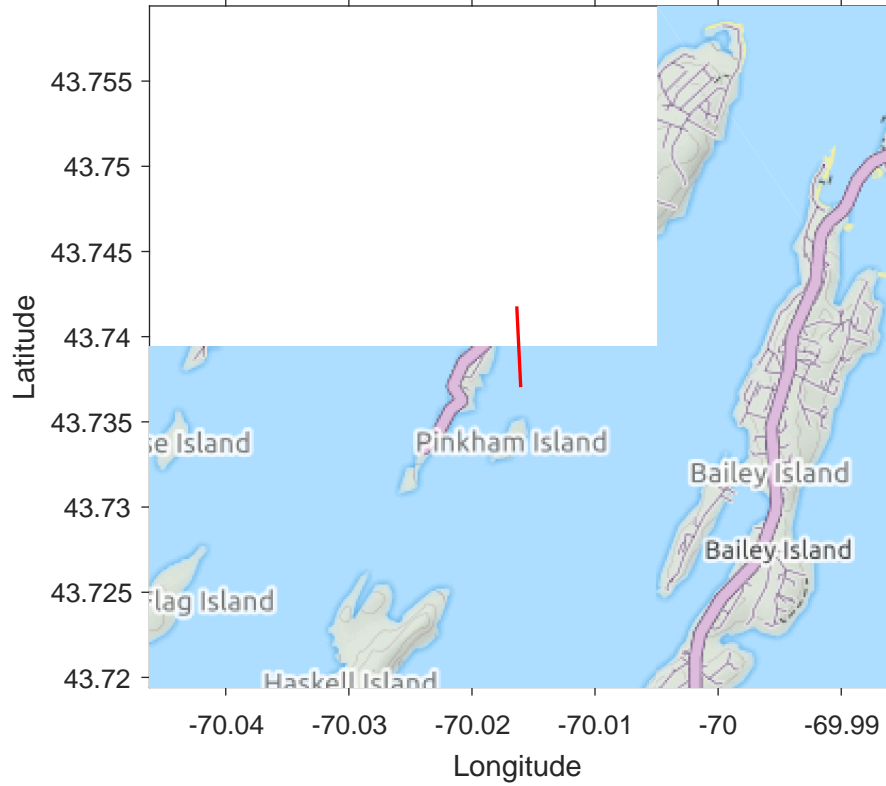
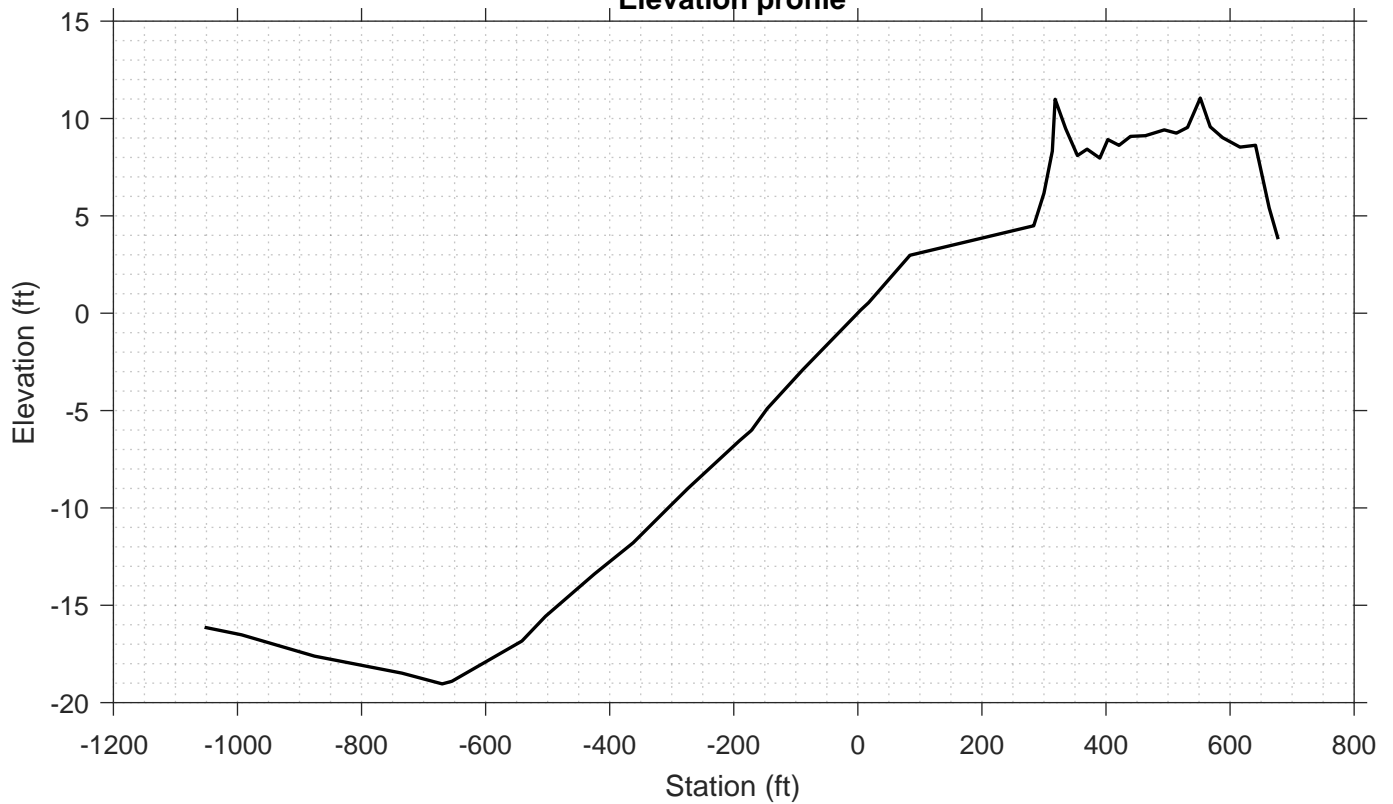


Transect Number: CM-129-1



Elevation profile



DATA LOG FOR TRANSECT ID: CM-129-1

PART 1: USER INPUT

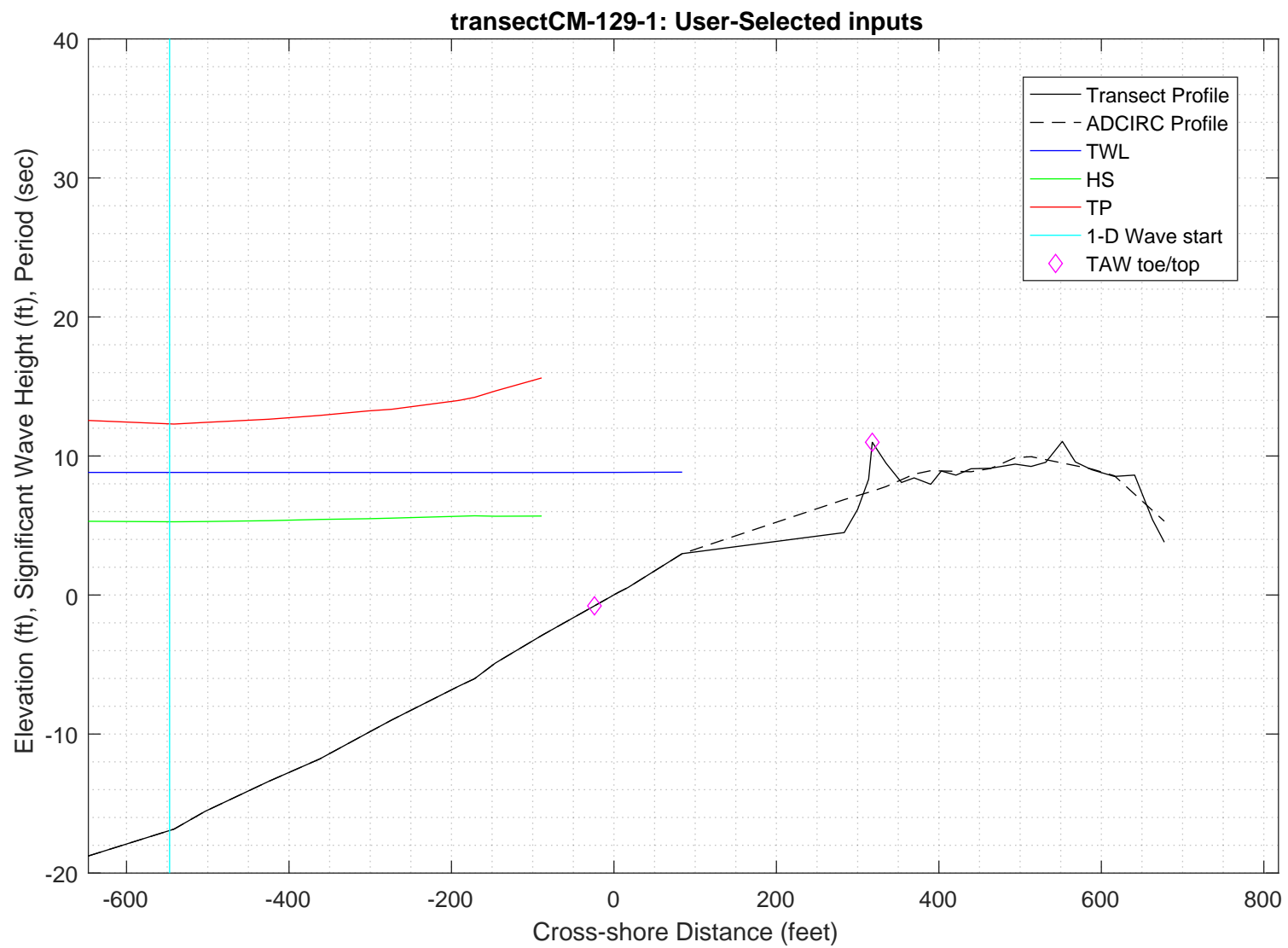
SWAN 1-D / WHAFIS input

station: -547 ft
LON: -70.0161 deg E
LAT: 43.7384 deg N
Bottom ELEV: -16.9379 ft-NAVD88
TWL: 8.8189 ft-NAVD88
HS: 5.2703 ft
TP: 12.3104 sec
Wave Direction bin: 90 deg CCW from East (90 deg sector)
Transect Direction: 93.8357 deg CCW from East

TAW/RUNUP input

toe sta: -24 ft
toe elev: -0.77896 ft-NAVD88
top sta: 318 ft
top elev: 10.9875 ft-NAVD88
Wave and water level conditions at toe to be calculated in SWAN 1-D

PART 1 COMPLETE



PART 2: SWAN 1-D

swan input grid name: 2_swan/gridfiles/CM-129-1zmeters_xmeters.grd
swan file name: 2_swan/swanfiles/CM-129-1.swn
swan output name: 2_swan/swanfiles/CM-129-1.dat

Boundary Conditions:

TWL- 2.688 meters
HS- 1.6064 meters
PER- 12.3104 seconds

Batch File: 2_swan/swanfiles/runswan.dat

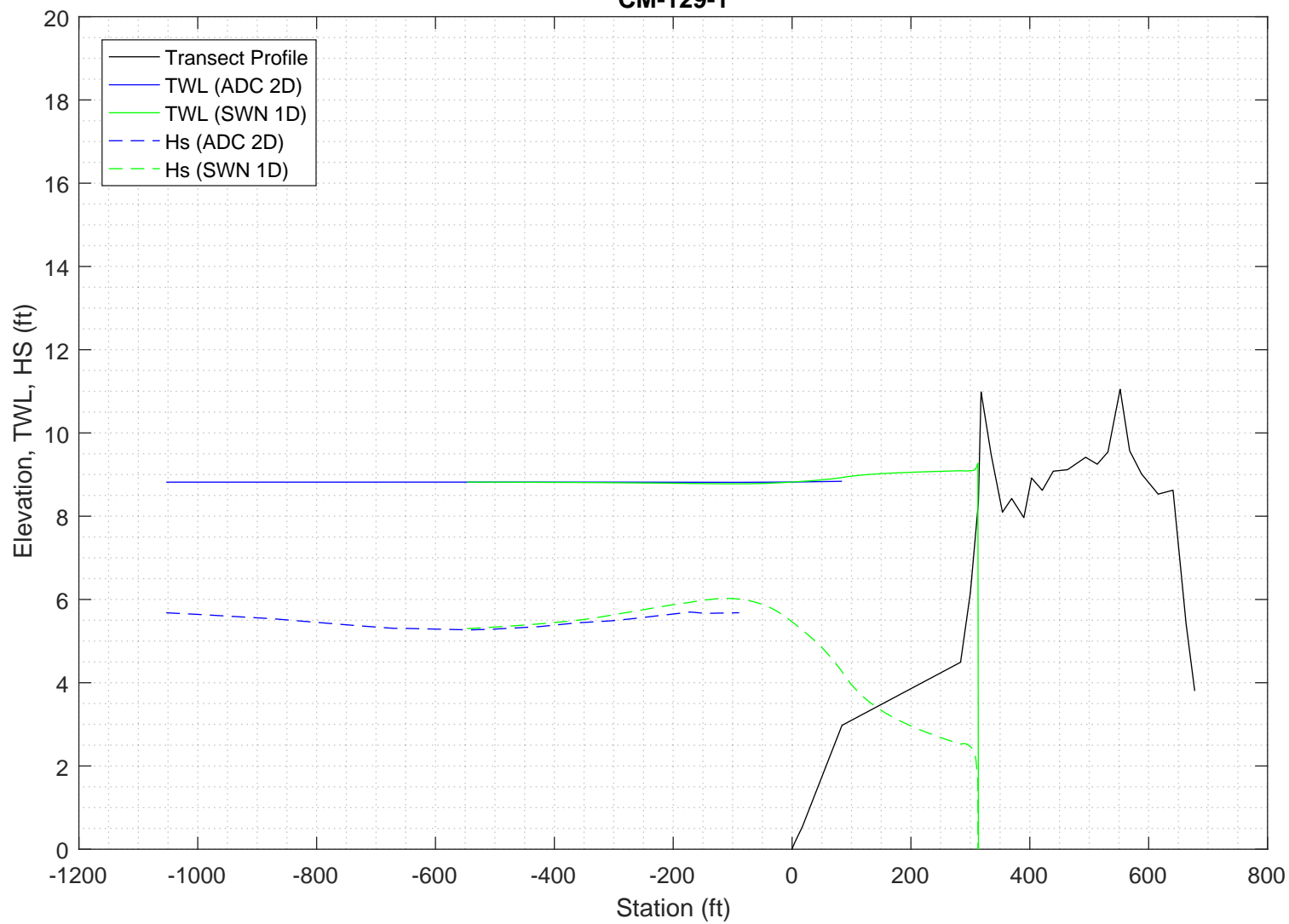
SWAN maximum additional wave setup: 0.45369 feet

