deactivates quadruplets with Ursell number exceeds ursell
!-- OBSTacle -- not in 1-D
!-- SETUP [supcor]
   SETUP    0
!
! ----------------- N U M E R I C S -----------------------------
!
!-- PROP  can use BBST or GSE instead of default
! -- NUMeric -- lots of options
!     NUM ACCUR npnts=100. stat 30
     NUMeric STOPC
!
! -------------------O U T P U T ------------------------------
!
!OUTPut OPTIons "comment' (TABLE [field]) (BLOck [ndec] [len]) (SPEC [ndec])
 OUTPUT OPTIONS '%' TABLE 16
 $BLOCK 9 1000 SPEC 8
!CURve 'sname' [xp1] [yp1] <[int]   [xp]   [yp] >
 CURVE 'curve' 0     0      370  370    0
!TABLe 'sname' < HEADer|NOHEADer|INDexed > 'fname' <output parameters> (output time)
 Table 'curve'   HEADER 'YK-103.dat' XP YP HSIGN TPS RTP TMM10 DIR &
 DSPR DEPTH SETUP
!QUANTITY XP hexp=99999
!
!-----------------------------------------------
COMPUTE STATIONARY
------------------------------------------------------------------
                 COMPUTATIONAL PART OF SWAN
------------------------------------------------------------------
```

```
One-dimensional mode of SWAN is activated
Gridresolution       : MXC             371 MYC              1
                     : MCGRD           372
                     : MSC              31 MDC             36
                     : MTC               1
                     : NSTATC            0 ITERMX          50
Propagation flags    : ITFRE             1 IREFR            1
Source term flags    : IBOT              1 ISURF            1
                     : IWCAP             1 IWIND            3
                     : ITRIAD            1 IQUAD            2
                     : IVEG              0 ITURBV           0
                     : IMUD              0
Spatial step         : DX       0.1000E+01 DY      0.1000E+01
Spectral bin         : df/f     0.1157E+00 DDIR    0.1000E+02
Physical constants   : GRAV     0.9810E+01 RHO     0.1025E+04
Wind input           : WSPEED   0.2510E+02 DIR     0.0000E+00
Tail parameters      : E(f)     0.4000E+01 E(k)    0.2500E+01
                     : A(f)     0.5000E+01 A(k)    0.3000E+01
Accuracy parameters  : DREL     0.1000E-01 NPNTS   0.9950E+02
                     : DHABS    0.0000E+00 CURVAT  0.5000E-02
                     : GRWMX    0.1000E+00
Drying/flooding      : LEVEL    0.0000E+00 DEPMIN  0.1000E-01
The Cartesian convention for wind and wave directions is used
Scheme for geographic propagation is SORDUP
Scheme geogr. space  : PROPSC            2 ICMAX            7
Scheme spectral space: CSS      0.5000E+00 CDD     0.5000E+00
Current is off
Quadruplets          : IQUAD             2
                     : LAMBDA   0.2500E+00 CNL4    0.3000E+08
                     : CSH1     0.5500E+01 CSH2    0.8330E+00
                     : CSH3    -0.1250E+01
Maximum Ursell nr for Snl4 :    0.1000E+02
Triads               : ITRIAD            1 TRFAC   0.8000E+00
                     : CUTFR    0.2500E+01 URCRI   0.2000E+00
Minimum Ursell nr for Snl3 :    0.1000E-01
JONSWAP (‘73)        : GAMMA    0.3800E-01
Vegetation is off
Turbulence is off
Fluid mud is off
W-cap Komen (‘84)    : EMPCOF (CDS2):   0.2360E-04
W-cap Komen (‘84)    : APM (STPM)   :   0.3020E-02
W-cap Komen (‘84)    : POWST        :   0.2000E+01
W-cap Komen (‘84)    : DELTA        :   0.1000E+01
W-cap Komen (‘84)    : POWK         :   0.1000E+01
Wind drag is fit
Snyder/Komen wind input
Battjes&Janssen (‘78): ALPHA    0.1000E+01 GAMMA   0.7300E+00
Set-up               : SUPCOR   0.0000E+00
Diffraction is off
Janssen (‘89,‘90)    : ALPHA    0.1000E-01 KAPPA   0.4100E+00
Janssen (‘89,‘90)    : RHOA     0.1280E+01 RHOW    0.1025E+04

1st and 2nd gen. wind: CF10     0.1880E+03 CF20    0.5900E+00
                     : CF30     0.1200E+00 CF40    0.2500E+03
                     : CF50     0.2300E-02 CF60   -0.2230E+00
                     : CF70     0.0000E+00 CF80   -0.5600E+00
                     : RHOAW    0.1249E-02 EDMLPM  0.3600E-02
                     : CDRAG    0.1230E-02 UMIN    0.1000E+01
                     : LIM_PM   0.1300E+00

 ---------------------------------------------------------------
 First guess by 2nd generation model flags for first iteration:
 ITER       1 GRWMX      0.1000E+23 ALFA       0.0000E+00
 IWIND      2 IWCAP      0 IQUAD      0
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    1; sweep 1
iteration    1; sweep 2
iteration    1; sweep 3
iteration    1; sweep 4
not possible to compute, first iteration

 ---------------------------------------------------------------
 Options given by user are activated for proceeding calculation:
 ITER       2 GRWMX      0.1000E+00 ALFA       0.0000E+00
 IWIND      3 IWCAP      1 IQUAD      2
 ITRIAD     1 IBOT       1 ISURF      1
 IVEG       0 ITURBV     0 IMUD       0
 ---------------------------------------------------------------
iteration    2; sweep 1
iteration    2; sweep 2
iteration    2; sweep 3
iteration    2; sweep 4
accuracy OK in  30.46 % of wet grid points ( 99.50 % required)

iteration    3; sweep 1
iteration    3; sweep 2
iteration    3; sweep 3
```

```
iteration    3; sweep 4
accuracy OK in   0.27 % of wet grid points ( 99.50 % required)

iteration    4; sweep 1
iteration    4; sweep 2
iteration    4; sweep 3
iteration    4; sweep 4
accuracy OK in  39.36 % of wet grid points ( 99.50 % required)

iteration    5; sweep 1
iteration    5; sweep 2
iteration    5; sweep 3
iteration    5; sweep 4
accuracy OK in  76.02 % of wet grid points ( 99.50 % required)

iteration    6; sweep 1
iteration    6; sweep 2
iteration    6; sweep 3
iteration    6; sweep 4
accuracy OK in  97.31 % of wet grid points ( 99.50 % required)

iteration    7; sweep 1
iteration    7; sweep 2
iteration    7; sweep 3
iteration    7; sweep 4
accuracy OK in  96.50 % of wet grid points ( 99.50 % required)

iteration    8; sweep 1
iteration    8; sweep 2
iteration    8; sweep 3
iteration    8; sweep 4
accuracy OK in  96.50 % of wet grid points ( 99.50 % required)

iteration    9; sweep 1
iteration    9; sweep 2
iteration    9; sweep 3
iteration    9; sweep 4
accuracy OK in  98.93 % of wet grid points ( 99.50 % required)

iteration   10; sweep 1
iteration   10; sweep 2
iteration   10; sweep 3
iteration   10; sweep 4
accuracy OK in  99.20 % of wet grid points ( 99.50 % required)

iteration   11; sweep 1
iteration   11; sweep 2
iteration   11; sweep 3
iteration   11; sweep 4
accuracy OK in  99.74 % of wet grid points ( 99.50 % required)