SWAN output at toe:

SETUP- -0.018871 feet
HS- 5.7154 feet
PER- 12.3322 seconds

PART 2 COMPLETE

2-D ADCIRC+SWAN and SWAN 1-D results, Transect:
CM-129-1



Execution started at 20200220.141924

```

-----
                        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      263      0.    263      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      263    0      1      1
!READinp BOTtom [fac] 'fname1' [idla] [nhedf] [FREe|FORmat[form]|UNFormatted]
READ    BOTTOM    -1. '../gridfiles/CM-129-1zmeters_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    1.6064    12.3104    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] [edmlpm] [cdrag] [umin] [cfpm]
!-- GEN2 [cf10] [cf20] [cf30] [cf40] [cf50] [cf60] [edmlpm] [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' [xpl] [yp1] <[int] [xp] [yp] >
      CURVE 'curve' 0      0      263 263      0
!TABLE 'sname' < HEADER|NOHEAdER|INDEXed > 'fname' <output parameters> (output time)
      Table 'curve' HEADER 'CM-129-1.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          264 MYC          1
                   : MCGRD         265
                   : 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 EDMLEPM    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 42.21 % 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  0.39 % 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 43.73 % 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 58.94 % 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 99.24 % 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 99.24 % 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 100.00 % 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_l0 [sec]	Dir [degr]	Dspr [degr]	Depth [m]	Setup [m]
0.	0.	1.61570	12.2747	12.4477	11.1161	0.020	31.6861	7.8500	0.000000
1.	0.	1.61634	12.2750	12.4477	11.1008	0.020	31.6124	7.8300	-0.000026
2.	0.	1.61687	12.2753	12.4477	11.0857	0.020	31.5262	7.8099	-0.000051
3.	0.	1.61749	12.2756	12.4477	11.0708	0.020	31.4112	7.7799	-0.000090
4.	0.	1.61841	12.2759	12.4477	11.0563	0.020	31.2880	7.7399	-0.000144
5.	0.	1.61908	12.2762	12.4477	11.0415	0.020	31.1937	7.7098	-0.000181
6.	0.	1.61968	12.2765	12.4477	11.0266	0.021	31.1002	7.6798	-0.000218
7.	0.	1.62065	12.2769	12.4477	11.0121	0.021	31.0047	7.6397	-0.000269
8.	0.	1.62137	12.2772	12.4477	10.9971	0.021	30.9193	7.6097	-0.000307
9.	0.	1.62205	12.2775	12.4477	10.9822	0.021	30.8276	7.5797	-0.000346
10.	0.	1.62308	12.2779	12.4477	10.9675	0.021	30.7336	7.5396	-0.000400
11.	0.	1.62376	12.2782	12.4477	10.9525	0.021	30.6391	7.5096	-0.000440
12.	0.	1.62484	12.2786	12.4477	10.9377	0.021	30.5441	7.4695	-0.000497
13.	0.	1.62566	12.2789	12.4477	10.9226	0.021	30.4587	7.4395	-0.000539
14.	0.	1.62654	12.2792	12.4477	10.9074	0.021	30.3764	7.4094	-0.000583
15.	0.	1.62754	12.2796	12.4477	10.8923	0.021	30.3043	7.3794	-0.000627
16.	0.	1.62821	12.2799	12.4477	10.8768	0.021	30.2360	7.3593	-0.000656
17.	0.	1.62919	12.2803	12.4477	10.8617	0.021	30.1594	7.3293	-0.000702
18.	0.	1.63015	12.2806	12.4477	10.8466	0.021	30.0800	7.2993	-0.000749
19.	0.	1.63121	12.2810	12.4477	10.8315	0.021	30.0090	7.2692	-0.000796
20.	0.	1.63193	12.2813	12.4477	10.8160	0.021	29.9411	7.2492	-0.000827
21.	0.	1.63296	12.2816	12.4477	10.8009	0.022	29.8647	7.2191	-0.000876
22.	0.	1.63398	12.2820	12.4477	10.7859	0.022	29.7855	7.1891	-0.000925
23.	0.	1.63509	12.2823	12.4477	10.7708	0.022	29.7146	7.1590	-0.000976
24.	0.	1.63585	12.2827	12.4477	10.7554	0.022	29.6468	7.1390	-0.001009
25.	0.	1.63693	12.2830	12.4477	10.7403	0.022	29.5705	7.1089	-0.001061
26.	0.	1.63800	12.2834	12.4477	10.7253	0.022	29.4915	7.0789	-0.001113
27.	0.	1.63915	12.2837	12.4477	10.7103	0.022	29.4208	7.0488	-0.001166
28.	0.	1.63996	12.2841	12.4477	10.6948	0.022	29.3532	7.0288	-0.001202
29.	0.	1.64109	12.2845	12.4477	10.6798	0.022	29.2771	6.9987	-0.001256
30.	0.	1.64221	12.2848	12.4477	10.6648	0.022	29.1984	6.9687	-0.001312
31.	0.	1.64341	12.2852	12.4477	10.6498	0.022	29.1279	6.9386	-0.001368
32.	0.	1.64426	12.2855	12.4477	10.6343	0.022	29.0605	6.9186	-0.001406
33.	0.	1.64544	12.2859	12.4477	10.6193	0.022	28.9847	6.8885	-0.001464
34.	0.	1.64661	12.2863	12.4477	10.6043	0.023	28.9064	6.8585	-0.001522
35.	0.	1.64786	12.2866	12.4477	10.5893	0.023	28.8362	6.8284	-0.0

60.	0.	1.68220	12.2957	12.4477	10.1717	0.027	27.2737	6.1669	-0.003081
61.	0.	1.68438	12.2960	12.4477	10.1535	0.027	27.1961	6.1268	-0.003187
62.	0.	1.68625	12.2964	12.4477	10.1341	0.028	27.1261	6.0967	-0.003268
63.	0.	1.68825	12.2967	12.4477	10.1136	0.029	27.0592	6.0666	-0.003352
64.	0.	1.69035	12.2971	12.4477	10.0923	0.030	26.9942	6.0366	-0.003436
65.	0.	1.69255	12.2975	12.4477	10.0701	0.032	26.9310	6.0065	-0.003522
66.	0.	1.69478	12.2978	12.4477	10.0472	0.034	26.8618	5.9764	-0.003610
67.	0.	1.69754	12.2982	12.4477	10.0242	0.037	26.7915	5.9363	-0.003727
68.	0.	1.69970	12.2985	12.4477	10.0029	0.044	26.7341	5.9062	-0.003817
69.	0.	1.70187	12.2989	12.4477	9.9819	0.051	26.6830	5.8761	-0.003908
70.	0.	1.70414	12.2992	12.4477	9.9602	0.060	26.6369	5.8460	-0.004001
71.	0.	1.70642	12.2995	12.4477	9.9378	0.070	26.5881	5.8159	-0.004095
72.	0.	1.70911	12.2999	12.4477	9.9170	0.082	26.5407	5.7758	-0.004221
73.	0.	1.71144	12.3002	12.4477	9.8950	0.094	26.5064	5.7457	-0.004318
74.	0.	1.71384	12.3006	12.4477	9.8728	0.106	26.4791	5.7156	-0.004417
75.	0.	1.71622	12.3009	12.4477	9.8511	0.110	26.4466	5.6855	-0.004517
76.	0.	1.71856	12.3012	12.4477	9.8300	0.105	26.4091	5.6554	-0.004619
77.	0.	1.72097	12.3016	12.4477	9.8084	0.092	26.3714	5.6253	-0.004723
78.	0.	1.72336	12.3019	12.4477	9.7864	0.081	26.3229	5.5952	-0.004829
79.	0.	1.72622	12.3022	12.4477	9.7656	0.078	26.2634	5.5550	-0.004970
80.	0.	1.72862	12.3026	12.4477	9.7442	0.076	26.2105	5.5249	-0.005078
81.	0.	1.73101	12.3029	12.4477	9.7234	0.076	26.1565	5.4948	-0.005188
82.	0.	1.73336	12.3032	12.4477	9.7030	0.074	26.0995	5.4647	-0.005300
83.	0.	1.73572	12.3036	12.4477	9.6827	0.072	26.0430	5.4346	-0.005412
84.	0.	1.73811	12.3039	12.4477	9.6622	0.070	25.9864	5.4045	-0.005526
85.	0.	1.74050	12.3042	12.4477	9.6418	0.068	25.9282	5.3744	-0.005642
86.	0.	1.74288	12.3046	12.4477	9.6218	0.069	25.8671	5.3442	-0.005759
87.	0.	1.74526	12.3049	12.4477	9.6017	0.070	25.8055	5.3141	-0.005878
88.	0.	1.74765	12.3052	12.4477	9.5816	0.071	25.7431	5.2840	-0.005998
89.	0.	1.75007	12.3056	12.4477	9.5615	0.072	25.6808	5.2539	-0.006119
90.	0.	1.75250	12.3059	12.4477	9.5412	0.073	25.6197	5.2238	-0.006242
91.	0.	1.75496	12.3062	12.4477	9.5208	0.074	25.5589	5.1936	-0.006365
92.	0.	1.75743	12.3066	12.4477	9.5003	0.075	25.4976	5.1635	-0.006491
93.	0.	1.75993	12.3069	12.4477	9.4797	0.076	25.4361	5.1334	-0.006618
94.	0.	1.76243	12.3072	12.4477	9.4591	0.076	25.3727	5.1033	-0.006746
95.	0.	1.76490	12.3075	12.4477	9.4388	0.078	25.3083	5.0731	-0.006875
96.	0.	1.76736	12.3079	12.4477	9.4187	0.078	25.2427	5.0430	-0.007006
97.	0.	1.76987	12.3082	12.4477	9.3987	0.078	25.1830	5.0129	-0.007138
98.	0.	1.77183	12.3085	12.4477	9.3777	0.078	25.1259	4.9928	-0.007228
99.	0.	1.77430	12.3088	12.4477	9.3579	0.077	25.0602	4.9626	-0.007362
100.	0.	1.77675	12.3092	12.4477	9.3380	0.076	24.9918	4.9325	-0.007498
101.	0.	1.77921	12.3095	12.4477	9.3180	0.074	24.9225	4.9024	-0.007635
102.	0.	1.78166	12.3098	12.4477	9.2981	0.073	24.8526	4.8722	-0.007773
103.	0.	1.78410	12.3101	12.4477	9.2782	0.071	24.7811	4.8421	-0.007913
104.	0.	1.78653	12.3104	12.4477	9.2583	0.069	24.7095	4.8119	-0.008055
105.	0.	1.78895	12.3108	12.4477	9.2386	0.065	24.6355	4.7818	-0.008197
106.	0.	1.79128	12.3111	12.4477	9.2193	0.060	24.5599	4.7517	-0.008339
107.	0.	1.79353	12.3114	12.4477	9.2006	0.055	24.4834	4.7215	-0.008480
108.	0.	1.79571	12.3117	12.4477	9.1820	0.048	24.4087	4.6914	-0.008619
109.	0.	1.79774	12.3120	12.4477	9.1643	0.042	24.3362	4.6612	-0.008754
110.	0.	1.79967	12.3123	12.4477	9.1476	0.033	24.2697	4.6311	-0.008886
111.	0.	1.80094	12.3126	12.4477	9.1298	0.028	24.2060	4.6110	-0.008964
112.	0.	1.80272	12.3129	12.4477	9.1133	0.024	24.1338	4.5809	-0.009092
113.	0.	1.80485	12.3132	12.4477	9.0941	0.022	24.0557	4.5508	-0.009231
114.	0.	1.80705	12.3135	12.4477	9.0741	0.022	23.9745	4.5206	-0.009373
115.	0.	1.80918	12.3138	12.4477	9.0535	0.021	23.8769	4.4905	-0.009518
116.	0.	1.81202	12.3142	12.4477	9.0379	0.011	23.7652	4.4402	-0.009763
117.	0.	1.81421	12.3145	12.4477	9.0208	359.998	23.6528	4.4000	-0.009952
118.	0.	1.81633	12.3148	12.4477	9.0031	359.985	23.5321	4.3599	-0.010141
119.	0.	1.81894	12.3152	12.4477	8.9869	359.975	23.4076	4.3096	-0.010386
120.	0.	1.82070	12.3155	12.4477	8.9699	359.965	23.2830	4.2694	-0.010565
121.	0.	1.82304	12.3159	12.4477	8.9537	359.950	23.1547	4.2192	-0.010804
122.	0.	1.82470	12.3162	12.4477	8.9357	359.932	23.0326	4.1790	-0.010976
123.	0.	1.82652	12.3166	12.4477	8.9162	359.918	22.9193	4.1389	-0.011149
124.	0.	1.82761	12.3169	12.4477	8.8948	359.912	22.8119	4.1088	-0.011248
125.	0.	1.82953	12.3173	12.4477	8.8731	359.905	22.7022	4.0686	-0.011418
126.	0.	1.83076	12.3177	12.4477	8.8489	359.898	22.5931	4.0385	-0.011515

127.	0.	1.83258	12.3180	12.4477	8.8259	359.891	22.4821	3.9983	-0.011678
128.	0.	1.83341	12.3184	12.4477	8.8023	359.882	22.3740	3.9682	-0.011754
129.	0.	1.83479	12.3188	12.4477	8.7800	359.873	22.2644	3.9281	-0.011894
130.	0.	1.83541	12.3192	12.4477	8.7555	359.865	22.1555	3.8980	-0.011953
131.	0.	1.83662	12.3196	12.4477	8.7320	359.857	22.0445	3.8579	-0.012081
132.	0.	1.83687	12.3200	12.4477	8.7076	359.848	21.9442	3.8279	-0.012115
133.	0.	1.83658	12.3204	12.4477	8.6854	359.840	21.8415	3.7979	-0.012126
134.	0.	1.83667	12.3208	12.4477	8.6657	359.831	21.7356	3.7578	-0.012201
135.	0.	1.83579	12.3212	12.4477	8.6443	359.825	21.6306	3.7278	-0.012179
136.	0.	1.83539	12.3216	12.4477	8.6248	359.818	21.5241	3.6878	-0.012224
137.	0.	1.83401	12.3220	12.4477	8.6036	359.812	21.4182	3.6578	-0.012168
138.	0.	1.83367	12.3224	12.4477	8.5805	359.807	21.3081	3.6178	-0.012201
139.	0.	1.83245	12.3228	12.4477	8.5549	359.802	21.2000	3.5879	-0.012132
140.	0.	1.83147	12.3233	12.4477	8.5325	359.794	21.0928	3.5479	-0.012124
141.	0.	1.82949	12.3237	12.4477	8.5085	359.785	20.9957	3.5180	-0.012002
142.	0.	1.82716	12.3242	12.4477	8.4849	359.775	20.8925	3.4881	-0.011860
143.	0.	1.82527	12.3246	12.4477	8.4633	359.766	20.7871	3.4482	-0.011789
144.	0.	1.82235	12.3251	12.4477	8.4399	359.758	20.6897	3.4184	-0.011598
145.	0.	1.81915	12.3255	12.4477	8.4167	359.750	20.5949	3.3886	-0.011384
146.	0.	1.81559	12.3260	12.4477	8.3939	359.742	20.4929	3.3589	-0.011147
147.	0.	1.81241	12.3264	12.4477	8.3735	359.735	20.3869	3.3190	-0.010983
148.	0.	1.80841	12.3269	12.4477	8.3495	359.733	20.2888	3.2893	-0.010699
149.	0.	1.80413	12.3273	12.4477	8.3252	359.734	20.1854	3.2596	-0.010393
150.	0.	1.80025	12.3278	12.4477	8.3031	359.736	20.0793	3.2198	-0.010162
151.	0.	1.79519	12.3283	12.4477	8.2795	359.738	19.9816	3.1902	-0.009788
152.	0.	1.78991	12.3288	12.4477	8.2549	359.740	19.8862	3.1606	-0.009384
153.	0.	1.78424	12.3293	12.4477	8.2305	359.742	19.7849	3.1310	-0.008950
154.	0.	1.77892	12.3297	12.4477	8.2087	359.745	19.6798	3.0914	-0.008590
155.	0.	1.77232	12.3302	12.4477	8.1853	359.746	19.5830	3.0619	-0.008075
156.	0.	1.76526	12.3307	12.4477	8.1628	359.749	19.4806	3.0325	-0.007527
157.	0.	1.75843	12.3312	12.4477	8.1439	359.755	19.3750	2.9929	-0.007051
158.	0.	1.75044	12.3317	12.4477	8.1224	359.759	19.2785	2.9636	-0.006419
159.	0.	1.74205	12.3322	12.4477	8.1018	359.762	19.1852	2.9342	-0.005752
160.	0.	1.73323	12.3327	12.4477	8.0819	359.765	19.0852	2.9049	-0.005052
161.	0.	1.72475	12.3332	12.4477	8.0651	359.769	18.9811	2.8656	-0.004434
162.	0.	1.71495	12.3337	12.4477	8.0468	359.773	18.8854	2.8364	-0.003646
163.	0.	1.70475	12.3342	12.4477	8.0292	359.777	18.7833	2.8072	-0.002826
164.	0.	1.69496	12.3347	12.4477	8.0146	359.783	18.6769	2.7679	-0.002092
165.	0.	1.68397	12.3352	12.4477	7.9977	359.789	18.5781	2.7388	-0.001191
166.	0.	1.67277	12.3357	12.4477	7.9809	359.798	18.4807	2.7097	-0.000267
167.	0.	1.66168	12.3362	12.4477	7.9619	359.817	18.3745	2.6807	0.000659
168.	0.	1.65139	12.3366	12.4477	7.9439	359.842	18.2612	2.6415	0.001469
169.	0.	1.63986	12.3370	12.4477	7.9237	359.868	18.1562	2.6125	0.002456
170.	0.	1.62804	12.3373	12.4477	7.9040	359.895	18.0534	2.5835	0.003471
171.	0.	1.61597	12.3376	12.4477	7.8848	359.924	17.9514	2.5545	0.004511
172.	0.	1.60402	12.3378	12.4477	7.8649	359.963	17.8497	2.5255	0.005544
173.	0.	1.59196	12.3380	12.4477	7.8448	0.004	17.7370	2.4966	0.006585
174.	0.	1.58065	12.3382	12.4477	7.8264	0.050	17.6074	2.4575	0.007503
175.	0.	1.56906	12.3384	12.4477	7.8069	0.103	17.4804	2.4185	0.008461
176.	0.	1.55624	12.3385	12.4477	7.7844	0.159	17.3556	2.3896	0.009606
177.	0.	1.54417	12.3386	12.4477	7.7642	0.220	17.2161	2.3506	0.010619
178.	0.	1.53207	12.3387	12.4477	7.7436	0.290	17.0775	2.3116	0.011639
179.	0.	1.51834	12.3388	12.4477	7.7217	0.356	16.9411	2.2829	0.012885
180.	0.	1.50522	12.3389	12.4477	7.7034	0.423	16.7908	2.2440	0.014007
181.	0.	1.49151	12.3389	12.4477	7.6859	0.489	16.6450	2.2052	0.015198
182.	0.	1.47627	12.3390	12.4477	7.6665	0.553	16.5026	2.1766	0.016619
183.	0.	1.46185	12.3390	12.4477	7.6495	0.618	16.3580	2.1379	0.017907
184.	0.	1.44584	12.3390	12.4477	7.6305	0.679	16.2158	2.1094	0.019434
185.	0.	1.43056	12.3391	12.4477	7.6150	0.740	16.0645	2.0708	0.020826
186.	0.	1.41460	12.3391	12.4477	7.6014	0.798	15.9194	2.0323	0.022297
187.	0.	1.39692	12.3391	12.4477	7.5871	0.854	15.7784	2.0040	0.024015
188.	0.	1.38006	12.3390	12.4477	7.5764	0.910	15.6273	1.9656	0.025586
189.	0.	1.36274	12.3390	12.4477	7.5661	0.966	15.4832	1.9272	0.027226
190.	0.	1.34393	12.3390	12.4477	7.5534	1.019	15.3438	1.8991	0.029107
191.	0.	1.32600	12.3389	12.4477	7.5444	1.075	15.1948	1.8608	0.030832
192.	0.	1.30767	12.3389	12.4477	7.5359	1.131	15.0722	1.8226	0.032631
193.	0.	1.28604	12.3388	12.4477	7.5200	1.182	14.9948	1.8150	0.035003

194.	0.	1.26540	12.3387	12.4477	7.5052	1.232	14.9336	1.8072	0.037241
195.	0.	1.24575	12.3386	12.4477	7.4920	1.279	14.8799	1.7993	0.039344
196.	0.	1.22709	12.3385	12.4477	7.4801	1.324	14.8400	1.7913	0.041319
197.	0.	1.20846	12.3385	12.4477	7.4666	1.366	14.8071	1.7933	0.043319
198.	0.	1.19193	12.3384	12.4477	7.4572	1.406	14.7664	1.7850	0.045012
199.	0.	1.17617	12.3383	12.4477	7.4486	1.444	14.7237	1.7766	0.046608
200.	0.	1.16111	12.3383	12.4477	7.4407	1.480	14.6807	1.7681	0.048118
201.	0.	1.14670	12.3382	12.4477	7.4336	1.516	14.6481	1.7596	0.049552
202.	0.	1.13201	12.3381	12.4477	7.4242	1.550	14.6208	1.7610	0.051049
203.	0.	1.11906	12.3381	12.4477	7.4183	1.583	14.5844	1.7523	0.052305
204.	0.	1.10659	12.3380	12.4477	7.4130	1.615	14.5453	1.7435	0.053503
205.	0.	1.09462	12.3380	12.4477	7.4077	1.647	14.5154	1.7346	0.054649
206.	0.	1.08222	12.3379	12.4477	7.4000	1.678	14.4902	1.7359	0.055876
207.	0.	1.07134	12.3379	12.4477	7.3955	1.708	14.4554	1.7269	0.056894
208.	0.	1.06079	12.3378	12.4477	7.3914	1.738	14.4177	1.7179	0.057875
209.	0.	1.05057	12.3378	12.4477	7.3877	1.767	14.3896	1.7088	0.058823
210.	0.	1.03978	12.3378	12.4477	7.3815	1.797	14.3654	1.7099	0.059863
211.	0.	1.03037	12.3378	12.4477	7.3786	1.824	14.3321	1.7007	0.060717
212.	0.	1.02121	12.3377	12.4477	7.3759	1.851	14.2961	1.6915	0.061544
213.	0.	1.01229	12.3377	12.4477	7.3735	1.879	14.2694	1.6823	0.062349
214.	0.	1.00274	12.3377	12.4477	7.3683	1.906	14.2476	1.6833	0.063252
215.	0.	0.99447	12.3377	12.4477	7.3664	1.932	14.2156	1.6740	0.063983
216.	0.	0.98638	12.3377	12.4477	7.3647	1.957	14.1806	1.6647	0.064697
217.	0.	0.97846	12.3377	12.4477	7.3632	1.984	14.1550	1.6554	0.065395
218.	0.	0.96986	12.3377	12.4477	7.3589	2.011	14.1343	1.6562	0.066194
219.	0.	0.96249	12.3377	12.4477	7.3577	2.036	14.1030	1.6468	0.066833
220.	0.	0.95524	12.3377	12.4477	7.3567	2.060	14.0685	1.6375	0.067460
221.	0.	0.94812	12.3378	12.4477	7.3558	2.086	14.0434	1.6281	0.068075
222.	0.	0.94027	12.3378	12.4477	7.3521	2.112	14.0230	1.6288	0.068795
223.	0.	0.93361	12.3378	12.4477	7.3513	2.137	13.9917	1.6194	0.069363
224.	0.	0.92704	12.3378	12.4477	7.3506	2.162	13.9571	1.6099	0.069922
225.	0.	0.92057	12.3379	12.4477	7.3501	2.188	13.9320	1.6005	0.070474
226.	0.	0.91332	12.3379	12.4477	7.3468	2.213	13.9119	1.6011	0.071132
227.	0.	0.90719	12.3379	12.4477	7.3468	2.237	13.8809	1.5916	0.071646
228.	0.	0.90113	12.3380	12.4477	7.3469	2.261	13.8466	1.5822	0.072154
229.	0.	0.89512	12.3380	12.4477	7.3470	2.284	13.8109	1.5727	0.072656
230.	0.	0.88918	12.3381	12.4477	7.3472	2.310	13.7855	1.5632	0.073155
231.	0.	0.88246	12.3381	12.4477	7.3444	2.335	13.7651	1.5638	0.073760
232.	0.	0.87683	12.3382	12.4477	7.3448	2.359	13.7338	1.5542	0.074226
233.	0.	0.87123	12.3383	12.4477	7.3454	2.382	13.6990	1.5447	0.074689
234.	0.	0.86569	12.3383	12.4477	7.3460	2.407	13.6739	1.5351	0.075150
235.	0.	0.85936	12.3384	12.4477	7.3435	2.432	13.6535	1.5357	0.075716
236.	0.	0.85409	12.3385	12.4477	7.3443	2.455	13.6220	1.5261	0.076148
237.	0.	0.84884	12.3386	12.4477	7.3452	2.478	13.5869	1.5166	0.076577
238.	0.	0.84364	12.3387	12.4477	7.3461	2.503	13.5616	1.5070	0.077006
239.	0.	0.83764	12.3387	12.4477	7.3437	2.527	13.5408	1.5075	0.077539
240.	0.	0.83267	12.3388	12.4477	7.3448	2.550	13.5089	1.4979	0.077943
241.	0.	0.82772	12.3389	12.4477	7.3459	2.571	13.4721	1.4883	0.078346
242.	0.	0.82280	12.3390	12.4477	7.3470	2.596	13.4464	1.4787	0.078748
243.	0.	0.81709	12.3391	12.4477	7.3446	2.620	13.4253	1.4793	0.079254
244.	0.	0.81237	12.3392	12.4477	7.3459	2.643	13.3930	1.4696	0.079635
245.	0.	0.80768	12.3394	12.4477	7.3471	2.665	13.3570	1.4600	0.080015
246.	0.	0.80300	12.3395	12.4477	7.3484	2.689	13.3309	1.4504	0.080395
247.	0.	0.79753	12.3396	12.4477	7.3459	2.714	13.3094	1.4509	0.080879
248.	0.	0.79303	12.3397	12.4477	7.3473	2.736	13.2768	1.4412	0.081241
249.	0.	0.78855	12.3398	12.4477	7.3486	2.758	13.2403	1.4316	0.081601
250.	0.	0.78408	12.3400	12.4477	7.3499	2.782	13.2137	1.4220	0.081964
251.	0.	0.77881	12.3401	12.4477	7.3473	2.807	13.1915	1.4224	0.082430
252.	0.	0.77451	12.3402	12.4477	7.3487	2.829	13.1581	1.4128	0.082775
253.	0.	0.77001	12.3404	12.4477	7.3501	2.827	13.0279	1.4031	0.083119
254.	0.	0.77200	12.3406	12.4477	7.3798	2.803	12.7412	1.3126	0.082590
255.	0.	0.77303	12.3409	12.4477	7.4114	2.776	12.3709	1.2121	0.082064
256.	0.	0.77102	12.3414	12.4477	7.4406	2.757	11.9512	1.1118	0.081818
257.	0.	0.76474	12.3420	12.4477	7.4683	2.740	11.5020	1.0121	0.082067
258.	0.	0.75303	12.3428	12.4477	7.4924	2.714	10.9897	0.9131	0.083066
259.	0.	0.74008	12.3440	12.4477	7.5197	2.689	10.3358	0.7641	0.084146
260.	0.	0.72088	12.3454	12.4477	7.5486	2.566	9.5780	0.6066	0.086566

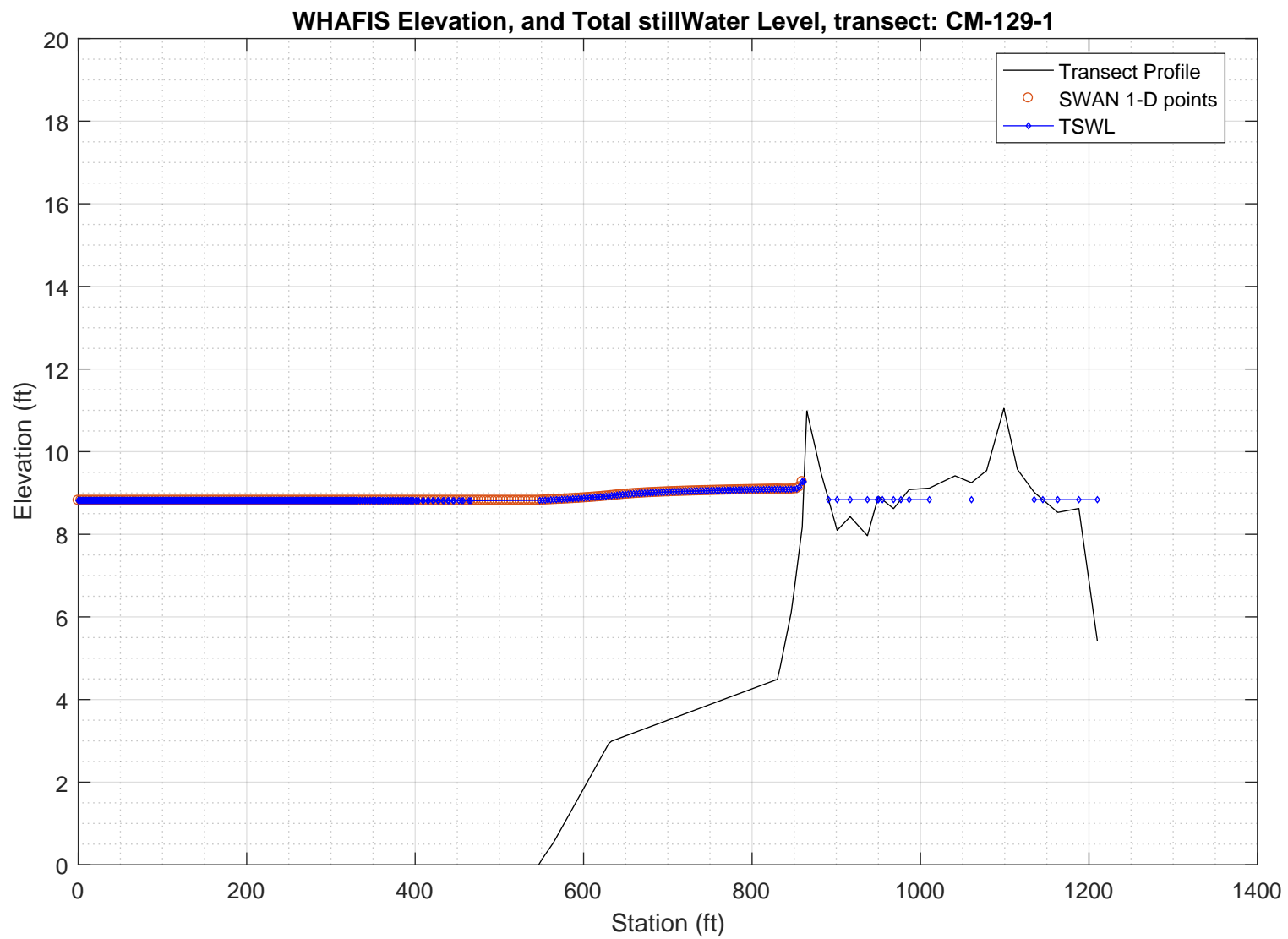
261.	0.	0.65865	12.3487	12.4477	7.8798	2.000	9.0459	0.4593	0.099337
262.	0.	0.50570	12.3474	12.4477	8.5864	0.252	9.9457	0.3383	0.138285
263.	0.	-9.00000	-9.0000	-9.0000	-9.0000	-999.000	-9.0000	-99.0000	-9.000000

PART 3: WHAFIS

WHAFIS input: CM-129-1.dat

WHAFIS output: CM-129-1.out

PART 3 COMPLETE



WAVE HEIGHT COMPUTATIONS FOR FLOOD INSURANCE STUDIES (WHAFIS VERSION 4.0G, 08_2007)

Executed on: Thu Feb 20 14:57:36 2020

Input file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Harpswell\3_whafis\whafis4\CM-129-1.dat

Output file: C:\FEMA-TransectAnalysis\LOMR-TransectAnalysis-Harpswell\3_whafis\whafis4\CM-129-1.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	-16.937	1.000	1.000	8.819	8.432	12.310	56.140	0.018	0.000
OF	1.000	-16.919	0.000	8.819	0.000	0.000	0.000	0.000	0.018	0.000
OF	2.000	-16.901	0.000	8.819	0.000	0.000	0.000	0.000	0.019	0.000
OF	3.000	-16.882	0.000	8.819	0.000	0.000	0.000	0.000	0.019	0.000
OF	4.000	-16.864	0.000	8.819	0.000	0.000	0.000	0.000	0.018	0.000
OF	5.000	-16.846	0.000	8.819	0.000	0.000	0.000	0.000	0.022	0.000
OF	6.000	-16.820	0.000	8.819	0.000	0.000	0.000	0.000	0.030	0.000
OF	7.000	-16.786	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	8.000	-16.753	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	9.000	-16.719	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	10.000	-16.686	0.000	8.819	0.000	0.000	0.000	0.000	0.033	0.000
OF	11.000	-16.653	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	12.000	-16.619	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	13.000	-16.586	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	14.000	-16.552	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	15.000	-16.519	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	16.000	-16.485	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	17.000	-16.452	0.000	8.819	0.000	0.000	0.000	0.000	0.033	0.000
OF	18.000	-16.419	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	19.000	-16.385	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	20.000	-16.352	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	21.000	-16.318	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	22.000	-16.285	0.000	8.819	0.000	0.000	0.000	0.000	0.033	0.000
OF	23.000	-16.252	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	24.000	-16.218	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	25.000	-16.185	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	26.000	-16.151	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	27.000	-16.118	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	28.000	-16.084	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	29.000	-16.051	0.000	8.819	0.000	0.000	0.000	0.000	0.033	0.000
OF	30.000	-16.018	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	31.000	-15.984	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	32.000	-15.951	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	33.000	-15.917	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	34.000	-15.884	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	35.000	-15.850	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	36.000	-15.817	0.000	8.819	0.000	0.000	0.000	0.000	0.033	0.000
OF	37.000	-15.784	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	38.000	-15.750	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	39.000	-15.717	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	40.000	-15.683	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	41.000	-15.650	0.000	8.819	0.000	0.000	0.000	0.000	0.033	0.000
OF	42.000	-15.617	0.000	8.819	0.000	0.000	0.000	0.000	0.034	0.000
OF	43.000	-15.583	0.000	8.819	0.000	0.000	0.000	0.000	0.032	0.000
OF	44.000	-15.552	0.000	8.819	0.000	0.000	0.000	0.000	0.029	0.000
OF	45.000	-15.525	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	46.000	-15.497	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	47.000	-15.470	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	48.000	-15.442	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	49.000	-15.415	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	50.000	-15.387	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	51.000	-15.359	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	52.000	-15.332	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	53.000	-15.304	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	54.000	-15.277	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	55.000	-15.249	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	56.000	-15.222	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	57.000	-15.194	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	58.000	-15.167	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	59.000	-15.139	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	60.000	-15.111	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	61.000	-15.084	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	62.000	-15.056	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	63.000	-15.029	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	64.000	-15.001	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	65.000	-14.974	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	66.000	-14.946	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	67.000	-14.918	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	68.000	-14.891	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	69.000	-14.863	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	70.000	-14.836	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	71.000	-14.808	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	72.000	-14.781	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	73.000	-14.753	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	74.000	-14.726	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	75.000	-14.698	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	76.000	-14.670	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	77.000	-14.643	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	78.000	-14.615	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	79.000	-14.588	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	80.000	-14.560	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	81.000	-14.533	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	82.000	-14.505	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	83.000	-14.477	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	84.000	-14.450	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	85.000	-14.422	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	86.000	-14.395	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	87.000	-14.367	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	88.000	-14.340	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	89.000	-14.312	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	90.000	-14.285	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	91.000	-14.257	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	92.000	-14.229	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000

OF	93.000	-14.202	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	94.000	-14.174	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	95.000	-14.147	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	96.000	-14.119	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	97.000	-14.092	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	98.000	-14.064	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	99.000	-14.036	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	100.000	-14.009	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	101.000	-13.981	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	102.000	-13.954	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	103.000	-13.926	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	104.000	-13.899	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	105.000	-13.871	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	106.000	-13.844	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	107.000	-13.816	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	108.000	-13.789	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	109.000	-13.761	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	110.000	-13.733	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	111.000	-13.706	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	112.000	-13.678	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	113.000	-13.651	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	114.000	-13.623	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	115.000	-13.596	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	116.000	-13.568	0.000	8.819	0.000	0.000	0.000	0.000	0.028	0.000