STOP
```

%
%
% Run:1 Table:curve SWAN version:41.20A
%

% Xp [m]	Yp [m]	Hsig [m]	TPsmoo [sec]	RTpeak [sec]	Tm_10 [sec]	Dir [degr]	Dspr [degr]	Depth [m]	Setup [m]
0.	0.	5.66891	13.7410	13.8874	12.5116	0.000	31.5057	10.0000	0.000000
1.	0.	5.68101	13.7437	13.8874	12.3402	0.000	31.4978	9.9907	0.000676
2.	0.	5.69103	13.7463	13.8874	12.1834	0.000	31.4820	9.9814	0.001368
3.	0.	5.69862	13.7487	13.8874	12.0434	0.000	31.4580	9.9721	0.002079
4.	0.	5.70394	13.7508	13.8874	11.9188	0.000	31.4270	9.9628	0.002809
5.	0.	5.70723	13.7528	13.8874	11.8074	0.000	31.3908	9.9536	0.003557
6.	0.	5.70877	13.7546	13.8874	11.7075	0.000	31.3507	9.9443	0.004321
7.	0.	5.70905	13.7563	13.8874	11.6163	0.000	31.3083	9.9351	0.005099
8.	0.	5.70808	13.7578	13.8874	11.5332	0.000	31.2639	9.9259	0.005890
9.	0.	5.70597	13.7591	13.8874	11.4574	0.000	31.2179	9.9167	0.006692
10.	0.	5.70285	13.7604	13.8874	11.3881	0.000	31.1707	9.9075	0.007503
11.	0.	5.69883	13.7616	13.8874	11.3244	0.000	31.1227	9.8983	0.008321
12.	0.	5.69401	13.7627	13.8874	11.2657	0.000	31.0746	9.8891	0.009148
13.	0.	5.68849	13.7637	13.8874	11.2115	0.000	31.0278	9.8800	0.009982
14.	0.	5.68234	13.7647	13.8874	11.1613	0.000	30.9814	9.8708	0.010821
15.	0.	5.67564	13.7655	13.8874	11.1147	0.000	30.9349	9.8617	0.011664
16.	0.	5.66844	13.7664	13.8874	11.0713	0.000	30.8881	9.8525	0.012509
17.	0.	5.66054	13.7671	13.8874	11.0308	0.000	30.8339	9.8434	0.013358
18.	0.	5.65262	13.7679	13.8874	10.9935	0.000	30.7705	9.8241	0.014112
19.	0.	5.64421	13.7686	13.8874	10.9584	0.000	30.7058	9.8049	0.014874
20.	0.	5.63540	13.7692	13.8874	10.9254	0.000	30.6403	9.7856	0.015643
21.	0.	5.62599	13.7698	13.8874	10.8943	0.000	30.5679	9.7664	0.016418
22.	0.	5.61692	13.7704	13.8874	10.8655	0.000	30.4929	9.7371	0.017098
23.	0.	5.60702	13.7710	13.8874	10.8377	0.000	30.4242	9.7179	0.017884
24.	0.	5.59695	13.7715	13.8874	10.8114	0.000	30.3577	9.6987	0.018673
25.	0.	5.58645	13.7721	13.8874	10.7865	0.000	30.2854	9.6795	0.019467
26.	0.	5.57636	13.7725	13.8874	10.7634	0.000	30.2111	9.6502	0.020162
27.	0.	5.56649	13.7730	13.8874	10.7374	0.000	30.1455	9.6310	0.020964
28.	0.	5.55680	13.7734	13.8874	10.7114	0.000	30.0827	9.6118	0.021769
29.	0.	5.54681	13.7738	13.8874	10.6861	0.000	30.0143	9.5926	0.022579
30.	0.	5.53727	13.7742	13.8874	10.6622	0.000	29.9440	9.5633	0.023292
31.	0.	5.52701	13.7746	13.8874	10.6387	0.000	29.8798	9.5441	0.024114
32.	0.	5.51663	13.7749	13.8874	10.6161	0.000	29.8178	9.5249	0.024938
33.	0.	5.50591	13.7752	13.8874	10.5943	0.000	29.7501	9.5058	0.025766
34.	0.	5.49564	13.7755	13.8874	10.5739	0.000	29.6804	9.4765	0.026497
35.	0.	5.48449	13.7758	13.8874	10.5536	0.000	29.6105	9.4573	0.027336
36.	0.	5.47386	13.7761	13.8874	10.5347	0.000	29.5403	9.4281	0.028076
37.	0.	5.46239	13.7763	13.8874	10.5157	0.000	29.4705	9.4089	0.028925
38.	0.	5.45127	13.7765	13.8874	10.4980	0.000	29.3945	9.3797	0.029676
39.	0.	5.43994	13.7768	13.8874	10.4813	360.000	29.3237	9.3504	0.030440
40.	0.	5.42754	13.7770	13.8874	10.4653	359.997	29.2558	9.3313	0.031323
41.	0.	5.41546	13.7771	13.8874	10.4506	359.993	29.1823	9.3021	0.032108
42.	0.	5.40325	13.7773	13.8874	10.4368	359.988	29.1130	9.2729	0.032902
43.	0.	5.39030	13.7775	13.8874	10.4227	359.982	29.0457	9.2538	0.033803
44.	0.	5.37778	13.7776	13.8874	10.4098	359.976	28.9726	9.2246	0.034603
45.	0.	5.36520	13.7778	13.8874	10.3974	359.969	28.9034	9.1954	0.035410
46.	0.	5.35188	13.7779	13.8874	10.3848	359.961	28.8361	9.1763	0.036323
47.	0.	5.33949	13.7780	13.8874	10.3721	359.958	28.7627	9.1471	0.037119
48.	0.	5.32730	13.7781	13.8874	10.3593	359.956	28.6936	9.1179	0.037913
49.	0.	5.31446	13.7782	13.8874	10.3460	359.955	28.6264	9.0988	0.038814
50.	0.	5.30213	13.7783	13.8874	10.3336	359.955	28.5534	9.0696	0.039610
51.	0.	5.28984	13.7784	13.8874	10.3215	359.954	28.4849	9.0404	0.040410
52.	0.	5.27684	13.7784	13.8874	10.3089	359.954	28.4183	9.0213	0.041318
53.	0.	5.26434	13.7785	13.8874	10.2973	359.954	28.3461	8.9921	0.042123
54.	0.	5.25186	13.7786	13.8874	10.2860	359.953	28.2784	8.9629	0.042932
55.	0.	5.23867	13.7786	13.8874	10.2742	359.953	28.2127	8.9439	0.043851
56.	0.	5.22597	13.7786	13.8874	10.2634	359.953	28.1415	8.9147	0.044665
57.	0.	5.21284	13.7787	13.8874	10.2528	359.952	28.0567	8.8855	0.045482
58.	0.	5.20063	13.7787	13.8874	10.2440	359.952	27.9615	8.8361	0.046100
59.	0.	5.18764	13.7788	13.8874	10.2345	359.952	27.8721	8.7968	0.046845

60.	0.	5.17439	13.7788	13.8874	10.2250	359.952	27.7801	8.7576	0.047606
61.	0.	5.16162	13.7788	13.8874	10.2164	359.951	27.6866	8.7083	0.048274
62.	0.	5.14795	13.7788	13.8874	10.2071	359.951	27.5931	8.6691	0.049069
63.	0.	5.13480	13.7789	13.8874	10.1987	359.951	27.4995	8.6198	0.049771
64.	0.	5.12089	13.7789	13.8874	10.1896	359.951	27.4116	8.5806	0.050600
65.	0.	5.10675	13.7789	13.8874	10.1806	359.951	27.3212	8.5414	0.051445
66.	0.	5.09310	13.7789	13.8874	10.1725	359.951	27.2296	8.4922	0.052194
67.	0.	5.07854	13.7788	13.8874	10.1636	359.951	27.1378	8.4531	0.053073
68.	0.	5.06451	13.7788	13.8874	10.1557	359.951	27.0466	8.4039	0.053858
69.	0.	5.04971	13.7788	13.8874	10.1470	359.952	26.9608	8.3648	0.054774
70.	0.	5.03467	13.7788	13.8874	10.1385	359.952	26.8714	8.3257	0.055702
71.	0.	5.02010	13.7787	13.8874	10.1310	359.953	26.7806	8.2765	0.056535
72.	0.	5.00455	13.7787	13.8874	10.1229	359.955	26.6898	8.2375	0.057501
73.	0.	4.98955	13.7787	13.8874	10.1158	359.957	26.5983	8.1884	0.058369
74.	0.	4.97376	13.7786	13.8874	10.1080	359.959	26.5122	8.1494	0.059371
75.	0.	4.95772	13.7785	13.8874	10.1003	359.962	26.4222	8.1104	0.060386
76.	0.	4.94221	13.7785	13.8874	10.0936	359.965	26.3307	8.0613	0.061300
77.	0.	4.92578	13.7784	13.8874	10.0862	359.968	26.2389	8.0223	0.062348
78.	0.	4.90993	13.7783	13.8874	10.0798	359.971	26.1463	7.9733	0.063293
79.	0.	4.89587	13.7782	13.8874	10.0644	359.982	26.0595	7.9343	0.064313
80.	0.	4.88220	13.7780	13.8874	10.0467	359.995	25.9692	7.8953	0.065341
81.	0.	4.86971	13.7779	13.8874	10.0285	0.009	25.8748	7.8462	0.066227
82.	0.	4.85439	13.7777	13.8874	10.0149	0.026	25.7892	7.8073	0.067322
83.	0.	4.83867	13.7775	13.8874	10.0050	0.042	25.7018	7.7583	0.068340
84.	0.	4.82275	13.7773	13.8874	9.9935	0.071	25.6165	7.7194	0.069450
85.	0.	4.80602	13.7771	13.8874	9.9840	0.096	25.5280	7.6806	0.070587
86.	0.	4.78972	13.7770	13.8874	9.9764	0.123	25.4325	7.6316	0.071604
87.	0.	4.77274	13.7767	13.8874	9.9678	0.150	25.3404	7.5927	0.072748
88.	0.	4.75570	13.7765	13.8874	9.9594	0.176	25.2496	7.5539	0.073902
89.	0.	4.73855	13.7763	13.8874	9.9512	0.204	25.1592	7.5151	0.075068
90.	0.	4.72184	13.7761	13.8874	9.9419	0.236	25.0679	7.4762	0.076218
91.	0.	4.70769	13.7759	13.8874	9.9253	0.268	24.9763	7.4373	0.077279
92.	0.	4.69323	13.7757	13.8874	9.9093	0.290	24.8847	7.3984	0.078361
93.	0.	4.67892	13.7754	13.8874	9.8926	0.315	24.7955	7.3594	0.079449
94.	0.	4.66435	13.7752	13.8874	9.8759	0.341	24.7016	7.3206	0.080551
95.	0.	4.65022	13.7750	13.8874	9.8600	0.368	24.5950	7.2715	0.081533
96.	0.	4.63648	13.7748	13.8874	9.8450	0.398	24.4786	7.2124	0.082404
97.	0.	4.62234	13.7746	13.8874	9.8300	0.428	24.3641	7.1533	0.083319
98.	0.	4.60780	13.7744	13.8874	9.8098	0.465	24.2499	7.1044	0.084434
99.	0.	4.59402	13.7743	13.8874	9.7890	0.507	24.1361	7.0455	0.085454
100.	0.	4.57860	13.7741	13.8874	9.7680	0.545	24.0259	6.9967	0.086686
101.	0.	4.56382	13.7740	13.8874	9.7472	0.588	23.9181	6.9378	0.087815
102.	0.	4.54770	13.7738	13.8874	9.7257	0.630	23.8167	6.8891	0.089143
103.	0.	4.53120	13.7737	13.8874	9.7044	0.674	23.7229	6.8405	0.090517
104.	0.	4.51329	13.7736	13.8874	9.6832	0.718	23.6374	6.8021	0.092085
105.	0.	4.49491	13.7735	13.8874	9.6627	0.763	23.5505	6.7637	0.093680
106.	0.	4.47727	13.7734	13.8874	9.6433	0.812	23.4620	6.7151	0.095136
107.	0.	4.45826	13.7733	13.8874	9.6238	0.859	23.3797	6.6768	0.096780
108.	0.	4.43877	13.7733	13.8874	9.6054	0.904	23.2983	6.6385	0.098451
109.	0.	4.41882	13.7732	13.8874	9.5880	0.947	23.2124	6.6001	0.100141
110.	0.	4.40043	13.7732	13.8874	9.5693	0.995	23.1188	6.5517	0.101651
111.	0.	4.38102	13.7731	13.8874	9.5495	1.041	23.0296	6.5133	0.103339
112.	0.	4.36187	13.7731	13.8874	9.5282	1.096	22.9448	6.4750	0.105042
113.	0.	4.34245	13.7731	13.8874	9.5070	1.156	22.8578	6.4368	0.106765
114.	0.	4.32380	13.7731	13.8874	9.4868	1.218	22.7691	6.3883	0.108344
115.	0.	4.30389	13.7731	13.8874	9.4660	1.278	22.6858	6.3501	0.110114
116.	0.	4.28369	13.7731	13.8874	9.4455	1.337	22.5992	6.3119	0.111901
117.	0.	4.26423	13.7732	13.8874	9.4263	1.396	22.5111	6.2635	0.113545
118.	0.	4.24355	13.7732	13.8874	9.4062	1.454	22.4287	6.2254	0.115381
119.	0.	4.22273	13.7733	13.8874	9.3864	1.511	22.3484	6.1872	0.117232
120.	0.	4.20170	13.7734	13.8874	9.3667	1.567	22.2643	6.1491	0.119092
121.	0.	4.18146	13.7734	13.8874	9.3481	1.623	22.1786	6.1008	0.120804
122.	0.	4.16002	13.7735	13.8874	9.3287	1.677	22.0984	6.0627	0.122709
123.	0.	4.13904	13.7736	13.8874	9.3075	1.724	22.0146	6.0246	0.124597
124.	0.	4.11905	13.7737	13.8874	9.2868	1.769	21.9296	5.9763	0.126328
125.	0.	4.09791	13.7738	13.8874	9.2650	1.812	21.8509	5.9383	0.128254
126.	0.	4.07660	13.7739	13.8874	9.2434	1.854	21.7747	5.9002	0.130196

127.	0.	4.05561	13.7740	13.8874	9.2194	1.908	21.6983	5.8622	0.132160
128.	0.	4.03546	13.7742	13.8874	9.1958	1.969	21.6209	5.8140	0.133987
129.	0.	4.01419	13.7743	13.8874	9.1708	2.031	21.5511	5.7760	0.136014
130.	0.	3.99208	13.7745	13.8874	9.1479	2.087	21.4862	5.7381	0.138089
131.	0.	3.97019	13.7746	13.8874	9.1245	2.147	21.4319	5.7002	0.140170
132.	0.	3.94624	13.7748	13.8874	9.0998	2.205	21.3889	5.6826	0.142595
133.	0.	3.92339	13.7749	13.8874	9.0768	2.267	21.3508	5.6548	0.144829
134.	0.	3.89970	13.7751	13.8874	9.0533	2.329	21.3175	5.6372	0.147205
135.	0.	3.87692	13.7753	13.8874	9.0321	2.393	21.2853	5.6094	0.149395
136.	0.	3.85322	13.7754	13.8874	9.0108	2.456	21.2607	5.5917	0.151733
137.	0.	3.82954	13.7756	13.8874	8.9906	2.517	21.2344	5.5740	0.154037
138.	0.	3.80674	13.7758	13.8874	8.9729	2.580	21.2072	5.5462	0.156157
139.	0.	3.78321	13.7760	13.8874	8.9543	2.642	21.1825	5.5284	0.158410
140.	0.	3.76058	13.7761	13.8874	8.9380	2.704	21.1579	5.5005	0.160483
141.	0.	3.73752	13.7763	13.8874	8.9199	2.765	21.1397	5.4827	0.162683
142.	0.	3.71466	13.7765	13.8874	8.9023	2.826	21.1194	5.4648	0.164846
143.	0.	3.69277	13.7767	13.8874	8.8869	2.886	21.0969	5.4368	0.166825
144.	0.	3.67015	13.7769	13.8874	8.8703	2.944	21.0752	5.4189	0.168938
145.	0.	3.64836	13.7771	13.8874	8.8562	2.997	21.0493	5.3909	0.170878
146.	0.	3.62567	13.7773	13.8874	8.8414	3.043	21.0266	5.3730	0.172966
147.	0.	3.60287	13.7775	13.8874	8.8280	3.080	20.9964	5.3550	0.175033
148.	0.	3.58106	13.7777	13.8874	8.8166	3.115	20.9633	5.3269	0.176920
149.	0.	3.55871	13.7779	13.8874	8.8034	3.150	20.9312	5.3089	0.178932
150.	0.	3.53738	13.7781	13.8874	8.7922	3.184	20.8964	5.2808	0.180767
151.	0.	3.51531	13.7783	13.8874	8.7799	3.215	20.8674	5.2627	0.182742
152.	0.	3.49343	13.7785	13.8874	8.7681	3.245	20.8345	5.2447	0.184684
153.	0.	3.47248	13.7787	13.8874	8.7583	3.274	20.7983	5.2165	0.186454
154.	0.	3.45094	13.7789	13.8874	8.7470	3.302	20.7637	5.1984	0.188351
155.	0.	3.43029	13.7791	13.8874	8.7379	3.329	20.7266	5.1701	0.190081
156.	0.	3.40915	13.7794	13.8874	8.7270	3.355	20.6967	5.1519	0.191938
157.	0.	3.38822	13.7796	13.8874	8.7164	3.379	20.6632	5.1338	0.193762
158.	0.	3.36817	13.7798	13.8874	8.7080	3.403	20.6258	5.1054	0.195423
159.	0.	3.34760	13.7800	13.8874	8.6977	3.425	20.5901	5.0872	0.197206
160.	0.	3.32792	13.7802	13.8874	8.6894	3.448	20.5515	5.0588	0.198828
161.	0.	3.30768	13.7805	13.8874	8.6793	3.469	20.5155	5.0406	0.200576
162.	0.	3.28824	13.7807	13.8874	8.6714	3.489	20.4716	5.0122	0.202163
163.	0.	3.26888	13.7809	13.8874	8.6637	3.509	20.4309	4.9837	0.203746
164.	0.	3.24895	13.7812	13.8874	8.6542	3.528	20.3941	4.9655	0.205457
165.	0.	3.22986	13.7814	13.8874	8.6469	3.545	20.3543	4.9370	0.207012
166.	0.	3.21033	13.7816	13.8874	8.6377	3.565	20.3330	4.9187	0.208699
167.	0.	3.18970	13.7818	13.8874	8.6257	3.591	20.3324	4.9206	0.210637
168.	0.	3.16958	13.7820	13.8874	8.6142	3.617	20.3315	4.9225	0.212510
169.	0.	3.15062	13.7823	13.8874	8.6052	3.641	20.3285	4.9142	0.214191
170.	0.	3.13159	13.7825	13.8874	8.5944	3.667	20.3342	4.9159	0.215944
171.	0.	3.11317	13.7827	13.8874	8.5839	3.693	20.3424	4.9176	0.217632
172.	0.	3.09527	13.7829	13.8874	8.5739	3.721	20.3506	4.9193	0.219259
173.	0.	3.07794	13.7830	13.8874	8.5641	3.748	20.3588	4.9208	0.220823
174.	0.	3.06115	13.7832	13.8874	8.5545	3.774	20.3675	4.9223	0.222329
175.	0.	3.04488	13.7834	13.8874	8.5452	3.800	20.3763	4.9238	0.223778
176.	0.	3.02910	13.7836	13.8874	8.5361	3.826	20.3854	4.9252	0.225175
177.	0.	3.01379	13.7838	13.8874	8.5270	3.849	20.3881	4.9265	0.226518
178.	0.	2.99939	13.7839	13.8874	8.5201	3.869	20.3862	4.9177	0.227709
179.	0.	2.98480	13.7841	13.8874	8.5111	3.889	20.3857	4.9190	0.228975
180.	0.	2.97104	13.7843	13.8874	8.5045	3.907	20.3773	4.9101	0.230094
181.	0.	2.95757	13.7844	13.8874	8.4979	3.924	20.3723	4.9012	0.231188
182.	0.	2.94390	13.7846	13.8874	8.4892	3.943	20.3712	4.9024	0.232362
183.	0.	2.93106	13.7847	13.8874	8.4829	3.960	20.3682	4.8934	0.233396
184.	0.	2.91825	13.7849	13.8874	8.4733	3.981	20.3678	4.8945	0.234501
185.	0.	2.90633	13.7851	13.8874	8.4657	4.001	20.3653	4.8855	0.235469
186.	0.	2.89419	13.7852	13.8874	8.4558	4.023	20.3658	4.8865	0.236516
187.	0.	2.88284	13.7853	13.8874	8.4482	4.044	20.3640	4.8774	0.237433
188.	0.	2.87122	13.7855	13.8874	8.4383	4.065	20.3653	4.8784	0.238431
189.	0.	2.86035	13.7856	13.8874	8.4307	4.086	20.3641	4.8693	0.239302
190.	0.	2.84920	13.7858	13.8874	8.4210	4.107	20.3659	4.8703	0.240255
191.	0.	2.83870	13.7859	13.8874	8.4136	4.126	20.3599	4.8611	0.241085
192.	0.	2.82836	13.7861	13.8874	8.4064	4.145	20.3574	4.8519	0.241902
193.	0.	2.81769	13.7862	13.8874	8.3972	4.165	20.3587	4.8528	0.242803

194.	0.	2.80770	13.7863	13.8874	8.3903	4.184	20.3575	4.8436	0.243585
195.	0.	2.79739	13.7865	13.8874	8.3814	4.204	20.3593	4.8444	0.244450
196.	0.	2.78776	13.7866	13.8874	8.3748	4.222	20.3584	4.8352	0.245197
197.	0.	2.77779	13.7867	13.8874	8.3662	4.241	20.3599	4.8360	0.246028
198.	0.	2.76848	13.7868	13.8874	8.3599	4.259	20.3587	4.8267	0.246743
199.	0.	2.75888	13.7870	13.8874	8.3515	4.278	20.3658	4.8275	0.247543
200.	0.	2.74950	13.7871	13.8874	8.3433	4.298	20.3751	4.8283	0.248322
201.	0.	2.74036	13.7872	13.8874	8.3354	4.319	20.3931	4.8291	0.249084
202.	0.	2.73104	13.7873	13.8874	8.3254	4.342	20.4170	4.8399	0.249916
203.	0.	2.72247	13.7874	13.8874	8.3177	4.364	20.4388	4.8406	0.250628
204.	0.	2.71364	13.7875	13.8874	8.3082	4.386	20.4641	4.8514	0.251411
205.	0.	2.70544	13.7876	13.8874	8.3010	4.404	20.4792	4.8521	0.252078
206.	0.	2.69749	13.7878	13.8874	8.2938	4.423	20.4995	4.8527	0.252728
207.	0.	2.68931	13.7878	13.8874	8.2845	4.444	20.5244	4.8634	0.253450
208.	0.	2.68182	13.7879	13.8874	8.2776	4.463	20.5471	4.8641	0.254059
209.	0.	2.67409	13.7880	13.8874	8.2685	4.485	20.5736	4.8747	0.254741
210.	0.	2.66692	13.7881	13.8874	8.2619	4.503	20.5894	4.8753	0.255314
211.	0.	2.65996	13.7882	13.8874	8.2553	4.522	20.6105	4.8759	0.255874
212.	0.	2.65273	13.7883	13.8874	8.2467	4.542	20.6357	4.8865	0.256506
213.	0.	2.64613	13.7884	13.8874	8.2404	4.561	20.6585	4.8870	0.257033
214.	0.	2.63914	13.7885	13.8874	8.2320	4.577	20.6701	4.8976	0.257630
215.	0.	2.63340	13.7886	13.8874	8.2303	4.584	20.6516	4.8780	0.257956
216.	0.	2.62755	13.7887	13.8874	8.2285	4.589	20.6249	4.8583	0.258285
217.	0.	2.62160	13.7888	13.8874	8.2268	4.594	20.5955	4.8386	0.258620
218.	0.	2.61556	13.7889	13.8874	8.2251	4.599	20.5654	4.8190	0.258962
219.	0.	2.60944	13.7890	13.8874	8.2235	4.604	20.5350	4.7993	0.259310
220.	0.	2.60318	13.7891	13.8874	8.2219	4.608	20.4985	4.7797	0.259664
221.	0.	2.59721	13.7893	13.8874	8.2226	4.610	20.4569	4.7499	0.259940
222.	0.	2.59073	13.7894	13.8874	8.2211	4.614	20.4223	4.7303	0.260315
223.	0.	2.58418	13.7895	13.8874	8.2195	4.618	20.3890	4.7107	0.260697
224.	0.	2.57756	13.7896	13.8874	8.2179	4.623	20.3560	4.6911	0.261085
225.	0.	2.57087	13.7897	13.8874	8.2164	4.626	20.3232	4.6715	0.261480
226.	0.	2.56405	13.7898	13.8874	8.2149	4.628	20.2845	4.6519	0.261881
227.	0.	2.55756	13.7900	13.8874	8.2157	4.629	20.2408	4.6222	0.262200
228.	0.	2.55054	13.7901	13.8874	8.2142	4.631	20.2045	4.6026	0.262622
229.	0.	2.54345	13.7902	13.8874	8.2126	4.634	20.1695	4.5830	0.263049
230.	0.	2.53630	13.7904	13.8874	8.2111	4.637	20.1347	4.5635	0.263483
231.	0.	2.52909	13.7905	13.8874	8.2096	4.640	20.0997	4.5439	0.263923
232.	0.	2.52202	13.7906	13.8874	8.2080	4.650	20.0871	4.5244	0.264371
233.	0.	2.51349	13.7907	13.8874	8.1969	4.674	20.1259	4.5452	0.265183
234.	0.	2.50544	13.7908	13.8874	8.1859	4.700	20.1716	4.5660	0.265956
235.	0.	2.49826	13.7909	13.8874	8.1771	4.724	20.2176	4.5766	0.266605
236.	0.	2.49100	13.7910	13.8874	8.1662	4.752	20.2757	4.5973	0.267316
237.	0.	2.48412	13.7911	13.8874	8.1554	4.780	20.3375	4.6180	0.267993
238.	0.	2.47751	13.7912	13.8874	8.1448	4.806	20.3927	4.6386	0.268639
239.	0.	2.47161	13.7913	13.8874	8.1366	4.830	20.4426	4.6492	0.269175
240.	0.	2.46561	13.7914	13.8874	8.1261	4.858	20.5036	4.6698	0.269771
241.	0.	2.45993	13.7914	13.8874	8.1157	4.886	20.5678	4.6903	0.270341
242.	0.	2.45448	13.7915	13.8874	8.1054	4.912	20.6247	4.7109	0.270885
243.	0.	2.44969	13.7916	13.8874	8.0975	4.936	20.6770	4.7213	0.271327
244.	0.	2.44475	13.7917	13.8874	8.0873	4.964	20.7391	4.7418	0.271831
245.	0.	2.44009	13.7917	13.8874	8.0772	4.992	20.8038	4.7623	0.272314
246.	0.	2.43558	13.7918	13.8874	8.0672	5.017	20.8610	4.7828	0.272776
247.	0.	2.43164	13.7918	13.8874	8.0596	5.042	20.9135	4.7931	0.273146
248.	0.	2.42756	13.7919	13.8874	8.0498	5.069	20.9761	4.8136	0.273578
249.	0.	2.42362	13.7920	13.8874	8.0400	5.094	21.0326	4.8340	0.273991
250.	0.	2.42005	13.7920	13.8874	8.0328	5.114	21.0683	4.8443	0.274319
251.	0.	2.41678	13.7921	13.8874	8.0280	5.127	21.0863	4.8446	0.274566
252.	0.	2.41346	13.7921	13.8874	8.0234	5.138	21.0935	4.8448	0.274810
253.	0.	2.41050	13.7922	13.8874	8.0211	5.146	21.0941	4.8350	0.274980
254.	0.	2.40719	13.7923	13.8874	8.0165	5.157	21.1018	4.8352	0.275222
255.	0.	2.40393	13.7923	13.8874	8.0121	5.170	21.1110	4.8355	0.275462
256.	0.	2.40070	13.7924	13.8874	8.0077	5.182	21.1207	4.8357	0.275698
257.	0.	2.39745	13.7924	13.8874	8.0034	5.192	21.1245	4.8359	0.275932
258.	0.	2.39455	13.7925	13.8874	8.0015	5.201	21.1230	4.8261	0.276093
259.	0.	2.39134	13.7926	13.8874	7.9973	5.212	21.1301	4.8263	0.276325
260.	0.	2.38818	13.7926	13.8874	7.9931	5.223	21.1389	4.8266	0.276554

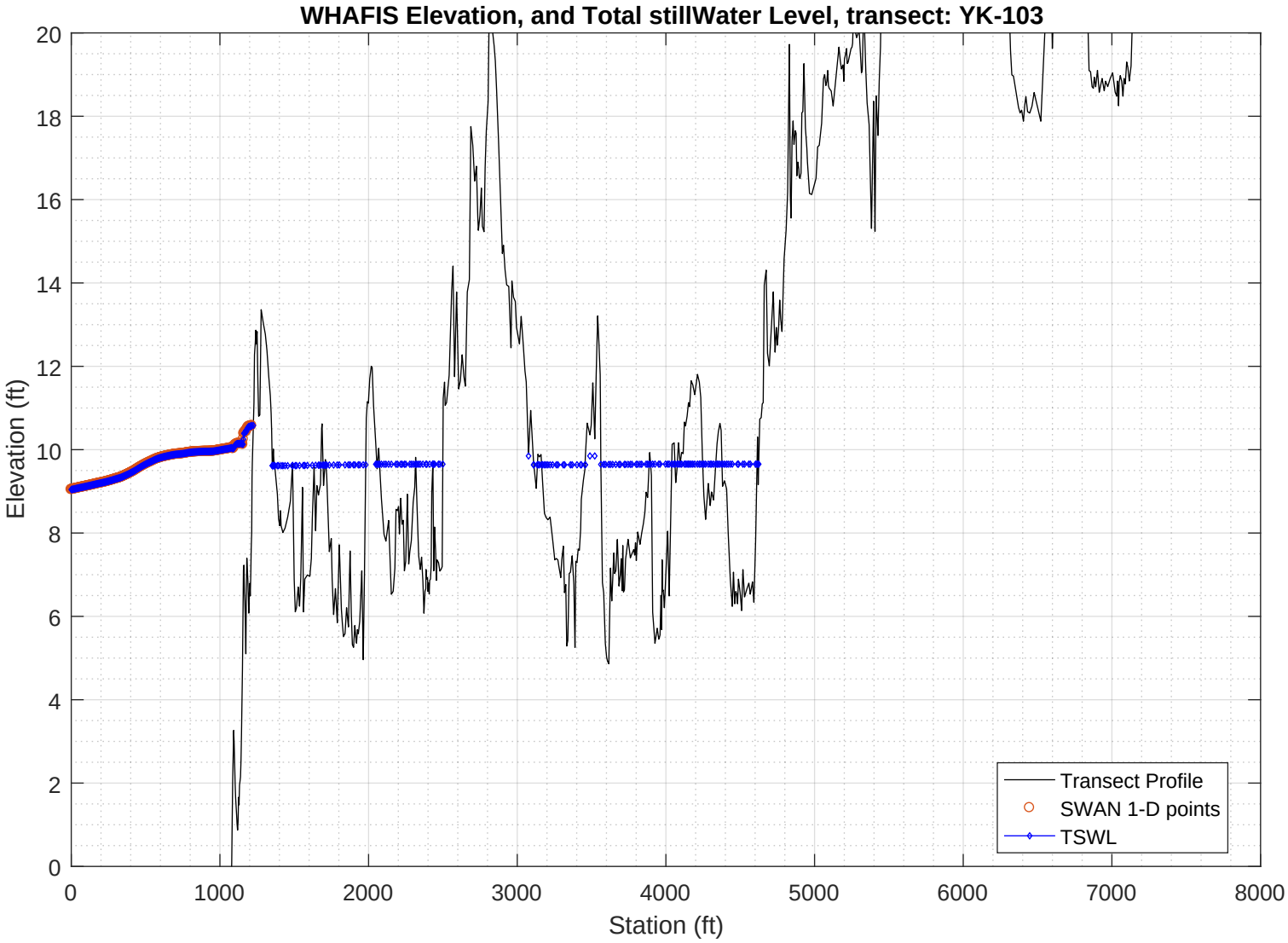
261.	0.	2.38506	13.7927	13.8874	7.9890	5.235	21.1484	4.8268	0.276780
262.	0.	2.38193	13.7927	13.8874	7.9849	5.245	21.1518	4.8270	0.277003
263.	0.	2.37902	13.7928	13.8874	7.9833	5.249	21.1381	4.8172	0.277154
264.	0.	2.37638	13.7929	13.8874	7.9841	5.251	21.1161	4.7972	0.277238
265.	0.	2.37336	13.7929	13.8874	7.9826	5.255	21.1014	4.7874	0.277397
266.	0.	2.37027	13.7930	13.8874	7.9811	5.257	21.0818	4.7776	0.277556
267.	0.	2.36746	13.7931	13.8874	7.9820	5.258	21.0573	4.7576	0.277649
268.	0.	2.36424	13.7931	13.8874	7.9806	5.260	21.0351	4.7478	0.277816
269.	0.	2.36133	13.7932	13.8874	7.9815	5.260	21.0095	4.7279	0.277916
270.	0.	2.35801	13.7933	13.8874	7.9800	5.262	20.9866	4.7181	0.278090
271.	0.	2.35501	13.7933	13.8874	7.9809	5.262	20.9601	4.6982	0.278196
272.	0.	2.35163	13.7934	13.8874	7.9794	5.266	20.9423	4.6884	0.278379
273.	0.	2.34819	13.7935	13.8874	7.9779	5.267	20.9205	4.6786	0.278563
274.	0.	2.34490	13.7936	13.8874	7.9789	5.262	20.8761	4.6587	0.278677
275.	0.	2.34205	13.7937	13.8874	7.9849	5.249	20.8064	4.6187	0.278652
276.	0.	2.33892	13.7937	13.8874	7.9910	5.233	20.7291	4.5786	0.278639
277.	0.	2.33553	13.7938	13.8874	7.9972	5.216	20.6482	4.5386	0.278641
278.	0.	2.33189	13.7939	13.8874	8.0035	5.198	20.5649	4.4987	0.278658
279.	0.	2.32800	13.7941	13.8874	8.0099	5.180	20.4802	4.4587	0.278692
280.	0.	2.32385	13.7942	13.8874	8.0163	5.163	20.3953	4.4187	0.278744
281.	0.	2.31937	13.7943	13.8874	8.0229	5.143	20.3027	4.3788	0.278814
282.	0.	2.31501	13.7944	13.8874	8.0320	5.121	20.2028	4.3288	0.278822
283.	0.	2.30990	13.7945	13.8874	8.0387	5.101	20.1085	4.2889	0.278938
284.	0.	2.30452	13.7947	13.8874	8.0455	5.082	20.0154	4.2491	0.279077
285.	0.	2.29885	13.7948	13.8874	8.0523	5.063	19.9215	4.2092	0.279238
286.	0.	2.29289	13.7949	13.8874	8.0592	5.044	19.8264	4.1694	0.279422
287.	0.	2.28663	13.7951	13.8874	8.0661	5.024	19.7305	4.1296	0.279630
288.	0.	2.28008	13.7952	13.8874	8.0729	5.005	19.6332	4.0899	0.279862
289.	0.	2.27317	13.7954	13.8874	8.0798	4.983	19.5283	4.0501	0.280119
290.	0.	2.26638	13.7956	13.8874	8.0894	4.961	19.4177	4.0003	0.280312
291.	0.	2.25874	13.7958	13.8874	8.0964	4.941	19.3145	3.9606	0.280635
292.	0.	2.25080	13.7959	13.8874	8.1033	4.922	19.2120	3.9210	0.280986
293.	0.	2.24272	13.7961	13.8874	8.1101	4.909	19.1281	3.8814	0.281367
294.	0.	2.23294	13.7963	13.8874	8.1090	4.906	19.0726	3.8721	0.282077
295.	0.	2.22383	13.7965	13.8874	8.1102	4.902	19.0154	3.8527	0.282676
296.	0.	2.21468	13.7967	13.8874	8.1114	4.898	18.9586	3.8333	0.283281
297.	0.	2.20551	13.7969	13.8874	8.1127	4.894	18.9022	3.8139	0.283889
298.	0.	2.19630	13.7971	13.8874	8.1139	4.891	18.8460	3.7945	0.284501
299.	0.	2.18707	13.7973	13.8874	8.1152	4.887	18.7900	3.7751	0.285118
300.	0.	2.17781	13.7975	13.8874	8.1166	4.883	18.7339	3.7557	0.285739
301.	0.	2.16856	13.7977	13.8874	8.1179	4.882	18.6845	3.7364	0.286364
302.	0.	2.15876	13.7979	13.8874	8.1167	4.882	18.6405	3.7271	0.287095
303.	0.	2.14959	13.7981	13.8874	8.1182	4.879	18.5882	3.7077	0.287713
304.	0.	2.14038	13.7983	13.8874	8.1197	4.876	18.5340	3.6883	0.288335
305.	0.	2.13113	13.7985	13.8874	8.1212	4.873	18.4797	3.6690	0.288961
306.	0.	2.12186	13.7987	13.8874	8.1228	4.870	18.4251	3.6496	0.289591
307.	0.	2.11255	13.7990	13.8874	8.1244	4.867	18.3703	3.6302	0.290225
308.	0.	2.10323	13.7992	13.8874	8.1260	4.863	18.3158	3.6109	0.290863
309.	0.	2.09392	13.7994	13.8874	8.1276	4.862	18.2677	3.5915	0.291506
310.	0.	2.08400	13.7996	13.8874	8.1267	4.862	18.2244	3.5823	0.292257
311.	0.	2.07479	13.7998	13.8874	8.1284	4.859	18.1738	3.5629	0.292891
312.	0.	2.06552	13.8001	13.8874	8.1302	4.856	18.1210	3.5435	0.293530
313.	0.	2.05622	13.8003	13.8874	8.1320	4.853	18.0674	3.5242	0.294173
314.	0.	2.04687	13.8005	13.8874	8.1340	4.849	18.0132	3.5048	0.294820
315.	0.	2.03748	13.8007	13.8874	8.1360	4.846	17.9586	3.4855	0.295472
316.	0.	2.02801	13.8010	13.8874	8.1381	4.839	17.8973	3.4661	0.296129
317.	0.	2.01901	13.8012	13.8874	8.1430	4.828	17.8176	3.4367	0.296682
318.	0.	2.01029	13.8015	13.8874	8.1510	4.812	17.7217	3.3971	0.297150
319.	0.	2.00115	13.8017	13.8874	8.1592	4.794	17.6194	3.3577	0.297654
320.	0.	1.99161	13.8020	13.8874	8.1676	4.776	17.5140	3.3182	0.298196
321.	0.	1.98163	13.8023	13.8874	8.1763	4.757	17.4062	3.2788	0.298780
322.	0.	1.97124	13.8025	13.8874	8.1852	4.739	17.2953	3.2394	0.299406
323.	0.	1.96047	13.8028	13.8874	8.1942	4.720	17.1837	3.2001	0.300071
324.	0.	1.94931	13.8031	13.8874	8.2034	4.702	17.0708	3.1608	0.300779
325.	0.	1.93776	13.8034	13.8874	8.2127	4.683	16.9568	3.1215	0.301529
326.	0.	1.92589	13.8038	13.8874	8.2221	4.670	16.8548	3.0823	0.302325
327.	0.	1.91292	13.8041	13.8874	8.2261	4.698	16.8932	3.0634	0.303428

328.	0.	1.89038	13.8043	13.8874	8.1972	4.717	16.8951	3.1761	0.306061
329.	0.	1.88696	13.8046	13.8874	8.2319	4.605	16.5144	3.0354	0.305372
330.	0.	1.89341	13.8052	13.8874	8.3255	4.433	15.8436	2.7123	0.302306
331.	0.	1.89234	13.8060	13.8874	8.4070	4.288	15.1432	2.4299	0.299923
332.	0.	1.87461	13.8069	13.8874	8.4535	4.165	14.5255	2.2503	0.300290
333.	0.	1.85291	13.8081	13.8874	8.4944	4.146	14.1404	2.0614	0.301419
334.	0.	1.79218	13.8090	13.8874	8.4588	4.254	14.3114	2.1707	0.310714
335.	0.	1.73861	13.8096	13.8874	8.4169	4.415	14.7432	2.3186	0.318636
336.	0.	1.69587	13.8102	13.8874	8.3752	4.576	15.2116	2.4746	0.324614
337.	0.	1.66660	13.8106	13.8874	8.3476	4.702	15.5759	2.5784	0.328377
338.	0.	1.64475	13.8109	13.8874	8.3300	4.799	15.8484	2.6510	0.330992
339.	0.	1.62724	13.8112	13.8874	8.3134	4.884	16.0893	2.7130	0.333038
340.	0.	1.61119	13.8114	13.8874	8.2948	4.958	16.2941	2.7849	0.334897
341.	0.	1.59881	13.8116	13.8874	8.2844	4.978	16.3207	2.8262	0.336162
342.	0.	1.59388	13.8119	13.8874	8.3014	4.908	16.0755	2.7662	0.336203
343.	0.	1.59788	13.8122	13.8874	8.3517	4.842	15.8357	2.5849	0.334856
344.	0.	1.57996	13.8125	13.8874	8.3369	4.805	15.6685	2.6467	0.336729
345.	0.	1.58042	13.8128	13.8874	8.3779	4.735	15.4041	2.4958	0.335811
346.	0.	1.56854	13.8131	13.8874	8.3866	4.704	15.2376	2.4667	0.336734
347.	0.	1.55604	13.8134	13.8874	8.3955	4.657	15.0162	2.4377	0.337700
348.	0.	1.55071	13.8138	13.8874	8.4282	4.550	14.6132	2.3174	0.337409
349.	0.	1.54917	13.8143	13.8874	8.4787	4.387	14.0191	2.1262	0.336196
350.	0.	1.54753	13.8150	13.8874	8.5412	4.193	13.2787	1.8845	0.334476
351.	0.	1.53767	13.8160	13.8874	8.5944	3.952	12.3369	1.6436	0.333620
352.	0.	1.53626	13.8173	13.8874	8.6800	3.656	11.2309	1.2901	0.330124
353.	0.	1.34011	13.8238	13.8874	9.4161	2.325	11.3514	0.9583	0.368350
354.	0.	1.15222	13.8307	13.8874	9.7692	1.149	11.9653	0.9604	0.410351
355.	0.	1.14424	13.8326	13.8874	8.7764	1.923	11.6975	1.1645	0.414460
356.	0.	1.13884	13.8301	13.8874	8.4710	2.467	11.8433	1.2363	0.416282
357.	0.	1.09490	13.8294	13.8874	8.3423	2.808	12.6603	1.4038	0.423822
358.	0.	1.04681	13.8291	13.8874	8.2737	2.838	12.4739	1.6304	0.430365
359.	0.	1.07768	13.8292	13.8874	8.4550	2.641	11.4623	1.1538	0.423778
360.	0.	1.01119	13.8294	13.8874	8.9771	2.097	11.3813	0.9332	0.433157
361.	0.	0.94534	13.8294	13.8874	8.8762	2.076	11.5168	1.0251	0.445136
362.	0.	0.90252	13.8298	13.8874	8.7504	2.233	11.9999	1.1121	0.452104
363.	0.	0.86485	13.8301	13.8874	8.6688	2.407	12.7346	1.2376	0.457583
364.	0.	0.83666	13.8304	13.8874	8.6104	2.470	12.8915	1.3611	0.461112
365.	0.	0.83760	13.8308	13.8874	8.6510	2.434	12.5548	1.2406	0.460561
366.	0.	0.83285	13.8312	13.8874	8.6878	2.443	12.4157	1.1508	0.460776
367.	0.	0.80600	13.8315	13.8874	8.6627	2.438	12.2717	1.2441	0.464127
368.	0.	0.80692	13.8318	13.8874	8.7247	2.333	11.6161	1.1034	0.463418
369.	0.	0.80923	13.8322	13.8874	8.8488	2.209	10.8578	0.8820	0.462045
370.	0.	0.76639	13.8315	13.8874	9.1033	2.080	11.0827	0.7786	0.468559

PART 3: WHAFIS

WHAFIS input: YK-103.dat
WHAFIS output: YK-103.out

PART 3 COMPLETE


WHAFIS Elevation, and Total stillWater Level, transect: YK-103
Elevation (ft)
Station (ft)
0
2
4
6
8
10
12
14
16
18
20
0
1000
2000
3000
4000
5000
6000
7000
8000
Transect Profile
SWAN 1-D points
TSWL

WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)
Executed on: Thu Apr 2 11:05:19 2020
Input file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Kennebunkport\3_whafis\whafis4\YK-103.dat
Output file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Kennebunkport\3_whafis\whafis4\YK-103.out

header

THIS IS A 100-YEAR CASE
THE FOLLOWING NON-DEFAULT WIND SPEEDS ARE BEING USED
WINDIF 56.14 WINDOF 56.14 WINDVH 60.00

PART1 INPUT

IE	0.000	-23.773	1.000	1.000	9.042	29.615	13.840	56.140	0.010	0.000
OF	3.300	-23.739	0.000	9.045	0.000	0.000	0.000	0.000	0.010	0.000
OF	6.600	-23.706	0.000	9.047	0.000	0.000	0.000	0.000	0.010	0.000
OF	9.800	-23.672	0.000	9.049	0.000	0.000	0.000	0.000	0.010	0.000
OF	13.100	-23.639	0.000	9.052	0.000	0.000	0.000	0.000	0.010	0.000
OF	16.400	-23.605	0.000	9.054	0.000	0.000	0.000	0.000	0.010	0.000
OF	19.700	-23.572	0.000	9.057	0.000	0.000	0.000	0.000	0.010	0.000
OF	23.000	-23.538	0.000	9.059	0.000	0.000	0.000	0.000	0.010	0.000
OF	26.200	-23.505	0.000	9.062	0.000	0.000	0.000	0.000	0.010	0.000
OF	29.500	-23.471	0.000	9.064	0.000	0.000	0.000	0.000	0.010	0.000
OF	32.800	-23.437	0.000	9.067	0.000	0.000	0.000	0.000	0.010	0.000
OF	36.100	-23.404	0.000	9.070	0.000	0.000	0.000	0.000	0.010	0.000
OF	39.400	-23.370	0.000	9.072	0.000	0.000	0.000	0.000	0.010	0.000
OF	42.700	-23.337	0.000	9.075	0.000	0.000	0.000	0.000	0.010	0.000
OF	45.900	-23.303	0.000	9.078	0.000	0.000	0.000	0.000	0.010	0.000
OF	49.200	-23.270	0.000	9.081	0.000	0.000	0.000	0.000	0.010	0.000
OF	52.500	-23.236	0.000	9.083	0.000	0.000	0.000	0.000	0.010	0.000
OF	55.800	-23.203	0.000	9.086	0.000	0.000	0.000	0.000	0.013	0.000
OF	59.100	-23.151	0.000	9.089	0.000	0.000	0.000	0.000	0.019	0.000
OF	62.300	-23.077	0.000	9.091	0.000	0.000	0.000	0.000	0.023	0.000
OF	65.600	-23.003	0.000	9.094	0.000	0.000	0.000	0.000	0.022	0.000
OF	68.900	-22.929	0.000	9.096	0.000	0.000	0.000	0.000	0.022	0.000
OF	72.200	-22.856	0.000	9.098	0.000	0.000	0.000	0.000	0.022	0.000
OF	75.500	-22.782	0.000	9.101	0.000	0.000	0.000	0.000	0.023	0.000
OF	78.700	-22.708	0.000	9.104	0.000	0.000	0.000	0.000	0.023	0.000
OF	82.000	-22.634	0.000	9.106	0.000	0.000	0.000	0.000	0.022	0.000
OF	85.300	-22.560	0.000	9.108	0.000	0.000	0.000	0.000	0.022	0.000
OF	88.600	-22.486	0.000	9.111	0.000	0.000	0.000	0.000	0.022	0.000
OF	91.900	-22.412	0.000	9.114	0.000	0.000	0.000	0.000	0.023	0.000
OF	95.100	-22.339	0.000	9.116	0.000	0.000	0.000	0.000	0.023	0.000
OF	98.400	-22.265	0.000	9.119	0.000	0.000	0.000	0.000	0.022	0.000
OF	101.700	-22.191	0.000	9.121	0.000	0.000	0.000	0.000	0.022	0.000
OF	105.000	-22.117	0.000	9.124	0.000	0.000	0.000	0.000	0.022	0.000
OF	108.300	-22.043	0.000	9.127	0.000	0.000	0.000	0.000	0.023	0.000
OF	111.500	-21.969	0.000	9.129	0.000	0.000	0.000	0.000	0.023	0.000
OF	114.800	-21.893	0.000	9.132	0.000	0.000	0.000	0.000	0.025	0.000
OF	118.100	-21.806	0.000	9.134	0.000	0.000	0.000	0.000	0.026	0.000
OF	121.400	-21.719	0.000	9.137	0.000	0.000	0.000	0.000	0.026	0.000
OF	124.700	-21.632	0.000	9.140	0.000	0.000	0.000	0.000	0.026	0.000
OF	128.000	-21.545	0.000	9.142	0.000	0.000	0.000	0.000	0.027	0.000
OF	131.200	-21.458	0.000	9.145	0.000	0.000	0.000	0.000	0.027	0.000
OF	134.500	-21.370	0.000	9.148	0.000	0.000	0.000	0.000	0.026	0.000
OF	137.800	-21.283	0.000	9.150	0.000	0.000	0.000	0.000	0.026	0.000
OF	141.100	-21.196	0.000	9.153	0.000	0.000	0.000	0.000	0.026	0.000
OF	144.400	-21.109	0.000	9.156	0.000	0.000	0.000	0.000	0.027	0.000
OF	147.600	-21.022	0.000	9.158	0.000	0.000	0.000	0.000	0.027	0.000
OF	150.900	-20.935	0.000	9.161	0.000	0.000	0.000	0.000	0.026	0.000
OF	154.200	-20.848	0.000	9.164	0.000	0.000	0.000	0.000	0.026	0.000
OF	157.500	-20.761	0.000	9.167	0.000	0.000	0.000	0.000	0.026	0.000
OF	160.800	-20.674	0.000	9.170	0.000	0.000	0.000	0.000	0.027	0.000
OF	164.000	-20.587	0.000	9.172	0.000	0.000	0.000	0.000	0.027	0.000
OF	167.300	-20.500	0.000	9.175	0.000	0.000	0.000	0.000	0.026	0.000
OF	170.600	-20.413	0.000	9.178	0.000	0.000	0.000	0.000	0.026	0.000
OF	173.900	-20.326	0.000	9.181	0.000	0.000	0.000	0.000	0.026	0.000
OF	177.200	-20.239	0.000	9.183	0.000	0.000	0.000	0.000	0.027	0.000
OF	180.400	-20.152	0.000	9.186	0.000	0.000	0.000	0.000	0.027	0.000
OF	183.700	-20.064	0.000	9.189	0.000	0.000	0.000	0.000	0.030	0.000
OF	187.000	-19.956	0.000	9.191	0.000	0.000	0.000	0.000	0.038	0.000
OF	190.300	-19.811	0.000	9.194	0.000	0.000	0.000	0.000	0.044	0.000
OF	193.600	-19.667	0.000	9.196	0.000	0.000	0.000	0.000	0.045	0.000
OF	196.800	-19.522	0.000	9.198	0.000	0.000	0.000	0.000	0.045	0.000
OF	200.100	-19.378	0.000	9.201	0.000	0.000	0.000	0.000	0.044	0.000
OF	203.400	-19.233	0.000	9.203	0.000	0.000	0.000	0.000	0.044	0.000
OF	206.700	-19.089	0.000	9.206	0.000	0.000	0.000	0.000	0.044	0.000
OF	210.000	-18.944	0.000	9.208	0.000	0.000	0.000	0.000	0.044	0.000
OF	213.300	-18.800	0.000	9.211	0.000	0.000	0.000	0.000	0.045	0.000
OF	216.500	-18.655	0.000	9.214	0.000	0.000	0.000	0.000	0.045	0.000
OF	219.800	-18.511	0.000	9.216	0.000	0.000	0.000	0.000	0.044	0.000
OF	223.100	-18.366	0.000	9.219	0.000	0.000	0.000	0.000	0.044	0.000
OF	226.400	-18.222	0.000	9.222	0.000	0.000	0.000	0.000	0.044	0.000
OF	229.700	-18.077	0.000	9.225	0.000	0.000	0.000	0.000	0.045	0.000
OF	232.900	-17.933	0.000	9.228	0.000	0.000	0.000	0.000	0.045	0.000
OF	236.200	-17.788	0.000	9.231	0.000	0.000	0.000	0.000	0.044	0.000
OF	239.500	-17.644	0.000	9.234	0.000	0.000	0.000	0.000	0.044	0.000
OF	242.800	-17.499	0.000	9.237	0.000	0.000	0.000	0.000	0.044	0.000
OF	246.100	-17.355	0.000	9.240	0.000	0.000	0.000	0.000	0.045	0.000
OF	249.300	-17.210	0.000	9.243	0.000	0.000	0.000	0.000	0.045	0.000
OF	252.600	-17.066	0.000	9.247	0.000	0.000	0.000	0.000	0.044	0.000
OF	255.900	-16.921	0.000	9.250	0.000	0.000	0.000	0.000	0.044	0.000
OF	259.200	-16.777	0.000	9.253	0.000	0.000	0.000	0.000	0.044	0.000
OF	262.500	-16.632	0.000	9.257	0.000	0.000	0.000	0.000	0.045	0.000
OF	265.700	-16.488	0.000	9.260	0.000	0.000	0.000	0.000	0.045	0.000
OF	269.000	-16.343	0.000	9.263	0.000	0.000	0.000	0.000	0.044	0.000
OF	272.300	-16.199	0.000	9.267	0.000	0.000	0.000	0.000	0.044	0.000
OF	275.600	-16.054	0.000	9.270	0.000	0.000	0.000	0.000	0.044	0.000
OF	278.900	-15.910	0.000	9.274	0.000	0.000	0.000	0.000	0.043	0.000
OF	282.200	-15.772	0.000	9.277	0.000	0.000	0.000	0.000	0.042	0.000
OF	285.400	-15.638	0.000	9.281	0.000	0.000	0.000	0.000	0.041	0.000
OF	288.700	-15.503	0.000	9.285	0.000	0.000	0.000	0.000	0.041	0.000
OF	292.000	-15.368	0.000	9.289	0.000	0.000	0.000	0.000	0.041	0.000
OF	295.300	-15.234	0.000	9.292	0.000	0.000	0.000	0.000	0.041	0.000
OF	298.600	-15.099	0.000	9.296	0.000	0.000	0.000	0.000	0.041	0.000
OF	301.800	-14.964	0.000	9.299	0.000	0.000	0.000	0.000	0.041	0.000

OF	305.100	-14.830	0.000	9.303	0.000	0.000	0.000	0.000	0.041	0.000
OF	308.400	-14.695	0.000	9.307	0.000	0.000	0.000	0.000	0.045	0.000
OF	311.700	-14.536	0.000	9.310	0.000	0.000	0.000	0.000	0.052	0.000
OF	315.000	-14.351	0.000	9.313	0.000	0.000	0.000	0.000	0.057	0.000
OF	318.200	-14.166	0.000	9.316	0.000	0.000	0.000	0.000	0.057	0.000
OF	321.500	-13.982	0.000	9.319	0.000	0.000	0.000	0.000	0.056	0.000
OF	324.800	-13.797	0.000	9.323	0.000	0.000	0.000	0.000	0.056	0.000
OF	328.100	-13.612	0.000	9.327	0.000	0.000	0.000	0.000	0.056	0.000
OF	331.400	-13.427	0.000	9.330	0.000	0.000	0.000	0.000	0.055	0.000
OF	334.600	-13.254	0.000	9.335	0.000	0.000	0.000	0.000	0.048	0.000
OF	337.900	-13.113	0.000	9.339	0.000	0.000	0.000	0.000	0.043	0.000
OF	341.200	-12.973	0.000	9.344	0.000	0.000	0.000	0.000	0.043	0.000
OF	344.500	-12.832	0.000	9.350	0.000	0.000	0.000	0.000	0.043	0.000
OF	347.800	-12.692	0.000	9.354	0.000	0.000	0.000	0.000	0.043	0.000
OF	351.000	-12.551	0.000	9.360	0.000	0.000	0.000	0.000	0.043	0.000
OF	354.300	-12.411	0.000	9.365	0.000	0.000	0.000	0.000	0.042	0.000
OF	357.600	-12.271	0.000	9.371	0.000	0.000	0.000	0.000	0.043	0.000
OF	360.900	-12.130	0.000	9.376	0.000	0.000	0.000	0.000	0.043	0.000
OF	364.200	-11.990	0.000	9.381	0.000	0.000	0.000	0.000	0.043	0.000
OF	367.500	-11.849	0.000	9.387	0.000	0.000	0.000	0.000	0.043	0.000
OF	370.700	-11.709	0.000	9.393	0.000	0.000	0.000	0.000	0.043	0.000
OF	374.000	-11.569	0.000	9.398	0.000	0.000	0.000	0.000	0.043	0.000
OF	377.300	-11.428	0.000	9.404	0.000	0.000	0.000	0.000	0.043	0.000
OF	380.600	-11.288	0.000	9.409	0.000	0.000	0.000	0.000	0.043	0.000
OF	383.900	-11.147	0.000	9.415	0.000	0.000	0.000	0.000	0.043	0.000
OF	387.100	-11.007	0.000	9.421	0.000	0.000	0.000	0.000	0.043	0.000
OF	390.400	-10.867	0.000	9.427	0.000	0.000	0.000	0.000	0.043	0.000
OF	393.700	-10.726	0.000	9.433	0.000	0.000	0.000	0.000	0.043	0.000
OF	397.000	-10.586	0.000	9.439	0.000	0.000	0.000	0.000	0.043	0.000
OF	400.300	-10.445	0.000	9.445	0.000	0.000	0.000	0.000	0.043	0.000
OF	403.500	-10.305	0.000	9.451	0.000	0.000	0.000	0.000	0.043	0.000
OF	406.800	-10.164	0.000	9.457	0.000	0.000	0.000	0.000	0.043	0.000
OF	410.100	-10.024	0.000	9.463	0.000	0.000	0.000	0.000	0.042	0.000
OF	413.400	-9.884	0.000	9.469	0.000	0.000	0.000	0.000	0.043	0.000
OF	416.700	-9.744	0.000	9.476	0.000	0.000	0.000	0.000	0.043	0.000
OF	419.900	-9.603	0.000	9.482	0.000	0.000	0.000	0.000	0.043	0.000
OF	423.200	-9.463	0.000	9.489	0.000	0.000	0.000	0.000	0.043	0.000
OF	426.500	-9.322	0.000	9.495	0.000	0.000	0.000	0.000	0.040	0.000
OF	429.800	-9.200	0.000	9.502	0.000	0.000	0.000	0.000	0.030	0.000
OF	433.100	-9.122	0.000	9.510	0.000	0.000	0.000	0.000	0.024	0.000
OF	436.400	-9.043	0.000	9.517	0.000	0.000	0.000	0.000	0.024	0.000