OF	117.000	-13.540	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	118.000	-13.513	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	119.000	-13.485	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	120.000	-13.458	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	121.000	-13.430	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	122.000	-13.403	0.000	8.819	0.000	0.000	0.000	0.000	0.027	0.000
OF	123.000	-13.376	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	124.000	-13.351	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	125.000	-13.325	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	126.000	-13.299	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	127.000	-13.274	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	128.000	-13.248	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	129.000	-13.222	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	130.000	-13.197	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	131.000	-13.171	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	132.000	-13.145	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	133.000	-13.120	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	134.000	-13.094	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	135.000	-13.068	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	136.000	-13.043	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	137.000	-13.017	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	138.000	-12.991	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	139.000	-12.966	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	140.000	-12.940	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	141.000	-12.914	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	142.000	-12.889	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	143.000	-12.863	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	144.000	-12.838	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	145.000	-12.812	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	146.000	-12.786	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	147.000	-12.761	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	148.000	-12.735	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	149.000	-12.709	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	150.000	-12.684	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	151.000	-12.658	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	152.000	-12.632	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	153.000	-12.607	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	154.000	-12.581	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	155.000	-12.555	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	156.000	-12.530	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	157.000	-12.504	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	158.000	-12.478	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	159.000	-12.453	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	160.000	-12.427	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
OF	161.000	-12.401	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	162.000	-12.376	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
OF	163.000	-12.350	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	164.000	-12.324	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	165.000	-12.299	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	166.000	-12.273	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	167.000	-12.248	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	168.000	-12.222	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	169.000	-12.196	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	170.000	-12.171	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	171.000	-12.145	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	172.000	-12.119	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	173.000	-12.094	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	174.000	-12.068	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	175.000	-12.042	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	176.000	-12.017	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	177.000	-11.991	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	178.000	-11.965	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	179.000	-11.940	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	180.000	-11.914	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	181.000	-11.888	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	182.000	-11.863	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
OF	183.000	-11.837	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	184.000	-11.811	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
OF	185.000	-11.785	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	186.000	-11.753	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	187.000	-11.721	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	188.000	-11.690	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	189.000	-11.658	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	190.000	-11.626	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	191.000	-11.594	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	192.000	-11.563	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	193.000	-11.531	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	194.000	-11.499	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000

OF	195.000	-11.468	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	196.000	-11.436	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	197.000	-11.404	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	198.000	-11.372	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	199.000	-11.341	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	200.000	-11.309	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	201.000	-11.277	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	202.000	-11.246	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	203.000	-11.214	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	204.000	-11.182	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	205.000	-11.150	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	206.000	-11.119	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	207.000	-11.087	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	208.000	-11.055	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	209.000	-11.024	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	210.000	-10.992	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	211.000	-10.960	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	212.000	-10.928	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	213.000	-10.897	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	214.000	-10.865	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	215.000	-10.833	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	216.000	-10.801	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	217.000	-10.770	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	218.000	-10.738	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	219.000	-10.706	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	220.000	-10.675	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	221.000	-10.643	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	222.000	-10.611	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	223.000	-10.580	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	224.000	-10.548	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	225.000	-10.516	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	226.000	-10.484	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	227.000	-10.453	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	228.000	-10.421	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	229.000	-10.389	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	230.000	-10.358	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	231.000	-10.326	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	232.000	-10.294	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	233.000	-10.262	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	234.000	-10.231	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	235.000	-10.199	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	236.000	-10.167	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	237.000	-10.135	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	238.000	-10.104	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	239.000	-10.072	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	240.000	-10.040	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	241.000	-10.009	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	242.000	-9.977	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	243.000	-9.946	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	244.000	-9.914	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	245.000	-9.882	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	246.000	-9.851	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	247.000	-9.819	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	248.000	-9.788	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	249.000	-9.757	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	250.000	-9.725	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	251.000	-9.694	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	252.000	-9.662	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	253.000	-9.631	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	254.000	-9.599	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	255.000	-9.568	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	256.000	-9.536	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	257.000	-9.505	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	258.000	-9.474	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	259.000	-9.442	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	260.000	-9.411	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	261.000	-9.379	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	262.000	-9.348	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	263.000	-9.316	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	264.000	-9.285	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	265.000	-9.253	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	266.000	-9.222	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	267.000	-9.191	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	268.000	-9.159	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	269.000	-9.128	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	270.000	-9.096	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	271.000	-9.065	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	272.000	-9.033	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000
OF	273.000	-9.002	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000
OF	274.000	-8.971	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	275.000	-8.942	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	276.000	-8.912	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	277.000	-8.883	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	278.000	-8.853	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	279.000	-8.824	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	280.000	-8.794	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	281.000	-8.765	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	282.000	-8.736	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	283.000	-8.706	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	284.000	-8.677	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	285.000	-8.647	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	286.000	-8.618	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	287.000	-8.588	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	288.000	-8.559	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	289.000	-8.529	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	290.000	-8.500	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000
OF	291.000	-8.470	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	292.000	-8.441	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000
OF	293.000	-8.411	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	294.000	-8.382	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	295.000	-8.352	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	296.000	-8.323	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000

OF	297.000	-8.293	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	298.000	-8.264	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	299.000	-8.234	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	300.000	-8.205	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	301.000	-8.175	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	302.000	-8.146	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	303.000	-8.116	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	304.000	-8.087	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	305.000	-8.057	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	306.000	-8.028	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	307.000	-7.998	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	308.000	-7.969	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	309.000	-7.939	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	310.000	-7.910	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	311.000	-7.880	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	312.000	-7.851	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	313.000	-7.821	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	314.000	-7.792	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	315.000	-7.762	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	316.000	-7.733	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	317.000	-7.704	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	318.000	-7.674	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	319.000	-7.645	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	320.000	-7.615	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	321.000	-7.586	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	322.000	-7.556	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	323.000	-7.527	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	324.000	-7.497	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	325.000	-7.468	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	326.000	-7.438	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	327.000	-7.409	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	328.000	-7.379	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	329.000	-7.350	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	330.000	-7.320	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000
OF	331.000	-7.291	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	332.000	-7.261	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000
OF	334.000	-7.202	0.000	8.817	0.000					

IF	547.900	0.040	0.000	8.821	0.000	0.000	0.000	0.000	0.033	0.000
IF	551.200	0.149	0.000	8.824	0.000	0.000	0.000	0.000	0.032	0.000
IF	554.500	0.248	0.000	8.827	0.000	0.000	0.000	0.000	0.030	0.000
IF	557.700	0.346	0.000	8.830	0.000	0.000	0.000	0.000	0.030	0.000
IF	561.000	0.443	0.000	8.834	0.000	0.000	0.000	0.000	0.030	0.000
IF	564.300	0.541	0.000	8.837	0.000	0.000	0.000	0.000	0.033	0.000
IF	567.600	0.660	0.000	8.840	0.000	0.000	0.000	0.000	0.036	0.000
IF	570.900	0.780	0.000	8.844	0.000	0.000	0.000	0.000	0.037	0.000
IF	574.100	0.899	0.000	8.847	0.000	0.000	0.000	0.000	0.037	0.000
IF	577.400	1.019	0.000	8.850	0.000	0.000	0.000	0.000	0.036	0.000
IF	580.700	1.139	0.000	8.854	0.000	0.000	0.000	0.000	0.036	0.000
IF	584.000	1.259	0.000	8.857	0.000	0.000	0.000	0.000	0.036	0.000
IF	587.300	1.379	0.000	8.861	0.000	0.000	0.000	0.000	0.037	0.000
IF	590.500	1.499	0.000	8.865	0.000	0.000	0.000	0.000	0.037	0.000
IF	593.800	1.618	0.000	8.869	0.000	0.000	0.000	0.000	0.036	0.000
IF	597.100	1.738	0.000	8.873	0.000	0.000	0.000	0.000	0.036	0.000
IF	600.400	1.858	0.000	8.878	0.000	0.000	0.000	0.000	0.036	0.000
IF	603.700	1.978	0.000	8.883	0.000	0.000	0.000	0.000	0.036	0.000
IF	607.000	2.098	0.000	8.887	0.000	0.000	0.000	0.000	0.037	0.000
IF	610.200	2.218	0.000	8.892	0.000	0.000	0.000	0.000	0.037	0.000
IF	613.500	2.338	0.000	8.898	0.000	0.000	0.000	0.000	0.036	0.000
IF	616.800	2.457	0.000	8.903	0.000	0.000	0.000	0.000	0.036	0.000
IF	620.100	2.577	0.000	8.908	0.000	0.000	0.000	0.000	0.036	0.000
IF	623.400	2.697	0.000	8.914	0.000	0.000	0.000	0.000	0.037	0.000
IF	626.600	2.817	0.000	8.920	0.000	0.000	0.000	0.000	0.037	0.000
IF	629.900	2.937	0.000	8.926	0.000	0.000	0.000	0.000	0.027	0.000
IF	633.200	2.993	0.000	8.934	0.000	0.000	0.000	0.000	0.012	0.000
IF	636.500	3.018	0.000	8.941	0.000	0.000	0.000	0.000	0.007	0.000
IF	639.800	3.043	0.000	8.948	0.000	0.000	0.000	0.000	0.008	0.000
IF	643.000	3.068	0.000	8.954	0.000	0.000	0.000	0.000	0.008	0.000
IF	646.300	3.093	0.000	8.961	0.000	0.000	0.000	0.000	0.007	0.000
IF	649.600	3.118	0.000	8.967	0.000	0.000	0.000	0.000	0.007	0.000
IF	652.900	3.142	0.000	8.972	0.000	0.000	0.000	0.000	0.007	0.000
IF	656.200	3.167	0.000	8.977	0.000	0.000	0.000	0.000	0.008	0.000
IF	659.400	3.192	0.000	8.981	0.000	0.000	0.000	0.000	0.008	0.000
IF	662.700	3.217	0.000	8.986	0.000	0.000	0.000	0.000	0.007	0.000
IF	666.000	3.242	0.000	8.991	0.000	0.000	0.000	0.000	0.007	0.000
IF	669.300	3.267	0.000	8.994	0.000	0.000	0.000	0.000	0.007	0.000
IF	672.600	3.292	0.000	8.998	0.000	0.000	0.000	0.000	0.007	0.000
IF	675.900	3.317	0.000	9.002	0.000	0.000	0.000	0.000	0.008	0.000
IF	679.100	3.342	0.000	9.005	0.000	0.000	0.000	0.000	0.008	0.000
IF	682.400	3.367	0.000	9.009	0.000	0.000	0.000	0.000	0.007	0.000
IF	685.700	3.392	0.000	9.012	0.000	0.000	0.000	0.000	0.007	0.000
IF	689.000	3.417	0.000	9.015	0.000	0.000	0.000	0.000	0.007	0.000
IF	692.300	3.441	0.000	9.018	0.000	0.000	0.000	0.000	0.008	0.000
IF	695.500	3.466	0.000	9.021	0.000	0.000	0.000	0.000	0.008	0.000
IF	698.800	3.491	0.000	9.023	0.000	0.000	0.000	0.000	0.007	0.000
IF	702.100	3.516	0.000	9.026	0.000	0.000	0.000	0.000	0.007	0.000
IF	705.400	3.541	0.000	9.029	0.000	0.000	0.000	0.000	0.007	0.000
IF	708.700	3.566	0.000	9.031	0.000	0.000	0.000	0.000	0.008	0.000
IF	711.900	3.591	0.000	9.033	0.000	0.000	0.000	0.000	0.008	0.000
IF	715.200	3.616	0.000	9.036	0.000	0.000	0.000	0.000	0.007	0.000
IF	718.500	3.641	0.000	9.038	0.000	0.000	0.000	0.000	0.007	0.000
IF	721.800	3.666	0.000	9.040	0.000	0.000	0.000	0.000	0.007	0.000
IF	725.100	3.691	0.000	9.042	0.000	0.000	0.000	0.000	0.008	0.000
IF	728.300	3.716	0.000	9.045	0.000	0.000	0.000	0.000	0.008	0.000
IF	731.600	3.740	0.000	9.046	0.000	0.000	0.000	0.000	0.007	0.000
IF	734.900	3.765	0.000	9.048	0.000	0.000	0.000	0.000	0.007	0.000
IF	738.200	3.790	0.000	9.050	0.000	0.000	0.000	0.000	0.007	0.000
IF	741.500	3.815	0.000	9.052	0.000	0.000	0.000	0.000	0.008	0.000
IF	744.700	3.840	0.000	9.054	0.000	0.000	0.000	0.000	0.008	0.000
IF	748.000	3.865	0.000	9.056	0.000	0.000	0.000	0.000	0.007	0.000
IF	751.300	3.890	0.000	9.057	0.000	0.000	0.000	0.000	0.007	0.000
IF	754.600	3.915	0.000	9.059	0.000	0.000	0.000	0.000	0.007	0.000
IF	757.900	3.940	0.000	9.061	0.000	0.000	0.000	0.000	0.008	0.000
IF	761.200	3.965	0.000	9.062	0.000	0.000	0.000	0.000	0.008	0.000
IF	764.400	3.990	0.000	9.064	0.000	0.000	0.000	0.000	0.008	0.000
IF	767.700	4.015	0.000	9.065	0.000	0.000	0.000	0.000	0.007	0.000
IF	771.000	4.040	0.000	9.067	0.000	0.000	0.000	0.000	0.007	0.000
IF	774.300	4.064	0.000	9.069	0.000	0.000	0.000	0.000	0.007	0.000
IF	777.600	4.089	0.000	9.070	0.000	0.000	0.000	0.000	0.008	0.000
IF	780.800	4.114	0.000	9.071	0.000	0.000	0.000	0.000	0.008	0.000
IF	784.100	4.139	0.000	9.073	0.000	0.000	0.000	0.000	0.007	0.000
IF	787.400	4.164	0.000	9.075	0.000	0.000	0.000	0.000	0.007	0.000
IF	790.700	4.189	0.000	9.076	0.000	0.000	0.000	0.000	0.007	0.000
IF	794.000	4.214	0.000	9.077	0.000	0.000	0.000	0.000	0.008	0.000
IF	797.200	4.239	0.000	9.079	0.000	0.000	0.000	0.000	0.008	0.000
IF	800.500	4.264	0.000	9.080	0.000	0.000	0.000	0.000	0.007	0.000
IF	803.800	4.289	0.000	9.081	0.000	0.000	0.000	0.000	0.007	0.000
IF	807.100	4.314	0.000	9.083	0.000	0.000	0.000	0.000	0.007	0.000
IF	810.400	4.339	0.000	9.084	0.000	0.000	0.000	0.000	0.008	0.000
IF	813.600	4.364	0.000	9.085	0.000	0.000	0.000	0.000	0.008	0.000
IF	816.900	4.388	0.000	9.087	0.000	0.000	0.000	0.000	0.007	0.000
IF	820.200	4.413	0.000	9.088	0.000	0.000	0.000	0.000	0.007	0.000
IF	823.500	4.438	0.000	9.089	0.000	0.000	0.000	0.000	0.007	0.000
IF	826.800	4.463	0.000	9.090	0.000	0.000	0.000	0.000	0.008	0.000
IF	830.100	4.488	0.000	9.092	0.000	0.000	0.000	0.000	0.049	0.000
IF	833.300	4.778	0.000	9.090	0.000	0.000	0.000	0.000	0.096	0.000
IF	836.600	5.110	0.000	9.088	0.000	0.000	0.000	0.000	0.101	0.000
IF	839.900	5.442	0.000	9.087	0.000	0.000	0.000	0.000	0.101	0.000
IF	843.200	5.774	0.000	9.088	0.000	0.000	0.000	0.000	0.101	0.000
IF	846.500	6.106	0.000	9.091	0.000	0.000	0.000	0.000	0.127	0.000
IF	849.700	6.600	0.000	9.095	0.000	0.000	0.000	0.000	0.157	0.000
IF	853.000	7.127	0.000	9.103	0.000	0.000	0.000	0.000	0.160	0.000
IF	856.300	7.653	0.000	9.145	0.000	0.000	0.000	0.000	0.160	0.000
IF	859.600	8.179	0.000	9.273	0.000	0.000	0.000	0.000	0.300	0.000
IF	861.700	9.273	0.000	9.273	0.000	0.000	0.000	0.000	0.521	0.000
AS	890.800	8.839	0.000	8.839	0.000	0.000	0.000	0.000	-0.073	0.000
IF	901.000	8.097	0.000	8.839	0.000	0.000	0.000	0.000	-0.016	0.000
IF	916.500	8.425	0.000	8.839	0.000	0.000	0.000	0.000	-0.004	0.000
IF	937.000	7.966	0.000	8.839	0.000	0.000	0.000	0.000	0.013	0.000
IF	948.900	8.839	0.000	8.839	0.000	0.000	0.000	0.000	0.073	0.000

	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	133.000	-13.120	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	134.000	-13.094	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	135.000	-13.068	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	136.000	-13.043	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	137.000	-13.017	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	138.000	-12.991	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	139.000	-12.966	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	140.000	-12.940	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	141.000	-12.914	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	142.000	-12.889	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	143.000	-12.863	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	144.000	-12.838	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	145.000	-12.812	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	146.000	-12.786	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	147.000	-12.761	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	148.000	-12.735	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	149.000	-12.709	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	150.000	-12.684	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	151.000	-12.658	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	152.000	-12.632	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	153.000	-12.607	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	154.000	-12.581	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	155.000	-12.555	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	156.000	-12.530	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	157.000	-12.504	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	158.000	-12.478	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	159.000	-12.453	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	160.000	-12.427	0.000	8.819	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	161.000	-12.401	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	162.000	-12.376	0.000	8.819	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	163.000	-12.350	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	164.000	-12.324	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES
OF	165.000	-12.299	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE
OF	166.000	-12.273	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE

STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
167.000	-12.248	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
168.000	-12.222	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
169.000	-12.196	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
170.000	-12.171	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
171.000	-12.145	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
172.000	-12.119	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
173.000	-12.094	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
174.000	-12.068	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
175.000	-12.042	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
176.000	-12.017	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
177.000	-11.991	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
178.000	-11.965	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
179.000	-11.940	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
180.000	-11.914	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
181.000	-11.888	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
182.000	-11.863	0.000	8.818	0.000	0.000	0.000	0.000	0.025	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
183.000	-11.837	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
184.000	-11.811	0.000	8.818	0.000	0.000	0.000	0.000	0.026	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
185.000	-11.785	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
186.000	-11.753	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
187.000	-11.721	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
188.000	-11.690	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
189.000	-11.658	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
190.000	-11.626	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
191.000	-11.594	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
192.000	-11.563	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
193.000	-11.531	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
194.000	-11.499	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
195.000	-11.468	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
196.000	-11.436	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
197.000	-11.404	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