OF	439.600	-8.964	0.000	9.525	0.000	0.000	0.000	0.000	0.024	0.000
OF	442.900	-8.885	0.000	9.533	0.000	0.000	0.000	0.000	0.024	0.000
OF	446.200	-8.806	0.000	9.540	0.000	0.000	0.000	0.000	0.024	0.000
OF	449.500	-8.727	0.000	9.548	0.000	0.000	0.000	0.000	0.024	0.000
OF	452.800	-8.648	0.000	9.555	0.000	0.000	0.000	0.000	0.024	0.000
OF	456.000	-8.569	0.000	9.562	0.000	0.000	0.000	0.000	0.024	0.000
OF	459.300	-8.491	0.000	9.569	0.000	0.000	0.000	0.000	0.024	0.000
OF	462.600	-8.412	0.000	9.576	0.000	0.000	0.000	0.000	0.024	0.000
OF	465.900	-8.333	0.000	9.583	0.000	0.000	0.000	0.000	0.024	0.000
OF	469.200	-8.254	0.000	9.590	0.000	0.000	0.000	0.000	0.024	0.000
OF	472.400	-8.175	0.000	9.597	0.000	0.000	0.000	0.000	0.024	0.000
OF	475.700	-8.096	0.000	9.603	0.000	0.000	0.000	0.000	0.024	0.000
OF	479.000	-8.017	0.000	9.610	0.000	0.000	0.000	0.000	0.024	0.000
OF	482.300	-7.938	0.000	9.617	0.000	0.000	0.000	0.000	0.024	0.000
OF	485.600	-7.860	0.000	9.623	0.000	0.000	0.000	0.000	0.024	0.000
OF	488.800	-7.781	0.000	9.629	0.000	0.000	0.000	0.000	0.024	0.000
OF	492.100	-7.702	0.000	9.635	0.000	0.000	0.000	0.000	0.024	0.000
OF	495.400	-7.623	0.000	9.642	0.000	0.000	0.000	0.000	0.024	0.000
OF	498.700	-7.544	0.000	9.648	0.000	0.000	0.000	0.000	0.024	0.000
OF	502.000	-7.465	0.000	9.654	0.000	0.000	0.000	0.000	0.024	0.000
OF	505.200	-7.386	0.000	9.660	0.000	0.000	0.000	0.000	0.024	0.000
OF	508.500	-7.307	0.000	9.666	0.000	0.000	0.000	0.000	0.024	0.000
OF	511.800	-7.228	0.000	9.672	0.000	0.000	0.000	0.000	0.024	0.000
OF	515.100	-7.150	0.000	9.678	0.000	0.000	0.000	0.000	0.024	0.000
OF	518.400	-7.071	0.000	9.684	0.000	0.000	0.000	0.000	0.024	0.000
OF	521.700	-6.992	0.000	9.689	0.000	0.000	0.000	0.000	0.024	0.000
OF	524.900	-6.912	0.000	9.695	0.000	0.000	0.000	0.000	0.026	0.000
OF	528.200	-6.826	0.000	9.700	0.000	0.000	0.000	0.000	0.026	0.000
OF	531.500	-6.739	0.000	9.706	0.000	0.000	0.000	0.000	0.026	0.000
OF	534.800	-6.653	0.000	9.711	0.000	0.000	0.000	0.000	0.026	0.000
OF	538.100	-6.567	0.000	9.716	0.000	0.000	0.000	0.000	0.026	0.000
OF	541.300	-6.481	0.000	9.722	0.000	0.000	0.000	0.000	0.025	0.000
OF	544.600	-6.406	0.000	9.727	0.000	0.000	0.000	0.000	0.012	0.000
OF	547.900	-6.400	0.000	9.733	0.000	0.000	0.000	0.000	0.001	0.000
OF	551.200	-6.397	0.000	9.740	0.000	0.000	0.000	0.000	0.001	0.000
OF	554.500	-6.394	0.000	9.745	0.000	0.000	0.000	0.000	0.001	0.000
OF	557.700	-6.391	0.000	9.751	0.000	0.000	0.000	0.000	0.001	0.000
OF	561.000	-6.387	0.000	9.756	0.000	0.000	0.000	0.000	0.001	0.000
OF	564.300	-6.385	0.000	9.762	0.000	0.000	0.000	0.000	0.001	0.000
OF	567.600	-6.381	0.000	9.767	0.000	0.000	0.000	0.000	0.001	0.000
OF	570.900	-6.378	0.000	9.772	0.000	0.000	0.000	0.000	0.001	0.000
OF	574.100	-6.375	0.000	9.776	0.000	0.000	0.000	0.000	0.001	0.000
OF	577.400	-6.372	0.000	9.781	0.000	0.000	0.000	0.000	0.002	0.000
OF	580.700	-6.365	0.000	9.785	0.000	0.000	0.000	0.000	0.004	0.000
OF	584.000	-6.347	0.000	9.789	0.000	0.000	0.000	0.000	0.005	0.000
OF	587.300	-6.329	0.000	9.793	0.000	0.000	0.000	0.000	0.005	0.000
OF	590.500	-6.311	0.000	9.797	0.000	0.000	0.000	0.000	0.005	0.000
OF	593.800	-6.293	0.000	9.801	0.000	0.000	0.000	0.000	0.005	0.000
OF	597.100	-6.275	0.000	9.805	0.000	0.000	0.000	0.000	0.005	0.000
OF	600.400	-6.257	0.000	9.808	0.000	0.000	0.000	0.000	0.005	0.000
OF	603.700	-6.240	0.000	9.812	0.000	0.000	0.000	0.000	0.005	0.000
OF	607.000	-6.222	0.000	9.815	0.000	0.000	0.000	0.000	0.005	0.000
OF	610.200	-6.204	0.000	9.818	0.000	0.000	0.000	0.000	0.005	0.000
OF	613.500	-6.186	0.000	9.821	0.000	0.000	0.000	0.000	0.005	0.000
OF	616.800	-6.168	0.000	9.825	0.000	0.000	0.000	0.000	0.005	0.000
OF	620.100	-6.150	0.000	9.827	0.000	0.000	0.000	0.000	0.005	0.000
OF	623.400	-6.133	0.000	9.831	0.000	0.000	0.000	0.000	0.005	0.000
OF	626.600	-6.115	0.000	9.833	0.000	0.000	0.000	0.000	0.005	0.000
OF	629.900	-6.097	0.000	9.836	0.000	0.000	0.000	0.000	0.005	0.000
OF	633.200	-6.079	0.000	9.839	0.000	0.000	0.000	0.000	0.005	0.000
OF	636.500	-6.061	0.000	9.842	0.000	0.000	0.000	0.000	0.005	0.000

OF	639.800	-6.043	0.000	9.844	0.000	0.000	0.000	0.000	0.005	0.000
OF	643.000	-6.025	0.000	9.847	0.000	0.000	0.000	0.000	0.005	0.000
OF	646.300	-6.008	0.000	9.849	0.000	0.000	0.000	0.000	0.005	0.000
OF	649.600	-5.990	0.000	9.852	0.000	0.000	0.000	0.000	0.005	0.000
OF	652.900	-5.972	0.000	9.854	0.000	0.000	0.000	0.000	0.001	0.000
OF	656.200	-5.982	0.000	9.857	0.000	0.000	0.000	0.000	-0.004	0.000
OF	659.400	-5.996	0.000	9.859	0.000	0.000	0.000	0.000	-0.004	0.000
OF	662.700	-6.009	0.000	9.862	0.000	0.000	0.000	0.000	-0.004	0.000
OF	666.000	-6.023	0.000	9.865	0.000	0.000	0.000	0.000	-0.004	0.000
OF	669.300	-6.036	0.000	9.867	0.000	0.000	0.000	0.000	-0.004	0.000
OF	672.600	-6.049	0.000	9.869	0.000	0.000	0.000	0.000	-0.004	0.000
OF	675.900	-6.063	0.000	9.872	0.000	0.000	0.000	0.000	-0.004	0.000
OF	679.100	-6.076	0.000	9.874	0.000	0.000	0.000	0.000	-0.004	0.000
OF	682.400	-6.090	0.000	9.876	0.000	0.000	0.000	0.000	-0.004	0.000
OF	685.700	-6.103	0.000	9.878	0.000	0.000	0.000	0.000	-0.004	0.000
OF	689.000	-6.116	0.000	9.880	0.000	0.000	0.000	0.000	-0.004	0.000
OF	692.300	-6.130	0.000	9.882	0.000	0.000	0.000	0.000	-0.004	0.000
OF	695.500	-6.143	0.000	9.884	0.000	0.000	0.000	0.000	-0.004	0.000
OF	698.800	-6.157	0.000	9.886	0.000	0.000	0.000	0.000	-0.004	0.000
OF	702.100	-6.170	0.000	9.888	0.000	0.000	0.000	0.000	0.004	0.000
OF	705.400	-6.127	0.000	9.889	0.000	0.000	0.000	0.000	0.017	0.000
OF	708.700	-6.056	0.000	9.890	0.000	0.000	0.000	0.000	0.022	0.000
OF	711.900	-5.985	0.000	9.891	0.000	0.000	0.000	0.000	0.022	0.000
OF	715.200	-5.914	0.000	9.892	0.000	0.000	0.000	0.000	0.022	0.000
OF	718.500	-5.844	0.000	9.893	0.000	0.000	0.000	0.000	0.022	0.000
OF	721.800	-5.773	0.000	9.894	0.000	0.000	0.000	0.000	0.022	0.000
OF	725.100	-5.702	0.000	9.895	0.000	0.000	0.000	0.000	0.022	0.000
OF	728.300	-5.631	0.000	9.896	0.000	0.000	0.000	0.000	0.022	0.000
OF	731.600	-5.560	0.000	9.898	0.000	0.000	0.000	0.000	0.022	0.000
OF	734.900	-5.489	0.000	9.899	0.000	0.000	0.000	0.000	0.022	0.000
OF	738.200	-5.418	0.000	9.900	0.000	0.000	0.000	0.000	0.022	0.000
OF	741.500	-5.347	0.000	9.901	0.000	0.000	0.000	0.000	0.022	0.000
OF	744.700	-5.276	0.000	9.903	0.000	0.000	0.000	0.000	0.022	0.000
OF	748.000	-5.205	0.000	9.904	0.000	0.000	0.000	0.000	0.022	0.000
OF	751.300	-5.134	0.000	9.905	0.000	0.000	0.000	0.000	0.022	0.000
OF	754.600	-5.063	0.000	9.907	0.000	0.000	0.000	0.000	0.022	0.000
OF	757.900	-4.992	0.000	9.908	0.000	0.000	0.000	0.000	0.020	0.000
OF	761.200	-4.934	0.000	9.910	0.000	0.000	0.000	0.000	0.000	0.000
OF	764.400	-4.992	0.000	9.912	0.000	0.000	0.000	0.000	-0.018	0.000
OF	767.700	-5.049	0.000	9.915	0.000	0.000	0.000	0.000	-0.017	0.000
OF	771.000	-5.107	0.000	9.917	0.000	0.000	0.000	0.000	-0.017	0.000
OF	774.300	-5.164	0.000	9.919	0.000	0.000	0.000	0.000	-0.018	0.000
OF	777.600	-5.222	0.000	9.922	0.000	0.000	0.000	0.000	-0.018	0.000
OF	780.800	-5.280	0.000	9.924	0.000	0.000	0.000	0.000	-0.018	0.000
OF	784.100	-5.337	0.000	9.925	0.000	0.000	0.000	0.000	-0.017	0.000
OF	787.400	-5.395	0.000	9.927	0.000	0.000	0.000	0.000	-0.018	0.000
OF	790.700	-5.452	0.000	9.929	0.000	0.000	0.000	0.000	-0.018	0.000
OF	794.000	-5.510	0.000	9.931	0.000	0.000	0.000	0.000	-0.018	0.000
OF	797.200	-5.567	0.000	9.932	0.000	0.000	0.000	0.000	-0.018	0.000
OF	800.500	-5.625	0.000	9.934	0.000	0.000	0.000	0.000	-0.018	0.000
OF	803.800	-5.683	0.000	9.936	0.000	0.000	0.000	0.000	-0.018	0.000
OF	807.100	-5.740	0.000	9.937	0.000	0.000	0.000	0.000	-0.017	0.000
OF	810.400	-5.798	0.000	9.939	0.000	0.000	0.000	0.000	-0.018	0.000
OF	813.600	-5.855	0.000	9.940	0.000	0.000	0.000	0.000	-0.018	0.000
OF	816.900	-5.913	0.000	9.941	0.000	0.000	0.000	0.000	-0.014	0.000
OF	820.200	-5.951	0.000	9.942	0.000	0.000	0.000	0.000	-0.005	0.000
OF	823.500	-5.944	0.000	9.943	0.000	0.000	0.000	0.000	0.002	0.000
OF	826.800	-5.938	0.000	9.944	0.000	0.000	0.000	0.000	0.002	0.000
OF	830.100	-5.932	0.000	9.944	0.000	0.000	0.000	0.000	0.002	0.000
OF	833.300	-5.926	0.000	9.945	0.000	0.000	0.000	0.000	0.002	0.000
OF	836.600	-5.920	0.000	9.946	0.000	0.000	0.000	0.000	0.002	0.000
OF	839.900	-5.913	0.000	9.947	0.000	0.000	0.000	0.000	0.002	0.000
OF	843.200	-5.907	0.000	9.948	0.000	0.000	0.000	0.000	0.002	0.000
OF	846.500	-5.901	0.000	9.948	0.000	0.000	0.000	0.000	0.002	0.000
OF	849.700	-5.895	0.000	9.949	0.000	0.000	0.000	0.000	0.002	0.000
OF	853.000	-5.888	0.000	9.950	0.000	0.000	0.000	0.000	0.002	0.000
OF	856.300	-5.882	0.000	9.950	0.000	0.000	0.000	0.000	0.002	0.000
OF	859.600	-5.876	0.000	9.951	0.000	0.000	0.000	0.000	0.005	0.000
OF	862.900	-5.849	0.000	9.952	0.000	0.000	0.000	0.000	0.011	0.000
OF	866.100	-5.802	0.000	9.952	0.000	0.000	0.000	0.000	0.014	0.000
OF	869.400	-5.755	0.000	9.952	0.000	0.000	0.000	0.000	0.014	0.000
OF	872.700	-5.708	0.000	9.953	0.000	0.000	0.000	0.000	0.014	0.000
OF	876.000	-5.661	0.000	9.953	0.000	0.000	0.000	0.000	0.014	0.000
OF	879.300	-5.614	0.000	9.954	0.000	0.000	0.000	0.000	0.014	0.000
OF	882.500	-5.567	0.000	9.954	0.000	0.000	0.000	0.000	0.014	0.000
OF	885.800	-5.519	0.000	9.955	0.000	0.000	0.000	0.000	0.014	0.000
OF	889.100	-5.472	0.000	9.955	0.000	0.000	0.000	0.000	0.014	0.000
OF	892.400	-5.425	0.000	9.956	0.000	0.000	0.000	0.000	0.014	0.000
OF	895.700	-5.378	0.000	9.956	0.000	0.000	0.000	0.000	0.014	0.000
OF	898.900	-5.331	0.000	9.957	0.000	0.000	0.000	0.000	0.026	0.000
OF	902.200	-5.208	0.000	9.957	0.000	0.000	0.000	0.000	0.039	0.000
OF	905.500	-5.073	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
OF	908.800	-4.938	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
OF	912.100	-4.802	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
OF	915.400	-4.667	0.000	9.957	0.000	0.000	0.000	0.000	0.042	0.000
OF	918.600	-4.531	0.000	9.957	0.000	0.000	0.000	0.000	0.042	0.000
OF	921.900	-4.396	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
OF	925.200	-4.260	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
OF	928.500	-4.125	0.000	9.958	0.000	0.000	0.000	0.000	0.041	0.000
OF	931.800	-3.990	0.000	9.958	0.000	0.000	0.000	0.000	0.042	0.000
OF	935.000	-3.854	0.000	9.958	0.000	0.000	0.000	0.000	0.042	0.000
OF	938.300	-3.719	0.000	9.959	0.000	0.000	0.000	0.000	0.041	0.000
OF	941.600	-3.583	0.000	9.960	0.000	0.000	0.000	0.000	0.041	0.000
OF	944.900	-3.448	0.000	9.960	0.000	0.000	0.000	0.000	0.041	0.000
OF	948.200	-3.312	0.000	9.961	0.000	0.000	0.000	0.000	0.042	0.000
OF	951.400	-3.177	0.000	9.962	0.000	0.000	0.000	0.000	0.042	0.000
OF	954.700	-3.041	0.000	9.963	0.000	0.000	0.000	0.000	0.041	0.000
OF	958.000	-2.906	0.000	9.964	0.000	0.000	0.000	0.000	0.039	0.000
OF	961.300	-2.782	0.000	9.965	0.000	0.000	0.000	0.000	0.028	0.000
OF	964.600	-2.720	0.000	9.968	0.000	0.000	0.000	0.000	0.019	0.000
OF	967.800	-2.659	0.000	9.970	0.000	0.000	0.000	0.000	0.019	0.000
OF	971.100	-2.598	0.000	9.972	0.000	0.000	0.000	0.000	0.019	0.000

OF	974.400	-2.536	0.000	9.974	0.000	0.000	0.000	0.000	0.019	0.000
OF	977.700	-2.475	0.000	9.976	0.000	0.000	0.000	0.000	0.019	0.000
OF	981.000	-2.414	0.000	9.978	0.000	0.000	0.000	0.000	0.019	0.000
OF	984.200	-2.352	0.000	9.980	0.000	0.000	0.000	0.000	0.019	0.000
OF	987.500	-2.291	0.000	9.982	0.000	0.000	0.000	0.000	0.019	0.000
OF	990.800	-2.230	0.000	9.984	0.000	0.000	0.000	0.000	0.019	0.000
OF	994.100	-2.168	0.000	9.986	0.000	0.000	0.000	0.000	0.019	0.000
OF	997.400	-2.107	0.000	9.988	0.000	0.000	0.000	0.000	0.019	0.000
OF	1000.700	-2.045	0.000	9.990	0.000	0.000	0.000	0.000	0.019	0.000
OF	1003.900	-1.984	0.000	9.992	0.000	0.000	0.000	0.000	0.019	0.000
OF	1007.200	-1.923	0.000	9.995	0.000	0.000	0.000	0.000	0.019	0.000
OF	1010.500	-1.861	0.000	9.997	0.000	0.000	0.000	0.000	0.019	0.000
OF	1013.800	-1.800	0.000	9.999	0.000	0.000	0.000	0.000	0.019	0.000
OF	1017.100	-1.738	0.000	10.001	0.000	0.000	0.000	0.000	0.019	0.000
OF	1020.300	-1.677	0.000	10.003	0.000	0.000	0.000	0.000	0.019	0.000
OF	1023.600	-1.616	0.000	10.005	0.000	0.000	0.000	0.000	0.019	0.000
OF	1026.900	-1.554	0.000	10.007	0.000	0.000	0.000	0.000	0.019	0.000
OF	1030.200	-1.493	0.000	10.010	0.000	0.000	0.000	0.000	0.019	0.000
OF	1033.500	-1.432	0.000	10.012	0.000	0.000	0.000	0.000	0.021	0.000
OF	1036.700	-1.359	0.000	10.014	0.000	0.000	0.000	0.000	0.026	0.000
OF	1040.000	-1.261	0.000	10.016	0.000	0.000	0.000	0.000	0.034	0.000
OF	1043.300	-1.131	0.000	10.017	0.000	0.000	0.000	0.000	0.039	0.000
OF	1046.600	-1.001	0.000	10.019	0.000	0.000	0.000	0.000	0.039	0.000
OF	1049.900	-0.872	0.000	10.021	0.000	0.000	0.000	0.000	0.040	0.000
OF	1053.100	-0.742	0.000	10.023	0.000	0.000	0.000	0.000	0.040	0.000
OF	1056.400	-0.612	0.000	10.025	0.000	0.000	0.000	0.000	0.039	0.000
OF	1059.700	-0.482	0.000	10.027	0.000	0.000	0.000	0.000	0.039	0.000
OF	1063.000	-0.352	0.000	10.029	0.000	0.000	0.000	0.000	0.039	0.000
OF	1066.300	-0.223	0.000	10.032	0.000	0.000	0.000	0.000	0.039	0.000
OF	1069.600	-0.093	0.000	10.034	0.000	0.000	0.000	0.000	0.032	0.000
OF	1072.800	-0.017	0.000	10.038	0.000	0.000	0.000	0.000	-0.043	0.000
OF	1076.100	-0.369	0.000	10.047	0.000	0.000	0.000	0.000	0.016	0.000
IF	1079.400	0.086	0.000	10.044	0.000	0.000	0.000	0.000	0.228	0.000
IF	1082.700	1.134	0.000	10.034	0.000	0.000	0.000	0.000	0.298	0.000
IF	1086.000	2.053	0.000	10.026	0.000	0.000	0.000	0.000	0.235	0.000
IF	1089.200	2.658	0.000	10.028	0.000	0.000	0.000	0.000	0.186	0.000
IF	1092.500	3.264	0.000	10.031	0.000	0.000	0.000	0.000	0.043	0.000
IF	1095.800	2.944	0.000	10.062	0.000	0.000	0.000	0.000	-0.121	0.000
IF	1099.100	2.465	0.000	10.088	0.000	0.000	0.000	0.000	-0.145	0.000
IF	1102.400	1.985	0.000	10.107	0.000	0.000	0.000	0.000	-0.126	0.000
IF	1105.600	1.644	0.000	10.120	0.000	0.000	0.000	0.000	-0.084	0.000
IF	1108.900	1.441	0.000	10.128	0.000	0.000	0.000	0.000	-0.061	0.000
IF	1112.200	1.239	0.000	10.135	0.000	0.000	0.000	0.000	-0.066	0.000
IF	1115.500	1.007	0.000	10.141	0.000	0.000	0.000	0.000	-0.056	0.000
IF	1118.800	0.871	0.000	10.145	0.000	0.000	0.000	0.000	0.009	0.000
IF	1122.000	1.066	0.000	10.145	0.000	0.000	0.000	0.000	0.122	0.000
IF	1125.300	1.661	0.000	10.141	0.000	0.000	0.000	0.000	0.063	0.000
IF	1128.600	1.479	0.000	10.147	0.000	0.000	0.000	0.000	0.044	0.000
IF	1131.900	1.952	0.000	10.144	0.000	0.000	0.000	0.000	0.086	0.000
IF	1135.200	2.043	0.000	10.147	0.000	0.000	0.000	0.000	0.030	0.000
IF	1138.400	2.146	0.000	10.150	0.000	0.000	0.000	0.000	0.075	0.000
IF	1141.700	2.533	0.000	10.149	0.000	0.000	0.000	0.000	0.154	0.000
IF	1145.000	3.160	0.000	10.145	0.000	0.000	0.000	0.000	0.214	0.000
IF	1148.300	3.945	0.000	10.140	0.000	0.000	0.000	0.000	0.238	0.000
IF	1151.600	4.730	0.000	10.137	0.000	0.000	0.000	0.000	0.295	0.000
IF	1154.900	5.892	0.000	10.125	0.000	0.000	0.000	0.000	0.366	0.000
IF	1158.100	7.111	0.000	10.251	0.000	0.000	0.000	0.000	0.206	0.000
IF	1161.400	7.229	0.000	10.389	0.000	0.000	0.000	0.000	-0.079	0.000
IF	1164.700	6.587	0.000	10.402	0.000	0.000	0.000	0.000	-0.133	0.000
IF	1168.000	6.352	0.000	10.408	0.000	0.000	0.000	0.000	-0.117	0.000
IF	1171.300	5.815	0.000	10.433	0.000	0.000	0.000	0.000	-0.192	0.000
IF	1174.500	5.102	0.000	10.454	0.000	0.000	0.000	0.000	0.130	0.000
IF	1177.800	6.662	0.000	10.433	0.000	0.000	0.000	0.000	0.348	0.000
IF	1181.100	7.396	0.000	10.463	0.000	0.000	0.000	0.000	0.073	0.000
IF	1184.400	7.143	0.000	10.503	0.000	0.000	0.000	0.000	-0.077	0.000
IF	1187.700	6.890	0.000	10.526	0.000	0.000	0.000	0.000	-0.100	0.000
IF	1190.900	6.492	0.000	10.544	0.000	0.000	0.000	0.000	-0.125	0.000
IF	1194.200	6.078	0.000	10.555	0.000	0.000	0.000	0.000	0.000	0.000
IF	1197.500	6.491	0.000	10.553	0.000	0.000	0.000	0.000	0.108	0.000
IF	1200.800	6.791	0.000	10.554	0.000	0.000	0.000	0.000	0.000	0.000
IF	1204.100	6.490	0.000	10.565	0.000	0.000	0.000	0.000	0.026	0.000
IF	1207.300	6.958	0.000	10.563	0.000	0.000	0.000	0.000	0.180	0.000
IF	1210.600	7.657	0.000	10.558	0.000	0.000	0.000	0.000	0.163	0.000
IF	1213.900	8.034	0.000	10.580	0.000	0.000	0.000	0.000	0.206	0.000
IF	1224.800	10.580	0.000	10.580	0.000	0.000	0.000	0.000	0.234	0.000
AS	1368.600	9.616	0.000	9.616	0.000	0.000	0.000	0.000	-0.038	0.000
IF	1386.500	8.930	0.000	9.616	0.000	0.000	0.000	0.000	-0.049	0.000
IF	1394.500	8.340	0.000	9.616	0.000	0.000	0.000	0.000	-0.030	0.000
IF	1411.500	8.176	0.000	9.616	0.000	0.000	0.000	0.000	-0.011	0.000
IF	1423.500	8.012	0.000	9.616	0.000	0.000	0.000	0.000	-0.002	0.000
IF	1438.000	8.117	0.000	9.616	0.000	0.000	0.000	0.000	0.012	0.000
IF	1456.000	8.386	0.000	9.616	0.000	0.000	0.000	0.000	0.030	0.000
IF	1487.400	9.616	0.000	9.616	0.000	0.000	0.000	0.000	0.039	0.000
AS	1488.800	9.617	0.000	9.617	0.000	0.000	0.000	0.000	-0.193	0.000
IF	1507.000	6.109	0.000	9.617	0.000	0.000	0.000	0.000	-0.130	0.000
IF	1515.000	6.207	0.000	9.618	0.000	0.000	0.000	0.000	0.005	0.000
IF	1535.500	6.243	0.000	9.619	0.000	0.000	0.000	0.000	-0.002	0.000
IF	1562.000	6.109	0.000	9.621	0.000	0.000	0.000	0.000	0.018	0.000
IF	1571.000	6.896	0.000	9.622	0.000	0.000	0.000	0.000	0.033	0.000
IF	1588.500	6.995	0.000	9.623	0.000	0.000	0.000	0.000	0.029	0.000
IF	1621.500	8.340	0.000	9.625	0.000	0.000	0.000	0.000	0.019	0.000
IF	1644.000	8.054	0.000	9.626	0.000	0.000	0.000	0.000	0.014	0.000
IF	1663.000	8.911	0.000	9.627	0.000	0.000	0.000	0.000	0.039	0.000
IF	1669.000	9.039	0.000	9.628	0.000	0.000	0.000	0.000	0.044	0.000
IF	1679.200	9.628	0.000	9.628	0.000	0.000	0.000	0.000	0.058	0.000
AS	1693.700	9.629	0.000	9.629	0.000	0.000	0.000	0.000	-0.148	0.000
IF	1697.000	9.140	0.000	9.629	0.000	0.000	0.000	0.000	0.000	0.000
IF	1706.400	9.629	0.000	9.629	0.000	0.000	0.000	0.000	0.052	0.000
AS	1712.400	9.630	0.000	9.630	0.000	0.000	0.000	0.000	-0.039	0.000
IF	1718.000	9.409	0.000	9.630	0.000	0.000	0.000	0.000	-0.088	0.000
IF	1736.000	7.552	0.000	9.631	0.000	0.000	0.000	0.000	-0.072	0.000
IF	1765.000	6.043	0.000	9.632	0.000	0.000	0.000	0.000	-0.032	0.000

IF	1789.500	5.846	0.000	9.633	0.000	0.000	0.000	0.000	0.044	0.000
IF	1803.000	7.716	0.000	9.634	0.000	0.000	0.000	0.000	-0.005	0.000
IF	1841.500	5.584	0.000	9.636	0.000	0.000	0.000	0.000	-0.032	0.000
IF	1864.500	5.748	0.000	9.636	0.000	0.000	0.000	0.000	0.058	0.000
IF	1875.500	7.569	0.000	9.636	0.000	0.000	0.000	0.000	-0.014	0.000
IF	1899.000	5.256	0.000	9.636	0.000	0.000	0.000	0.000	-0.056	0.000
IF	1907.500	5.781	0.000	9.636	0.000	0.000	0.000	0.000	0.010	0.000
IF	1931.000	5.584	0.000	9.636	0.000	0.000	0.000	0.000	0.003	0.000
IF	1940.500	5.879	0.000	9.636	0.000	0.000	0.000	0.000	-0.019	0.000
IF	1964.000	4.961	0.000	9.636	0.000	0.000	0.000	0.000	0.093	0.000
IF	1980.900	9.636	0.000	9.636	0.000	0.000	0.000	0.000	0.277	0.000
AS	2073.800	9.651	0.000	9.651	0.000	0.000	0.000	0.000	-0.066	0.000
IF	2086.500	8.816	0.000	9.651	0.000	0.000	0.000	0.000	-0.056	0.000
IF	2104.000	7.969	0.000	9.651	0.000	0.000	0.000	0.000	-0.034	0.000
IF	2116.500	7.805	0.000	9.651	0.000	0.000	0.000	0.000	0.011	0.000
IF	2135.000	8.300	0.000	9.651	0.000	0.000	0.000	0.000	-0.035	0.000
IF	2153.000	6.529	0.000	9.651	0.000	0.000	0.000	0.000	0.005	0.000
IF	2184.500	8.570	0.000	9.651	0.000	0.000	0.000	0.000	0.048	0.000
IF	2194.500	8.537	0.000	9.651	0.000	0.000	0.000	0.000	0.008	0.000
IF	2216.000	8.832	0.000	9.651	0.000	0.000	0.000	0.000	-0.011	0.000
IF	2225.000	8.209	0.000	9.651	0.000	0.000	0.000	0.000	-0.070	0.000
IF	2241.000	7.093	0.000	9.651	0.000	0.000	0.000	0.000	-0.035	0.000
IF	2250.000	7.323	0.000	9.651	0.000	0.000	0.000	0.000	0.013	0.000
IF	2277.500	7.552	0.000	9.651	0.000	0.000	0.000	0.000	0.013	0.000
IF	2287.500	7.815	0.000	9.651	0.000	0.000	0.000	0.000	0.053	0.000
IF	2300.000	8.737	0.000	9.651	0.000	0.000	0.000	0.000	0.067	0.000
IF	2315.100	9.651	0.000	9.651	0.000	0.000	0.000	0.000	0.060	0.000
AS	2317.800	9.651	0.000	9.651	0.000	0.000	0.000	0.000	-0.127	0.000
IF	2324.500	8.799	0.000	9.651	0.000	0.000	0.000	0.000	-0.114	0.000
IF	2337.000	7.454	0.000	9.652	0.000	0.000	0.000	0.000	-0.071	0.000
IF	2348.000	7.126	0.000	9.652	0.000	0.000	0.000	0.000	-0.022	0.000
IF	2365.500	6.831	0.000	9.652	0.000	0.000	0.000	0.000	0.000	0.000
IF	2386.000	7.126	0.000	9.652	0.000	0.000	0.000	0.000	0.003	0.000
IF	2391.000	6.896	0.000	9.652	0.000	0.000	0.000	0.000	-0.010	0.000
IF	2411.000	6.864	0.000	9.652	0.000	0.000	0.000	0.000	0.067	0.000
IF	2432.200	9.652	0.000	9.652	0.000	0.000	0.000	0.000	0.132	0.000
AS	2432.600	9.652	0.000	9.652	0.000	0.000	0.000	0.000	-0.434	0.000
IF	2438.500	7.093	0.000	9.652	0.000	0.000	0.000	0.000	-0.132	0.000
IF	2444.000	8.143	0.000	9.652	0.000	0.000	0.000	0.000	0.006	0.000
IF	2470.500	7.290	0.000	9.652	0.000	0.000	0.000	0.000	-0.030	0.000
IF	2479.500	7.087	0.000	9.652	0.000	0.000	0.000	0.000	0.082	0.000
IF	2499.300	9.652	0.000	9.652	0.000	0.000	0.000	0.000	0.130	0.000
AS	3164.000	9.637	0.000	9.637	0.000	0.000	0.000	0.000	-0.063	0.000
IF	3171.000	9.196	0.000	9.637	0.000	0.000	0.000	0.000	-0.061	0.000
IF	3183.000	8.474	0.000	9.637	0.000	0.000	0.000	0.000	-0.036	0.000
IF	3193.500	8.376	0.000	9.637	0.000	0.000	0.000	0.000	-0.007	0.000
IF	3206.000	8.317	0.000	9.637	0.000	0.000	0.000	0.000	0.000	0.000
IF	3221.000	8.382	0.000	9.637	0.000	0.000	0.000	0.000	-0.015	0.000
IF	3238.000	7.848	0.000	9.637	0.000	0.000	0.000	0.000	-0.023	0.000
IF	3263.500	7.389	0.000	9.637	0.000	0.000	0.000	0.000	-0.014	0.000
IF	3273.500	7.352	0.000	9.637	0.000	0.000	0.000	0.000	0.006	0.000
IF	3310.000	7.684	0.000	9.637	0.000	0.000	0.000	0.000	-0.018	0.000
IF	3318.000	6.568	0.000	9.637	0.000	0.000	0.000	0.000	-0.013	0.000
IF	3358.000	7.060	0.000	9.637	0.000	0.000	0.000	0.000	0.017	0.000
IF	3369.500	7.454	0.000	9.637	0.000	0.000	0.000	0.000	0.005	0.000
IF	3402.000	7.290	0.000	9.637	0.000	0.000	0.000	0.000	0.011	0.000
IF	3426.500	8.091	0.000	9.637	0.000	0.000	0.000	0.000	0.052	0.000
IF	3431.000	8.809	0.000	9.637	0.000	0.000	0.000	0.000	0.052	0.000
IF	3456.400	9.637	0.000	9.637	0.000	0.000	0.000	0.000	0.033	0.000
AS	3562.600	9.646	0.000	9.646	0.000	0.000	0.000	0.000	-0.163	0.000
IF	3581.500	6.568	0.000	9.646	0.000	0.000	0.000	0.000	-0.144	0.000
IF	3592.500	5.354	0.000	9.646	0.000	0.000	0.000	0.000	-0.049	0.000
IF	3616.000	4.862	0.000	9.646	0.000	0.000	0.000	0.000	0.052	0.000
IF	3627.500	7.159	0.000	9.646	0.000	0.000	0.000	0.000	0.077	0.000
IF	3642.000	6.864	0.000	9.646	0.000	0.000	0.000	0.000	-0.002	0.000
IF	3663.000	7.093	0.000	9.646	0.000	0.000	0.000	0.000	-0.003	0.000
IF	3684.500	6.729	0.000	9.646	0.000	0.000	0.000	0.000	-0.003	0.000
IF	3693.000	6.991	0.000	9.646	0.000	0.000	0.000	0.000	-0.003	0.000
IF	3721.000	6.634	0.000	9.646	0.000	0.000	0.000	0.000	0.011	0.000
IF	3729.000	7.375	0.000	9.646	0.000	0.000	0.000	0.000	0.049	0.000
IF	3745.500	7.848	0.000	9.647	0.000	0.000	0.000	0.000	0.001	0.000
IF	3761.000	7.405	0.000	9.648	0.000	0.000	0.000	0.000	-0.013	0.000
IF	3771.500	7.507	0.000	9.648	0.000	0.000	0.000	0.000	-0.002	0.000
IF	3801.000	7.339	0.000	9.649	0.000	0.000	0.000	0.000	0.013	0.000
IF	3810.500	8.025	0.000	9.649	0.000	0.000	0.000	0.000	0.016	0.000
IF	3826.000	7.730	0.000	9.650	0.000	0.000	0.000	0.000	-0.001	0.000
IF	3837.000	7.995	0.000	9.650	0.000	0.000	0.000	0.000	0.031	0.000
IF	3867.000	8.980	0.000	9.651	0.000	0.000	0.000	0.000	0.021	0.000
IF	3877.000	8.852	0.000	9.652	0.000	0.000	0.000	0.000	0.033	0.000
IF	3887.400	9.652	0.000	9.652	0.000	0.000	0.000	0.000	0.077	0.000
AS	3896.800	9.653	0.000	9.653	0.000	0.000	0.000	0.000	-0.250	0.000
IF	3911.000	6.099	0.000	9.653	0.000	0.000	0.000	0.000	-0.145	0.000
IF	3926.500	5.354	0.000	9.653	0.000	0.000	0.000	0.000	-0.016	0.000
IF	3952.000	5.453	0.000	9.653	0.000	0.000	0.000	0.000	0.006	0.000
IF	3960.500	5.551	0.000	9.653	0.000	0.000	0.000	0.000	0.030	0.000
IF	3997.500	6.831	0.000	9.653	0.000	0.000	0.000	0.000	0.048	0.000
IF	4012.000	8.045	0.000	9.653	0.000	0.000	0.000	0.000	-0.014	0.000
IF	4022.000	6.490	0.000	9.653	0.000	0.000	0.000	0.000	0.059	0.000
IF	4039.400	9.654	0.000	9.654	0.000	0.000	0.000	0.000	0.182	0.000
AS	4247.500	9.653	0.000	9.653	0.000	0.000	0.000	0.000	-0.096	0.000
IF	4255.500	8.888	0.000	9.653	0.000	0.000	0.000	0.000	-0.068	0.000
IF	4267.000	8.327	0.000	9.653	0.000	0.000	0.000	0.000	0.010	0.000
IF	4285.000	9.190	0.000	9.653	0.000	0.000	0.000	0.000	0.011	0.000
IF	4298.000	8.658	0.000	9.653	0.000	0.000	0.000	0.000	-0.009	0.000
IF	4307.000	8.986	0.000	9.653	0.000	0.000	0.000	0.000	0.006	0.000
IF	4320.500	8.793	0.000	9.653	0.000	0.000	0.000	0.000	0.024	0.000
IF	4335.300	9.653	0.000	9.653	0.000	0.000	0.000	0.000	0.058	0.000
AS	4377.200	9.653	0.000	9.653	0.000	0.000	0.000	0.000	-0.140	0.000
IF	4381.000	9.121	0.000	9.653	0.000	0.000	0.000	0.000	-0.024	0.000
IF	4394.000	9.255	0.000	9.653	0.000	0.000	0.000	0.000	-0.002	0.000
IF	4408.500	9.055	0.000	9.653	0.000	0.000	0.000	0.000	-0.050	0.000
IF	4419.000	8.005	0.000	9.653	0.000	0.000	0.000	0.000	-0.088	0.000

	IF	4433.000	6.896	0.000	9.653	0.000	0.000	0.000	0.000	-0.064	0.000
	IF	4446.500	6.240	0.000	9.653	0.000	0.000	0.000	0.000	-0.012	0.000
	IF	4482.000	6.302	0.000	9.653	0.000	0.000	0.000	0.000	0.016	0.000
	IF	4488.000	6.893	0.000	9.653	0.000	0.000	0.000	0.000	0.023	0.000
	IF	4518.000	7.123	0.000	9.653	0.000	0.000	0.000	0.000	-0.010	0.000
	IF	4529.000	6.466	0.000	9.653	0.000	0.000	0.000	0.000	-0.008	0.000
	IF	4558.000	6.798	0.000	9.653	0.000	0.000	0.000	0.000	0.002	0.000
	IF	4567.500	6.532	0.000	9.653	0.000	0.000	0.000	0.000	0.022	0.000
	IF	4603.500	7.815	0.000	9.653	0.000	0.000	0.000	0.000	0.068	0.000
	IF	4613.100	9.653	0.000	9.653	0.000	0.000	0.000	0.000	0.191	0.000
	ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

	END STATION	END ELEVATION	FETCH LENGTH	SURGE ELEV 10-YEAR	SURGE ELEV 100-YEAR	INITIAL WAVE HEIGHT	INITIAL W. PERIOD		BOTTOM SLOPE	AVERAGE A-ZONES
IE	0.000	-23.773	1.000	1.000	9.042	29.615	13.840	56.140	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	3.300	-23.739	0.000	9.045	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	6.600	-23.706	0.000	9.047	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	9.800	-23.672	0.000	9.049	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	13.100	-23.639	0.000	9.052	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	16.400	-23.605	0.000	9.054	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	19.700	-23.572	0.000	9.057	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	23.000	-23.538	0.000	9.059	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	26.200	-23.505	0.000	9.062	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	29.500	-23.471	0.000	9.064	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	32.800	-23.437	0.000	9.067	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	36.100	-23.404	0.000	9.070	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	39.400	-23.370	0.000	9.072	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	42.700	-23.337	0.000	9.075	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	45.900	-23.303	0.000	9.078	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	49.200	-23.270	0.000	9.081	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	52.500	-23.236	0.000	9.083	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	55.800	-23.203	0.000	9.086	0.000	0.000	0.000	0.000	0.013	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	59.100	-23.151	0.000	9.089	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	62.300	-23.077	0.000	9.091	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	65.600	-23.003	0.000	9.094	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	68.900	-22.929	0.000	9.096	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	72.200	-22.856	0.000	9.098	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	75.500	-22.782	0.000	9.101	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	78.700	-22.708	0.000	9.104	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	82.000	-22.634	0.000	9.106	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	85.300	-22.560	0.000	9.108	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	88.600	-22.486	0.000	9.111	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	91.900	-22.412	0.000	9.114	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	95.100	-22.339	0.000	9.116	0.000	0.000	0.000	0.000	0.023	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	98.400	-22.265	0.000	9.119	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	101.700	-22.191	0.000	9.121	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	105.000	-22.117	0.000	9.124	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	108.300	-22.043	0.000	9.127	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	111.500	-21.969	0.000	9.129	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	114.800	-21.893	0.000	9.132	0.000	0.000	0.000	0.000	0.025	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	118.100	-21.806	0.000	9.134	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	121.400	-21.719	0.000	9.137	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	124.700	-21.632	0.000	9.140	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	128.000	-21.545	0.000	9.142	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	131.200	-21.458	0.000	9.145	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	134.500	-21.370	0.000	9.148	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	137.800	-21.283	0.000	9.150	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	141.100	-21.196	0.000	9.153	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	144.400	-21.109	0.000	9.156	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	147.600	-21.022	0.000	9.158	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	150.900	-20.935	0.000	9.161	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	154.200	-20.848	0.000	9.164	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	157.500	-20.761	0.000	9.167	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	160.800	-20.674	0.000	9.170	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	164.000	-20.587	0.000	9.172	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	167.300	-20.500	0.000	9.175	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	170.600	-20.413	0.000	9.178	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	173.900	-20.326	0.000	9.181	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	177.200	-20.239	0.000	9.183	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	180.400	-20.152	0.000	9.186	0.000	0.000	0.000	0.000	0.027	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	183.700	-20.064	0.000	9.189	0.000	0.000	0.000	0.000	0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	187.000	-19.956	0.000	9.191	0.000	0.000	0.000	0.000	0.038	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	190.300	-19.811	0.000	9.194	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	193.600	-19.667	0.000	9.196	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	196.800	-19.522	0.000	9.198	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	200.100	-19.378	0.000	9.201	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	203.400	-19.233	0.000	9.203	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	206.700	-19.089	0.000	9.206	0.000	0.000	0.000	0.000	0.044	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	210.000	-18.944	0.000	9.208	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	213.300	-18.800	0.000	9.211	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	216.500	-18.655	0.000	9.214	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	219.800	-18.511	0.000	9.216	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	223.100	-18.366	0.000	9.219	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	226.400	-18.222	0.000	9.222	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	229.700	-18.077	0.000	9.225	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	232.900	-17.933	0.000	9.228	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	236.200	-17.788	0.000	9.231	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	239.500	-17.644	0.000	9.234	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	242.800	-17.499	0.000	9.237	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	246.100	-17.355	0.000	9.240	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	249.300	-17.210	0.000	9.243	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	252.600	-17.066	0.000	9.247	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	255.900	-16.921	0.000	9.250	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	259.200	-16.777	0.000	9.253	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	262.500	-16.632	0.000	9.257	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	265.700	-16.488	0.000	9.260	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	269.000	-16.343	0.000	9.263	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	272.300	-16.199	0.000	9.267	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	275.600	-16.054	0.000	9.270	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	278.900	-15.910	0.000	9.274	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	282.200	-15.772	0.000	9.277	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	285.400	-15.638	0.000	9.281	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	288.700	-15.503	0.000	9.285	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	292.000	-15.368	0.000	9.289	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	295.300	-15.234	0.000	9.292	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	298.600	-15.099	0.000	9.296	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	301.800	-14.964	0.000	9.299	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	305.100	-14.830	0.000	9.303	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	308.400	-14.695	0.000	9.307	0.000	0.000	0.000	0.000	0.045	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	311.700	-14.536	0.000	9.310	0.000	0.000	0.000	0.000	0.052	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	315.000	-14.351	0.000	9.313	0.000	0.000	0.000	0.000	0.057	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	318.200	-14.166	0.000	9.316	0.000	0.000	0.000	0.000	0.057	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	321.500	-13.982	0.000	9.319	0.000	0.000	0.000	0.000	0.056	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	324.800	-13.797	0.000	9.323	0.000	0.000	0.000	0.000	0.056	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	328.100	-13.612	0.000	9.327	0.000	0.000	0.000	0.000	0.056	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	331.400	-13.427	0.000	9.330	0.000	0.000	0.000	0.000	0.055	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	334.600	-13.254	0.000	9.335	0.000	0.000	0.000	0.000	0.048	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	337.900	-13.113	0.000	9.339	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	341.200	-12.973	0.000	9.344	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	344.500	-12.832	0.000	9.350	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	347.800	-12.692	0.000	9.354	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	351.000	-12.551	0.000	9.360	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	354.300	-12.411	0.000	9.365	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	357.600	-12.271	0.000	9.371	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	360.900	-12.130	0.000	9.376	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	364.200	-11.990	0.000	9.381	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	367.500	-11.849	0.000	9.387	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	370.700	-11.709	0.000	9.393	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	374.000	-11.569	0.000	9.398	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	377.300	-11.428	0.000	9.404	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	380.600	-11.288	0.000	9.409	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	383.900	-11.147	0.000	9.415	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	387.100	-11.007	0.000	9.421	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	390.400	-10.867	