198.000	-11.372	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
199.000	-11.341	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
200.000	-11.309	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	201.000	-11.277	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	202.000	-11.246	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	203.000	-11.214	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	204.000	-11.182	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	205.000	-11.150	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	206.000	-11.119	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	207.000	-11.087	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	208.000	-11.055	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	209.000	-11.024	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	210.000	-10.992	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	211.000	-10.960	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	212.000	-10.928	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	213.000	-10.897	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	214.000	-10.865	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	215.000	-10.833	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	216.000	-10.801	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	217.000	-10.770	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	218.000	-10.738	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	219.000	-10.706	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	220.000	-10.675	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	221.000	-10.643	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	222.000	-10.611	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	223.000	-10.580	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	224.000	-10.548	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	225.000	-10.516	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	226.000	-10.484	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	227.000	-10.453	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	228.000	-10.421	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	229.000	-10.389	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	230.000	-10.358	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	231.000	-10.326	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	232.000	-10.294	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	233.000	-10.262	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	234.000	-10.231	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	235.000	-10.199	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	236.000	-10.167	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	237.000	-10.135	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	238.000	-10.104	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	239.000	-10.072	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	240.000	-10.040	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	241.000	-10.009	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	242.000	-9.977	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	243.000	-9.946	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	244.000	-9.914	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	245.000	-9.882	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	246.000	-9.851	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	247.000	-9.819	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	248.000	-9.788	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	249.000	-9.757	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	250.000	-9.725	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	251.000	-9.694	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	252.000	-9.662	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	253.000	-9.631	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	254.000	-9.599	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	255.000	-9.568	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	256.000	-9.536	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	257.000	-9.505	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	258.000	-9.474	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	259.000	-9.442	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	260.000	-9.411	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	261.000	-9.379	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	262.000	-9.348	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	263.000	-9.316	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	264.000	-9.285	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	265.000	-9.253	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	266.000	-9.222	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	267.000	-9.191	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	268.000	-9.159	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	269.000	-9.128	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	270.000	-9.096	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	271.000	-9.065	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	272.000	-9.033	0.000	8.818	0.000	0.000	0.000	0.000	0.032	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	273.000	-9.002	0.000	8.818	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	274.000	-8.971	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	275.000	-8.942	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	276.000	-8.912	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	277.000	-8.883	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	278.000	-8.853	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	279.000	-8.824	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	280.000	-8.794	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	281.000	-8.765	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	282.000	-8.736	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	283.000	-8.706	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	284.000	-8.677	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	285.000	-8.647	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	286.000	-8.618	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	287.000	-8.588	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	288.000	-8.559	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	289.000	-8.529	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	290.000	-8.500	0.000	8.818	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	291.000	-8.470	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	292.000	-8.441	0.000	8.818	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	293.000	-8.411	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	294.000	-8.382	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	295.000	-8.352	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	296.000	-8.323	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	297.000	-8.293	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	298.000	-8.264	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	299.000	-8.234	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	300.000	-8.205	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	301.000	-8.175	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	302.000	-8.146	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	303.000	-8.116	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	304.000	-8.087	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	305.000	-8.057	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	306.000	-8.028	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	307.000	-7.998	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	308.000	-7.969	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	309.000	-7.939	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	310.000	-7.910	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	311.000	-7.880	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	312.000	-7.851	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	313.000	-7.821	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	314.000	-7.792	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	315.000	-7.762	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	316.000	-7.733	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	317.000	-7.704	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	318.000	-7.674	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	319.000	-7.645	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	320.000	-7.615	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	321.000	-7.586	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	322.000	-7.556	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	323.000	-7.527	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	324.000	-7.497	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	325.000	-7.468	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	326.000	-7.438	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	327.000	-7.409	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	328.000	-7.379	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	329.000	-7.350	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	330.000	-7.320	0.000	8.817	0.000	0.000	0.000	0.000	0.029	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	331.000	-7.291	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	332.000	-7.261	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	334.000	-7.202	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	335.000	-7.173	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	337.000	-7.114	0.000	8.817	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
OF	338.000	-7.084	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	340.000	-7.025	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	341.000	-6.996	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	343.000	-6.937	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	344.000	-6.907	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	346.000	-6.849	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	347.000	-6.819	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	349.000	-6.760	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	350.000	-6.731	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	352.000	-6.672	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	353.000	-6.642	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	355.000	-6.583	0.000	8.816	0.000	0.000	0.000	0.000	0.030	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	356.000	-6.554	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	358.000	-6.498	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	359.000	-6.471	0.000	8.816	0.000	0.000	0.000	0.000	0.027	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	361.000	-6.416	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	362.000	-6.388	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	364.000	-6.333	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	365.000	-6.306	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	367.000	-6.250	0.000	8.816	0.000	0.000	0.000	0.000	0.027	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	368.000	-6.223	0.000	8.816	0.000	0.000	0.000	0.000	0.027	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	370.000	-6.168	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	371.000	-6.140	0.000	8.816	0.000	0.000	0.000	0.000	0.027	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	373.000	-6.085	0.000	8.816	0.000	0.000	0.000	0.000	0.028	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	374.000	-6.057	0.000	8.816	0.000	0.000	0.000	0.000	0.031	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	376.000	-5.993	0.000	8.816	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	377.000	-5.949	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	379.000	-5.861	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	380.000	-5.817	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	382.000	-5.730	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	383.000	-5.686	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	385.000	-5.598	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	386.000	-5.554	0.000	8.816	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	388.000	-5.466	0.000	8.815	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
OF	389.000	-5.422	0.000	8.815	0.000	0.000	0.000	0.000	0.044	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
OF	391.000	-5.334	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	392.000	-5.291	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	394.000	-5.203	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	395.000	-5.159	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	397.000	-5.071	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	398.000	-5.027	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.044	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	401.000	-4.896	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.040	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	403.000	-4.825	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	404.000	-4.790	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	409.000	-4.616	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	410.000	-4.582	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	415.000	-4.408	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	416.000	-4.373	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	421.000	-4.199	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	422.000	-4.164	0.000	8.815	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	427.000	-3.990	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	428.000	-3.955	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	433.000	-3.782	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	434.000	-3.747	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	439.000	-3.573	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	440.000	-3.538	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	445.000	-3.364	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	446.000	-3.329	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	452.000	-3.121	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	455.000	-3.016	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.035	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	457.000	-2.947	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.034	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	464.000	-2.714	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.033	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
OF	466.000	-2.649	0.000	8.814	0.000	0.000	0.000	0.000	0.000	0.033	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
IF	547.900	0.040	0.000	8.821	0.000	0.000	0.000	0.000	0.000	0.033	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
IF	551.200	0.149	0.000	8.824	0.000	0.000	0.000	0.000	0.000	0.032	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
IF	554.500	0.248	0.000	8.827	0.000	0.000	0.000	0.000	0.000	0.030	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
IF	557.700	0.346	0.000	8.830	0.000	0.000	0.000	0.000	0.000	0.030	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
IF	561.000	0.443	0.000	8.834	0.000	0.000	0.000	0.000	0.000	0.030	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
IF	564.300	0.541	0.000	8.837	0.000	0.000	0.000	0.000	0.000	0.033	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	567.600	0.660	0.000	8.840	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	570.900	0.780	0.000	8.844	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	574.100	0.899	0.000	8.847	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	577.400	1.019	0.000	8.850	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	580.700	1.139	0.000	8.854	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	584.000	1.259	0.000	8.857	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	587.300	1.379	0.000	8.861	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	590.500	1.499	0.000	8.865	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	593.800	1.618	0.000	8.869	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	597.100	1.738	0.000	8.873	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	600.400	1.858	0.000	8.878	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	603.700	1.978	0.000	8.883	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	607.000	2.098	0.000	8.887	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	610.200	2.218	0.000	8.892	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	613.500	2.338	0.000	8.898	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	616.800	2.457	0.000	8.903	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	620.100	2.577	0.000	8.908	0.000	0.000	0.000	0.000	0.036	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	623.400	2.697	0.000	8.914	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	626.600	2.817	0.000	8.920	0.000	0.000	0.000	0.000	0.037	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	629.900	2.937	0.000	8.926	0.000	0.000	0.000	0.000	0.027	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	633.200	2.993	0.000	8.934	0.000	0.000	0.000	0.000	0.012	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	636.500	3.018	0.000	8.941	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	639.800	3.043	0.000	8.948	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	643.000	3.068	0.000	8.954	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	646.300	3.093	0.000	8.961	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	649.600	3.118	0.000	8.967	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	652.900	3.142	0.000	8.972	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	656.200	3.167	0.000	8.977	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	659.400	3.192	0.000	8.981	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	662.700	3.217	0.000	8.986	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	666.000	3.242	0.000	8.991	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	669.300	3.267	0.000	8.994	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	672.600	3.292	0.000	8.998	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	675.900	3.317	0.000	9.002	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	679.100	3.342	0.000	9.005	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	682.400	3.367	0.000	9.009	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	685.700	3.392	0.000	9.012	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	689.000	3.417	0.000	9.015	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	692.300	3.441	0.000	9.018	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	695.500	3.466	0.000	9.021	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	698.800	3.491	0.000	9.023	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	702.100	3.516	0.000	9.026	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	705.400	3.541	0.000	9.029	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	708.700	3.566	0.000	9.031	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	711.900	3.591	0.000	9.033	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	715.200	3.616	0.000	9.036	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	718.500	3.641	0.000	9.038	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	721.800	3.666	0.000	9.040	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	725.100	3.691	0.000	9.042	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	728.300	3.716	0.000	9.045	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	731.600	3.740	0.000	9.046	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	734.900	3.765	0.000	9.048	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	738.200	3.790	0.000	9.050	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	741.500	3.815	0.000	9.052	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	744.700	3.840	0.000	9.054	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	748.000	3.865	0.000	9.056	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	751.300	3.890	0.000	9.057	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	754.600	3.915	0.000	9.059	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	757.900	3.940	0.000	9.061	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	761.200	3.965	0.000	9.062	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	764.400	3.990	0.000	9.064	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	767.700	4.015	0.000	9.065	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	771.000	4.040	0.000	9.067	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	774.300	4.064	0.000	9.069	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	777.600	4.089	0.000	9.070	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	780.800	4.114	0.000	9.071	0.000	0.000	0.000	0.000	0.000	0.008	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	784.100	4.139	0.000	9.073	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE
	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	787.400	4.164	0.000	9.075	0.000	0.000	0.000	0.000	0.000	0.007	0.000
	END	END	NEW SURGE	NEW SURGE						BOTTOM	AVERAGE

	STATION	ELEVATION	10-YEAR	100-YEAR						SLOPE	A-ZONES
IF	790.700	4.189	0.000	9.076	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	794.000	4.214	0.000	9.077	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	797.200	4.239	0.000	9.079	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	800.500	4.264	0.000	9.080	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	803.800	4.289	0.000	9.081	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	807.100	4.314	0.000	9.083	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	810.400	4.339	0.000	9.084	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	813.600	4.364	0.000	9.085	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	816.900	4.388	0.000	9.087	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	820.200	4.413	0.000	9.088	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	823.500	4.438	0.000	9.089	0.000	0.000	0.000	0.000	0.007	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	826.800	4.463	0.000	9.090	0.000	0.000	0.000	0.000	0.008	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	830.100	4.488	0.000	9.092	0.000	0.000	0.000	0.000	0.049	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	833.300	4.778	0.000	9.090	0.000	0.000	0.000	0.000	0.096	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	836.600	5.110	0.000	9.088	0.000	0.000	0.000	0.000	0.101	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	839.900	5.442	0.000	9.087	0.000	0.000	0.000	0.000	0.101	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	843.200	5.774	0.000	9.088	0.000	0.000	0.000	0.000	0.101	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	846.500	6.106	0.000	9.091	0.000	0.000	0.000	0.000	0.127	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	849.700	6.600	0.000	9.095	0.000	0.000	0.000	0.000	0.157	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	853.000	7.127	0.000	9.103	0.000	0.000	0.000	0.000	0.160	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	856.300	7.653	0.000	9.145	0.000	0.000	0.000	0.000	0.160	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	859.600	8.179	0.000	9.273	0.000	0.000	0.000	0.000	0.300	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	861.700	9.273	0.000	9.273	0.000	0.000	0.000	0.000	0.521	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
AS	890.800	8.839	0.000	8.839	0.000	0.000	0.000	0.000	-0.073	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	901.000	8.097	0.000	8.839	0.000	0.000	0.000	0.000	-0.016	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	916.500	8.425	0.000	8.839	0.000	0.000	0.000	0.000	-0.004	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	937.000	7.966	0.000	8.839	0.000	0.000	0.000	0.000	0.013	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	948.900	8.839	0.000	8.839	0.000	0.000	0.000	0.000	0.073	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
AS	954.800	8.839	0.000	8.839	0.000	0.000	0.000	0.000	-0.016	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
IF	968.000	8.622	0.000	8.839	0.000	0.000	0.000	0.000	0.000	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	976.700	8.839	0.000	8.839	0.000	0.000	0.000	0.000	0.025	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
AS	1145.200	8.839	0.000	8.839	0.000	0.000	0.000	0.000	-0.017	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	1163.000	8.530	0.000	8.839	0.000	0.000	0.000	0.000	-0.005	0.000	
	END	END	NEW SURGE	NEW SURGE					BOTTOM	AVERAGE	
	STATION	ELEVATION	10-YEAR	100-YEAR					SLOPE	A-ZONES	
IF	1188.000	8.625	0.000	8.839	0.000	0.000	0.000	0.000	0.004	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	8.43	12.31	14.72
OF	1.00	8.43	12.31	14.72
OF	2.00	8.44	12.31	14.72
OF	3.00	8.44	12.31	14.73
OF	4.00	8.44	12.31	14.73
OF	5.00	8.44	12.31	14.73
OF	6.00	8.45	12.31	14.73
OF	7.00	8.45	12.31	14.73
OF	8.00	8.45	12.31	14.74
OF	9.00	8.46	12.31	14.74
OF	10.00	8.46	12.31	14.74
OF	11.00	8.46	12.31	14.74
OF	12.00	8.47	12.31	14.75
OF	13.00	8.47	12.31	14.75
OF	14.00	8.48	12.31	14.75
OF	15.00	8.48	12.31	14.75
OF	16.00	8.48	12.31	14.76
OF	17.00	8.49	12.31	14.76
OF	18.00	8.49	12.31	14.76
OF	19.00	8.49	12.31	14.77
OF	20.00	8.50	12.31	14.77
OF	21.00	8.50	12.31	14.77
OF	22.00	8.51	12.31	14.77
OF	23.00	8.51	12.31	14.78
OF	24.00	8.51	12.31	14.78
OF	25.00	8.52	12.31	14.78
OF	26.00	8.52	12.31	14.78
OF	27.00	8.53	12.31	14.79
OF	28.00	8.53	12.31	14.79
OF	29.00	8.53	12.31	14.79
OF	30.00	8.54	12.31	14.79
OF	31.00	8.54	12.31	14.80
OF	32.00	8.54	12.31	14.80
OF	33.00	8.55	12.31	14.80
OF	34.00	8.55	12.31	14.81
OF	35.00	8.56	12.31	14.81
OF	36.00	8.56	12.31	14.81
OF	37.00	8.56	12.31	14.81
OF	38.00	8.57	12.31	14.82
OF	39.00	8.57	12.31	14.82
OF	40.00	8.58	12.31	14.82
OF	41.00	8.58	12.31	14.83
OF	42.00	8.58	12.31	14.83
OF	43.00	8.59	12.31	14.83
OF	44.00	8.59	12.31	14.83
OF	45.00	8.60	12.31	14.84
OF	46.00	8.60	12.31	14.84
OF	47.00	8.60	12.31	14.84
OF	48.00	8.61	12.31	14.84
OF	49.00	8.61	12.31	14.85
OF	50.00	8.61	12.31	14.85
OF	51.00	8.62	12.31	14.85
OF	52.00	8.62	12.31	14.85
OF	53.00	8.62	12.31	14.85
OF	54.00	8.63	12.31	14.86
OF	55.00	8.63	12.31	14.86
OF	56.00	8.63	12.31	14.86
OF	57.00	8.64	12.31	14.86
OF	58.00	8.64	12.31	14.87
OF	59.00	8.64	12.31	14.87
OF	60.00	8.65	12.31	14.87
OF	61.00	8.65	12.31	14.87
OF	62.00	8.65	12.31	14.88
OF	63.00	8.66	12.31	14.88
OF	64.00	8.66	12.31	14.88
OF	65.00	8.66	12.31	14.88
OF	66.00	8.67	12.31	14.89
OF	67.00	8.67	12.31	14.89
OF	68.00	8.67	12.31	14.89
OF	69.00	8.68	12.31	14.89
OF	70.00	8.68	12.31	14.90
OF	71.00	8.68	12.31	14.90
OF	72.00	8.69	12.31	14.90
OF	73.00	8.69	12.31	14.90
OF	74.00	8.70	12.31	14.91
OF	75.00	8.70	12.31	14.91
OF	76.00	8.70	12.31	14.91
OF	77.00	8.71	12.31	14.91
OF	78.00	8.71	12.31	14.92
OF	79.00	8.71	12.31	14.92