0.000	9.427	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	393.700	-10.726	0.000	9.433	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	397.000	-10.586	0.000	9.439	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	400.300	-10.445	0.000	9.445	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	403.500	-10.305	0.000	9.451	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	406.800	-10.164	0.000	9.457	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	410.100	-10.024	0.000	9.463	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	413.400	-9.884	0.000	9.469	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	416.700	-9.744	0.000	9.476	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	419.900	-9.603	0.000	9.482	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	423.200	-9.463	0.000	9.489	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	426.500	-9.322	0.000	9.495	0.000	0.000	0.000	0.000	0.040	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	429.800	-9.200	0.000	9.502	0.000	0.000	0.000	0.000	0.030	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	433.100	-9.122	0.000	9.510	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	436.400	-9.043	0.000	9.517	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	439.600	-8.964	0.000	9.525	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	442.900	-8.885	0.000	9.533	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	446.200	-8.806	0.000	9.540	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	449.500	-8.727	0.000	9.548	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	452.800	-8.648	0.000	9.555	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	456.000	-8.569	0.000	9.562	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	459.300	-8.491	0.000	9.569	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	462.600	-8.412	0.000	9.576	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	465.900	-8.333	0.000	9.583	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	469.200	-8.254	0.000	9.590	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	472.400	-8.175	0.000	9.597	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	475.700	-8.096	0.000	9.603	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	479.000	-8.017	0.000	9.610	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	482.300	-7.938	0.000	9.617	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	485.600	-7.860	0.000	9.623	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	488.800	-7.781	0.000	9.629	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	492.100	-7.702	0.000	9.635	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	495.400	-7.623	0.000	9.642	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	498.700	-7.544	0.000	9.648	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	502.000	-7.465	0.000	9.654	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	505.200	-7.386	0.000	9.660	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	508.500	-7.307	0.000	9.666	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	511.800	-7.228	0.000	9.672	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	515.100	-7.150	0.000	9.678	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	518.400	-7.071	0.000	9.684	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	521.700	-6.992	0.000	9.689	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	524.900	-6.912	0.000	9.695	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	528.200	-6.826	0.000	9.700	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	531.500	-6.739	0.000	9.706	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	534.800	-6.653	0.000	9.711	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	538.100	-6.567	0.000	9.716	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	541.300	-6.481	0.000	9.722	0.000	0.000	0.000	0.000	0.025	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	544.600	-6.406	0.000	9.727	0.000	0.000	0.000	0.000	0.012	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	547.900	-6.400	0.000	9.733	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	551.200	-6.397	0.000	9.740	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	554.500	-6.394	0.000	9.745	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	557.700	-6.391	0.000	9.751	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	561.000	-6.387	0.000	9.756	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	564.300	-6.385	0.000	9.762	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	567.600	-6.381	0.000	9.767	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	570.900	-6.378	0.000	9.772	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	574.100	-6.375	0.000	9.776	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	577.400	-6.372	0.000	9.781	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	580.700	-6.365	0.000	9.785	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	584.000	-6.347	0.000	9.789	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	587.300	-6.329	0.000	9.793	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	590.500	-6.311	0.000	9.797	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	593.800	-6.293	0.000	9.801	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	597.100	-6.275	0.000	9.805	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	600.400	-6.257	0.000	9.808	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	603.700	-6.240	0.000	9.812	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	607.000	-6.222	0.000	9.815	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	610.200	-6.204	0.000	9.818	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	613.500	-6.186	0.000	9.821	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	616.800	-6.168	0.000	9.825	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	620.100	-6.150	0.000	9.827	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	623.400	-6.133	0.000	9.831	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	626.600	-6.115	0.000	9.833	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	629.900	-6.097	0.000	9.836	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	633.200	-6.079	0.000	9.839	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	636.500	-6.061	0.000	9.842	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	639.800	-6.043	0.000	9.844	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	643.000	-6.025	0.000	9.847	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	646.300	-6.008	0.000	9.849	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	649.600	-5.990	0.000	9.852	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	652.900	-5.972	0.000	9.854	0.000	0.000	0.000	0.000	0.001	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	656.200	-5.982	0.000	9.857	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	659.400	-5.996	0.000	9.859	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	662.700	-6.009	0.000	9.862	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	666.000	-6.023	0.000	9.865	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	669.300	-6.036	0.000	9.867	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	672.600	-6.049	0.000	9.869	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	675.900	-6.063	0.000	9.872	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	679.100	-6.076	0.000	9.874	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	682.400	-6.090	0.000	9.876	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	685.700	-6.103	0.000	9.878	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	689.000	-6.116	0.000	9.880	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	692.300	-6.130	0.000	9.882	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	695.500	-6.143	0.000	9.884	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	698.800	-6.157	0.000	9.886	0.000	0.000	0.000	0.000	-0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	702.100	-6.170	0.000	9.888	0.000	0.000	0.000	0.000	0.004	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	705.400	-6.127	0.000	9.889	0.000	0.000	0.000	0.000	0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	708.700	-6.056	0.000	9.890	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	711.900	-5.985	0.000	9.891	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	715.200	-5.914	0.000	9.892	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	718.500	-5.844	0.000	9.893	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	721.800	-5.773	0.000	9.894	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	725.100	-5.702	0.000	9.895	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	728.300	-5.631	0.000	9.896	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	731.600	-5.560	0.000	9.898	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	734.900	-5.489	0.000	9.899	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	738.200	-5.418	0.000	9.900	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	741.500	-5.347	0.000	9.901	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	744.700	-5.276	0.000	9.903	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	748.000	-5.205	0.000	9.904	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	751.300	-5.134	0.000	9.905	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	754.600	-5.063	0.000	9.907	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	757.900	-4.992	0.000	9.908	0.000	0.000	0.000	0.000	0.020	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	761.200	-4.934	0.000	9.910	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	764.400	-4.992	0.000	9.912	0.000	0.000	0.000	0.000	-0.018	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	767.700	-5.049	0.000	9.915	0.000	0.000	0.000	0.000	-0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	771.000	-5.107	0.000	9.917	0.000	0.000	0.000	0.000	-0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	774.300	-5.164	0.000	9.919	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	777.600	-5.222	0.000	9.922	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	780.800	-5.280	0.000	9.924	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	784.100	-5.337	0.000	9.925	0.000	0.000	0.000	0.000	-0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	787.400	-5.395	0.000	9.927	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	790.700	-5.452	0.000	9.929	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	794.000	-5.510	0.000	9.931	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	797.200	-5.567	0.000	9.932	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	800.500	-5.625	0.000	9.934	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	803.800	-5.683	0.000	9.936	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	807.100	-5.740	0.000	9.937	0.000	0.000	0.000	0.000	-0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	810.400	-5.798	0.000	9.939	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	813.600	-5.855	0.000	9.940	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	816.900	-5.913	0.000	9.941	0.000	0.000	0.000	0.000	-0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	820.200	-5.951	0.000	9.942	0.000	0.000	0.000	0.000	-0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	823.500	-5.944	0.000	9.943	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	826.800	-5.938	0.000	9.944	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	830.100	-5.932	0.000	9.944	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	833.300	-5.926	0.000	9.945	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	836.600	-5.920	0.000	9.946	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	839.900	-5.913	0.000	9.947	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	843.200	-5.907	0.000	9.948	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	846.500	-5.901	0.000	9.948	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	849.700	-5.895	0.000	9.949	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	853.000	-5.888	0.000	9.950	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	856.300	-5.882	0.000	9.950	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	859.600	-5.876	0.000	9.951	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	862.900	-5.849	0.000	9.952	0.000	0.000	0.000	0.000	0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	866.100	-5.802	0.000	9.952	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	869.400	-5.755	0.000	9.952	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	872.700	-5.708	0.000	9.953	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	876.000	-5.661	0.000	9.953	0.000	0.000	0.000	0.000	0.014	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	879.300	-5.614	0.000	9.954	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	882.500	-5.567	0.000	9.954	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	885.800	-5.519	0.000	9.955	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	889.100	-5.472	0.000	9.955	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	892.400	-5.425	0.000	9.956	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	895.700	-5.378	0.000	9.956	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	898.900	-5.331	0.000	9.957	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	902.200	-5.208	0.000	9.957	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	905.500	-5.073	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	908.800	-4.938	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	912.100	-4.802	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	915.400	-4.667	0.000	9.957	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	918.600	-4.531	0.000	9.957	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	921.900	-4.396	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	925.200	-4.260	0.000	9.957	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	928.500	-4.125	0.000	9.958	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	931.800	-3.990	0.000	9.958	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	935.000	-3.854	0.000	9.958	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	938.300	-3.719	0.000	9.959	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	941.600	-3.583	0.000	9.960	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	944.900	-3.448	0.000	9.960	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	948.200	-3.312	0.000	9.961	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	951.400	-3.177	0.000	9.962	0.000	0.000	0.000	0.000	0.042	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	954.700	-3.041	0.000	9.963	0.000	0.000	0.000	0.000	0.041	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	958.000	-2.906	0.000	9.964	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	961.300	-2.782	0.000	9.965	0.000	0.000	0.000	0.000	0.028	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	964.600	-2.720	0.000	9.968	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	967.800	-2.659	0.000	9.970	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	971.100	-2.598	0.000	9.972	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	974.400	-2.536	0.000	9.974	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	977.700	-2.475	0.000	9.976	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	981.000	-2.414	0.000	9.978	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	984.200	-2.352	0.000	9.980	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	987.500	-2.291	0.000	9.982	0.000	0.000	0.000	0.000	0.019	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	990.800	-2.230	0.000	9.984	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	994.100	-2.168	0.000	9.986	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	997.400	-2.107	0.000	9.988	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1000.700	-2.045	0.000	9.990	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1003.900	-1.984	0.000	9.992	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1007.200	-1.923	0.000	9.995	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1010.500	-1.861	0.000	9.997	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1013.800	-1.800	0.000	9.999	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1017.100	-1.738	0.000	10.001	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1020.300	-1.677	0.000	10.003	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1023.600	-1.616	0.000	10.005	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1026.900	-1.554	0.000	10.007	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1030.200	-1.493	0.000	10.010	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1033.500	-1.432	0.000	10.012	0.000	0.000	0.000	0.000	0.021	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1036.700	-1.359	0.000	10.014	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1040.000	-1.261	0.000	10.016	0.000	0.000	0.000	0.000	0.034	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1043.300	-1.131	0.000	10.017	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1046.600	-1.001	0.000	10.019	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1049.900	-0.872	0.000	10.021	0.000	0.000	0.000	0.000	0.040	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1053.100	-0.742	0.000	10.023	0.000	0.000	0.000	0.000	0.040	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1056.400	-0.612	0.000	10.025	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1059.700	-0.482	0.000	10.027	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1063.000	-0.352	0.000	10.029	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1066.300	-0.223	0.000	10.032	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1069.600	-0.093	0.000	10.034	0.000	0.000	0.000	0.000	0.032	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1072.800	-0.017	0.000	10.038	0.000	0.000	0.000	0.000	-0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
OF	1076.100	-0.369	0.000	10.047	0.000	0.000	0.000	0.000	0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1079.400	0.086	0.000	10.044	0.000	0.000	0.000	0.000	0.228	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1082.700	1.134	0.000	10.034	0.000	0.000	0.000	0.000	0.298	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1086.000	2.053	0.000	10.026	0.000	0.000	0.000	0.000	0.235	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1089.200	2.658	0.000	10.028	0.000	0.000	0.000	0.000	0.186	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1092.500	3.264	0.000	10.031	0.000	0.000	0.000	0.000	0.043	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1095.800	2.944	0.000	10.062	0.000	0.000	0.000	0.000	-0.121	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1099.100	2.465	0.000	10.088	0.000	0.000	0.000	0.000	-0.145	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1102.400	1.985	0.000	10.107	0.000	0.000	0.000	0.000	-0.126	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1105.600	1.644	0.000	10.120	0.000	0.000	0.000	0.000	-0.084	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1108.900	1.441	0.000	10.128	0.000	0.000	0.000	0.000	-0.061	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1112.200	1.239	0.000	10.135	0.000	0.000	0.000	0.000	-0.066	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1115.500	1.007	0.000	10.141	0.000	0.000	0.000	0.000	-0.056	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1118.800	0.871	0.000	10.145	0.000	0.000	0.000	0.000	0.009	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1122.000	1.066	0.000	10.145	0.000	0.000	0.000	0.000	0.122	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1125.300	1.661	0.000	10.141	0.000	0.000	0.000	0.000	0.063	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1128.600	1.479	0.000	10.147	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1131.900	1.952	0.000	10.144	0.000	0.000	0.000	0.000	0.086	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1135.200	2.043	0.000	10.147	0.000	0.000	0.000	0.000	0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1138.400	2.146	0.000	10.150	0.000	0.000	0.000	0.000	0.075	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1141.700	2.533	0.000	10.149	0.000	0.000	0.000	0.000	0.154	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1145.000	3.160	0.000	10.145	0.000	0.000	0.000	0.000	0.214	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1148.300	3.945	0.000	10.140	0.000	0.000	0.000	0.000	0.238	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1151.600	4.730	0.000	10.137	0.000	0.000	0.000	0.000	0.295	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1154.900	5.892	0.000	10.125	0.000	0.000	0.000	0.000	0.366	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1158.100	7.111	0.000	10.251	0.000	0.000	0.000	0.000	0.206	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1161.400	7.229	0.000	10.389	0.000	0.000	0.000	0.000	-0.079	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1164.700	6.587	0.000	10.402	0.000	0.000	0.000	0.000	-0.133	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1168.000	6.352	0.000	10.408	0.000	0.000	0.000	0.000	-0.117	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1171.300	5.815	0.000	10.433	0.000	0.000	0.000	0.000	-0.192	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1174.500	5.102	0.000	10.454	0.000	0.000	0.000	0.000	0.130	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1177.800	6.662	0.000	10.433	0.000	0.000	0.000	0.000	0.348	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1181.100	7.396	0.000	10.463	0.000	0.000	0.000	0.000	0.073	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1184.400	7.143	0.000	10.503	0.000	0.000	0.000	0.000	-0.077	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1187.700	6.890	0.000	10.526	0.000	0.000	0.000	0.000	-0.100	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1190.900	6.492	0.000	10.544	0.000	0.000	0.000	0.000	-0.125	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1194.200	6.078	0.000	10.555	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1197.500	6.491	0.000	10.553	0.000	0.000	0.000	0.000	0.108	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1200.800	6.791	0.000	10.554	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1204.100	6.490	0.000	10.565	0.000	0.000	0.000	0.000	0.026	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1207.300	6.958	0.000	10.563	0.000	0.000	0.000	0.000	0.180	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1210.600	7.657	0.000	10.558	0.000	0.000	0.000	0.000	0.163	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1213.900	8.034	0.000	10.580	0.000	0.000	0.000	0.000	0.206	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1224.800	10.580	0.000	10.580	0.000	0.000	0.000	0.000	0.234	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	1368.600	9.616	0.000	9.616	0.000	0.000	0.000	0.000	-0.038	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1386.500	8.930	0.000	9.616	0.000	0.000	0.000	0.000	-0.049	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1394.500	8.340	0.000	9.616	0.000	0.000	0.000	0.000	-0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1411.500	8.176	0.000	9.616	0.000	0.000	0.000	0.000	-0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1423.500	8.012	0.000	9.616	0.000	0.000	0.000	0.000	-0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1438.000	8.117	0.000	9.616	0.000	0.000	0.000	0.000	0.012	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1456.000	8.386	0.000	9.616	0.000	0.000	0.000	0.000	0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1487.400	9.616	0.000	9.616	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	1488.800	9.617	0.000	9.617	0.000	0.000	0.000	0.000	-0.193	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1507.000	6.109	0.000	9.617	0.000	0.000	0.000	0.000	-0.130	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1515.000	6.207	0.000	9.618	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1535.500	6.243	0.000	9.619	0.000	0.000	0.000	0.000	-0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1562.000	6.109	0.000	9.621	0.000	0.000	0.000	0.000	0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1571.000	6.896	0.000	9.622	0.000	0.000	0.000	0.000	0.033	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1588.500	6.995	0.000	9.623	0.000	0.000	0.000	0.000	0.029	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1621.500	8.340	0.000	9.625	0.000	0.000	0.000	0.000	0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1644.000	8.054	0.000	9.626	0.000	0.000	0.000	0.000	0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1663.000	8.911	0.000	9.627	0.000	0.000	0.000	0.000	0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1669.000	9.039	0.000	9.628	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1679.200	9.628	0.000	9.628	0.000	0.000	0.000	0.000	0.058	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	1693.700	9.629	0.000	9.629	0.000	0.000	0.000	0.000	-0.148	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1697.000	9.140	0.000	9.629	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1706.400	9.629	0.000	9.629	0.000	0.000	0.000	0.000	0.052	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	1712.400	9.630	0.000	9.630	0.000	0.000	0.000	0.000	-0.039	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1718.000	9.409	0.000	9.630	0.000	0.000	0.000	0.000	-0.088	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1736.000	7.552	0.000	9.631	0.000	0.000	0.000	0.000	-0.072	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1765.000	6.043	0.000	9.632	0.000	0.000	0.000	0.000	-0.032	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1789.500	5.846	0.000	9.633	0.000	0.000	0.000	0.000	0.044	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1803.000	7.716	0.000	9.634	0.000	0.000	0.000	0.000	-0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1841.500	5.584	0.000	9.636	0.000	0.000	0.000	0.000	-0.032	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1864.500	5.748	0.000	9.636	0.000	0.000	0.000	0.000	0.058	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1875.500	7.569	0.000	9.636	0.000	0.000	0.000	0.000	-0.014	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1899.000	5.256	0.000	9.636	0.000	0.000	0.000	0.000	-0.056	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1907.500	5.781	0.000	9.636	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1931.000	5.584	0.000	9.636	0.000	0.000	0.000	0.000	0.003	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1940.500	5.879	0.000	9.636	0.000	0.000	0.000	0.000	-0.019	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1964.000	4.961	0.000	9.636	0.000	0.000	0.000	0.000	0.093	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	1980.900	9.636	0.000	9.636	0.000	0.000	0.000	0.000	0.277	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	2073.800	9.651	0.000	9.651	0.000	0.000	0.000	0.000	-0.066	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2086.500	8.816	0.000	9.651	0.000	0.000	0.000	0.000	-0.056	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2104.000	7.969	0.000	9.651	0.000	0.000	0.000	0.000	-0.034	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2116.500	7.805	0.000	9.651	0.000	0.000	0.000	0.000	0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2135.000	8.300	0.000	9.651	0.000	0.000	0.000	0.000	-0.035	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2153.000	6.529	0.000	9.651	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2184.500	8.570	0.000	9.651	0.000	0.000	0.000	0.000	0.048	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2194.500	8.537	0.000	9.651	0.000	0.000	0.000	0.000	0.008	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2216.000	8.832	0.000	9.651	0.000	0.000	0.000	0.000	-0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2225.000	8.209	0.000	9.651	0.000	0.000	0.000	0.000	-0.070	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2241.000	7.093	0.000	9.651	0.000	0.000	0.000	0.000	-0.035	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2250.000	7.323	0.000	9.651	0.000	0.000	0.000	0.000	0.013	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2277.500	7.552	0.000	9.651	0.000	0.000	0.000	0.000	0.013	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2287.500	7.815	0.000	9.651	0.000	0.000	0.000	0.000	0.053	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2300.000	8.737	0.000	9.651	0.000	0.000	0.000	0.000	0.067	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2315.100	9.651	0.000	9.651	0.000	0.000	0.000	0.000	0.060	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	2317.800	9.651	0.000	9.651	0.000	0.000	0.000	0.000	-0.127	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2324.500	8.799	0.000	9.651	0.000	0.000	0.000	0.000	-0.114	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2337.000	7.454	0.000	9.652	0.000	0.000	0.000	0.000	-0.071	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2348.000	7.126	0.000	9.652	0.000	0.000	0.000	0.000	-0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2365.500	6.831	0.000	9.652	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2386.000	7.126	0.000	9.652	0.000	0.000	0.000	0.000	0.003	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2391.000	6.896	0.000	9.652	0.000	0.000	0.000	0.000	-0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2411.000	6.864	0.000	9.652	0.000	0.000	0.000	0.000	0.067	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2432.200	9.652	0.000	9.652	0.000	0.000	0.000	0.000	0.132	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	2432.600	9.652	0.000	9.652	0.000	0.000	0.000	0.000	-0.434	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2438.500	7.093	0.000	9.652	0.000	0.000	0.000	0.000	-0.132	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2444.000	8.143	0.000	9.652	0.000	0.000	0.000	0.000	0.006	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2470.500	7.290	0.000	9.652	0.000	0.000	0.000	0.000	-0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2479.500	7.087	0.000	9.652	0.000	0.000	0.000	0.000	0.082	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	2499.300	9.652	0.000	9.652	0.000	0.000	0.000	0.000	0.130	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	3164.000	9.637	0.000	9.637	0.000	0.000	0.000	0.000	-0.063	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3171.000	9.196	0.000	9.637	0.000	0.000	0.000	0.000	-0.061	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3183.000	8.474	0.000	9.637	0.000	0.000	0.000	0.000	-0.036	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3193.500	8.376	0.000	9.637	0.000	0.000	0.000	0.000	-0.007	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3206.000	8.317	0.000	9.637	0.000	0.000	0.000	0.000	0.000	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3221.000	8.382	0.000	9.637	0.000	0.000	0.000	0.000	-0.015	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3238.000	7.848	0.000	9.637	0.000	0.000	0.000	0.000	-0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3263.500	7.389	0.000	9.637	0.000	0.000	0.000	0.000	-0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3273.500	7.352	0.000	9.637	0.000	0.000	0.000	0.000	0.006	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3310.000	7.684	0.000	9.637	0.000	0.000	0.000	0.000	-0.018	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3318.000	6.568	0.000	9.637	0.000	0.000	0.000	0.000	-0.013	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3358.000	7.060	0.000	9.637	0.000	0.000	0.000	0.000	0.017	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3369.500	7.454	0.000	9.637	0.000	0.000	0.000	0.000	0.005	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3402.000	7.290	0.000	9.637	0.000	0.000	0.000	0.000	0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3426.500	8.091	0.000	9.637	0.000	0.000	0.000	0.000	0.052	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3431.000	8.809	0.000	9.637	0.000	0.000	0.000	0.000	0.052	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3456.400	9.637	0.000	9.637	0.000	0.000	0.000	0.000	0.033	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	3562.600	9.646	0.000	9.646	0.000	0.000	0.000	0.000	-0.163	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3581.500	6.568	0.000	9.646	0.000	0.000	0.000	0.000	-0.144	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3592.500	5.354	0.000	9.646	0.000	0.000	0.000	0.000	-0.049	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3616.000	4.862	0.000	9.646	0.000	0.000	0.000	0.000	0.052	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3627.500	7.159	0.000	9.646	0.000	0.000	0.000	0.000	0.077	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3642.000	6.864	0.000	9.646	0.000	0.000	0.000	0.000	-0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3663.000	7.093	0.000	9.646	0.000	0.000	0.000	0.000	-0.003	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3684.500	6.729	0.000	9.646	0.000	0.000	0.000	0.000	-0.003	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3693.000	6.991	0.000	9.646	0.000	0.000	0.000	0.000	-0.003	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3721.000	6.634	0.000	9.646	0.000	0.000	0.000	0.000	0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3729.000	7.375	0.000	9.646	0.000	0.000	0.000	0.000	0.049	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3745.500	7.848	0.000	9.647	0.000	0.000	0.000	0.000	0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3761.000	7.405	0.000	9.648	0.000	0.000	0.000	0.000	-0.013	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3771.500	7.507	0.000	9.648	0.000	0.000	0.000	0.000	-0.002	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3801.000	7.339	0.000	9.649	0.000	0.000	0.000	0.000	0.013	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3810.500	8.025	0.000	9.649	0.000	0.000	0.000	0.000	0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3826.000	7.730	0.000	9.650	0.000	0.000	0.000	0.000	-0.001	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3837.000	7.995	0.000	9.650	0.000	0.000	0.000	0.000	0.031	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3867.000	8.980	0.000	9.651	0.000	0.000	0.000	0.000	0.021	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3877.000	8.852	0.000	9.652	0.000	0.000	0.000	0.000	0.033	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3887.400	9.652	0.000	9.652	0.000	0.000	0.000	0.000	0.077	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	3896.800	9.653	0.000	9.653	0.000	0.000	0.000	0.000	-0.250	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3911.000	6.099	0.000	9.653	0.000	0.000	0.000	0.000	-0.145	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3926.500	5.354	0.000	9.653	0.000	0.000	0.000	0.000	-0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3952.000	5.453	0.000	9.653	0.000	0.000	0.000	0.000	0.006	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3960.500	5.551	0.000	9.653	0.000	0.000	0.000	0.000	0.030	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	3997.500	6.831	0.000	9.653	0.000	0.000	0.000	0.000	0.048	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4012.000	8.045	0.000	9.653	0.000	0.000	0.000	0.000	-0.014	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4022.000	6.490	0.000	9.653	0.000	0.000	0.000	0.000	0.059	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4039.400	9.654	0.000	9.654	0.000	0.000	0.000	0.000	0.182	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	4247.500	9.653	0.000	9.653	0.000	0.000	0.000	0.000	-0.096	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4255.500	8.888	0.000	9.653	0.000	0.000	0.000	0.000	-0.068	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4267.000	8.327	0.000	9.653	0.000	0.000	0.000	0.000	0.010	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4285.000	9.190	0.000	9.653	0.000	0.000	0.000	0.000	0.011	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4298.000	8.658	0.000	9.653	0.000	0.000	0.000	0.000	-0.009	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4307.000	8.986	0.000	9.653	0.000	0.000	0.000	0.000	0.006	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4320.500	8.793	0.000	9.653	0.000	0.000	0.000	0.000	0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4335.300	9.653	0.000	9.653	0.000	0.000	0.000	0.000	0.058	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
AS	4377.200	9.653	0.000	9.653	0.000	0.000	0.000	0.000	-0.140	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4381.000	9.121	0.000	9.653	0.000	0.000	0.000	0.000	-0.024	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4394.000	9.255	0.000	9.653	0.000	0.000	0.000	0.000	-0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4408.500	9.055	0.000	9.653	0.000	0.000	0.000	0.000	-0.050	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4419.000	8.005	0.000	9.653	0.000	0.000	0.000	0.000	-0.088	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4433.000	6.896	0.000	9.653	0.000	0.000	0.000	0.000	-0.064	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4446.500	6.240	0.000	9.653	0.000	0.000	0.000	0.000	-0.012	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4482.000	6.302	0.000	9.653	0.000	0.000	0.000	0.000	0.016	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4488.000	6.893	0.000	9.653	0.000	0.000	0.000	0.000	0.023	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4518.000	7.123	0.000	9.653	0.000	0.000	0.000	0.000	-0.010	0.000

	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4529.000	6.466	0.000	9.653	0.000	0.000	0.000	0.000	-0.008	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4558.000	6.798	0.000	9.653	0.000	0.000	0.000	0.000	0.002	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4567.500	6.532	0.000	9.653	0.000	0.000	0.000	0.000	0.022	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4603.500	7.815	0.000	9.653	0.000	0.000	0.000	0.000	0.068	0.000
	END STATION	END ELEVATION	NEW SURGE 10-YEAR	NEW SURGE 100-YEAR					BOTTOM SLOPE	AVERAGE A-ZONES
IF	4613.100	9.653	0.000	9.653	0.000	0.000	0.000	0.000	0.191	0.000

----------END OF TRANSECT----------

NOTE:
SURGE ELEVATION INCLUDES CONTRIBUTIONS FROM ASTRONOMICAL AND STORM TIDES.

1

PART2: CONTROLLING WAVE HEIGHTS, SPECTRAL PEAK WAVE PERIOD, AND WAVE CREST ELEVATIONS

	LOCATION	CONTROLLING WAVE HEIGHT	SPECTRAL PEAK WAVE PERIOD	WAVE CREST ELEVATION
IE	0.00	24.31	13.84	26.06
OF	3.30	24.28	13.84	26.04
OF	6.60	24.26	13.84	26.03
OF	9.80	24.24	13.84	26.02
OF	13.10	24.22	13.84	26.00
OF	16.40	24.20	13.84	25.99
OF	19.70	24.17	13.84	25.98
OF	23.00	24.15	13.84	25.97
OF	26.20	24.13	13.84	25.95
OF	29.50	24.11	13.84	25.94
OF	32.80	24.09	13.84	25.93
OF	36.10	24.07	13.84	25.92
OF	39.40	24.04	13.84	25.90
OF	42.70	24.02	13.84	25.89
OF	45.90	24.00	13.84	25.88
OF	49.20	23.98	13.84	25.87
OF	52.50	23.96	13.84	25.85
OF	55.80	23.94	13.84	25.84
OF	59.10	23.90	13.84	25.82
OF	62.30	23.85	13.84	25.79
OF	65.60	23.80	13.84	25.75
OF	68.90	23.75	13.84	25.72
OF	72.20	23.70	13.84	25.69
OF	75.50	23.65	13.84	25.66
OF	78.70	23.60	13.84	25.62
OF	82.00	23.55	13.84	25.59
OF	85.30	23.50	13.84	25.56
OF	88.60	23.45	13.84	25.52
OF	91.90	23.40	13.84	25.49
OF	95.10	23.35	13.84	25.46
OF	98.40	23.30	13.84	25.43
OF	101.70	23.25	13.84	25.39
OF	105.00	23.20	13.84	25.36
OF	108.30	23.15	13.84	25.33
OF	111.50	23.10	13.84	25.30
OF	114.80	23.04	13.84	25.26
OF	118.10	22.98	13.84	25.22
OF	121.40	22.92	13.84	25.18
OF	124.70	22.87	13.84	25.15
OF	128.00	22.81	13.84	25.11
OF	131.20	22.75	13.84	25.07
OF	134.50	22.69	13.84	25.03
OF	137.80	22.63	13.84	24.99
OF	141.10	22.57	13.84	24.95
OF	144.40	22.51	13.84	24.91
OF	147.60	22.45	13.84	24.87
OF	150.90	22.39	13.84	24.83
OF	154.20	22.33	13.84	24.79
OF	157.50	22.27	13.84	24.75
OF	160.80	22.21	13.84	24.72
OF	164.00	22.15	13.84	24.68
OF	167.30	22.09	13.84	24.64
OF	170.60	22.03	13.84	24.60
OF	173.90	21.97	13.84	24.56
OF	177.20	21.91	13.84	24.52
OF	180.40	21.85	13.84	24.48
OF	183.70	21.79	13.84	24.44
OF	187.00	21.71	13.84	24.39
OF	190.30	21.61	13.84	24.32
OF	193.60	21.51	13.84	24.25
OF	196.80	21.41	13.84	24.18
OF	200.10	21.31	13.84	24.12
OF	203.40	21.21	13.84	24.05
OF	206.70	21.11	13.84	23.98
OF	210.00	21.00	13.84	23.91
OF	213.30	20.90	13.84	23.84
OF	216.50	20.80	13.84	23.78
OF	219.80	20.70	13.84	23.71
OF	223.10	20.60	13.84	23.64
OF	226.40	20.50	13.84	23.57
OF	229.70	20.40	13.84	23.50
OF	232.90	20.30	13.84	23.44
OF	236.20	20.19	13.84	23.37
OF	239.50	20.09	13.84	23.30
OF	242.80	19.99	13.84	23.23
OF	246.10	19.89	13.84	23.16
OF	249.30	19.79	13.84	23.10
OF	252.60	19.69	13.84	23.03
OF	255.90	19.59	13.84	22.96

OF	259.20	19.49	13.84	22.89
OF	262.50	19.38	13.84	22.83
OF	265.70	19.28	13.84	22.76
OF	269.00	19.18	13.84	22.69
OF	272.30	19.08	13.84	22.62
OF	275.60	18.98	13.84	22.55
OF	278.90	18.88	13.84	22.49
OF	282.20	18.78	13.84	22.42
OF	285.40	18.69	13.84	22.36
OF	288.70	18.59	13.84	22.30
OF	292.00	18.50	13.84	22.24
OF	295.30	18.40	13.84	22.17
OF	298.60	18.31	13.84	22.11
OF	301.80	18.21	13.84	22.05
OF	305.10	18.12	13.84	21.99
OF	308.40	18.02	13.84	21.92
OF	311.70	17.91	13.84	21.85
OF	315.00	17.78	13.84	21.76
OF	318.20	17.65	13.84	21.67
OF	321.50	17.52	13.84	21.58
OF	324.80	17.39	13.84	21.49
OF	328.10	17.25	13.84	21.41
OF	331.40	17.12	13.84	21.32
OF	334.60	17.00	13.84	21.24
OF	337.90	16.90	13.84	21.17
OF	341.20	16.80	13.84	21.11
OF	344.50	16.71	13.84	21.04
OF	347.80	16.61	13.84	20.98
OF	351.00	16.51	13.84	20.92
OF	354.30	16.41	13.84	20.85
OF	357.60	16.31	13.84	20.79
OF	360.90	16.21	13.84	20.73
OF	364.20	16.11	13.84	20.66
OF	367.50	16.02	13.84	20.60
OF	370.70	15.92	13.84	20.54
OF	374.00	15.82	13.84	20.47
OF	377.30	15.72	13.84	20.41
OF	380.60	15.62	13.84	20.35
OF	383.90	15.52	13.84	20.28
OF	387.10	15.43	13.84	20.22
OF	390.40	15.33	13.84	20.16
OF	393.70	15.23	13.84	20.09
OF	397.00	15.13	13.84	20.03
OF	400.30	15.03	13.84	19.97
OF	403.50	14.93	13.84	19.91
OF	406.80	14.84	13.84	19.84
OF	410.10	14.74	13.84	19.78
OF	413.40	14.64	13.84	19.72
OF	416.70	14.54	13.84	19.66
OF	419.90	14.44	13.84	19.59
OF	423.20	14.35	13.84	19.53
OF	426.50	14.25	13.84	19.47
OF	429.80	14.16	13.84	19.41
OF	433.10	14.11	13.84	19.39
OF	436.40	14.06	13.84	19.36
OF	439.60	14.00	13.84	19.33
OF	442.90	13.95	13.84	19.30
OF	446.20	13.90	13.84	19.27
OF	449.50	13.85	13.84	19.24
OF	452.80	13.79	13.84	19.21
OF	456.00	13.74	13.84	19.18
OF	459.30	13.69	13.84	19.15
OF	462.60	13.64	13.84	19.12
OF	465.90	13.58	13.84	19.09
OF	469.20	13.53	13.84	19.06
OF	472.40	13.48	13.84	19.03
OF	475.70	13.42	13.84	19.00
OF	479.00	13.37	13.84	18.97
OF	482.30	13.32	13.84	18.94
OF	485.60	13.26	13.84	18.91
OF	488.80	13.21	13.84	18.88
OF	492.10	13.16	13.84	18.84
OF	495.40	13.10	13.84	18.81
OF	498.70	13.05	13.84	18.78
OF	502.00	12.99	13.84	18.75
OF	505.20	12.94	13.84	18.72
OF	508.50	12.89	13.84	18.69
OF	511.80	12.83	13.84	18.66
OF	515.10	12.78	13.84	18.62
OF	518.40	12.73	13.84	18.59
OF	521.70	12.67	13.84	18.56
OF	524.90	12.62	13.84	18.53
OF	528.20	12.56	13.84	18.49
OF	531.50	12.50	13.84	18.45
OF	534.80	12.44	13.84	18.42
OF	538.10	12.38	13.84	18.38
OF	541.30	12.32	13.84	18.34
OF	544.60	12.27	13.84	18.31
OF	547.90	12.27	13.84	18.32
OF	551.20	12.27	13.84	18.33
OF	554.50	12.27	13.84	18.33
OF	557.70	12.27	13.84	18.34
OF	561.00	12.27	13.84	18.35
OF	564.30	12.28	13.84	18.36
OF	567.60	12.28	13.84	18.36
OF	570.90	12.28	13.84	18.37
OF	574.10	12.28	13.84	18.37
OF	577.40	12.28	13.84	18.38
OF	580.70	12.28	13.84	18.38
OF	584.00	12.27	13.84	18.38
OF	587.30	12.26	13.84	18.37
OF	590.50	12.25	13.84	18.37

OF	593.80	12.24	13.84	18.37
OF	597.10	12.23	13.84	18.36
OF	600.40	12.22	13.84	18.36
OF	603.70	12.21	13.84	18.36
OF	607.00	12.19	13.84	18.35
OF	610.20	12.18	13.84	18.35
OF	613.50	12.17	13.84	18.34
OF	616.80	12.16	13.84	18.34
OF	620.10	12.15	13.84	18.33
OF	623.40	12.14	13.84	18.33
OF	626.60	12.13	13.84	18.32
OF	629.90	12.12	13.84	18.32
OF	633.20	12.11	13.84	18.31
OF	636.50	12.09	13.84	18.31
OF	639.80	12.08	13.84	18.30
OF	643.00	12.07	13.84	18.30
OF	646.30	12.06	13.84	18.29
OF	649.60	12.05	13.84	18.29
OF	652.90	12.04	13.84	18.28
OF	656.20	12.05	13.84	18.29
OF	659.40	12.05	13.84	18.29
OF	662.70	12.06	13.84	18.30
OF	666.00	12.06	13.84	18.31
OF	669.30	12.07	13.84	18.31
OF	672.60	12.07	13.84	18.32
OF	675.90	12.08	13.84	18.33
OF	679.10	12.08	13.84	18.33
OF	682.40	12.09	13.84	18.34
OF	685.70	12.10	13.84	18.35
OF	689.00	12.10	13.84	18.35
OF	692.30	12.11	13.84	18.36
OF	695.50	12.11	13.84	18.36
OF	698.80	12.12	13.84	18.37
OF	702.10	12.12	13.84	18.37
OF	705.40	12.12	13.84	18.37
OF	708.70	12.11	13.84	18.36
OF	711.90	12.07	13.84	18.34
OF	715.20	12.02	13.84	18.31
OF	718.50	11.97	13.84	18.27
OF	721.80	11.92	13.84	18.24
OF	725.10	11.87	13.84	18.20
OF	728.30	11.82	13.84	18.17
OF	731.60	11.76	13.84	18.13
OF	734.90	11.71	13.84	18.10
OF	738.20	11.66	13.84	18.06
OF	741.50	11.61	13.84	18.03
OF	744.70	11.56	13.84	17.99
OF	748.00	11.51	13.84	17.96
OF	751.30	11.45	13.84	17.92
OF	754.60	11.40	13.84	17.89
OF	757.90	11.35	13.84	17.85
OF	761.20	11.31	13.84	17.83
OF	764.40	11.32	13.84	17.84
OF	767.70	11.34	13.84	17.85
OF	771.00	11.35	13.84	17.86
OF	774.30	11.37	13.84	17.88
OF	777.60	11.38	13.84	17.89
OF	780.80	11.39	13.84	17.90
OF	784.10	11.41	13.84	17.91
OF	787.40	11.42	13.84	17.92
OF	790.70	11.44	13.84	17.93
OF	794.00	11.45	13.84	17.95
OF	797.20	11.46	13.84	17.96
OF	800.50	11.48	13.84	17.97
OF	803.80	11.49	13.84	17.98
OF	807.10	11.50	13.84	17.99
OF	810.40	11.52	13.84	18.00
OF	813.60	11.53	13.84	18.01
OF	816.90	11.54	13.84	18.02
OF	820.20	11.55	13.84	18.03
OF	823.50	11.55	13.84	18.03
OF	826.80	11.56	13.84	18.03
OF	830.10	11.56	13.84	18.03
OF	833.30	11.56	13.84	18.04
OF	836.60	11.56	13.84	18.04
OF	839.90	11.56	13.84	18.04
OF	843.20	11.56	13.84	18.04
OF	846.50	11.56	13.84	18.04
OF	849.70	11.56	13.84	18.04
OF	853.00	11.57	13.84	18.05
OF	856.30	11.57	13.84	18.05
OF	859.60	11.57	13.84	18.05
OF	862.90	11.57	13.84	18.05
OF	866.10	11.56	13.84	18.04
OF	869.40	11.55	13.84	18.04
OF	872.70	11.55	13.84	18.04
OF	876.00	11.54	13.84	18.03
OF	879.30	11.53	13.84	18.03
OF	882.50	11.53	13.84	18.02
OF	885.80	11.52	13.84	18.02
OF	889.10	11.51	13.84	18.01
OF	892.40	11.51	13.84	18.01
OF	895.70	11.50	13.84	18.00
OF	898.90	11.49	13.84	18.00
OF	902.20	11.47	13.84	17.99
OF	905.50	11.44	13.84	17.97
OF	908.80	11.35	13.84	17.90
OF	912.10	11.25	13.84	17.83
OF	915.40	11.14	13.84	17.76
OF	918.60	11.04	13.84	17.69
OF	921.90	10.94	13.84	17.62
OF	925.20	10.84	13.84	17.55

OF	928.50	10.74	13.84	17.48
OF	931.80	10.64	13.84	17.41
OF	935.00	10.54	13.84	17.34
OF	938.30	10.44	13.84	17.27
OF	941.60	10.34	13.84	17.20
OF	944.90	10.24	13.84	17.13
OF	948.20	10.14	13.84	17.06
OF	951.40	10.04	13.84	16.99
OF	954.70	9.94	13.84	16.92
OF	958.00	9.84	13.84	16.85
OF	961.30	9.74	13.84	16.79
OF	964.60	9.70	13.84	16.76
OF	967.80	9.65	13.84	16.73
OF	971.10	9.61	13.84	16.70
OF	974.40	9.57	13.84	16.67
OF	977.70	9.52	13.84	16.64
OF	981.00	9.48	13.84	16.61
OF	984.20	9.43	13.84	16.58
OF	987.50	9.39	13.84	16.55
OF	990.80	9.34	13.84	16.52
OF	994.10	9.30	13.84	16.49
OF	997.40	9.25	13.84	16.47
OF	1000.70	9.21	13.84	16.44
OF	1003.90	9.16	13.84	16.41
OF	1007.20	9.12	13.84	16.38
OF	1010.50	9.08	13.84	16.35
OF	1013.80	9.03	13.84	16.32
OF	1017.10	8.99	13.84	16.29
OF	1020.30	8.94	13.84	16.26
OF	1023.60	8.90	13.84	16.23
OF	1026.90	8.85	13.84	16.20
OF	1030.20	8.81	13.84	16.18
OF	1033.50	8.77	13.84	16.15
OF	1036.70	8.71	13.84	16.11
OF	1040.00	8.64	13.84	16.06
OF	1043.30	8.54	13.84	16.00
OF	1046.60	8.45	13.84	15.93
OF	1049.90	8.35	13.84	15.87
OF	1053.10	8.25	13.84	15.80
OF	1056.40	8.16	13.84	15.74
OF	1059.70	8.06	13.84	15.67
OF	1063.00	7.96	13.84	15.60
OF	1066.30	7.87	13.84	15.54
OF	1069.60	7.77	13.84	15.47
OF	1072.80	7.72	13.84	15.44
OF	1076.10	7.79	13.84	15.50
IF	1079.40	7.64	13.84	15.40
IF	1082.70	6.84	13.84	14.82
IF	1086.00	6.14	13.84	14.32
IF	1089.20	5.68	13.84	14.00
IF	1092.50	5.22	13.84	13.69
IF	1095.80	5.32	13.84	13.78
IF	1099.10	5.44	13.84	13.89
IF	1102.40	5.55	13.84	13.99
IF	1105.60	5.62	13.84	14.05
IF	1108.90	5.66	13.84	14.09
IF	1112.20	5.70	13.84	14.12
IF	1115.50	5.74	13.84	14.16
IF	1118.80	5.76	13.84	14.18
IF	1122.00	5.73	13.84	14.16
IF	1125.30	5.63	13.84	14.08
IF	1128.60	5.66	13.84	14.11
IF	1131.90	5.57	13.84	14.05
IF	1135.20	5.56	13.84	14.04
IF	1138.40	5.54	13.84	14.03
IF	1141.70	5.45	13.84	13.97
IF	1145.00	5.30	13.84	13.86
IF	1148.30	4.78	13.84	13.49
IF	1151.60	4.18	13.84	13.06
IF	1154.90	3.28	13.84	12.42
IF	1158.10	2.44	13.84	11.96
IF	1161.40	2.44	13.84	12.10
IF	1164.70	2.56	13.84	12.19
IF	1168.00	2.59	13.84	12.22
IF	1171.30	2.66	13.84	12.30
IF	1174.50	2.73	13.84	12.37
IF	1177.80	2.56	13.84	12.22
IF	1181.10	2.38	13.84	12.13
IF	1184.40	2.44	13.84	12.21
IF	1187.70	2.48	13.84	12.26
IF	1190.90	2.54	13.84	12.32
IF	1194.20	2.60	13.84	12.37
IF	1197.50	2.55	13.84	12.34
IF	1200.80	2.51	13.84	12.31
IF	1204.10	2.56	13.84	12.35
IF	1207.30	2.49	13.84	12.31
IF	1210.60	2.25	13.84	12.13
IF	1213.90	1.98	13.84	11.96
IF	1224.80	0.01	13.84	10.59
AS	1368.60	0.00	0.00	9.62
IF	1386.50	0.10	0.37	9.69
IF	1394.50	0.13	0.42	9.70
IF	1411.50	0.18	0.49	9.74
IF	1423.50	0.21	0.53	9.76
IF	1438.00	0.24	0.58	9.79
IF	1456.00	0.28	0.62	9.81
IF	1487.40	0.01	0.69	9.62
AS	1488.80	0.00	0.00	9.62
IF	1507.00	0.10	0.37	9.69
IF	1515.00	0.13	0.42	9.71
IF	1535.50	0.19	0.51	9.75
IF	1562.00	0.25	0.59	9.80

IF	1571.00	0.27	0.61	9.81
IF	1588.50	0.31	0.65	9.84
IF	1621.50	0.37	0.72	9.88
IF	1644.00	0.41	0.75	9.92
IF	1663.00	0.37	0.78	9.88
IF	1669.00	0.33	0.79	9.86
IF	1679.20	0.01	0.81	9.63
AS	1693.70	0.00	0.00	9.63
IF	1697.00	0.03	0.22	9.65
IF	1706.40	0.01	0.33	9.63
AS	1712.40	0.00	0.00	9.63
IF	1718.00	0.05	0.25	9.66
IF	1736.00	0.12	0.40	9.71
IF	1765.00	0.20	0.53	9.77
IF	1789.50	0.26	0.60	9.82
IF	1803.00	0.29	0.63	9.84
IF	1841.50	0.37	0.71	9.89
IF	1864.50	0.41	0.75	9.92
IF	1875.50	0.43	0.77	9.94
IF	1899.00	0.47	0.80	9.97
IF	1907.50	0.48	0.81	9.97
IF	1931.00	0.52	0.84	10.00
IF	1940.50	0.54	0.86	10.01
IF	1964.00	0.57	0.88	10.04
IF	1980.90	0.01	0.90	9.64
AS	2073.80	0.00	0.00	9.65
IF	2086.50	0.08	0.33	9.71
IF	2104.00	0.14	0.44	9.75
IF	2116.50	0.18	0.49	9.77
IF	2135.00	0.22	0.55	9.81
IF	2153.00	0.27	0.60	9.84
IF	2184.50	0.33	0.67	9.88
IF	2194.50	0.35	0.69	9.89
IF	2216.00	0.36	0.73	9.90
IF	2225.00	0.40	0.75	9.93
IF	2241.00	0.44	0.77	9.96
IF	2250.00	0.45	0.79	9.97
IF	2277.50	0.50	0.82	10.00
IF	2287.50	0.51	0.84	10.01
IF	2300.00	0.45	0.85	9.97
IF	2315.10	0.01	0.87	9.66
AS	2317.80	0.00	0.00	9.65
IF	2324.50	0.05	0.27	9.69
IF	2337.00	0.10	0.38	9.73
IF	2348.00	0.14	0.44	9.75
IF	2365.50	0.19	0.51	9.79
IF	2386.00	0.24	0.57	9.82
IF	2391.00	0.25	0.59	9.83
IF	2411.00	0.30	0.64	9.86
IF	2432.20	0.01	0.68	9.66
AS	2432.60	0.00	0.00	9.65
IF	2438.50	0.05	0.26	9.69
IF	2444.00	0.07	0.32	9.70
IF	2470.50	0.16	0.47	9.77
IF	2479.50	0.19	0.51	9.78
IF	2499.30	0.01	0.57	9.66
AS	3164.00	0.00	0.00	9.64
IF	3171.00	0.05	0.27	9.68
IF	3183.00	0.10	0.38	9.71
IF	3193.50	0.14	0.43	9.73
IF	3206.00	0.17	0.49	9.76
IF	3221.00	0.21	0.54	9.79
IF	3238.00	0.25	0.59	9.82
IF	3263.50	0.31	0.65	9.85
IF	3273.50	0.33	0.67	9.87
IF	3310.00	0.40	0.74	9.92
IF	3318.00	0.41	0.75	9.93
IF	3358.00	0.48	0.81	9.97
IF	3369.50	0.50	0.83	9.99
IF	3402.00	0.55	0.87	10.02
IF	3426.50	0.57	0.90	10.03
IF	3431.00	0.45	0.90	9.95
IF	3456.40	0.01	0.93	9.64
AS	3562.60	0.00	0.00	9.65
IF	3581.50	0.10	0.38	9.72
IF	3592.50	0.14	0.44	9.74
IF	3616.00	0.20	0.53	9.79
IF	3627.50	0.23	0.56	9.81
IF	3642.00	0.27	0.60	9.83
IF	3663.00	0.31	0.65	9.86
IF	3684.50	0.35	0.70	9.89
IF	3693.00	0.37	0.71	9.91
IF	3721.00	0.42	0.76	9.94
IF	3729.00	0.44	0.77	9.95
IF	3745.50	0.46	0.80	9.97
IF	3761.00	0.49	0.82	9.99
IF	3771.50	0.50	0.83	10.00
IF	3801.00	0.55	0.87	10.03
IF	3810.50	0.55	0.88	10.04
IF	3826.00	0.58	0.90	10.06
IF	3837.00	0.59	0.91	10.06
IF	3867.00	0.41	0.94	9.94
IF	3877.00	0.44	0.95	9.96
IF	3887.40	0.01	0.96	9.66
AS	3896.80	0.00	0.00	9.65
IF	3911.00	0.09	0.34	9.71
IF	3926.50	0.14	0.44	9.75
IF	3952.00	0.21	0.53	9.80
IF	3960.50	0.23	0.56	9.81
IF	3997.50	0.31	0.65	9.87
IF	4012.00	0.34	0.68	9.89
IF	4022.00	0.36	0.70	9.91

IF	4039.40	0.01	0.73	9.66
AS	4247.50	0.00	0.00	9.65
IF	4255.50	0.06	0.28	9.69
IF	4267.00	0.11	0.38	9.73
IF	4285.00	0.16	0.47	9.76
IF	4298.00	0.20	0.52	9.79
IF	4307.00	0.22	0.55	9.80
IF	4320.50	0.25	0.59	9.83
IF	4335.30	0.01	0.62	9.66
AS	4377.20	0.00	0.00	9.65
IF	4381.00	0.04	0.23	9.68
IF	4394.00	0.10	0.36	9.72
IF	4408.50	0.14	0.44	9.75
IF	4419.00	0.17	0.49	9.77
IF	4433.00	0.21	0.54	9.80
IF	4446.50	0.24	0.58	9.82
IF	4482.00	0.32	0.66	9.88
IF	4488.00	0.33	0.67	9.89
IF	4518.00	0.39	0.73	9.93
IF	4529.00	0.41	0.75	9.94
IF	4558.00	0.46	0.79	9.98
IF	4567.50	0.48	0.81	9.99
IF	4603.50	0.53	0.85	10.02
IF	4613.10	0.01	0.87	9.66

PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE

BETWEEN	1224.80	AND	1368.60	
BETWEEN	1487.40	AND	1488.80	
BETWEEN	1679.20	AND	1693.70	
BETWEEN	1706.40	AND	1712.40	
BETWEEN	1980.90	AND	2073.80	
BETWEEN	2315.10	AND	2317.80	
BETWEEN	2432.20	AND	2432.60	
BETWEEN	2499.30	AND	3164.00	
BETWEEN	3456.40	AND	3562.60	
BETWEEN	3887.40	AND	3896.80	
BETWEEN	4039.40	AND	4247.50	
BETWEEN	4335.30	AND	4377.20	

PART4 LOCATION OF SURGE CHANGES

STATION	10-YEAR SURGE	100-YEAR SURGE
3.30	1.00	9.05
6.60	1.00	9.05
9.80	1.00	9.05
13.10	1.00	9.05
16.40	1.00	9.05
19.70	1.00	9.06
23.00	1.00	9.06
26.20	1.00	9.06
29.50	1.00	9.06
32.80	1.00	9.07
36.10	1.00	9.07
39.40	1.00	9.07
42.70	1.00	9.07
45.90	1.00	9.08
49.20	1.00	9.08
52.50	1.00	9.08
55.80	1.00	9.09
59.10	1.00	9.09
62.30	1.00	9.09
65.60	1.00	9.09
68.90	1.00	9.10
72.20	1.00	9.10
75.50	1.00	9.10
78.70	1.00	9.10
82.00	1.00	9.11
85.30	1.00	9.11
88.60	1.00	9.11
91.90	1.00	9.11
95.10	1.00	9.12
98.40	1.00	9.12
101.70	1.00	9.12
105.00	1.00	9.12
108.30	1.00	9.13
111.50	1.00	9.13
114.80	1.00	9.13
118.10	1.00	9.13
121.40	1.00	9.14
124.70	1.00	9.14
128.00	1.00	9.14
131.20	1.00	9.15
134.50	1.00	9.15
137.80	1.00	9.15
141.10	1.00	9.15
144.40	1.00	9.16
147.60	1.00	9.16
150.90	1.00	9.16
154.20	1.00	9.16
157.50	1.00	9.17
160.80	1.00	9.17
164.00	1.00	9.17
167.30	1.00	9.18
170.60	1.00	9.18
173.90	1.00	9.18
177.20	1.00	9.18
180.40	1.00	9.19
183.70	1.00	9.19
187.00	1.00	9.19
190.30	1.00	9.19
193.60	1.00	9.20
196.80	1.00	9.20
200.10	1.00	9.20
203.40	1.00	9.20
206.70	1.00	9.21

210.00	1.00	9.21
213.30	1.00	9.21
216.50	1.00	9.21
219.80	1.00	9.22
223.10	1.00	9.22
226.40	1.00	9.22
229.70	1.00	9.23
232.90	1.00	9.23
236.20	1.00	9.23
239.50	1.00	9.23
242.80	1.00	9.24
246.10	1.00	9.24
249.30	1.00	9.24
252.60	1.00	9.25
255.90	1.00	9.25
259.20	1.00	9.25
262.50	1.00	9.26
265.70	1.00	9.26
269.00	1.00	9.26
272.30	1.00	9.27
275.60	1.00	9.27
278.90	1.00	9.27
282.20	1.00	9.28
285.40	1.00	9.28
288.70	1.00	9.28
292.00	1.00	9.29
295.30	1.00	9.29
298.60	1.00	9.30
301.80	1.00	9.30
305.10	1.00	9.30
308.40	1.00	9.31
311.70	1.00	9.31
315.00	1.00	9.31
318.20	1.00	9.32
321.50	1.00	9.32
324.80	1.00	9.32
328.10	1.00	9.33
331.40	1.00	9.33
334.60	1.00	9.34
337.90	1.00	9.34
341.20	1.00	9.34
344.50	1.00	9.35
347.80	1.00	9.35
351.00	1.00	9.36
354.30	1.00	9.36
357.60	1.00	9.37
360.90	1.00	9.38
364.20	1.00	9.38
367.50	1.00	9.39
370.70	1.00	9.39
374.00	1.00	9.40
377.30	1.00	9.40
380.60	1.00	9.41
383.90	1.00	9.41
387.10	1.00	9.42
390.40	1.00	9.43
393.70	1.00	9.43
397.00	1.00	9.44
400.30	1.00	9.44
403.50	1.00	9.45
406.80	1.00	9.46
410.10	1.00	9.46
413.40	1.00	9.47
416.70	1.00	9.48
419.90	1.00	9.48
423.20	1.00	9.49
426.50	1.00	9.49
429.80	1.00	9.50
433.10	1.00	9.51
436.40	1.00	9.52
439.60	1.00	9.52
442.90	1.00	9.53
446.20	1.00	9.54
449.50	1.00	9.55
452.80	1.00	9.56
456.00	1.00	9.56
459.30	1.00	9.57
462.60	1.00	9.58
465.90	1.00	9.58
469.20	1.00	9.59
472.40	1.00	9.60
475.70	1.00	9.60
479.00	1.00	9.61
482.30	1.00	9.62
485.60	1.00	9.62
488.80	1.00	9.63
492.10	1.00	9.64
495.40	1.00	9.64
498.70	1.00	9.65
502.00	1.00	9.65
505.20	1.00	9.66
508.50	1.00	9.67
511.80	1.00	9.67
515.10	1.00	9.68
518.40	1.00	9.68
521.70	1.00	9.69
524.90	1.00	9.69
528.20	1.00	9.70
531.50	1.00	9.71
534.80	1.00	9.71
538.10	1.00	9.72
541.30	1.00	9.72

544.60	1.00	9.73
547.90	1.00	9.73
551.20	1.00	9.74
554.50	1.00	9.74
557.70	1.00	9.75
561.00	1.00	9.76
564.30	1.00	9.76
567.60	1.00	9.77
570.90	1.00	9.77
574.10	1.00	9.78
577.40	1.00	9.78
580.70	1.00	9.78
584.00	1.00	9.79
587.30	1.00	9.79
590.50	1.00	9.80
593.80	1.00	9.80
597.10	1.00	9.81
600.40	1.00	9.81
603.70	1.00	9.81
607.00	1.00	9.81
610.20	1.00	9.82
613.50	1.00	9.82
616.80	1.00	9.82
620.10	1.00	9.83
623.40	1.00	9.83
626.60	1.00	9.83
629.90	1.00	9.84
633.20	1.00	9.84
636.50	1.00	9.84
639.80	1.00	9.84
643.00	1.00	9.85
646.30	1.00	9.85
649.60	1.00	9.85
652.90	1.00	9.85
656.20	1.00	9.86
659.40	1.00	9.86
662.70	1.00	9.86
666.00	1.00	9.86
669.30	1.00	9.87
672.60	1.00	9.87
675.90	1.00	9.87
679.10	1.00	9.87
682.40	1.00	9.88
685.70	1.00	9.88
689.00	1.00	9.88
692.30	1.00	9.88
695.50	1.00	9.88
698.80	1.00	9.89
702.10	1.00	9.89
705.40	1.00	9.89
708.70	1.00	9.89
711.90	1.00	9.89
715.20	1.00	9.89
718.50	1.00	9.89
721.80	1.00	9.89
725.10	1.00	9.90
728.30	1.00	9.90
731.60	1.00	9.90
734.90	1.00	9.90
738.20	1.00	9.90
741.50	1.00	9.90
744.70	1.00	9.90
748.00	1.00	9.90
751.30	1.00	9.90
754.60	1.00	9.91
757.90	1.00	9.91
761.20	1.00	9.91
764.40	1.00	9.91
767.70	1.00	9.91
771.00	1.00	9.92
774.30	1.00	9.92
777.60	1.00	9.92
780.80	1.00	9.92
784.10	1.00	9.93
787.40	1.00	9.93
790.70	1.00	9.93
794.00	1.00	9.93
797.20	1.00	9.93
800.50	1.00	9.93
803.80	1.00	9.94
807.10	1.00	9.94
810.40	1.00	9.94
813.60	1.00	9.94
816.90	1.00	9.94
820.20	1.00	9.94
823.50	1.00	9.94
826.80	1.00	9.94
833.30	1.00	9.94
836.60	1.00	9.95
839.90	1.00	9.95
843.20	1.00	9.95
849.70	1.00	9.95
853.00	1.00	9.95
859.60	1.00	9.95
862.90	1.00	9.95
872.70	1.00	9.95
879.30	1.00	9.95
885.80	1.00	9.95
892.40	1.00	9.96
898.90	1.00	9.96
928.50	1.00	9.96
938.30	1.00	9.96

941.60	1.00	9.96
948.20	1.00	9.96
951.40	1.00	9.96
954.70	1.00	9.96
958.00	1.00	9.96
961.30	1.00	9.97
964.60	1.00	9.97
967.80	1.00	9.97
971.10	1.00	9.97
974.40	1.00	9.97
977.70	1.00	9.98
981.00	1.00	9.98
984.20	1.00	9.98
987.50	1.00	9.98
990.80	1.00	9.98
994.10	1.00	9.99
997.40	1.00	9.99
1000.70	1.00	9.99
1003.90	1.00	9.99
1007.20	1.00	9.99
1010.50	1.00	10.00
1013.80	1.00	10.00
1017.10	1.00	10.00
1020.30	1.00	10.00
1023.60	1.00	10.01
1026.90	1.00	10.01
1030.20	1.00	10.01
1033.50	1.00	10.01
1036.70	1.00	10.01
1040.00	1.00	10.02
1043.30	1.00	10.02
1046.60	1.00	10.02
1049.90	1.00	10.02
1053.10	1.00	10.02
1056.40	1.00	10.02
1059.70	1.00	10.03
1063.00	1.00	10.03
1066.30	1.00	10.03
1069.60	1.00	10.03
1072.80	1.00	10.04
1076.10	1.00	10.05
1079.40	1.00	10.04
1082.70	1.00	10.03
1086.00	1.00	10.03
1089.20	1.00	10.03
1092.50	1.00	10.03
1095.80	1.00	10.06
1099.10	1.00	10.09
1102.40	1.00	10.11
1105.60	1.00	10.12
1108.90	1.00	10.13
1112.20	1.00	10.14
1115.50	1.00	10.14
1118.80	1.00	10.15
1125.30	1.00	10.14
1128.60	1.00	10.15
1131.90	1.00	10.14
1135.20	1.00	10.15
1138.40	1.00	10.15
1141.70	1.00	10.15
1145.00	1.00	10.15
1148.30	1.00	10.14
1151.60	1.00	10.14
1154.90	1.00	10.12
1158.10	1.00	10.25
1161.40	1.00	10.39
1164.70	1.00	10.40
1168.00	1.00	10.41
1171.30	1.00	10.43
1174.50	1.00	10.45
1177.80	1.00	10.43
1181.10	1.00	10.46
1184.40	1.00	10.50
1187.70	1.00	10.53
1190.90	1.00	10.54
1194.20	1.00	10.56
1197.50	1.00	10.55
1200.80	1.00	10.55
1204.10	1.00	10.56
1207.30	1.00	10.56
1210.60	1.00	10.56
1213.90	1.00	10.58
1368.60	1.00	9.62
1488.80	1.00	9.62
1515.00	1.00	9.62
1535.50	1.00	9.62
1562.00	1.00	9.62
1571.00	1.00	9.62
1588.50	1.00	9.62
1621.50	1.00	9.62
1644.00	1.00	9.63
1663.00	1.00	9.63
1669.00	1.00	9.63
1693.70	1.00	9.63
1712.40	1.00	9.63
1736.00	1.00	9.63
1765.00	1.00	9.63
1789.50	1.00	9.63
1803.00	1.00	9.63
1841.50	1.00	9.64
2073.80	1.00	9.65
2337.00	1.00	9.65

3164.00	1.00	9.64
3562.60	1.00	9.65
3745.50	1.00	9.65
3761.00	1.00	9.65
3801.00	1.00	9.65
3826.00	1.00	9.65
3867.00	1.00	9.65
3877.00	1.00	9.65
3896.80	1.00	9.65
4039.40	1.00	9.65
4247.50	1.00	9.65

PART5 LOCATION OF V ZONES

STATION OF GUTTER 1155.96 LOCATION OF ZONE WINDWARD

PART6 NUMBERED A ZONES AND V ZONES

STATION OF GUTTER	ELEVATION	ZONE DESIGNATION		FHF
0.00	26.06	V22	EL=26	120
3.30	26.04	V22	EL=26	120
6.60	26.03	V22	EL=26	120
9.80	26.02	V22	EL=26	120
13.10	26.00	V22	EL=26	120
16.40	25.99	V22	EL=26	120
19.70	25.98	V22	EL=26	120
23.00	25.97	V22	EL=26	120
26.20	25.95	V22	EL=26	120
29.50	25.94	V23	EL=26	130
32.80	25.93	V23	EL=26	130
36.10	25.92	V23	EL=26	130
39.40	25.90	V23	EL=26	130
42.70	25.89	V23	EL=26	130
45.90	25.88	V23	EL=26	130
49.20	25.87	V23	EL=26	130
52.50	25.85	V23	EL=26	130
55.80	25.84	V23	EL=26	130
59.10	25.82	V23	EL=26	130
62.30	25.79	V23	EL=26	130
65.60	25.75	V23	EL=26	130
68.90	25.72	V23	EL=26	130
72.20	25.69	V23	EL=26	130
75.50	25.66	V23	EL=26	130
78.70	25.62	V23	EL=26	130
82.00	25.59	V23	EL=26	130
85.30	25.56	V23	EL=26	130
88.60	25.52	V23	EL=26	130
91.14	25.50	V23	EL=25	130
91.90	25.49	V23	EL=25	130
95.10	25.46	V23	EL=25	130
98.40	25.43	V23	EL=25	130
101.70	25.39	V23	EL=25	130
105.00	25.36	V23	EL=25	130
108.30	25.33	V23	EL=25	130
111.50	25.30	V23	EL=25	130
114.80	25.26	V23	EL=25	130
118.10	25.22	V23	EL=25	130
121.40	25.18	V23	EL=25	130
124.70	25.15	V23	EL=25	130
128.00	25.11	V23	EL=25	130
131.20	25.07	V23	EL=25	130
134.50	25.03	V23	EL=25	130

137.80	24.99			
141.10	24.95	V23	EL=25	130
144.40	24.91	V23	EL=25	130
147.60	24.87	V23	EL=25	130
150.90	24.83	V23	EL=25	130
154.20	24.79	V23	EL=25	130
157.50	24.75	V23	EL=25	130
160.80	24.72	V23	EL=25	130
164.00	24.68	V23	EL=25	130
167.30	24.64	V23	EL=25	130
170.60	24.60	V23	EL=25	130
173.90	24.56	V23	EL=25	130
177.20	24.52	V23	EL=25	130
178.76	24.50	V23	EL=24	130
180.40	24.48	V23	EL=24	130
183.70	24.44	V23	EL=24	130
187.00	24.39	V23	EL=24	130
190.30	24.32	V23	EL=24	130
193.60	24.25	V23	EL=24	130
196.80	24.18	V23	EL=24	130
200.10	24.12	V23	EL=24	130
203.40	24.05	V23	EL=24	130
206.70	23.98	V23	EL=24	130
210.00	23.91	V23	EL=24	130
213.30	23.84	V23	EL=24	130
216.50	23.78	V23	EL=24	130
219.80	23.71	V23	EL=24	130
223.10	23.64	V23	EL=24	130
226.40	23.57	V23	EL=24	130
229.70	23.50	V23	EL=24	130
229.84	23.50	V23	EL=24	130
232.90	23.44	V23	EL=23	130
236.20	23.37	V23	EL=23	130
239.50	23.30	V23	EL=23	130
242.80	23.23	V23	EL=23	130
246.10	23.16	V23	EL=23	130
249.30	23.10	V23	EL=23	130
252.60	23.03	V23	EL=23	130
255.90	22.96	V23	EL=23	130
259.20	22.89	V23	EL=23	130
262.50	22.83	V23	EL=23	130
265.70	22.76	V23	EL=23	130
269.00	22.69	V23	EL=23	130
272.30	22.62	V23	EL=23	130
275.60	22.55	V23	EL=23	130
278.31	22.50	V23	EL=22	130
278.90	22.49	V23	EL=22	130
282.20	22.42	V23	EL=22	130
285.40	22.36	V23	EL=22	130
288.70	22.30	V23	EL=22	130
292.00	22.24	V23	EL=22	130

295.30	22.17			
298.60	22.11	V23	EL=22	130
301.80	22.05	V23	EL=22	130
305.10	21.99	V23	EL=22	130
308.40	21.92	V23	EL=22	130
311.70	21.85	V23	EL=22	130
315.00	21.76	V23	EL=22	130
318.20	21.67	V23	EL=22	130
321.50	21.58	V23	EL=22	130
324.55	21.50	V23	EL=22	130
324.80	21.49	V23	EL=21	130
328.10	21.41	V23	EL=21	130
331.40	21.32	V23	EL=21	130
334.60	21.24	V23	EL=21	130
337.90	21.17	V23	EL=21	130
341.20	21.11	V23	EL=21	130
344.50	21.04	V23	EL=21	130
347.80	20.98	V23	EL=21	130
351.00	20.92	V23	EL=21	130
354.30	20.85	V23	EL=21	130
357.60	20.79	V23	EL=21	130
360.90	20.73	V23	EL=21	130
364.20	20.66	V23	EL=21	130
367.50	20.60	V23	EL=21	130
370.70	20.54	V23	EL=21	130
372.57	20.50	V23	EL=20	130
374.00	20.47	V23	EL=20	130
377.30	20.41	V23	EL=20	130
380.60	20.35	V23	EL=20	130
383.90	20.28	V23	EL=20	130
387.10	20.22	V23	EL=20	130
390.40	20.16	V23	EL=20	130
393.70	20.09	V23	EL=20	130
397.00	20.03	V23	EL=20	130
400.30	19.97	V23	EL=20	130
403.50	19.91	V23	EL=20	130
406.80	19.84	V23	EL=20	130
410.10	19.78	V23	EL=20	130
413.40	19.72	V23	EL=20	130
416.70	19.66	V23	EL=20	130
419.90	19.59	V23	EL=20	130
423.20	19.53	V23	EL=20	130
424.79	19.50	V23	EL=19	130
426.50	19.47	V23	EL=19	130
429.80	19.41	V23	EL=19	130
433.10	19.39	V23	EL=19	130
436.40	19.36	V23	EL=19	130
439.60	19.33	V23	EL=19	130
442.90	19.30	V23	EL=19	130
446.20	19.27	V23	EL=19	130
449.50	19.24	V23	EL=19	130

452.80	19.21	V23	EL=19	130
456.00	19.18	V23	EL=19	130
459.30	19.15	V23	EL=19	130
462.60	19.12	V23	EL=19	130
465.90	19.09	V23	EL=19	130
469.20	19.06	V23	EL=19	130
472.40	19.03	V23	EL=19	130
475.70	19.00	V23	EL=19	130
479.00	18.97	V23	EL=19	130
482.30	18.94	V23	EL=19	130
485.60	18.91	V23	EL=19	130
488.80	18.88	V23	EL=19	130
492.10	18.84	V23	EL=19	130
495.40	18.81	V23	EL=19	130
498.70	18.78	V23	EL=19	130
502.00	18.75	V23	EL=19	130
505.20	18.72	V23	EL=19	130
508.50	18.69	V23	EL=19	130
511.80	18.66	V23	EL=19	130
515.10	18.62	V23	EL=19	130
518.40	18.59	V23	EL=19	130
521.70	18.56	V23	EL=19	130
524.90	18.53	V23	EL=19	130
527.27	18.50	V23	EL=18	130
528.20	18.49	V23	EL=18	130
531.50	18.45	V24	EL=18	140
534.80	18.42	V24	EL=18	140
538.10	18.38	V24	EL=18	140
541.30	18.34	V24	EL=18	140
544.60	18.31	V24	EL=18	140
547.90	18.32	V24	EL=18	140
551.20	18.33	V24	EL=18	140
554.50	18.33	V24	EL=18	140
557.70	18.34	V24	EL=18	140
561.00	18.35	V24	EL=18	140
564.30	18.36	V24	EL=18	140
567.60	18.36	V24	EL=18	140
570.90	18.37	V24	EL=18	140
574.10	18.37	V24	EL=18	140
577.40	18.38	V24	EL=18	140
580.70	18.38	V24	EL=18	140
584.00	18.38	V24	EL=18	140
587.30	18.37	V24	EL=18	140
590.50	18.37	V24	EL=18	140
593.80	18.37	V24	EL=18	140
597.10	18.36	V24	EL=18	140
600.40	18.36	V24	EL=18	140
603.70	18.36	V24	EL=18	140
607.00	18.35	V24	EL=18	140
610.20	18.35	V24	EL=18	140
613.50	18.34	V24	EL=18	140

616.80	18.34			
620.10	18.33	V24	EL=18	140
623.40	18.33	V24	EL=18	140
626.60	18.32	V24	EL=18	140
629.90	18.32	V24	EL=18	140
633.20	18.31	V24	EL=18	140
636.50	18.31	V24	EL=18	140
639.80	18.30	V24	EL=18	140
643.00	18.30	V24	EL=18	140
646.30	18.29	V24	EL=18	140
649.60	18.29	V24	EL=18	140
652.90	18.28	V24	EL=18	140
656.20	18.29	V24	EL=18	140
659.40	18.29	V24	EL=18	140
662.70	18.30	V24	EL=18	140
666.00	18.31	V24	EL=18	140
669.30	18.31	V24	EL=18	140
672.60	18.32	V24	EL=18	140
675.90	18.33	V24	EL=18	140
679.10	18.33	V24	EL=18	140
682.40	18.34	V24	EL=18	140
685.70	18.35	V24	EL=18	140
689.00	18.35	V24	EL=18	140
692.30	18.36	V24	EL=18	140
695.50	18.36	V24	EL=18	140
698.80	18.37	V24	EL=18	140
702.10	18.37	V24	EL=18	140
705.40	18.37	V24	EL=18	140
708.70	18.36	V24	EL=18	140
711.90	18.34	V24	EL=18	140
715.20	18.31	V24	EL=18	140
718.50	18.27	V24	EL=18	140
721.80	18.24	V24	EL=18	140
725.10	18.20	V24	EL=18	140
728.30	18.17	V24	EL=18	140
731.60	18.13	V24	EL=18	140
734.90	18.10	V24	EL=18	140
738.20	18.06	V24	EL=18	140
741.50	18.03	V24	EL=18	140
744.70	17.99	V24	EL=18	140
748.00	17.96	V24	EL=18	140
751.30	17.92	V24	EL=18	140
754.60	17.89	V24	EL=18	140
757.90	17.85	V24	EL=18	140
761.20	17.83	V24	EL=18	140
764.40	17.84	V24	EL=18	140
767.70	17.85	V24	EL=18	140
771.00	17.86	V24	EL=18	140
774.30	17.88	V24	EL=18	140
777.60	17.89	V24	EL=18	140
780.80	17.90	V24	EL=18	140

784.10	17.91			
787.40	17.92	V24	EL=18	140
790.70	17.93	V24	EL=18	140
794.00	17.95	V24	EL=18	140
797.20	17.96	V24	EL=18	140
800.50	17.97	V24	EL=18	140
803.80	17.98	V24	EL=18	140
807.10	17.99	V24	EL=18	140
810.40	18.00	V24	EL=18	140
813.60	18.01	V24	EL=18	140
816.90	18.02	V24	EL=18	140
820.20	18.03	V24	EL=18	140
823.50	18.03	V24	EL=18	140
826.80	18.03	V24	EL=18	140
830.10	18.03	V24	EL=18	140
833.30	18.04	V24	EL=18	140
836.60	18.04	V24	EL=18	140
839.90	18.04	V24	EL=18	140
843.20	18.04	V24	EL=18	140
846.50	18.04	V24	EL=18	140
849.70	18.04	V24	EL=18	140
853.00	18.05	V24	EL=18	140
856.30	18.05	V24	EL=18	140
859.60	18.05	V24	EL=18	140
862.90	18.05	V24	EL=18	140
869.40	18.04	V24	EL=18	140
872.70	18.04	V24	EL=18	140
876.00	18.03	V24	EL=18	140
879.30	18.03	V24	EL=18	140
882.50	18.02	V24	EL=18	140
885.80	18.02	V24	EL=18	140
889.10	18.01	V24	EL=18	140
892.40	18.01	V24	EL=18	140
895.70	18.00	V24	EL=18	140
898.90	18.00	V24	EL=18	140
925.20	17.55	V24	EL=18	140
927.40	17.50	V24	EL=18	140
928.50	17.48	V24	EL=17	140
935.00	17.34	V24	EL=17	140
938.30	17.27	V24	EL=17	140
941.60	17.20	V24	EL=17	140
944.90	17.13	V24	EL=17	140
948.20	17.06	V24	EL=17	140
951.40	16.99	V24	EL=17	140
954.70	16.92	V24	EL=17	140
958.00	16.85	V24	EL=17	140
961.30	16.79	V24	EL=17	140
964.60	16.76	V24	EL=17	140
967.80	16.73	V24	EL=17	140
971.10	16.70	V24	EL=17	140
974.40	16.67	V24	EL=17	140

977.70	16.64			
981.00	16.61	V24	EL=17	140
984.20	16.58	V24	EL=17	140
987.50	16.55	V24	EL=17	140
990.80	16.52	V24	EL=17	140
993.53	16.50	V24	EL=17	140
994.10	16.49	V24	EL=16	140
997.40	16.47	V24	EL=16	140
1000.70	16.44	V24	EL=16	140
1003.90	16.41	V24	EL=16	140
1007.20	16.38	V24	EL=16	140
1010.50	16.35	V24	EL=16	140
1013.80	16.32	V24	EL=16	140
1017.10	16.29	V24	EL=16	140
1020.30	16.26	V24	EL=16	140
1023.60	16.23	V24	EL=16	140
1026.90	16.20	V24	EL=16	140
1030.20	16.18	V24	EL=16	140
1033.50	16.15	V24	EL=16	140
1036.70	16.11	V24	EL=16	140
1040.00	16.06	V24	EL=16	140
1043.30	16.00	V24	EL=16	140
1046.60	15.93	V24	EL=16	140
1049.90	15.87	V24	EL=16	140
1053.10	15.80	V24	EL=16	140
1056.40	15.74	V24	EL=16	140
1059.70	15.67	V24	EL=16	140
1063.00	15.60	V24	EL=16	140
1066.30	15.54	V24	EL=16	140
1068.33	15.50	V24	EL=15	140
1069.60	15.47	V24	EL=15	140
1072.80	15.44	V24	EL=15	140
1076.10	15.50	V24	EL=15	140
1079.40	15.40	V24	EL=15	140
1082.70	14.82	V24	EL=15	140
1084.84	14.50	V24	EL=14	140
1086.00	14.32	V24	EL=14	140
1089.20	14.00	V24	EL=14	140
1092.50	13.69	V24	EL=14	140
1095.80	13.78	V24	EL=14	140
1099.10	13.89	V24	EL=14	140
1102.40	13.99	V24	EL=14	140
1105.60	14.05	V24	EL=14	140
1108.90	14.09	V24	EL=14	140
1112.20	14.12	V24	EL=14	140
1115.50	14.16	V24	EL=14	140
1118.80	14.18	V24	EL=14	140
1122.00	14.16	V24	EL=14	140
1125.30	14.08	V24	EL=14	140
1128.60	14.11	V24	EL=14	140
1131.90	14.05	V24	EL=14	140

1135.20	14.04			
1138.40	14.03	V24	EL=14	140
1141.70	13.97	V24	EL=14	140
1145.00	13.86	V24	EL=14	140
1148.20	13.50	V24	EL=14	140
1148.30	13.49	V24	EL=13	140
1151.60	13.06	V24	EL=13	140
1154.49	12.50	V24	EL=13	140
1154.90	12.42	V24	EL=12	140
1155.96	12.29	V24	EL=12	140
1158.10	11.96	A18	EL=12	90
1161.40	12.10	A18	EL=12	90
1164.70	12.19	A18	EL=12	90
1168.00	12.22	A18	EL=12	90
1171.30	12.30	A18	EL=12	90
1174.50	12.37	A18	EL=12	90
1177.80	12.22	A18	EL=12	90
1181.10	12.13	A18	EL=12	90
1184.40	12.21	A18	EL=12	90
1187.70	12.26	A18	EL=12	90
1190.90	12.32	A18	EL=12	90
1194.20	12.37	A18	EL=12	90
1197.50	12.34	A18	EL=12	90
1200.80	12.31	A18	EL=12	90
1204.10	12.35	A18	EL=12	90
1207.30	12.31	A18	EL=12	90
1210.60	12.13	A18	EL=12	90
1213.90	11.96	A18	EL=12	90
1217.57	11.50	A18	EL=11	90
1224.80	10.59			
1368.60	9.62	A18	EL=10	90
1487.40	9.62			
1488.80	9.62	A18	EL=10	90
1507.00	9.69	A18	EL=10	90
1515.00	9.71	A18	EL=10	90
1535.50	9.75	A18	EL=10	90
1562.00	9.80	A18	EL=10	90
1571.00	9.81	A18	EL=10	90
1588.50	9.84	A18	EL=10	90
1621.50	9.88	A18	EL=10	90
1644.00	9.92	A18	EL=10	90
1663.00	9.88	A18	EL=10	90
1669.00	9.86	A18	EL=10	90
1679.20	9.63			
1693.70	9.63	A18	EL=10	90
1706.40	9.63			
1712.40	9.63	A18	EL=10	90
1718.00	9.66	A18	EL=10	90
1736.00	9.71	A18	EL=10	90
1765.00	9.77	A18	EL=10	90
1789.50	9.82	A18	EL=10	90
1803.00	9.84	A18	EL=10	90
1841.50	9.89	A18	EL=10	90

1980.90	9.64			
2073.80	9.65			
		A18	EL=10	90
2315.10	9.66			
2317.80	9.65			
		A18	EL=10	90
2324.50	9.69			
		A18	EL=10	90
2337.00	9.73			
		A18	EL=10	90
2432.20	9.66			
2432.60	9.65			
		A18	EL=10	90
2499.30	9.66			
3164.00	9.64			
		A18	EL=10	90
3456.40	9.64			
3562.60	9.65			
		A18	EL=10	90
3729.00	9.95			
		A18	EL=10	90
3745.50	9.97			
		A18	EL=10	90
3761.00	9.99			
		A18	EL=10	90
3771.50	10.00			
		A18	EL=10	90
3801.00	10.03			
		A18	EL=10	90
3810.50	10.04			
		A18	EL=10	90
3826.00	10.06			
		A18	EL=10	90
3837.00	10.06			
		A18	EL=10	90
3867.00	9.94			
		A18	EL=10	90
3877.00	9.96			
		A18	EL=10	90
3887.40	9.66			
3896.80	9.65			
		A18	EL=10	90
4022.00	9.91			
		A18	EL=10	90
4039.40	9.66			
4247.50	9.65			
		A18	EL=10	90
4335.30	9.66			
4377.20	9.65			
		A18	EL=10	90
4613.10	9.66			

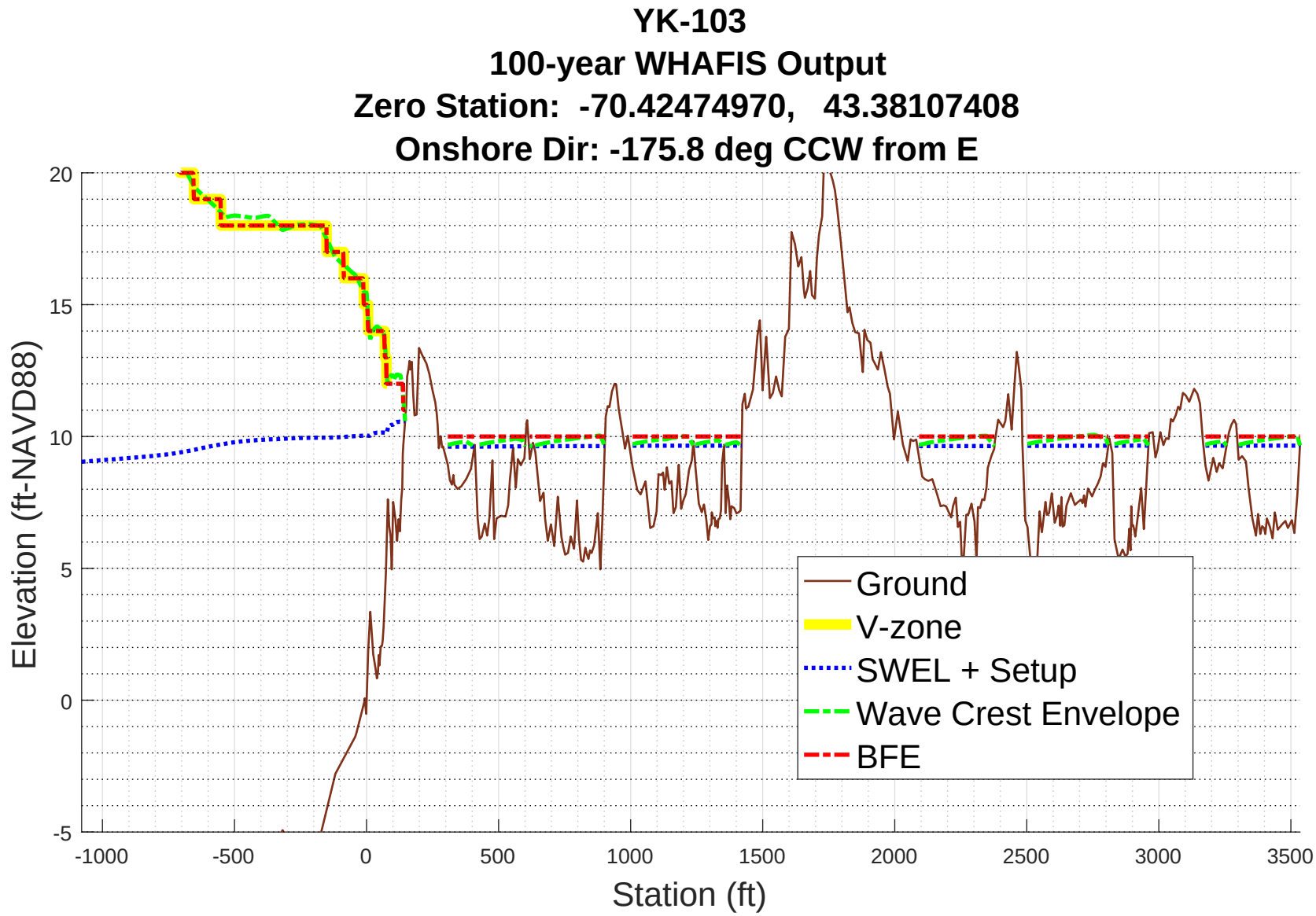
ZONE TERMINATED AT END OF TRANSECT

PART 7 POSTSCRIPT NOTES

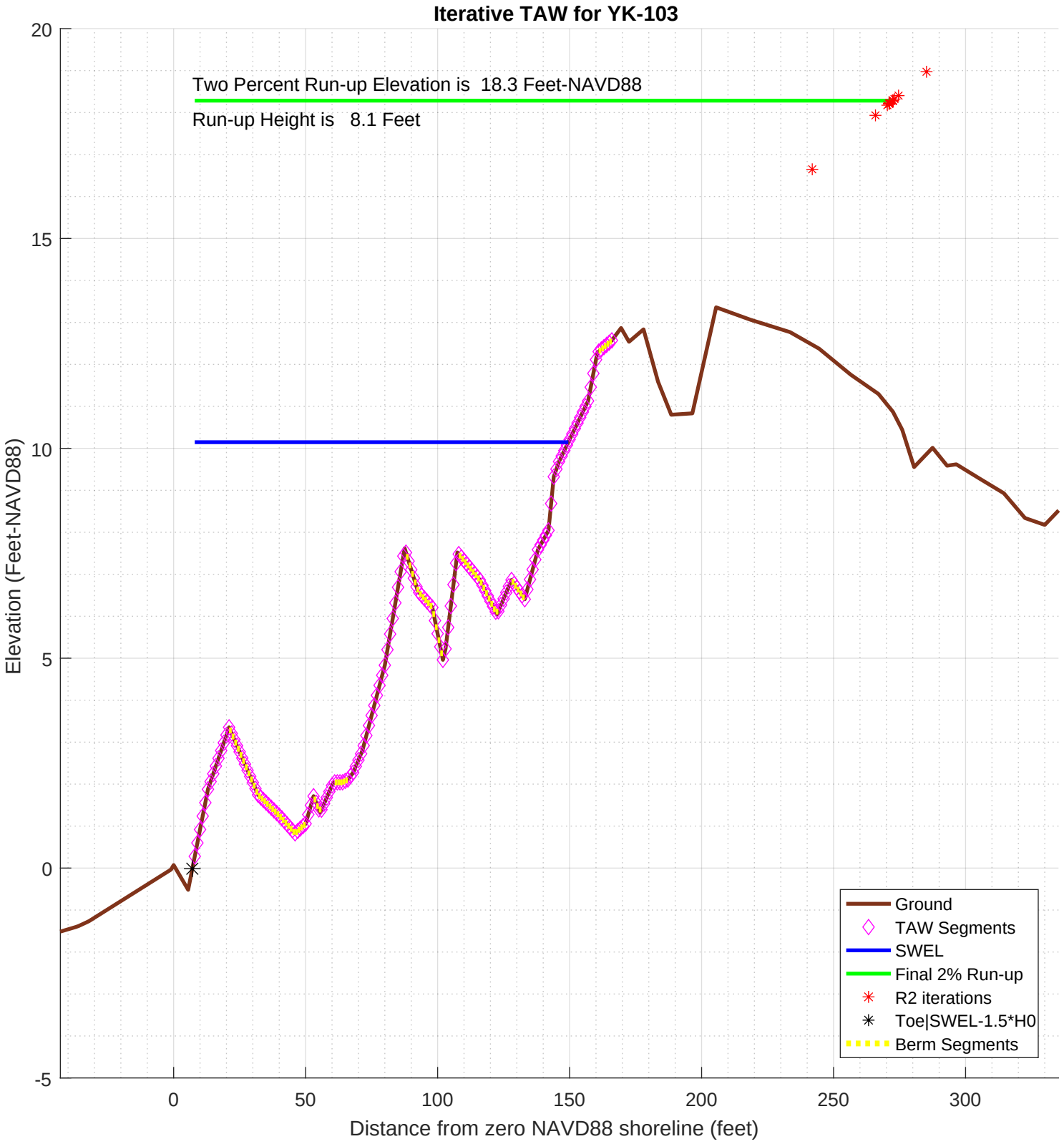
PS# 1 START(384918.4767,4804143.5743)

PS# 2 END(382742.4097,4803983.8199)

-1.000000e+00


YK-103
100-year WHAFIS Output
Zero Station: -70.42474970, 43.38107408
Onshore Dir: -175.8 deg CCW from E
Elevation (ft-NAVD88)
Station (ft)
20
15
10
5
0
-5
-1000
-500
0
500
1000
1500
2000
2500
3000
3500
Ground
V-zone
SWEL + Setup
Wave Crest Envelope
BFE

```
_____________________________________________________________
PART 4: TAW

Input Paramters:
    TWL- 9.0423 feet
    HS-  6.6846 feet
    PER- 13.8007 seconds
    TOE- x: -40 , z: -1.4589 feet
    TOP- x: 166 , z: 12.5722 feet
    GBERM-   0.86181
    GGROUGH- 0.75
    GBETA-   1
    GPERM-   1

RUNNING TAW:
...
MATLAB DIARY: /4_taw/logfiles/YK-103-DIARY.txt

CHECKING VALIDITY:
...
TAW method is not valid!
Runup elevation to be calculated using another method

PART 4 COMPLETE_____________________________________________
```


Iterative TAW for YK-103
Two Percent Run-up Elevation is 18.3 Feet-NAVD88
Run-up Height is 8.1 Feet
Elevation (Feet-NAVD88)
Distance from zero NAVD88 shoreline (feet)
20
15
10
5
0
-5
0
50
100
150
200
250
300
Ground
TAW Segments
SWEL
Final 2% Run-up
R2 iterations
Toe|SWEL-1.5*H0
Berm Segments

```
diary on         % begin recording

% FEMA appeal for The Town of Kennebunkport, York county, Maine
% TRANSECT ID: YK-103
% calculation by SJH, Ransom Consulting, Inc. 02-Apr-2020
% 100-year wave runup using TAW methodology
% including berm and weighted average with foreshore if necessary
%
% chk nld 20200220
%
% This script assumes that the incident wave conditions provided
% as input in the configuration section below are the
% appropriate values located at the end of the foreshore
% or toe of the slope on which the run-up is being calculated
% the script does not attempt to apply a depth limit or any other
% transformation to the incident wave conditions other than
% conversion of the peak wave period to the spectral mean wave
% as recommended in the references below
%
% references:
%
% Van der Meer, J.W., 2002. Technical Report Wave Run-up and
% Wave Overtopping at Dikes. TAW Technical Advisory Committee on
% Flood Defence, The Netherlands.
%
% FEMA. 2007,  Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update
%
%
%

%-------------------------------------------------------------------------
% CONFIG
%-------------------------------------------------------------------------
fname='inpfiles/YK-103sta_ele_include.csv';   % file with station, elevation, include
                                    % third colunm is 0 for excluded points
imgname='logfiles/YK-103-runup';
SWEL=9.0423;  % 100-yr still water level including wave setup.
H0=6.6846;    % significant wave height at toe of structure
Tp=13.8007;    % peak period, 1/fma,
T0=Tp/1.1;

gamma_berm=0.85269;   % this may get changed automatically below
gamma_rough=0.75;
gamma_beta=1;
gamma_perm=1;

setupAtToe=0.96939;
maxSetup=1.5373;   % only used in case of berm/shallow foreshore weighted average

plotTitle='Iterative TAW for YK-103'

plotTitle =

Iterative TAW for YK-103



% END CONFIG
%------------------------------

SWEL=SWEL+setupAtToe

SWEL =

                  10.01169

SWEL_fore=SWEL+maxSetup

SWEL_fore =

                  11.54899



% FIND WAVELENGTH USING DEEPWATER DISPERSION RELATION
% using English units
L0=32.15/(2*pi)*T0^2

L0 =

          805.411764786868


% Find Hb (Munk, 1949)
%Hb=H0/(3.3*(H0/L0)^(1/3))
%Db=-Hb/.78+SWEL;  % depth at breaking

% The toe elevation here is only used to determine the average
% structure slope, it is not used to depth limit the wave height.
% Any depth limiting or other modification of the wave height
```

```
% to make it consitent with TAW guidance should be performed
% prior to the input of the significant wave height given above.
Ztoe=SWEL-1.5*H0

Ztoe =

       -0.0152099999999997


% read the transect
[sta,dep,inc] = textread(fname,'%n%n%n%*[^\n]','delimiter',',','headerlines',0);

% remove unselected points
k=find(inc==0);
sta(k)=[];
dep(k)=[];

sta_org=sta;  % used for plotting purposes
dep_org=dep;


% initial guess at maximum run-up elevation to estimate slope
Z2=SWEL+1.5*H0

Z2 =

                  20.03859


% determine station at the max runup and -1.5*H0 (i.e. the toe)
top_sta=-999;
toe_sta=-999;
for kk=1:length(sta)-1
    if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
       top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
    end
    if  ((Ztoe > dep(kk)) & (Ztoe <= dep(kk+1)))    % here is the intersection of Ztoe with profile
       toe_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Ztoe)
    end
end

toe_sta =

        -0.810514014357526


toe_sta =

          7.07565722517106

% check to make sure we got them, if not extend the end slopes outward
S=diff(dep)./diff(sta);
if toe_sta==-999
   dy=dep(1)-Ztoe;
   toe_sta=sta(1)-dy/S(1)
end
if top_sta==-999
   dy=Z2-dep(end);
   top_sta=sta(end)+dy/S(end)
end

top_sta =

          305.072978560918


% just so the reader can tell the values aren't -999 anymore
top_sta

top_sta =

          305.072978560918

toe_sta

toe_sta =

          7.07565722517106




% check for case where the toe of slope is below SWL-1.5*H0
% in this case interpolate setup from the setupAtToe(really setup as first station), and the max setup
% also un-include points seaward of SWL-1.5*H0
if Ztoe > dep(1)
   dd=SWEL_fore-dep;
   k=find(dd<0,1); % k is index of first land point
   staAtSWL=interp1(dep(k-1:k),sta(k-1:k),SWEL_fore);
   dsta=staAtSWL-sta(1);
```

```
   dsetup=maxSetup-setupAtToe;
   dsetdsta=dsetup/dsta;
   setup=setupAtToe+dsetdsta*(toe_sta-sta(1));
   sprintf('-!!- Location of SWEL-1.5*H0 is %4.1f ft landward of toe of slope',dsta)
   sprintf('-!!- Setup is interpolated between setup at toe of slope and max setup')
   sprintf('-!!-       setup is adjusted to %4.2f feet',setup)
   SWEL=SWEL-setupAtToe+setup;
   sprintf('-!!-       SWEL is adjusted to %4.2f feet',SWEL)
   k=find(dep < SWEL-1.5*H0)
   sta(k)=[];
   dep(k)=[];
else
   sprintf('-!!- The User has selected a starting point that is %4.2f feet above the elevation of SWEL-1.5H0\n',dep(1
   sprintf('-!!- This may be reasonable for some cases.  However the user may want to consider:\n')
   sprintf('-!!-   1) Selecting a starting point that is at or below %4.2f feet elevation, or\n', Ztoe)
   sprintf('-!!-   2) Reducing the incident wave height to a depth limited condition.\n')
end

ans =

-!!- Location of SWEL-1.5*H0 is 198.3 ft landward of toe of slope


ans =

-!!- Setup is interpolated between setup at toe of slope and max setup


ans =

-!!-       setup is adjusted to 1.10 feet


ans =

-!!-       SWEL is adjusted to 10.15 feet


k =

     1
     2
     3
     4
     5
     6
     7
     8
     9
    10
    11
    12
    13
    14
    15
    16
    17
    18
    19
    20
    21
    22
    23
    24
    25
    26
    27
    28
    29
    30
    31
    32
    33
    34
    35
    36
    37
    38
    39
    40
    41
    42
    43
    44
    45
    46
    47
    48
```

```
% now iterate converge on a runup elevation
tol=0.01;  % convergence criteria
R2del=999;
R2_new=3*H0; %initial guess
R2=R2_new;
iter=0;
R2_all=[];
topStaAll=[];
Berm_Segs=[];
TAW_ALWAYS_VALID=1;
while(abs(R2del) > tol && iter <= 25)
    iter=iter+1;
    sprintf ('!----------------- STARTING ITERATION %d -----------------!',iter)
    % elevation of toe of slope
    Ztoe
    % station of toe slope (relative to 0-NAVD88 shoreline
    toe_sta
    % station of top of slope/extent of 2% run-up
    top_sta
    % elevation of top of slope/extent of 2% run-up
    Z2
    % incident significant wave height
    H0
    % incident spectral peak wave period
    Tp
    % incident spectral mean wave period
    T0

    R2=R2_new
    Z2=R2+SWEL
    % determine slope for this iteration
    top_sta=-999;
    for kk=1:length(sta)-1
       if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
          top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
          break;
       end
    end
    if top_sta==-999
       dy=Z2-dep(end);
       top_sta=sta(end)+dy/S(end)
    end

    % get the length of the slope (not accounting for berm)
    Lslope=top_sta-toe_sta

    % loop over profile segments to determine berm factor
    % re-calculate influence of depth of berm based on this run-up elevation
    % check for berm, berm width, berm height
    berm_width=0;
    rdh_sum=0;
    Berm_Segs=[];
    Berm_Heights=[];
    for kk=1:length(sta)-1
       ddep=dep(kk+1)-dep(kk);
       dsta=sta(kk+1)-sta(kk);
       s=ddep/dsta;
       if  (s < 1/15)     % count it as a berm if slope is flatter than 1:15 (see TAW manual)
          sprintf ('Berm Factor Calculation: Iteration %d, Profile Segment: %d',iter,kk)
          berm_width=berm_width+dsta;   % tally the width of all berm segments
          % compute the rdh for this segment and weight it by the segment length
          dh=SWEL-(dep(kk)+dep(kk+1))/2
          if  dh < 0
              chi=R2;
          else
              chi=2* H0;
          end
          if (dh <= R2 & dh >=-2*H0)
             rdh=(0.5-0.5*cos(3.14159*dh/chi)) ;
          else
             rdh=1;
          end
          rdh_sum=rdh_sum + rdh * dsta
          Berm_Segs=[Berm_Segs, kk];
          Berm_Heights=[Berm_Heights, (dep(kk)+dep(kk+1))/2];
       end
       if dep(kk) >= Z2  % jump out of loop if we reached limit of run-up for this iteration
          break
       end
    end
    sprintf ('!------- End Berm Factor Calculation, Iter: %d ---------!',iter)
    berm_width
    rB=berm_width/Lslope
    if (berm_width > 0)
       rdh_mean=rdh_sum/berm_width
    else
       rdh_mean=1
    end
```

```
gamma_berm=1- rB * (1-rdh_mean)
if gamma_berm > 1
   gamma_berm=1
end
if gamma_berm < 0.6
   gamma_berm =0.6
end
% Iribarren number
slope=(Z2-Ztoe)/(Lslope-berm_width)
Irb=(slope/(sqrt(H0/L0)))
% runup height
gamma_berm
gamma_perm
gamma_beta
gamma_rough
gamma=gamma_berm*gamma_perm*gamma_beta*gamma_rough

% check validity
TAW_VALID=1;
if (Irb*gamma_berm < 0.5 | Irb*gamma_berm > 10 )
   sprintf('!!! - - Iribaren number: %6.2f is outside the valid range (0.5-10), TAW NOT VALID - - !!!\n', Irb*gam
   TAW_VALID=0;
else
   sprintf('!!! - - Iribaren number: %6.2f is in the valid range (0.5-10), TAW RECOMMENDED - - !!!\n', Irb*gamma_
end
islope=1/slope;
if (slope < 1/8 | slope > 1)
   sprintf('!!! - - slope: 1:%3.1f V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!\n', islope)
   TAW_VALID=0;
else
   sprintf('!!! - - slope: 1:%3.1f V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!\n', islope)
end
if TAW_VALID == 0
   TAW_ALWAYS_VALID=0;
end

if (Irb*gamma_berm < 1.8)
   R2_new=gamma*H0*1.77*Irb
else
   R2_new=gamma*H0*(4.3-(1.6/sqrt(Irb)))
end
% check to see if we need to evaluate a shallow foreshore
if berm_width > 0.25 * L0;
   disp ('!   Berm_width is greater than 1/4 wave length')
   disp ('!   Runup will be weighted average with foreshore calculation assuming depth limited wave height on ber
   % do the foreshore calculation
   fore_H0=0.78*(SWEL_fore-min(Berm_Heights))
   % get upper slope
   fore_toe_sta=-999;
   fore_toe_dep=-999;
   for kk=length(dep)-1:-1:1
      ddep=dep(kk+1)-dep(kk);
      dsta=sta(kk+1)-sta(kk);
      s=ddep/dsta;
      if s < 1/15
         break
      end
      fore_toe_sta=sta(kk);
      fore_toe_dep=dep(kk);
      upper_slope=(Z2-fore_toe_dep)/(top_sta-fore_toe_sta)
   end
   fore_Irb=upper_slope/(sqrt(fore_H0/L0));
   fore_gamma=gamma_perm*gamma_beta*gamma_rough;
   if (fore_Irb < 1.8)
      fore_R2=fore_gamma*fore_H0*1.77*fore_Irb;
   else
      fore_R2=fore_gamma*fore_H0*(4.3-(1.6/sqrt(fore_Irb)));
   end
   if berm_width >= L0
      R2_new=fore_R2
      disp ('berm is wider than one wavelength, use full shallow foreshore solution');
   else
      w2=(berm_width-0.25*L0)/(0.75*L0)
      w1=1-w2
      R2_new=w2*fore_R2 + w1*R2_new
   end
end % end berm width check
% convergence criterion
R2del=abs(R2-R2_new)
R2_all(iter)=R2_new;
% get the new top station (for plot purposes)
Z2=R2_new+SWEL
top_sta=-999;
for kk=1:length(sta)-1
   if ((Z2 > dep(kk)) & (Z2 <= dep(kk+1)))    % here is the intersection of z2 with profile
      top_sta=interp1(dep(kk:kk+1),sta(kk:kk+1),Z2)
      break;
   end
end
if top_sta==-999
```

```
       dy=Z2-dep(end);
       top_sta=sta(end)+dy/S(end);
    end
    topStaAll(iter)=top_sta;
end
ans =
!----------------- STARTING ITERATION 1 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          305.072978560918
Z2 =
                  20.03859
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
                   20.0538
Z2 =
          30.2003223499491
top_sta =
          494.350314786617
Lslope =
          487.274657561446
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          5.97536275982977
ans =
```

```
Berm Factor Calculation: Iteration 1, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          6.66369201069084
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          7.36327807722119
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          8.06949579243737
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          8.78230172743214
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          9.50165106583653
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          10.2274976132581
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          10.9597938070091
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          11.6984907261237
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          12.4435381016598
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          13.1951337899271
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          13.9537146358556
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          14.7194568909352
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          15.4922854178496
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          16.2721230240528
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          17.0588905338898
ans =
```

```
Berm Factor Calculation: Iteration 1, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          17.8463394704828
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          18.6282428019156
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          19.4045491665145
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          20.1752083188606
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          20.8834483989456
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          21.6083638749372
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          22.3418439264898
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          23.0056388129801
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
            23.66932962336
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          24.3329164051988
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
           24.994628543774
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          25.6526883041245
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          25.7522215297308
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          25.8665166697112
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          25.9964548007975
ans =
```

```
Berm Factor Calculation: Iteration 1, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          26.1428812659861
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          26.3037481766994
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          26.4737420432197
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
           26.650100668802
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          26.8329156226893
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          27.0222766474083
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          27.2182716333774
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          27.4324443979863
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          27.6774033642637
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          27.9545160108855
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          28.2649774693291
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
           28.362564161054
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          28.4655999207198
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          28.5742154071602
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          28.6885394082926
ans =
```

```
Berm Factor Calculation: Iteration 1, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          28.8086987954031
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          28.9348185561857
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          29.0670217170552
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          29.2054293432393
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          29.3521914274872
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          29.5096001962242
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          29.6779568494316
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          29.8575529619094
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          30.0486702269297
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          30.2515802558285
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          30.4599376101971
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          30.6052755135891
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          30.7583035136458
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          30.9191832886589
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          31.0880728582343
ans =
```

```
Berm Factor Calculation: Iteration 1, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          31.2651265096597
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          31.2941090777345
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          31.3245191861876
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          31.3563900645176
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          31.3897548257553
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          31.4246464772624
ans =
!------- End Berm Factor Calculation, Iter: 1 ---------!
berm_width =
    76
rB =
         0.155969531393937
rdh_mean =
         0.413482190490294
gamma_berm =
         0.908521092096573
slope =
        0.0734680141224963
Irb =
          0.80643538025949
gamma_berm =
         0.908521092096573
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.681390819072429
ans =
!!! - - Iribaren number:   0.73 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:13.6 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
           6.5015145934109
R2del =
          13.5522854065891
Z2 =
           16.64803694336
ans =
!----------------- STARTING ITERATION 2 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          241.918899237432
Z2 =
           16.64803694336
H0 =
                   6.6846
Tp =
                  13.8007
T0 =
         12.5460909090909
R2 =
           6.5015145934109
Z2 =
           16.64803694336
top_sta =
```

```
          241.918899237432
Lslope =
          234.843242012261
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
     1
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
     2
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
     3
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
     4
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
     5
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
     6
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
     7
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
     8
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
     9
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
    10
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
    11
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
    12
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
    13
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
    14
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 28
dh =
```

```
          8.61726484994911
rdh_sum =
    15
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
    16
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
    17
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
    18
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
    19
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
    20
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
    21
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
    22
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
    23
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
    24
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
    25
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
    26
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
    27
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
    28
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
    29
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 46
dh =
```

```
          8.51266434994911
rdh_sum =
    30
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
    31
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
    32
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
    33
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
    34
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
    35
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
    36
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
    37
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          37.0995332256064
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          37.2138283655867
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          37.3437664966731
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          37.4901929618617
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          37.6510598725749
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          37.8210537390953
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          37.9974123646775
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 88
dh =
```

```
           3.76021834994911
rdh_sum =
           38.1802273185649
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 89
dh =
           3.83180034994911
rdh_sum =
           38.3695883432838
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 90
dh =
           3.90338234994911
rdh_sum =
           38.5655833292529
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 91
dh =
           4.09501334994911
rdh_sum =
           38.7797560938618
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 92
dh =
           4.40669284994911
rdh_sum =
           39.0247150601392
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 93
dh =
           4.71837234994911
rdh_sum =
            39.301827706761
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 94
dh =
           5.03005234994911
rdh_sum =
           39.6122891652046
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 101
dh =
           2.70403334994911
rdh_sum =
           39.7098758569295
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 102
dh =
           2.78122934994911
rdh_sum =
           39.8129116165953
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 103
dh =
           2.85842584994911
rdh_sum =
           39.9215271030358
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 104
dh =
           2.93562234994911
rdh_sum =
           40.0358511041681
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 105
dh =
           3.01281834994911
rdh_sum =
           40.1560104912787
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 106
dh =
           3.09001434994911
rdh_sum =
           40.2821302520612
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 107
dh =
           3.16721034994911
rdh_sum =
           40.4143334129307
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 108
dh =
           3.24440684994911
rdh_sum =
           40.5527410391149
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 109
dh =
```

```
          3.34609834994911
rdh_sum =
          40.6995031233627
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          40.8569118920998
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          41.0252685453071
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          41.2048646577849
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          41.3959819228052
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          41.5988919517041
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          41.8072493060726
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          41.9525872094646
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          42.1056152095213
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          42.2664949845345
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          42.4353845541099
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          42.6124382055352
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          42.8659813832505
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          43.1308918102581
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          43.4073277926284
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 157
dh =
```

```
         -2.34512665005089
rdh_sum =
          43.6954397753278
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          43.9953703460856
ans =
!------- End Berm Factor Calculation, Iter: 2 ---------!
berm_width =
    76
rB =
         0.323620127829917
rdh_mean =
         0.578886451922179
gamma_berm =
         0.863719179740146
slope =
         0.104903719744487
Irb =
          1.15149527496043
gamma_berm =
         0.863719179740146
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.647789384805109
ans =
!!! - - Iribaren number:   0.99 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:9.5 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.82560890240623
R2del =
          2.32409430899533
Z2 =
          18.9721312523553
ans =
!----------------- STARTING ITERATION 3 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          285.208602685107
Z2 =
          18.9721312523553
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.82560890240623
Z2 =
          18.9721312523553
top_sta =
          285.208602685107
Lslope =
          278.132945459936
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
```

```
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          5.97536275982977
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          6.66369201069084
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          7.36327807722119
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          8.06949579243737
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          8.78230172743214
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          9.50165106583653
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          10.2274976132581
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          10.9597938070091
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          11.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
```

```
          12.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          13.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          14.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          15.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          16.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          17.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          18.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          19.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          20.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          21.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          22.6984907261237
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          23.4067308062087
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          24.1316462822004
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          24.8651263337529
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          25.5289212202432
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
```

```
          26.1926120306231
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
           26.856198812462
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          27.5179109510372
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          28.1759707113876
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           28.275503936994
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          28.3897990769744
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          28.5197372080607
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          28.6661636732493
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          28.8270305839625
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          28.9970244504829
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          29.1733830760652
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          29.3561980299525
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          29.5455590546714
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          29.7415540406406
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          29.9557268052494
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
```

```
          30.2006857715269
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          30.4777984181487
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          30.7882598765922
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          30.8858465683171
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          30.9888823279829
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          31.0974978144234
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          31.2118218155558
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          31.3319812026663
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          31.4581009634488
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          31.5903041243183
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          31.7287117505025
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          31.8754738347504
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          32.0328826034874
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          32.2012392566947
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          32.3808353691726
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
```

```
          32.5719526341929
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          32.7748626630917
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          32.9832200174602
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          33.1285579208523
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           33.281585920909
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          33.4424656959221
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          33.6113552654975
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          33.7884089169228
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          33.9320556475873
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          34.0824695911214
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          34.2397784775575
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          34.4041074564951
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          34.5755791138205
ans =
!------- End Berm Factor Calculation, Iter: 3 ---------!
berm_width =
    76
rB =
          0.273250620757358
rdh_mean =
          0.454941830445006
gamma_berm =
          0.851062516820228
slope =
         0.0939349159987319
Irb =
           1.03109415175937
gamma_berm =
          0.851062516820228
gamma_perm =
```

```
     1
gamma_beta =
     1
gamma_rough =
                    0.75
gamma =
         0.638296887615171
ans =
!!! - - Iribaren number:   0.88 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.6 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          7.7869922301058
R2del =
          1.03861667230043
Z2 =
          17.9335145800549
ans =
!----------------- STARTING ITERATION 4 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          265.862826756103
Z2 =
          17.9335145800549
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          7.7869922301058
Z2 =
          17.9335145800549
top_sta =
          265.862826756103
Lslope =
          258.787169530932
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          5.00725612973755
ans =
```

```
Berm Factor Calculation: Iteration 4, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          6.00725612973755
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          7.00725612973755
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          8.00725612973756
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          9.00725612973756
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          10.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          11.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          12.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          13.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          14.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          15.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          16.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          17.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          18.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          19.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          20.0072561297376
ans =
```

```
Berm Factor Calculation: Iteration 4, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          21.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          22.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          23.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          24.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          25.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          26.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          27.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          28.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          29.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          30.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          31.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          32.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          33.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          34.0072561297376
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          34.1067893553439
ans =
```

```
Berm Factor Calculation: Iteration 4, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          34.2210844953243
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          34.3510226264106
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          34.4974490915992
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          34.6583160023124
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          34.8283098688328
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          35.0046684944151
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          35.1874834483024
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          35.3768444730214
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          35.5728394589905
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          35.7870122235993
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          36.0319711898768
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          36.3090838364986
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          36.6195452949422
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
           36.717131986667
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          36.8201677463329
ans =
```

```
Berm Factor Calculation: Iteration 4, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          36.9287832327733
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          37.0431072339057
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          37.1632666210162
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          37.2893863817988
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          37.4215895426683
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          37.5599971688524
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          37.7067592531003
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          37.8641680218373
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          38.0325246750446
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          38.2121207875225
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          38.4032380525428
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          38.6061480814416
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          38.8145054358102
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          38.9598433392022
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          39.1128713392589
ans =
```

```
Berm Factor Calculation: Iteration 4, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
           39.273751114272
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          39.4426406838474
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          39.6196943352728
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          39.8015590221505
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          39.9918523110472
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          40.1907195656338
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          40.3983020496559
ans =
Berm Factor Calculation: Iteration 4, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          40.6147369384765
ans =
!------- End Berm Factor Calculation, Iter: 4 ---------!
berm_width =
    76
rB =
         0.293677619867147
rdh_mean =
         0.534404433401007
gamma_berm =
         0.863265002180512
slope =
        0.0981946633678659
Irb =
          1.07785206444378
gamma_berm =
         0.863265002180512
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.647448751635384
ans =
!!! - - Iribaren number:   0.93 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.2 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.25682816897574
R2del =
         0.469835938869943
Z2 =
          18.4033505189249
ans =
!----------------- STARTING ITERATION 5 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          274.614217947079
Z2 =
```

```
          18.4033505189249
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.25682816897574
Z2 =
          18.4033505189249
top_sta =
          274.614217947079
Lslope =
          267.538560721908
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          5.97536275982977
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          6.97536275982977
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          7.97536275982977
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 26
dh =
```

```
           8.49375084994911
rdh_sum =
           8.97536275982977
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 27
dh =
           8.55550784994911
rdh_sum =
           9.97536275982977
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 28
dh =
           8.61726484994911
rdh_sum =
           10.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 29
dh =
           8.67902184994911
rdh_sum =
           11.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 30
dh =
           8.74077884994911
rdh_sum =
           12.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 31
dh =
           8.80253584994911
rdh_sum =
           13.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 32
dh =
           8.86429284994911
rdh_sum =
           14.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 33
dh =
           8.92850634994911
rdh_sum =
           15.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 34
dh =
           8.99763184994911
rdh_sum =
           16.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 35
dh =
           9.06921334994911
rdh_sum =
           17.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 36
dh =
           9.14079534994911
rdh_sum =
           18.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 37
dh =
           9.21237734994911
rdh_sum =
           19.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 38
dh =
           9.28395934994911
rdh_sum =
           20.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 39
dh =
           9.29104334994911
rdh_sum =
           21.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 40
dh =
           9.23362884994911
rdh_sum =
           22.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 41
dh =
```

```
           9.17621384994911
rdh_sum =
           23.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 42
dh =
           9.11879934994911
rdh_sum =
           24.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 46
dh =
           8.51266434994911
rdh_sum =
           25.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 47
dh =
           8.67014434994911
rdh_sum =
           26.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 48
dh =
           8.75216534994911
rdh_sum =
           27.9753627598298
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 54
dh =
           8.10490234994911
rdh_sum =
           28.6391576463201
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 55
dh =
           8.10396484994911
rdh_sum =
           29.3028484566999
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 56
dh =
           8.10302784994911
rdh_sum =
           29.9664352385388
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 57
dh =
           8.08615484994911
rdh_sum =
            30.628147377114
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 58
dh =
           8.05334634994911
rdh_sum =
           31.2862071374645
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 81
dh =
           2.73182434994911
rdh_sum =
           31.3857403630708
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 82
dh =
           2.93523634994911
rdh_sum =
           31.5000355030512
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 83
dh =
           3.13864834994911
rdh_sum =
           31.6299736341375
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 84
dh =
           3.34206034994911
rdh_sum =
           31.7764000993261
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 85
dh =
           3.51251484994911
rdh_sum =
           31.9372670100394
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 86
dh =
```

```
          3.61705434994911
rdh_sum =
          32.1072608765597
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
           32.283619502142
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.4664344560293
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.6557954807483
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          32.8517904667174
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.0659632313263
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.3109221976037
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.5880348442255
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          33.8984963026691
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
           33.996082994394
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.0991187540598
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.2077342405002
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          34.3220582416326
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.4422176287431
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.5683373895257
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 107
dh =
```

```
          3.16721034994911
rdh_sum =
          34.7005405503952
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          34.8389481765793
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          34.9857102608272
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.1431190295642
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          35.3114756827716
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.4910717952494
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          35.6821890602697
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          35.8850990891685
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.0934564435371
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.2387943469291
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.3918223469858
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.5527021219989
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          36.7215916915743
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          36.8986453429997
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.0615775312209
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 155
dh =
```

```
         -2.23775365005089
rdh_sum =
          37.232123154949
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.4104197465115
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.596601533953
ans =
Berm Factor Calculation: Iteration 5, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          37.7907994552863
ans =
!------- End Berm Factor Calculation, Iter: 5 ---------!
berm_width =
    76
rB =
         0.284071200035339
rdh_mean =
         0.497247361253767
gamma_berm =
         0.857182454590424
slope =
        0.0961611095411042
Irb =
          1.05553038101256
gamma_berm =
         0.857182454590424
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.642886840942818
ans =
!!! - - Iribaren number:   0.90 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.4 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.02886148319496
R2del =
          0.22796668578078
Z2 =
          18.1753838331441
ans =
!----------------- STARTING ITERATION 6 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          270.368000319334
Z2 =
          18.1753838331441
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.02886148319496
Z2 =
          18.1753838331441
top_sta =
          270.368000319334
Lslope =
          263.292343094163
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
```

```
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.64695117234071
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.64695117234071
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.64695117234071
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.64695117234071
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.64695117234071
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
```

```
          13.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
```

```
          28.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          31.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          33.6469511723407
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          33.7464843979471
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.8607795379274
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.9907176690138
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          34.1371441342024
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          34.2980110449156
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
           34.468004911436
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          34.6443635370182
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.8271784909056
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          35.0165395156245
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
```

```
          35.2125345015936
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          35.4267072662025
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          35.6716662324799
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.9487788791017
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          36.2592403375453
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          36.3568270292702
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
           36.459862788936
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          36.5684782753765
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          36.6828022765089
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.8029616636194
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.9290814244019
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          37.0612845852714
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          37.1996922114556
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          37.3464542957034
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          37.5038630644405
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
```

```
          37.6722197176478
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.8518158301256
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          38.0429330951459
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          38.2458431240448
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          38.4542004784133
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          38.5995383818054
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          38.7525663818621
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.9134461568752
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          39.0823357264506
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          39.2593893778759
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          39.4311282986431
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          39.6108617863717
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.7987312391432
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.9948743910867
ans =
Berm Factor Calculation: Iteration 6, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          40.1994253253889
ans =
!------- End Berm Factor Calculation, Iter: 6 ---------!
berm_width =
    76
rB =
```

```
         0.288652526339589
rdh_mean =
         0.528939806913012
gamma_berm =
         0.864027285207426
slope =
        0.0971240656859027
Irb =
          1.06610044900853
gamma_berm =
         0.864027285207426
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.64802046390557
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.17401702540508
R2del =
         0.145155542210119
Z2 =
          18.3205393753542
ans =
!----------------- STARTING ITERATION 7 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          273.071737578076
Z2 =
          18.3205393753542
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.17401702540508
Z2 =
          18.3205393753542
top_sta =
          273.071737578076
Lslope =
          265.996080352905
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
```

```
Berm Factor Calculation: Iteration 7, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 7, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
```

```
Berm Factor Calculation: Iteration 7, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
```

```
Berm Factor Calculation: Iteration 7, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
```

```
Berm Factor Calculation: Iteration 7, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3923838904462
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5661860103546
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7478759664534
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9375892755161
ans =
Berm Factor Calculation: Iteration 7, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1354580384678
ans =
!------- End Berm Factor Calculation, Iter: 7 ---------!
berm_width =
    76
rB =
         0.285718495923581
rdh_mean =
         0.501782342611419
gamma_berm =
         0.857650000288365
slope =
         0.096505934971378
Irb =
          1.05931542175863
gamma_berm =
         0.857650000288365
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.643237500216274
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.4 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.06204729116473
R2del =
```

```
         0.111969734240351
Z2 =
          18.2085696411138
ans =
!----------------- STARTING ITERATION 8 -----------------!
Ztoe =
        -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          270.986135211761
Z2 =
          18.2085696411138
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.06204729116473
Z2 =
          18.2085696411138
top_sta =
          270.986135211761
Lslope =
           263.91047798659
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 24
dh =
```

```
           8.32804234994911
rdh_sum =
           7.30304807711916
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 25
dh =
           8.43199384994911
rdh_sum =
           8.30304807711916
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 26
dh =
           8.49375084994911
rdh_sum =
           9.30304807711916
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 27
dh =
           8.55550784994911
rdh_sum =
           10.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 28
dh =
           8.61726484994911
rdh_sum =
           11.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 29
dh =
           8.67902184994911
rdh_sum =
           12.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 30
dh =
           8.74077884994911
rdh_sum =
           13.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 31
dh =
           8.80253584994911
rdh_sum =
           14.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 32
dh =
           8.86429284994911
rdh_sum =
           15.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 33
dh =
           8.92850634994911
rdh_sum =
           16.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 34
dh =
           8.99763184994911
rdh_sum =
           17.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 35
dh =
           9.06921334994911
rdh_sum =
           18.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 36
dh =
           9.14079534994911
rdh_sum =
           19.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 37
dh =
           9.21237734994911
rdh_sum =
           20.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 38
dh =
           9.28395934994911
rdh_sum =
           21.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 39
dh =
```

```
           9.29104334994911
rdh_sum =
           22.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 40
dh =
           9.23362884994911
rdh_sum =
           23.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 41
dh =
           9.17621384994911
rdh_sum =
           24.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 42
dh =
           9.11879934994911
rdh_sum =
           25.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 46
dh =
           8.51266434994911
rdh_sum =
           26.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 47
dh =
           8.67014434994911
rdh_sum =
           27.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 48
dh =
           8.75216534994911
rdh_sum =
           28.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 54
dh =
           8.10490234994911
rdh_sum =
           29.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 55
dh =
           8.10396484994911
rdh_sum =
           30.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 56
dh =
           8.10302784994911
rdh_sum =
           31.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 57
dh =
           8.08615484994911
rdh_sum =
           32.3030480771192
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 58
dh =
           8.05334634994911
rdh_sum =
           32.9611078374696
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 81
dh =
           2.73182434994911
rdh_sum =
            33.060641063076
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 82
dh =
           2.93523634994911
rdh_sum =
           33.1749362030563
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 83
dh =
           3.13864834994911
rdh_sum =
           33.3048743341427
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 84
dh =
```

```
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 105
dh =
```

```
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 125
dh =
```

```
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7439602549885
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9223119190847
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1087418765652
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3033873600131
ans =
Berm Factor Calculation: Iteration 8, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5063820065219
ans =
!------- End Berm Factor Calculation, Iter: 8 ---------!
berm_width =
    76
rB =
         0.287976440267982
rdh_mean =
         0.519820815875288
gamma_berm =
         0.861719707864981
slope =
        0.0969811786781487
Irb =
          1.06453202307776
gamma_berm =
         0.861719707864981
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.646289780898736
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.14019315622765
R2del =
        0.0781458650629201
Z2 =
          18.2867155061768
ans =
!----------------- STARTING ITERATION 9 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.441717849326
Z2 =
          18.2867155061768
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.14019315622765
Z2 =
          18.2867155061768
top_sta =
          272.441717849326
Lslope =
```

```
          265.366060624155
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
```

```
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
```

```
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
```

```
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
```

```
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
           37.393683879611
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
           37.568842284524
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
           37.7519453962116
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
```

```
          37.9431292532922
ans =
Berm Factor Calculation: Iteration 9, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1425264254531
ans =
!------- End Berm Factor Calculation, Iter: 9 ---------!
berm_width =
    76
rB =
          0.28639683545531
rdh_mean =
          0.50187534770333
gamma_berm =
         0.857338675919957
slope =
        0.0966483933068746
Irb =
          1.06087914228829
gamma_berm =
         0.857338675919957
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.643004006939968
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07101735524952
R2del =
        0.0691758009781296
Z2 =
          18.2175397051986
ans =
!----------------- STARTING ITERATION 10 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.153215959145
Z2 =
          18.2175397051986
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07101735524952
Z2 =
          18.2175397051986
top_sta =
          271.153215959145
Lslope =
          264.077558733974
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
```

```
Berm Factor Calculation: Iteration 10, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 10, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 10, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
```

```
Berm Factor Calculation: Iteration 10, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
```

```
Berm Factor Calculation: Iteration 10, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7436047539064
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
           38.921585576485
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1076292010954
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3018727241643
ans =
Berm Factor Calculation: Iteration 10, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5044496614399
ans =
!------- End Berm Factor Calculation, Iter: 10 ---------!
berm_width =
    76
rB =
         0.287794238799976
rdh_mean =
         0.519795390282105
gamma_berm =
         0.861799879877999
slope =
        0.0969427178230652
Irb =
          1.06410985031775
gamma_berm =
         0.861799879877999
gamma_perm =
     1
gamma_beta =
```

```
     1
gamma_rough =
                    0.75
gamma =
         0.646349909908499
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.1377219541138
R2del =
        0.0667045988642805
Z2 =
          18.2842443040629
ans =
!----------------- STARTING ITERATION 11 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.395688044832
Z2 =
          18.2842443040629
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.1377219541138
Z2 =
          18.2842443040629
top_sta =
          272.395688044832
Lslope =
          265.320030819661
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 22
dh =
```

```
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 37
dh =
```

```
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 82
dh =
```

```
           2.93523634994911
rdh_sum =
           31.8277208203406
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 83
dh =
           3.13864834994911
rdh_sum =
           31.9576589514269
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 84
dh =
           3.34206034994911
rdh_sum =
           32.1040854166155
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 85
dh =
           3.51251484994911
rdh_sum =
           32.2649523273288
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 86
dh =
           3.61705434994911
rdh_sum =
           32.4349461938491
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 87
dh =
           3.68863634994911
rdh_sum =
           32.6113048194314
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 88
dh =
           3.76021834994911
rdh_sum =
           32.7941197733187
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 89
dh =
           3.83180034994911
rdh_sum =
           32.9834807980377
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 90
dh =
           3.90338234994911
rdh_sum =
           33.1794757840068
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 91
dh =
           4.09501334994911
rdh_sum =
           33.3936485486156
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 92
dh =
           4.40669284994911
rdh_sum =
           33.6386075148931
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 93
dh =
           4.71837234994911
rdh_sum =
           33.9157201615149
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 94
dh =
           5.03005234994911
rdh_sum =
           34.2261816199585
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 101
dh =
           2.70403334994911
rdh_sum =
           34.3237683116834
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 102
dh =
           2.78122934994911
rdh_sum =
           34.4268040713492
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 103
dh =
```

```
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 123
dh =
```

```
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937794411783
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690375430521
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522445290114
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
           37.943536475688
ans =
Berm Factor Calculation: Iteration 11, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430459868649
ans =
!------- End Berm Factor Calculation, Iter: 11 ---------!
berm_width =
    76
rB =
         0.286446521829546
rdh_mean =
         0.501882184037696
gamma_berm =
         0.857315884156268
slope =
        0.0966588386069631
Irb =
          1.06099379707582
gamma_berm =
         0.857315884156268
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.642986913117201
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07167504685843
R2del =
        0.0660469072553731
Z2 =
          18.2181973968075
ans =
!----------------- STARTING ITERATION 12 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.165466440806
Z2 =
          18.2181973968075
H0 =
```

```
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07167504685843
Z2 =
          18.2181973968075
top_sta =
          271.165466440806
Lslope =
          264.089809215635
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
```

```
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
```

```
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
```

```
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
```

```
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435787309965
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
```

```
          38.9215324075195
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1075477518566
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017618504418
ans =
Berm Factor Calculation: Iteration 12, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5043082101137
ans =
!------- End Berm Factor Calculation, Iter: 12 ---------!
berm_width =
    76
rB =
          0.287780888727685
rdh_mean =
          0.519793529080444
gamma_berm =
          0.861805755025985
slope =
        0.0969399005339196
Irb =
           1.0640789258172
gamma_berm =
          0.861805755025985
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                       0.75
gamma =
          0.646354316269489
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13754093636152
R2del =
        0.0658658895030868
Z2 =
          18.2840632863106
ans =
!----------------- STARTING ITERATION 13 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.392316320722
Z2 =
          18.2840632863106
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.13754093636152
Z2 =
          18.2840632863106
top_sta =
          272.392316320722
Lslope =
          265.316659095551
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
```

```
Berm Factor Calculation: Iteration 13, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 13, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 13, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
```

```
Berm Factor Calculation: Iteration 13, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
```

```
Berm Factor Calculation: Iteration 13, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937864442864
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690518523098
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522664505303
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9435663183635
ans =
Berm Factor Calculation: Iteration 13, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430840620892
ans =
!------- End Berm Factor Calculation, Iter: 13 ---------!
berm_width =
    76
rB =
         0.286450162078324
rdh_mean =
```

```
          0.50188268502749
gamma_berm =
          0.857314214392105
slope =
         0.0966596039341402
Irb =
          1.06100219783253
gamma_berm =
          0.857314214392105
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                       0.75
gamma =
          0.642985660794079
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07172323587584
R2del =
         0.0658177004856793
Z2 =
          18.2182455858249
ans =
!----------------- STARTING ITERATION 14 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.166364032726
Z2 =
          18.2182455858249
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07172323587584
Z2 =
          18.2182455858249
top_sta =
          271.166364032726
Lslope =
          264.090706807555
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 20
dh =
```

```
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 35
dh =
```

```
           9.06921334994911
rdh_sum =
           18.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 36
dh =
           9.14079534994911
rdh_sum =
           19.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 37
dh =
           9.21237734994911
rdh_sum =
           20.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 38
dh =
           9.28395934994911
rdh_sum =
           21.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 39
dh =
           9.29104334994911
rdh_sum =
           22.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 40
dh =
           9.23362884994911
rdh_sum =
           23.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 41
dh =
           9.17621384994911
rdh_sum =
           24.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 42
dh =
           9.11879934994911
rdh_sum =
           25.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 46
dh =
           8.51266434994911
rdh_sum =
           26.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 47
dh =
           8.67014434994911
rdh_sum =
           27.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 48
dh =
           8.75216534994911
rdh_sum =
           28.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 54
dh =
           8.10490234994911
rdh_sum =
           29.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 55
dh =
           8.10396484994911
rdh_sum =
           30.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 56
dh =
           8.10302784994911
rdh_sum =
           31.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 57
dh =
           8.08615484994911
rdh_sum =
           32.3030480771192
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 58
dh =
```

```
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 101
dh =
```

```
           2.70403334994911
rdh_sum =
           35.6709836943991
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 102
dh =
           2.78122934994911
rdh_sum =
           35.7740194540649
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 103
dh =
           2.85842584994911
rdh_sum =
           35.8826349405054
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 104
dh =
           2.93562234994911
rdh_sum =
           35.9969589416378
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 105
dh =
           3.01281834994911
rdh_sum =
           36.1171183287483
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 106
dh =
           3.09001434994911
rdh_sum =
           36.2432380895308
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 107
dh =
           3.16721034994911
rdh_sum =
           36.3754412504003
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 108
dh =
           3.24440684994911
rdh_sum =
           36.5138488765845
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 109
dh =
           3.34609834994911
rdh_sum =
           36.6606109608323
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 110
dh =
           3.47228434994911
rdh_sum =
           36.8180197295694
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 111
dh =
           3.59847034994911
rdh_sum =
           36.9863763827767
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 112
dh =
           3.72465634994911
rdh_sum =
           37.1659724952545
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 113
dh =
           3.85084234994911
rdh_sum =
           37.3570897602748
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 114
dh =
           3.97702884994911
rdh_sum =
           37.5599997891737
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 115
dh =
           4.03438634994911
rdh_sum =
           37.7683571435422
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 121
dh =
```

```
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435768245287
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9215285122998
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1075417847898
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017537277002
ans =
Berm Factor Calculation: Iteration 14, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5042978472169
ans =
!------- End Berm Factor Calculation, Iter: 14 ---------!
berm_width =
    76
rB =
         0.287779910617536
rdh_mean =
         0.519793392726538
gamma_berm =
         0.861806185480893
slope =
        0.0969396941257738
Irb =
          1.06407666013963
gamma_berm =
         0.861806185480893
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.64635463911067
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13752767412985
R2del =
        0.0658044382540073
Z2 =
```

```
           18.284050024079
ans =
!----------------- STARTING ITERATION 15 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
           7.07565722517106
top_sta =
           272.392069291988
Z2 =
           18.284050024079
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
           12.5460909090909
R2 =
           8.13752767412985
Z2 =
           18.284050024079
top_sta =
           272.392069291988
Lslope =
           265.316412066817
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 14
dh =
           6.86657734994911
rdh_sum =
           0.52137398948955
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 15
dh =
           7.01272384994911
rdh_sum =
           1.05988758097302
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 16
dh =
           7.15887034994911
rdh_sum =
           1.61549535557839
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 17
dh =
           7.30501684994911
rdh_sum =
           2.18813173535515
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 18
dh =
           7.45116334994911
rdh_sum =
           2.77771106060995
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 19
dh =
           7.59730984994911
rdh_sum =
           3.38412769092466
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 20
dh =
           7.74345634994911
rdh_sum =
           4.00725612973755
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 21
dh =
           7.88960284994911
rdh_sum =
           4.64695117234071
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 22
dh =
           8.03574934994911
rdh_sum =
           5.30304807711916
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 23
dh =
           8.18189584994911
rdh_sum =
           6.30304807711916
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 24
dh =
           8.32804234994911
rdh_sum =
```

```
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
```

```
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
```

```
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
```

```
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
```

```
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937869573847
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690529007092
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522680566587
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9435685048528
ans =
Berm Factor Calculation: Iteration 15, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430868517541
ans =
!------- End Berm Factor Calculation, Iter: 15 ---------!
berm_width =
    76
rB =
          0.286450428784105
rdh_mean =
          0.501882721733606
gamma_berm =
          0.85731409205582
slope =
         0.0966596600067641
Irb =
          1.06100281332416
gamma_berm =
          0.85731409205582
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                       0.75
gamma =
          0.642985569041865
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07172676650239
R2del =
         0.0658009076274606
Z2 =
          18.2182491164515
ans =
!----------------- STARTING ITERATION 16 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.166429795882
Z2 =
          18.2182491164515
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07172676650239
Z2 =
          18.2182491164515
top_sta =
          271.166429795882
Lslope =
          264.09077257071
ans =
```

```
Berm Factor Calculation: Iteration 16, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 16, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 16, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
```

```
Berm Factor Calculation: Iteration 16, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
```

```
Berm Factor Calculation: Iteration 16, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435766848503
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9215282269144
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1075413476092
ans =
Berm Factor Calculation: Iteration 16, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017531325829
ans =
```

```
Berm Factor Calculation: Iteration 16, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5042970879734
ans =
!------- End Berm Factor Calculation, Iter: 16 ---------!
berm_width =
    76
rB =
          0.287779838955376
rdh_mean =
          0.519793382736492
gamma_berm =
          0.861806217018601
slope =
         0.0969396790031093
Irb =
           1.06407649414288
gamma_berm =
          0.861806217018601
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                       0.75
gamma =
          0.646354662763951
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
           8.1375267024614
R2del =
         0.0657999359590136
Z2 =
          18.2840490524105
ans =
!----------------- STARTING ITERATION 17 -----------------!
Ztoe =
        -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.392051193222
Z2 =
          18.2840490524105
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
           8.1375267024614
Z2 =
          18.2840490524105
top_sta =
          272.392051193222
Lslope =
          265.316393968051
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 18
dh =
```

```
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 33
dh =
```

```
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 56
dh =
```

```
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 93
dh =
```

```
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 114
dh =
```

```
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937869949773
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690529775213
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522681743333
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9435686650481
ans =
Berm Factor Calculation: Iteration 17, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430870561417
ans =
!------- End Berm Factor Calculation, Iter: 17 ---------!
berm_width =
    76
rB =
         0.286450448324546
rdh_mean =
         0.501882724422917
gamma_berm =
         0.857314083092743
slope =
        0.0966596641149773
Irb =
          1.06100285841873
gamma_berm =
         0.857314083092743
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
```

```
                    0.75
gamma =
         0.642985562319557
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07172702517704
R2del =
        0.0657996772843585
Z2 =
          18.2182493751261
ans =
!----------------- STARTING ITERATION 18 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.166434614081
Z2 =
          18.2182493751261
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07172702517704
Z2 =
          18.2182493751261
top_sta =
          271.166434614081
Lslope =
          264.090777388909
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
```

```
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
```

```
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
```

```
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
```

```
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
```

```
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435766746166
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9215282060054
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1075413155788
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017530889811
ans =
Berm Factor Calculation: Iteration 18, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5042970323467
ans =
!------- End Berm Factor Calculation, Iter: 18 ---------!
berm_width =
    76
rB =
         0.287779833704983
rdh_mean =
         0.519793382004562
gamma_berm =
         0.861806219329241
slope =
        0.0969396778951335
Irb =
          1.06407648198098
gamma_berm =
         0.861806219329241
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.64635466449693
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13752663127123
R2del =
        0.0657996060941919
Z2 =
          18.2840489812203
ans =
!----------------- STARTING ITERATION 19 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.392049867199
Z2 =
          18.2840489812203
H0 =
                    6.6846
Tp =
```

```
                  13.8007
T0 =
          12.5460909090909
R2 =
          8.13752663127123
Z2 =
          18.2840489812203
top_sta =
          272.392049867199
Lslope =
          265.316392642028
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
```

```
Berm Factor Calculation: Iteration 19, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 19, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
```

```
Berm Factor Calculation: Iteration 19, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
```

```
Berm Factor Calculation: Iteration 19, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937869977316
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
           37.569052983149
ans =
```

```
Berm Factor Calculation: Iteration 19, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522681829549
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
           37.943568676785
ans =
Berm Factor Calculation: Iteration 19, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430870711163
ans =
!------- End Berm Factor Calculation, Iter: 19 ---------!
berm_width =
    76
rB =
         0.286450449756194
rdh_mean =
         0.501882724619951
gamma_berm =
         0.857314082436055
slope =
        0.0966596644159693
Irb =
          1.06100286172263
gamma_berm =
         0.857314082436055
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.642985561827041
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07172704412907
R2del =
        0.0657995871421573
Z2 =
          18.2182493940782
ans =
!----------------- STARTING ITERATION 20 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
           271.16643496709
Z2 =
          18.2182493940782
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07172704412907
Z2 =
          18.2182493940782
top_sta =
           271.16643496709
Lslope =
          264.090777741919
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 16
dh =
```

```
           7.15887034994911
rdh_sum =
           1.61549535557839
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 17
dh =
           7.30501684994911
rdh_sum =
           2.18813173535515
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 18
dh =
           7.45116334994911
rdh_sum =
           2.77771106060995
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 19
dh =
           7.59730984994911
rdh_sum =
           3.38412769092466
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 20
dh =
           7.74345634994911
rdh_sum =
           4.00725612973755
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 21
dh =
           7.88960284994911
rdh_sum =
           4.64695117234071
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 22
dh =
           8.03574934994911
rdh_sum =
           5.30304807711916
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 23
dh =
           8.18189584994911
rdh_sum =
           6.30304807711916
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 24
dh =
           8.32804234994911
rdh_sum =
           7.30304807711916
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 25
dh =
           8.43199384994911
rdh_sum =
           8.30304807711916
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 26
dh =
           8.49375084994911
rdh_sum =
           9.30304807711916
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 27
dh =
           8.55550784994911
rdh_sum =
           10.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 28
dh =
           8.61726484994911
rdh_sum =
           11.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 29
dh =
           8.67902184994911
rdh_sum =
           12.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 30
dh =
           8.74077884994911
rdh_sum =
           13.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 31
dh =
```

```
           8.80253584994911
rdh_sum =
           14.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 32
dh =
           8.86429284994911
rdh_sum =
           15.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 33
dh =
           8.92850634994911
rdh_sum =
           16.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 34
dh =
           8.99763184994911
rdh_sum =
           17.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 35
dh =
           9.06921334994911
rdh_sum =
           18.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 36
dh =
           9.14079534994911
rdh_sum =
           19.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 37
dh =
           9.21237734994911
rdh_sum =
           20.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 38
dh =
           9.28395934994911
rdh_sum =
           21.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 39
dh =
           9.29104334994911
rdh_sum =
           22.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 40
dh =
           9.23362884994911
rdh_sum =
           23.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 41
dh =
           9.17621384994911
rdh_sum =
           24.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 42
dh =
           9.11879934994911
rdh_sum =
           25.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 46
dh =
           8.51266434994911
rdh_sum =
           26.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 47
dh =
           8.67014434994911
rdh_sum =
           27.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 48
dh =
           8.75216534994911
rdh_sum =
           28.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 54
dh =
```

```
           8.10490234994911
rdh_sum =
           29.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 55
dh =
           8.10396484994911
rdh_sum =
           30.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 56
dh =
           8.10302784994911
rdh_sum =
           31.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 57
dh =
           8.08615484994911
rdh_sum =
           32.3030480771192
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 58
dh =
           8.05334634994911
rdh_sum =
           32.9611078374696
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 81
dh =
           2.73182434994911
rdh_sum =
            33.060641063076
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 82
dh =
           2.93523634994911
rdh_sum =
           33.1749362030563
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 83
dh =
           3.13864834994911
rdh_sum =
           33.3048743341427
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 84
dh =
           3.34206034994911
rdh_sum =
           33.4513007993313
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 85
dh =
           3.51251484994911
rdh_sum =
           33.6121677100445
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 86
dh =
           3.61705434994911
rdh_sum =
           33.7821615765649
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 87
dh =
           3.68863634994911
rdh_sum =
           33.9585202021471
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 88
dh =
           3.76021834994911
rdh_sum =
           34.1413351560345
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 89
dh =
           3.83180034994911
rdh_sum =
           34.3306961807534
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 90
dh =
           3.90338234994911
rdh_sum =
           34.5266911667225
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 91
dh =
```

```
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 112
dh =
```

```
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435766738668
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9215282044734
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1075413132321
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017530857866
ans =
Berm Factor Calculation: Iteration 20, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5042970282712
ans =
!------- End Berm Factor Calculation, Iter: 20 ---------!
berm_width =
    76
rB =
         0.287779833320308
rdh_mean =
         0.519793381950936
gamma_berm =
```

```
         0.861806219498532
slope =
        0.0969396778139567
Irb =
          1.06407648108992
gamma_berm =
         0.861806219498532
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.646354664623899
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13752662605542
R2del =
        0.0657995819263419
Z2 =
          18.2840489760045
ans =
!----------------- STARTING ITERATION 21 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.392049770047
Z2 =
          18.2840489760045
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.13752662605542
Z2 =
          18.2840489760045
top_sta =
          272.392049770047
Lslope =
          265.316392544876
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
```

```
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
```

```
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
```

```
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
```

```
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
```

```
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937869979334
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690529835613
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522681835865
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9435686776449
ans =
Berm Factor Calculation: Iteration 21, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430870722134
ans =
!------- End Berm Factor Calculation, Iter: 21 ---------!
berm_width =
    76
rB =
         0.286450449861085
rdh_mean =
         0.501882724634387
gamma_berm =
         0.857314082387942
slope =
        0.0966596644380218
Irb =
          1.06100286196469
gamma_berm =
         0.857314082387942
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.642985561790957
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07172704551761
R2del =
        0.0657995805378064
Z2 =
          18.2182493954667
ans =
```

```
!----------------- STARTING ITERATION 22 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.166434992954
Z2 =
          18.2182493954667
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07172704551761
Z2 =
          18.2182493954667
top_sta =
          271.166434992954
Lslope =
          264.090777767783
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
```

```
Berm Factor Calculation: Iteration 22, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 22, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
```

```
Berm Factor Calculation: Iteration 22, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
```

```
Berm Factor Calculation: Iteration 22, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
```

```
Berm Factor Calculation: Iteration 22, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435766738119
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9215282043612
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          39.1075413130601
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017530855525
ans =
Berm Factor Calculation: Iteration 22, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5042970279726
ans =
!------- End Berm Factor Calculation, Iter: 22 ---------!
berm_width =
    76
rB =
         0.287779833292124
rdh_mean =
         0.519793381947008
gamma_berm =
         0.861806219510935
slope =
        0.0969396778080092
Irb =
          1.06407648102464
gamma_berm =
         0.861806219510935
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.646354664633201
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13752662567328
R2del =
        0.0657995801556677
Z2 =
          18.2840489756224
ans =
!----------------- STARTING ITERATION 23 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.392049762929
Z2 =
          18.2840489756224
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.13752662567328
Z2 =
          18.2840489756224
top_sta =
          272.392049762929
Lslope =
          265.316392537758
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 14
dh =
```

```
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 29
dh =
```

```
           8.67902184994911
rdh_sum =
           12.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 30
dh =
           8.74077884994911
rdh_sum =
           13.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 31
dh =
           8.80253584994911
rdh_sum =
           14.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 32
dh =
           8.86429284994911
rdh_sum =
           15.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 33
dh =
           8.92850634994911
rdh_sum =
           16.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 34
dh =
           8.99763184994911
rdh_sum =
           17.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 35
dh =
           9.06921334994911
rdh_sum =
           18.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 36
dh =
           9.14079534994911
rdh_sum =
           19.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 37
dh =
           9.21237734994911
rdh_sum =
           20.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 38
dh =
           9.28395934994911
rdh_sum =
           21.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 39
dh =
           9.29104334994911
rdh_sum =
           22.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 40
dh =
           9.23362884994911
rdh_sum =
           23.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 41
dh =
           9.17621384994911
rdh_sum =
           24.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 42
dh =
           9.11879934994911
rdh_sum =
           25.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 46
dh =
           8.51266434994911
rdh_sum =
           26.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 47
dh =
```

```
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 89
dh =
```

```
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 110
dh =
```

```
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937869979482
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690529835915
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522681836328
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9435686777079
ans =
Berm Factor Calculation: Iteration 23, Profile Segment: 158
dh =
```

```
         -2.39881315005089
rdh_sum =
          38.1430870722938
ans =
!------- End Berm Factor Calculation, Iter: 23 ---------!
berm_width =
    76
rB =
          0.28645044986877
rdh_mean =
          0.501882724635445
gamma_berm =
          0.857314082384417
slope =
        0.0966596644396375
Irb =
          1.06100286198242
gamma_berm =
          0.857314082384417
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                       0.75
gamma =
          0.642985561788313
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.07172704561934
R2del =
        0.0657995800539339
Z2 =
          18.2182493955685
ans =
!----------------- STARTING ITERATION 24 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.166434994849
Z2 =
          18.2182493955685
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.07172704561934
Z2 =
          18.2182493955685
top_sta =
          271.166434994849
Lslope =
          264.090777769678
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
```

```
           2.77771106060995
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 19
dh =
           7.59730984994911
rdh_sum =
           3.38412769092466
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 20
dh =
           7.74345634994911
rdh_sum =
           4.00725612973755
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 21
dh =
           7.88960284994911
rdh_sum =
           4.64695117234071
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 22
dh =
           8.03574934994911
rdh_sum =
           5.30304807711916
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 23
dh =
           8.18189584994911
rdh_sum =
           6.30304807711916
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 24
dh =
           8.32804234994911
rdh_sum =
           7.30304807711916
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 25
dh =
           8.43199384994911
rdh_sum =
           8.30304807711916
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 26
dh =
           8.49375084994911
rdh_sum =
           9.30304807711916
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 27
dh =
           8.55550784994911
rdh_sum =
           10.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 28
dh =
           8.61726484994911
rdh_sum =
           11.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 29
dh =
           8.67902184994911
rdh_sum =
           12.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 30
dh =
           8.74077884994911
rdh_sum =
           13.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 31
dh =
           8.80253584994911
rdh_sum =
           14.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 32
dh =
           8.86429284994911
rdh_sum =
           15.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 33
dh =
           8.92850634994911
rdh_sum =
```

```
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          30.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
```

```
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          33.9585202021471
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          34.1413351560345
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          34.3306961807534
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          34.5266911667225
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          34.7408639313314
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          34.9858228976088
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
```

```
          35.2629355442306
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          35.5733970026742
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          35.6709836943991
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          35.7740194540649
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          35.8826349405054
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
          35.9969589416378
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          36.1171183287483
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          36.2432380895308
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          36.3754412504003
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
```

```
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435766738079
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
           38.921528204353
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
           39.1075413130475
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
           39.3017530855354
ans =
Berm Factor Calculation: Iteration 24, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
           39.5042970279507
ans =
!------- End Berm Factor Calculation, Iter: 24 ---------!
berm_width =
    76
rB =
         0.287779833290059
rdh_mean =
          0.51979338194672
gamma_berm =
         0.861806219511844
slope =
        0.0969396778075734
Irb =
          1.06407648101986
gamma_berm =
         0.861806219511844
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
```

```
         0.646354664633883
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13752662564528
R2del =
        0.0657995800259314
Z2 =
          18.2840489755944
ans =
!----------------- STARTING ITERATION 25 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          272.392049762408
Z2 =
          18.2840489755944
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
          12.5460909090909
R2 =
          8.13752662564528
Z2 =
          18.2840489755944
top_sta =
          272.392049762408
Lslope =
          265.316392537237
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
```

```
Berm Factor Calculation: Iteration 25, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 27
dh =
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
```

```
Berm Factor Calculation: Iteration 25, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 42
dh =
          9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 46
dh =
          8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 47
dh =
          8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 48
dh =
          8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 54
dh =
          8.10490234994911
rdh_sum =
          28.9668429636094
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 55
dh =
          8.10396484994911
rdh_sum =
          29.6305337739893
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 56
dh =
          8.10302784994911
rdh_sum =
          30.2941205558282
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 57
dh =
          8.08615484994911
rdh_sum =
          30.9558326944034
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 58
dh =
          8.05334634994911
rdh_sum =
          31.6138924547539
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 81
dh =
          2.73182434994911
rdh_sum =
          31.7134256803602
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 82
dh =
          2.93523634994911
rdh_sum =
          31.8277208203406
ans =
```

```
Berm Factor Calculation: Iteration 25, Profile Segment: 83
dh =
          3.13864834994911
rdh_sum =
          31.9576589514269
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 84
dh =
          3.34206034994911
rdh_sum =
          32.1040854166155
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 85
dh =
          3.51251484994911
rdh_sum =
          32.2649523273288
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 86
dh =
          3.61705434994911
rdh_sum =
          32.4349461938491
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 87
dh =
          3.68863634994911
rdh_sum =
          32.6113048194314
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 88
dh =
          3.76021834994911
rdh_sum =
          32.7941197733187
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 89
dh =
          3.83180034994911
rdh_sum =
          32.9834807980377
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 90
dh =
          3.90338234994911
rdh_sum =
          33.1794757840068
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 91
dh =
          4.09501334994911
rdh_sum =
          33.3936485486156
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 92
dh =
          4.40669284994911
rdh_sum =
          33.6386075148931
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 93
dh =
          4.71837234994911
rdh_sum =
          33.9157201615149
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 94
dh =
          5.03005234994911
rdh_sum =
          34.2261816199585
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 101
dh =
          2.70403334994911
rdh_sum =
          34.3237683116834
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 102
dh =
          2.78122934994911
rdh_sum =
          34.4268040713492
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 103
dh =
          2.85842584994911
rdh_sum =
          34.5354195577896
ans =
```

```
Berm Factor Calculation: Iteration 25, Profile Segment: 104
dh =
          2.93562234994911
rdh_sum =
           34.649743558922
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 105
dh =
          3.01281834994911
rdh_sum =
          34.7699029460325
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 106
dh =
          3.09001434994911
rdh_sum =
          34.8960227068151
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 107
dh =
          3.16721034994911
rdh_sum =
          35.0282258676846
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 108
dh =
          3.24440684994911
rdh_sum =
          35.1666334938687
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          35.3133955781166
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          35.4708043468536
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
           35.639161000061
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          35.8187571125388
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          36.0098743775591
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          36.2127844064579
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          36.4211417608265
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          36.5664796642185
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
          36.7195076642752
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          36.8803874392883
ans =
```

```
Berm Factor Calculation: Iteration 25, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          37.0492770088637
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          37.2263306602891
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          37.3937869979493
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          37.5690529835937
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 156
dh =
         -2.29144015005089
rdh_sum =
          37.7522681836362
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          37.9435686777125
ans =
Berm Factor Calculation: Iteration 25, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          38.1430870722997
ans =
!------- End Berm Factor Calculation, Iter: 25 ---------!
berm_width =
    76
rB =
         0.286450449869333
rdh_mean =
         0.501882724635522
gamma_berm =
         0.857314082384159
slope =
        0.0966596644397559
Irb =
          1.06100286198372
gamma_berm =
         0.857314082384159
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.642985561788119
ans =
!!! - - Iribaren number:   0.91 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
           8.0717270456268
R2del =
        0.0657995800184725
Z2 =
          18.2182493955759
ans =
!----------------- STARTING ITERATION 26 -----------------!
Ztoe =
       -0.0152099999999997
toe_sta =
          7.07565722517106
top_sta =
          271.166434994988
Z2 =
          18.2182493955759
H0 =
                    6.6846
Tp =
                   13.8007
T0 =
```

```
          12.5460909090909
R2 =
           8.0717270456268
Z2 =
          18.2182493955759
top_sta =
          271.166434994988
Lslope =
          264.090777769817
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 14
dh =
          6.86657734994911
rdh_sum =
          0.52137398948955
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 15
dh =
          7.01272384994911
rdh_sum =
          1.05988758097302
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 16
dh =
          7.15887034994911
rdh_sum =
          1.61549535557839
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 17
dh =
          7.30501684994911
rdh_sum =
          2.18813173535515
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 18
dh =
          7.45116334994911
rdh_sum =
          2.77771106060995
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 19
dh =
          7.59730984994911
rdh_sum =
          3.38412769092466
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 20
dh =
          7.74345634994911
rdh_sum =
          4.00725612973755
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 21
dh =
          7.88960284994911
rdh_sum =
          4.64695117234071
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 22
dh =
          8.03574934994911
rdh_sum =
          5.30304807711916
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 23
dh =
          8.18189584994911
rdh_sum =
          6.30304807711916
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 24
dh =
          8.32804234994911
rdh_sum =
          7.30304807711916
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 25
dh =
          8.43199384994911
rdh_sum =
          8.30304807711916
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 26
dh =
          8.49375084994911
rdh_sum =
          9.30304807711916
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 27
dh =
```

```
          8.55550784994911
rdh_sum =
          10.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 28
dh =
          8.61726484994911
rdh_sum =
          11.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 29
dh =
          8.67902184994911
rdh_sum =
          12.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 30
dh =
          8.74077884994911
rdh_sum =
          13.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 31
dh =
          8.80253584994911
rdh_sum =
          14.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 32
dh =
          8.86429284994911
rdh_sum =
          15.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 33
dh =
          8.92850634994911
rdh_sum =
          16.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 34
dh =
          8.99763184994911
rdh_sum =
          17.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 35
dh =
          9.06921334994911
rdh_sum =
          18.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 36
dh =
          9.14079534994911
rdh_sum =
          19.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 37
dh =
          9.21237734994911
rdh_sum =
          20.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 38
dh =
          9.28395934994911
rdh_sum =
          21.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 39
dh =
          9.29104334994911
rdh_sum =
          22.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 40
dh =
          9.23362884994911
rdh_sum =
          23.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 41
dh =
          9.17621384994911
rdh_sum =
          24.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 42
dh =
```

```
           9.11879934994911
rdh_sum =
          25.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 46
dh =
           8.51266434994911
rdh_sum =
          26.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 47
dh =
           8.67014434994911
rdh_sum =
          27.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 48
dh =
           8.75216534994911
rdh_sum =
          28.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 54
dh =
           8.10490234994911
rdh_sum =
          29.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 55
dh =
           8.10396484994911
rdh_sum =
          30.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 56
dh =
           8.10302784994911
rdh_sum =
          31.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 57
dh =
           8.08615484994911
rdh_sum =
          32.3030480771192
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 58
dh =
           8.05334634994911
rdh_sum =
          32.9611078374696
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 81
dh =
           2.73182434994911
rdh_sum =
           33.060641063076
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 82
dh =
           2.93523634994911
rdh_sum =
          33.1749362030563
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 83
dh =
           3.13864834994911
rdh_sum =
          33.3048743341427
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 84
dh =
           3.34206034994911
rdh_sum =
          33.4513007993313
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 85
dh =
           3.51251484994911
rdh_sum =
          33.6121677100445
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 86
dh =
           3.61705434994911
rdh_sum =
          33.7821615765649
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 87
dh =
```

```
           3.68863634994911
rdh_sum =
           33.9585202021471
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 88
dh =
           3.76021834994911
rdh_sum =
           34.1413351560345
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 89
dh =
           3.83180034994911
rdh_sum =
           34.3306961807534
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 90
dh =
           3.90338234994911
rdh_sum =
           34.5266911667225
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 91
dh =
           4.09501334994911
rdh_sum =
           34.7408639313314
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 92
dh =
           4.40669284994911
rdh_sum =
           34.9858228976088
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 93
dh =
           4.71837234994911
rdh_sum =
           35.2629355442306
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 94
dh =
           5.03005234994911
rdh_sum =
           35.5733970026742
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 101
dh =
           2.70403334994911
rdh_sum =
           35.6709836943991
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 102
dh =
           2.78122934994911
rdh_sum =
           35.7740194540649
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 103
dh =
           2.85842584994911
rdh_sum =
           35.8826349405054
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 104
dh =
           2.93562234994911
rdh_sum =
           35.9969589416378
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 105
dh =
           3.01281834994911
rdh_sum =
           36.1171183287483
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 106
dh =
           3.09001434994911
rdh_sum =
           36.2432380895308
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 107
dh =
           3.16721034994911
rdh_sum =
           36.3754412504003
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 108
dh =
```

```
          3.24440684994911
rdh_sum =
          36.5138488765845
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 109
dh =
          3.34609834994911
rdh_sum =
          36.6606109608323
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 110
dh =
          3.47228434994911
rdh_sum =
          36.8180197295694
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 111
dh =
          3.59847034994911
rdh_sum =
          36.9863763827767
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 112
dh =
          3.72465634994911
rdh_sum =
          37.1659724952545
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 113
dh =
          3.85084234994911
rdh_sum =
          37.3570897602748
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 114
dh =
          3.97702884994911
rdh_sum =
          37.5599997891737
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 115
dh =
          4.03438634994911
rdh_sum =
          37.7683571435422
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 121
dh =
          3.32893684994911
rdh_sum =
          37.9136950469343
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 122
dh =
          3.42080034994911
rdh_sum =
           38.066723046991
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 123
dh =
          3.51266384994911
rdh_sum =
          38.2276028220041
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 124
dh =
          3.60452734994911
rdh_sum =
          38.3964923915795
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 125
dh =
          3.69639084994911
rdh_sum =
          38.5735460430048
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 154
dh =
         -2.18406765005089
rdh_sum =
          38.7435766738076
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 155
dh =
         -2.23775365005089
rdh_sum =
          38.9215282043524
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 156
dh =
```

```
         -2.29144015005089
rdh_sum =
          39.1075413130466
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 157
dh =
         -2.34512665005089
rdh_sum =
          39.3017530855341
ans =
Berm Factor Calculation: Iteration 26, Profile Segment: 158
dh =
         -2.39881315005089
rdh_sum =
          39.5042970279491
ans =
!------- End Berm Factor Calculation, Iter: 26 ---------!
berm_width =
    76
rB =
         0.287779833289908
rdh_mean =
         0.519793381946699
gamma_berm =
          0.86180621951191
slope =
        0.0969396778075415
Irb =
          1.06407648101951
gamma_berm =
          0.86180621951191
gamma_perm =
     1
gamma_beta =
     1
gamma_rough =
                      0.75
gamma =
         0.646354664633933
ans =
!!! - - Iribaren number:   0.92 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:10.3 V:H is outside the valid range (1:8 - 1:1), TAW NOT VALID - - !!!
R2_new =
          8.13752662564323
R2del =
        0.0657995800164244
Z2 =
          18.2840489755923
% final 2% runup elevation
Z2=R2_new+SWEL
Z2 =
          18.2840489755923
diary off
-1.000000e+00
```

PART 5: RUNUP2

for transect: YK-103

Station locations shifted by: -0.67 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

RUNUP2 INPUT CONVERSIONS
for transect: YK-103

Incident significant wave height: 18.51 feet

Peak wave period: 13.84 seconds

Mean wave height: 11.59 feet

Local Depth below SWEL: 32.82 feet

Mean wave height deshoaled using Hunt approximation for
celerity assuming constant wave energy flux.
References: R.G. Dean and R.A. Dalrymple. 2000. Water

Wave Mechanics for Engineers and Scientists. World
Scientific Publishing Company, River Edge New Jersy

USACE (1985), Direct Methods for Calculating Wavelength, CETN-1-17
US Army Engineer Waterways Experiment Station Coastel Engineering
Research Center, Vicksburg, MS

also see Coastal Engineering Manual Part II-3
for discussion of shoaling coefficient

Depth, D = 32.82
Period, T = 11.76
Waveheight, H = 11.59
Deep water wavelength, L0 (ft)
L0 = g*T*T/twopi
L0 = 32.17*11.76*11.76/6.28 = 708.65
Deep water wave celerity, C0 (ft/s)
C0 = L0/T
C0 = 708.65/11.76 = 60.24
Angular frequency, sigma (rad/s)
sigma = twopi/T
sigma = 6.28/11.76 = 0.53
Hunts (1979) approximation for Celerity C1H (ft/s) at Depth D (ft)
y = sigma.*sigma.*D./g
y = 0.53*0.53*32.82/32.17 = 0.29
C1H = sqrt(g.*D./(y+1./(1 + 0.6522.*y + 0.4622.*y.^2 + 0.0864.*y.^4 +0.0675.*y.^5)))
C1H = 30.92
Shoaling Coefficient KsH
KsH = sqrt(C0/C1H)
KsH = sqrt(60.24/30.92) = 1.40
Deepwater Wave Height H0_H (ft)
H0_H = H/KsH
H0_H = 11.59/1.40 = 8.30

Deepwater mean wave height: 8.30 feet

END RUNUP2 CONVERSIONS

RUNUP2 RESULTS
for transect: YK-103

RUNUP2 SWEL:
9.00
9.00
9.00
9.00

9.00
9.00
9.00
9.00
9.00

RUNUP2 deepwater mean wave heights:
7.89
7.89
7.89
8.30
8.30
8.30
8.72
8.72
8.72

RUNUP2 mean wave periods:
11.18
11.76
12.35
11.18
11.76
12.35
11.18
11.76
12.35

RUNUP2 runup above SWEL:
1.45
1.45
1.17
1.13
1.13
1.13
1.08
1.12
1.19

RUNUP2 Mean runup height above SWEL: 1.21 feet

RUNUP2 2-percent runup height above SWEL: 2.65 feet

RUNUP2 2-percent runup elevation: 11.65 feet-NAVD88

RUNUP2 Messages:
No Messages

_____END RUNUP2 RESULTS_____

_____ACES BEACH RUNUP_____

Incident significant wave height: 18.51 feet

Significant wave height is mean wave height divided by 0.626
Reference: D.2.8.1.2.1 Atlanic and Gulf of Mexico G&S Feb. 2007

Deepwater significant wave height: 13.26 feet

Peak wave period: 13.84 seconds

Average beach Slope: 1:34.06 (H:V)

ACES IRREGULAR WAVE RUNUP ON BEACHES

Reference:
Leenknecht, David A., Andre Szuwaiski, and Ann Sherlock. 1992.
"Automated Coastal Engineering System Technical Reference",
Coastal Engineering Research Center, Department of the Army

```
# Waterways Experiments Station, Corps of Eniggneers, 3909 Halls
# Ferry Road, Vicksburg, Mississippi 39180-6199.

INPUTS:

Acceleration Due to Gravity,        g  =   32.174
Deepwater Significant Wave height,  Hs =    13.26
Wave Period,                        T  =    13.84
Beach Slope,                        S  =    0.029

EQUATIONS:

Runup,           R   = Hs * a * Irb^b
Iribarren,       Irb = S/sqrt(Hs/L0)
Wavelength,      L0  = g * T^2 / 2 / pi

COEFFICIENTS:
(Mase, H. 1989, "Random Wave Runup Height on Gentle Slopes,"
j. Waterway, Port, Coastal and Ocean Engineering Division,
ASCE, Vol 115, No. 5, pp 649-661.)

               [Rmax,  R2%, R-1/3, R-1/10, R-mean]
          a = [2.32, 1.86,  1.70,   1.38,   0.88]
          b = [0.77, 0.71,  0.71,   0.70,   0.69]

RESULTS:

       RUNUP = [10.7,  9.3,   8.5,    7.0,    4.5]

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 9.28 feet

ACES Beach 2-percent runup elevation: 18.28 feet-NAVD88

ACES BEACH RUNUP is valid

_____________END ACES BEACH RESULTS_____________________

PART 5 COMPLETE_____________________________________________
```

```
  FEMA                                                  sjh            job 2
  RUNUP2 transect: YK-103                                                  1
7.00
  -23.77 -1071.3 0.8
  -23.18 -1013.3 0.8
  -20.00 -885.3 0.8
  -14.63 -761.3 0.8
  -13.28 -737.3 0.8
  -9.22 -642.3 0.8
  -6.41 -527.3 0.8
  -5.97 -418.3 0.8
  -5.96 -358.3 0.8
  -4.93 -310.3 0.8
  -4.93 -162.3 0.8
  -2.79 -110.3 0.8
  -1.40 -36.3  0.8
  0.07  6.2    0.8
  3.35  21.7   0.8
  3.35  72.2   0.8
  7.62  88.2   0.8
  7.62  138.7  0.8
  9.32  144.7  0.8
1 12.57 166.7  0.8
 9.0   7.89  11.18
 9.0   7.89  11.76
 9.0   7.89  12.35
 9.0   8.30  11.18
 9.0   8.30  11.76
 9.0   8.30  12.35
 9.0   8.72  11.18
 9.0   8.72  11.76
 9.0   8.72  12.35
```

****

CROSS SECTION PROFILE

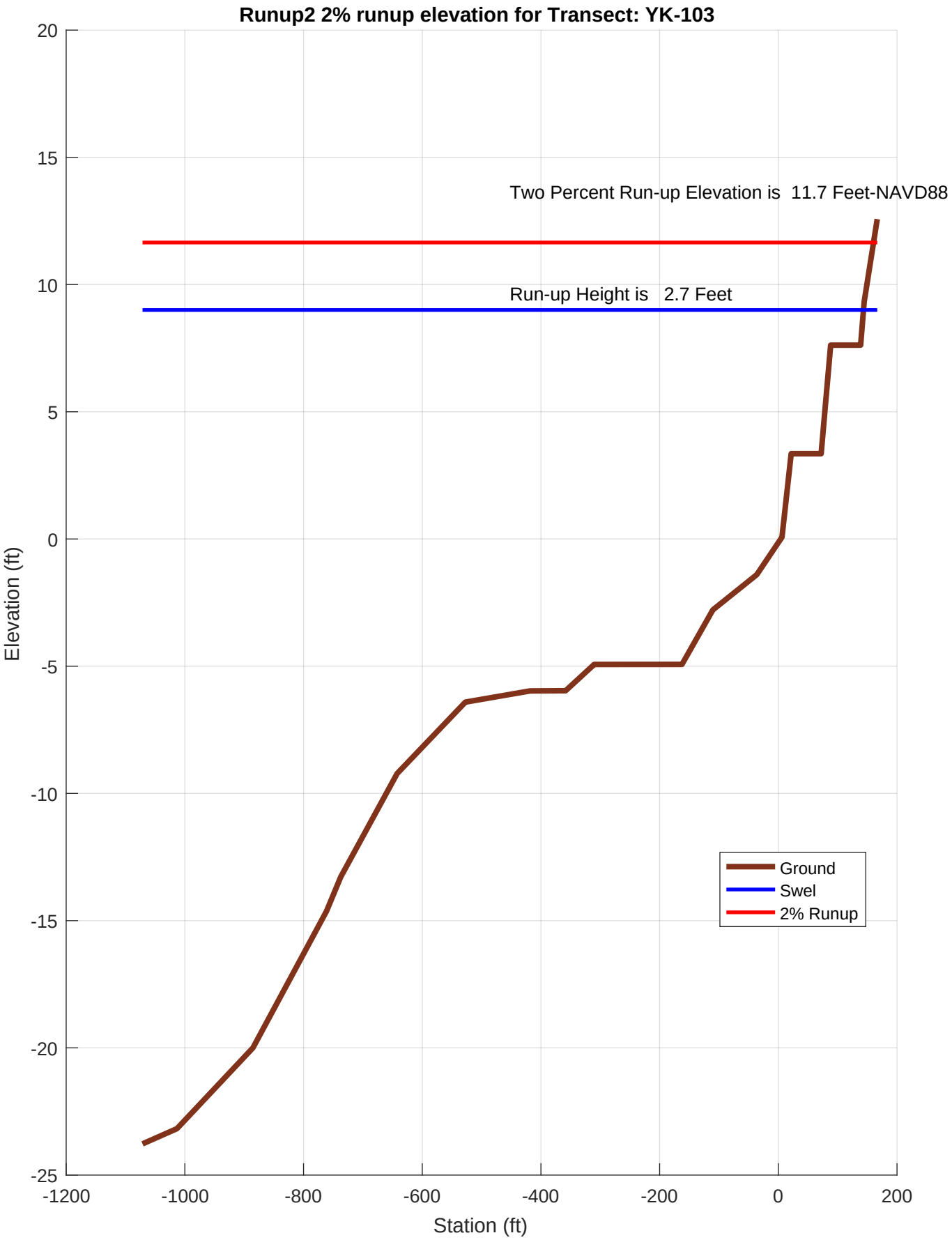
	LENGTH	ELEV.	SLOPE	ROUGHNESS
1	-107.1	-23.7		
2	-101.3	-23.1	.00	30.80
3	-885.0	-20.0	-252.81	30.80
4	-761.0	-14.6	22.96	.80
5	-737.0	-13.2	17.14	.80
6	-642.3	-9.2	23.79	.80
7	-527.3	-6.4	40.93	.80
8	-418.3	-6.0	247.73	.80
9	-358.3	-5.9	FLAT	.80
10	-310.3	-4.9	46.60	.80
11	-162.3	-4.9	FLAT	.80
12	-110.3	-2.8	24.30	.80
13	-36.3	-1.4	53.24	.80
14	6.2	.1	28.91	.80
15	21.7	3.4	4.73	.80
16	72.2	3.4	FLAT	.80
17	88.2	7.6	3.75	.80
18	138.7	7.6	FLAT	.80
19	144.7	9.3	3.53	.80
20	166.7	12.6	6.77	.80

LAST SLOPE 7.00 LAST ROUGHNESS .80

****

OUTPUT TABLE

INPUT PARAMETERS			RUNUP RESULTS			
WATER LEVEL ABOVE DATUM (FT.)	DEEP WATER WAVE HEIGHT (FT.)	WAVE PERIOD (SEC.)	BREAKING SLOPE NUMBER	RUNUP SLOPE NUMBER	RUNUP ABOVE WATER LEVEL (FT.)	BREAKER DEPTH (FT.)
9.00	7.89	11.18	9	19	1.45	14.57
9.00	7.89	11.76	9	19	1.45	14.86
9.00	7.89	12.35	7	19	1.17	15.21
9.00	8.30	11.18	7	19	1.13	15.24
9.00	8.30	11.76	7	19	1.13	15.54
9.00	8.30	12.35	6	19	1.13	15.65
9.00	8.72	11.18	6	19	1.08	15.69
9.00	8.72	11.76	6	19	1.12	15.98
9.00	8.72	12.35	6	19	1.19	16.29


Runup2 2% runup elevation for Transect: YK-103
Two Percent Run-up Elevation is 11.7 Feet-NAVD88
Run-up Height is 2.7 Feet
Ground
Swel
2% Runup
Elevation (ft)
Station (ft)
20
15
10
5
0
-5
-10
-15
-20
-25
-1200
-1000
-800
-600
-400
-200
0
200