OF	80.00	8.72	12.31	14.92
OF	81.00	8.72	12.31	14.92
OF	82.00	8.72	12.31	14.93
OF	83.00	8.73	12.31	14.93
OF	84.00	8.73	12.31	14.93
OF	85.00	8.73	12.31	14.93
OF	86.00	8.74	12.31	14.94
OF	87.00	8.74	12.31	14.94
OF	88.00	8.75	12.31	14.94
OF	89.00	8.75	12.31	14.94
OF	90.00	8.75	12.31	14.95
OF	91.00	8.76	12.31	14.95
OF	92.00	8.76	12.31	14.95
OF	93.00	8.76	12.31	14.95
OF	94.00	8.77	12.31	14.96

OF	95.00	8.77	12.31	14.96
OF	96.00	8.77	12.31	14.96
OF	97.00	8.78	12.31	14.96
OF	98.00	8.78	12.31	14.97
OF	99.00	8.79	12.31	14.97
OF	100.00	8.79	12.31	14.97
OF	101.00	8.79	12.31	14.97
OF	102.00	8.80	12.31	14.98
OF	103.00	8.80	12.31	14.98
OF	104.00	8.80	12.31	14.98
OF	105.00	8.81	12.31	14.98
OF	106.00	8.81	12.31	14.99
OF	107.00	8.82	12.31	14.99
OF	108.00	8.82	12.31	14.99
OF	109.00	8.82	12.31	15.00
OF	110.00	8.83	12.31	15.00
OF	111.00	8.83	12.31	15.00
OF	112.00	8.83	12.31	15.00
OF	113.00	8.84	12.31	15.01
OF	114.00	8.84	12.31	15.01
OF	115.00	8.85	12.31	15.01
OF	116.00	8.85	12.31	15.01
OF	117.00	8.85	12.31	15.02
OF	118.00	8.86	12.31	15.02
OF	119.00	8.86	12.31	15.02
OF	120.00	8.87	12.31	15.02
OF	121.00	8.87	12.31	15.03
OF	122.00	8.87	12.31	15.03
OF	123.00	8.88	12.31	15.03
OF	124.00	8.88	12.31	15.04
OF	125.00	8.88	12.31	15.04
OF	126.00	8.89	12.31	15.04
OF	127.00	8.89	12.31	15.04
OF	128.00	8.89	12.31	15.05
OF	129.00	8.90	12.31	15.05
OF	130.00	8.90	12.31	15.05
OF	131.00	8.91	12.31	15.05
OF	132.00	8.91	12.31	15.06
OF	133.00	8.91	12.31	15.06
OF	134.00	8.92	12.31	15.06
OF	135.00	8.92	12.31	15.06
OF	136.00	8.92	12.31	15.07
OF	137.00	8.93	12.31	15.07
OF	138.00	8.93	12.31	15.07
OF	139.00	8.94	12.31	15.07
OF	140.00	8.94	12.31	15.08
OF	141.00	8.94	12.31	15.08
OF	142.00	8.95	12.31	15.08
OF	143.00	8.95	12.31	15.08
OF	144.00	8.95	12.31	15.09
OF	145.00	8.96	12.31	15.09
OF	146.00	8.96	12.31	15.09
OF	147.00	8.97	12.31	15.10
OF	148.00	8.97	12.31	15.10
OF	149.00	8.97	12.31	15.10
OF	150.00	8.98	12.31	15.10
OF	151.00	8.98	12.31	15.11
OF	152.00	8.98	12.31	15.11
OF	153.00	8.99	12.31	15.11
OF	154.00	8.99	12.31	15.11
OF	155.00	9.00	12.31	15.12
OF	156.00	9.00	12.31	15.12
OF	157.00	9.00	12.31	15.12
OF	158.00	9.01	12.31	15.12
OF	159.00	9.01	12.31	15.13
OF	160.00	9.02	12.31	15.13
OF	161.00	9.02	12.31	15.13
OF	162.00	9.02	12.31	15.14
OF	163.00	9.03	12.31	15.14
OF	164.00	9.03	12.31	15.14
OF	165.00	9.04	12.31	15.14
OF	166.00	9.04	12.31	15.15
OF	167.00	9.04	12.31	15.15
OF	168.00	9.05	12.31	15.15
OF	169.00	9.05	12.31	15.15
OF	170.00	9.06	12.31	15.16
OF	171.00	9.06	12.31	15.16
OF	172.00	9.06	12.31	15.16
OF	173.00	9.07	12.31	15.17
OF	174.00	9.07	12.31	15.17
OF	175.00	9.08	12.31	15.17
OF	176.00	9.08	12.31	15.17
OF	177.00	9.08	12.31	15.18
OF	178.00	9.09	12.31	15.18
OF	179.00	9.09	12.31	15.18
OF	180.00	9.10	12.31	15.18
OF	181.00	9.10	12.31	15.19
OF	182.00	9.10	12.31	15.19
OF	183.00	9.11	12.31	15.19
OF	184.00	9.11	12.31	15.20
OF	185.00	9.12	12.31	15.20
OF	186.00	9.12	12.31	15.20
OF	187.00	9.13	12.31	15.21
OF	188.00	9.13	12.31	15.21
OF	189.00	9.14	12.31	15.21
OF	190.00	9.14	12.31	15.22
OF	191.00	9.15	12.31	15.22
OF	192.00	9.15	12.31	15.22
OF	193.00	9.16	12.31	15.23
OF	194.00	9.16	12.31	15.23
OF	195.00	9.17	12.31	15.23
OF	196.00	9.17	12.31	15.24

OF	197.00	9.18	12.31	15.24
OF	198.00	9.18	12.31	15.25
OF	199.00	9.19	12.31	15.25
OF	200.00	9.19	12.31	15.25
OF	201.00	9.20	12.31	15.26
OF	202.00	9.20	12.31	15.26
OF	203.00	9.21	12.31	15.26
OF	204.00	9.21	12.31	15.27
OF	205.00	9.22	12.31	15.27
OF	206.00	9.22	12.31	15.28
OF	207.00	9.23	12.31	15.28
OF	208.00	9.24	12.31	15.28
OF	209.00	9.24	12.31	15.29
OF	210.00	9.25	12.31	15.29
OF	211.00	9.25	12.31	15.29
OF	212.00	9.26	12.31	15.30
OF	213.00	9.26	12.31	15.30
OF	214.00	9.27	12.31	15.31
OF	215.00	9.27	12.31	15.31
OF	216.00	9.28	12.31	15.31
OF	217.00	9.28	12.31	15.32
OF	218.00	9.29	12.31	15.32
OF	219.00	9.29	12.31	15.32
OF	220.00	9.30	12.31	15.33
OF	221.00	9.31	12.31	15.33
OF	222.00	9.31	12.31	15.34
OF	223.00	9.32	12.31	15.34
OF	224.00	9.32	12.31	15.34
OF	225.00	9.33	12.31	15.35
OF	226.00	9.33	12.31	15.35
OF	227.00	9.34	12.31	15.36
OF	228.00	9.34	12.31	15.36
OF	229.00	9.35	12.31	15.36
OF	230.00	9.36	12.31	15.37
OF	231.00	9.36	12.31	15.37
OF	232.00	9.37	12.31	15.38
OF	233.00	9.37	12.31	15.38
OF	234.00	9.38	12.31	15.38
OF	235.00	9.38	12.31	15.39
OF	236.00	9.39	12.31	15.39
OF	237.00	9.40	12.31	15.40
OF	238.00	9.40	12.31	15.40
OF	239.00	9.41	12.31	15.40
OF	240.00	9.41	12.31	15.41
OF	241.00	9.42	12.31	15.41
OF	242.00	9.43	12.31	15.42
OF	243.00	9.43	12.31	15.42
OF	244.00	9.44	12.31	15.42
OF	245.00	9.44	12.31	15.43
OF	246.00	9.45	12.31	15.43
OF	247.00	9.45	12.31	15.44
OF	248.00	9.46	12.31	15.44
OF	249.00	9.47	12.31	15.44
OF	250.00	9.47	12.31	15.45
OF	251.00	9.48	12.31	15.45
OF	252.00	9.48	12.31	15.46
OF	253.00	9.49	12.31	15.46
OF	254.00	9.50	12.31	15.47
OF	255.00	9.50	12.31	15.47
OF	256.00	9.51	12.31	15.47
OF	257.00	9.51	12.31	15.48
OF	258.00	9.52	12.31	15.48
OF	259.00	9.53	12.31	15.49
OF	260.00	9.53	12.31	15.49
OF	261.00	9.54	12.31	15.49
OF	262.00	9.54	12.31	15.50
OF	263.00	9.55	12.31	15.50
OF	264.00	9.56	12.31	15.51
OF	265.00	9.56	12.31	15.51
OF	266.00	9.57	12.31	15.52
OF	267.00	9.58	12.31	15.52
OF	268.00	9.58	12.31	15.53
OF	269.00	9.59	12.31	15.53
OF	270.00	9.59	12.31	15.53
OF	271.00	9.60	12.31	15.54
OF	272.00	9.61	12.31	15.54
OF	273.00	9.61	12.31	15.55
OF	274.00	9.62	12.31	15.55
OF	275.00	9.63	12.31	15.56
OF	276.00	9.63	12.31	15.56
OF	277.00	9.64	12.31	15.56
OF	278.00	9.64	12.31	15.57
OF	279.00	9.65	12.31	15.57
OF	280.00	9.66	12.31	15.58
OF	281.00	9.66	12.31	15.58
OF	282.00	9.67	12.31	15.59
OF	283.00	9.67	12.31	15.59
OF	284.00	9.68	12.31	15.59
OF	285.00	9.69	12.31	15.60
OF	286.00	9.69	12.31	15.60
OF	287.00	9.70	12.31	15.61
OF	288.00	9.70	12.31	15.61
OF	289.00	9.71	12.31	15.62
OF	290.00	9.72	12.31	15.62
OF	291.00	9.72	12.31	15.62
OF	292.00	9.72	12.31	15.62
OF	293.00	9.72	12.31	15.62
OF	294.00	9.72	12.31	15.62
OF	295.00	9.72	12.31	15.62
OF	296.00	9.71	12.31	15.62
OF	297.00	9.71	12.31	15.62
OF	298.00	9.71	12.31	15.61

OF	299.00	9.71	12.31	15.61
OF	300.00	9.71	12.31	15.61
OF	301.00	9.71	12.31	15.61
OF	302.00	9.71	12.31	15.61
OF	303.00	9.70	12.31	15.61
OF	304.00	9.70	12.31	15.61
OF	305.00	9.70	12.31	15.61
OF	306.00	9.70	12.31	15.61
OF	307.00	9.70	12.31	15.61
OF	308.00	9.70	12.31	15.60
OF	309.00	9.69	12.31	15.60
OF	310.00	9.69	12.31	15.60
OF	311.00	9.69	12.31	15.60
OF	312.00	9.69	12.31	15.60
OF	313.00	9.69	12.31	15.60
OF	314.00	9.69	12.31	15.60
OF	315.00	9.68	12.31	15.60
OF	316.00	9.68	12.31	15.60
OF	317.00	9.68	12.31	15.59
OF	318.00	9.68	12.31	15.59
OF	319.00	9.68	12.31	15.59
OF	320.00	9.68	12.31	15.59
OF	321.00	9.68	12.31	15.59
OF	322.00	9.67	12.31	15.59
OF	323.00	9.67	12.31	15.59
OF	324.00	9.67	12.31	15.59
OF	325.00	9.67	12.31	15.58
OF	326.00	9.67	12.31	15.58
OF	327.00	9.66	12.31	15.58
OF	328.00	9.66	12.31	15.58
OF	329.00	9.66	12.31	15.58
OF	330.00	9.66	12.31	15.58
OF	331.00	9.66	12.31	15.58
OF	332.00	9.66	12.31	15.58
OF	334.00	9.65	12.31	15.57
OF	335.00	9.65	12.31	15.57
OF	337.00	9.64	12.31	15.57
OF	338.00	9.64	12.31	15.56
OF	340.00	9.64	12.31	15.56
OF	341.00	9.63	12.31	15.56
OF	343.00	9.63	12.31	15.56
OF	344.00	9.63	12.31	15.55
OF	346.00	9.62	12.31	15.55
OF	347.00	9.62	12.31	15.55
OF	349.00	9.61	12.31	15.54
OF	350.00	9.61	12.31	15.54
OF	352.00	9.60	12.31	15.54
OF	353.00	9.60	12.31	15.54
OF	355.00	9.60	12.31	15.53
OF	356.00	9.59	12.31	15.53
OF	358.00	9.59	12.31	15.53
OF	359.00	9.59	12.31	15.53
OF	361.00	9.58	12.31	15.52
OF	362.00	9.58	12.31	15.52
OF	364.00	9.57	12.31	15.52
OF	365.00	9.57	12.31	15.52
OF	367.00	9.57	12.31	15.51
OF	368.00	9.56	12.31	15.51
OF	370.00	9.56	12.31	15.51
OF	371.00	9.56	12.31	15.51
OF	373.00	9.55	12.31	15.50
OF	374.00	9.55	12.31	15.50
OF	376.00	9.54	12.31	15.50
OF	377.00	9.54	12.31	15.49
OF	379.00	9.53	12.31	15.48
OF	380.00	9.52	12.31	15.48
OF	382.00	9.51	12.31	15.47
OF	383.00	9.51	12.31	15.47
OF	385.00	9.49	12.31	15.46
OF	386.00	9.49	12.31	15.46
OF	388.00	9.48	12.31	15.45
OF	389.00	9.47	12.31	15.45
OF	391.00	9.46	12.31	15.44
OF	392.00	9.46	12.31	15.44
OF	394.00	9.45	12.31	15.43
OF	395.00	9.44	12.31	15.42
OF	397.00	9.43	12.31	15.41
OF	398.00	9.42	12.31	15.41
OF	401.00	9.40	12.31	15.40
OF	403.00	9.39	12.31	15.39
OF	404.00	9.39	12.31	15.39
OF	409.00	9.36	12.31	15.37
OF	410.00	9.36	12.31	15.37
OF	415.00	9.33	12.31	15.35
OF	416.00	9.33	12.31	15.34
OF	421.00	9.30	12.31	15.32
OF	422.00	9.29	12.31	15.32
OF	427.00	9.26	12.31	15.30
OF	428.00	9.26	12.31	15.29
OF	433.00	9.23	12.31	15.27
OF	434.00	9.22	12.31	15.27
OF	439.00	9.19	12.31	15.25
OF	440.00	9.19	12.31	15.24
OF	445.00	9.15	12.31	15.22
OF	446.00	9.15	12.31	15.22
OF	452.00	9.09	12.31	15.18
OF	455.00	9.01	12.31	15.12
OF	457.00	8.96	12.31	15.09
OF	464.00	8.79	12.31	14.96
OF	466.00	8.74	12.31	14.93
IF	547.90	6.73	12.31	13.53
IF	551.20	6.65	12.31	13.48

IF	554.50	6.58	12.31	13.43
IF	557.70	6.51	12.31	13.38
IF	561.00	6.44	12.31	13.34
IF	564.30	6.36	12.31	13.29
IF	567.60	6.28	12.31	13.23
IF	570.90	6.19	12.31	13.18
IF	574.10	6.10	12.31	13.12
IF	577.40	6.01	12.31	13.06
IF	580.70	5.92	12.31	13.00
IF	584.00	5.84	12.31	12.94
IF	587.30	5.75	12.31	12.88
IF	590.50	5.66	12.31	12.83
IF	593.80	5.57	12.31	12.77
IF	597.10	5.49	12.31	12.71
IF	600.40	5.40	12.31	12.66
IF	603.70	5.31	12.31	12.60
IF	607.00	5.22	12.31	12.54
IF	610.20	5.14	12.31	12.49
IF	613.50	5.05	12.31	12.43
IF	616.80	4.96	12.31	12.38
IF	620.10	4.88	12.31	12.32
IF	623.40	4.79	12.31	12.27
IF	626.60	4.70	12.31	12.21
IF	629.90	4.62	12.31	12.16
IF	633.20	4.58	12.31	12.14
IF	636.50	4.56	12.31	12.14
IF	639.80	4.55	12.31	12.13
IF	643.00	4.54	12.31	12.13
IF	646.30	4.52	12.31	12.13
IF	649.60	4.51	12.31	12.12
IF	652.90	4.49	12.31	12.12
IF	656.20	4.48	12.31	12.11
IF	659.40	4.46	12.31	12.11
IF	662.70	4.45	12.31	12.10
IF	666.00	4.43	12.31	12.09
IF	669.30	4.42	12.31	12.08
IF	672.60	4.40	12.31	12.08
IF	675.90	4.38	12.31	12.07
IF	679.10	4.37	12.31	12.06
IF	682.40	4.35	12.31	12.05
IF	685.70	4.33	12.31	12.05
IF	689.00	4.32	12.31	12.04
IF	692.30	4.30	12.31	12.03
IF	695.50	4.28	12.31	12.02
IF	698.80	4.27	12.31	12.01
IF	702.10	4.25	12.31	12.00
IF	705.40	4.23	12.31	11.99
IF	708.70	4.22	12.31	11.98
IF	711.90	4.20	12.31	11.97
IF	715.20	4.18	12.31	11.96
IF	718.50	4.16	12.31	11.95
IF	721.80	4.15	12.31	11.94
IF	725.10	4.13	12.31	11.93
IF	728.30	4.11	12.31	11.92
IF	731.60	4.09	12.31	11.91
IF	734.90	4.08	12.31	11.90
IF	738.20	4.06	12.31	11.89
IF	741.50	4.04	12.31	11.88
IF	744.70	4.02	12.31	11.87
IF	748.00	4.01	12.31	11.86
IF	751.30	3.99	12.31	11.85
IF	754.60	3.97	12.31	11.84
IF	757.90	3.95	12.31	11.83
IF	761.20	3.93	12.31	11.82
IF	764.40	3.92	12.31	11.81
IF	767.70	3.90	12.31	11.79
IF	771.00	3.88	12.31	11.78
IF	774.30	3.86	12.31	11.77
IF	777.60	3.85	12.31	11.76
IF	780.80	3.83	12.31	11.75
IF	784.10	3.81	12.31	11.74
IF	787.40	3.79	12.31	11.73
IF	790.70	3.77	12.31	11.72
IF	794.00	3.76	12.31	11.71
IF	797.20	3.74	12.31	11.70
IF	800.50	3.72	12.31	11.68
IF	803.80	3.70	12.31	11.67
IF	807.10	3.68	12.31	11.66
IF	810.40	3.67	12.31	11.65
IF	813.60	3.65	12.31	11.64
IF	816.90	3.63	12.31	11.63
IF	820.20	3.61	12.31	11.62
IF	823.50	3.59	12.31	11.60
IF	826.80	3.58	12.31	11.59
IF	830.10	3.56	12.31	11.58
IF	833.30	3.33	12.31	11.42
IF	836.60	3.08	12.31	11.24
IF	839.90	2.82	12.31	11.06
IF	843.20	2.57	12.31	10.89
IF	846.50	2.31	12.31	10.71
IF	849.70	1.94	12.31	10.45
IF	853.00	1.54	12.31	10.18
IF	856.30	1.16	12.31	9.96
IF	859.60	0.85	12.31	9.87
IF	861.70	0.01	12.31	9.28
AS	890.80	0.00	0.00	8.84
IF	901.00	0.07	0.31	8.89
IF	916.50	0.12	0.42	8.93
IF	937.00	0.19	0.50	8.97
IF	948.90	0.01	0.54	8.84
AS	954.80	0.00	0.00	8.84
IF	968.00	0.08	0.33	8.89

IF	976.70	0.01	0.39	8.84
AS	1145.20	0.00	0.00	8.84
IF	1163.00	0.10	0.37	8.91
IF	1188.00	0.12	0.49	8.93
PART3 LOCATION OF AREAS ABOVE 100-YEAR SURGE				
	BETWEEN	861.70 AND	890.80	
	BETWEEN	948.90 AND	954.80	
	BETWEEN	976.70 AND	1145.20	
PART4 LOCATION OF SURGE CHANGES				
STATION		10-YEAR SURGE		100-YEAR SURGE
163.00		1.00		8.82
293.00		1.00		8.82
338.00		1.00		8.82
388.00		1.00		8.81
427.00		1.00		8.81
547.90		1.00		8.82
551.20		1.00		8.82
554.50		1.00		8.83
557.70		1.00		8.83
561.00		1.00		8.83
564.30		1.00		8.84
567.60		1.00		8.84
570.90		1.00		8.84
574.10		1.00		8.85
577.40		1.00		8.85
580.70		1.00		8.85
584.00		1.00		8.86
587.30		1.00		8.86
590.50		1.00		8.86
593.80		1.00		8.87
597.10		1.00		8.87
600.40		1.00		8.88
603.70		1.00		8.88
607.00		1.00		8.89
610.20		1.00		8.89
613.50		1.00		8.90
616.80		1.00		8.90
620.10		1.00		8.91
623.40		1.00		8.91
626.60		1.00		8.92
629.90		1.00		8.93
633.20		1.00		8.93
636.50		1.00		8.94
639.80		1.00		8.95
643.00		1.00		8.95
646.30		1.00		8.96
649.60		1.00		8.97
652.90		1.00		8.97
656.20		1.00		8.98
659.40		1.00		8.98
662.70		1.00		8.99
666.00		1.00		8.99
669.30		1.00		8.99
672.60		1.00		9.00
675.90		1.00		9.00
679.10		1.00		9.01
682.40		1.00		9.01
685.70		1.00		9.01
689.00		1.00		9.02
692.30		1.00		9.02
695.50		1.00		9.02
698.80		1.00		9.02
702.10		1.00		9.03
705.40		1.00		9.03
708.70		1.00		9.03
711.90		1.00		9.03
715.20		1.00		9.04
718.50		1.00		9.04
721.80		1.00		9.04
725.10		1.00		9.04
728.30		1.00		9.05
731.60		1.00		9.05
734.90		1.00		9.05
738.20		1.00		9.05
741.50		1.00		9.05
744.70		1.00		9.05
748.00		1.00		9.06
751.30		1.00		9.06
754.60		1.00		9.06
757.90		1.00		9.06
761.20		1.00		9.06
764.40		1.00		9.06
767.70		1.00		9.06
771.00		1.00		9.07
774.30		1.00		9.07
777.60		1.00		9.07
780.80		1.00		9.07
784.10		1.00		9.07
787.40		1.00		9.07
790.70		1.00		9.08
794.00		1.00		9.08
797.20		1.00		9.08
800.50		1.00		9.08
803.80		1.00		9.08
807.10		1.00		9.08
810.40		1.00		9.08
813.60		1.00		9.09
816.90		1.00		9.09
820.20		1.00		9.09
823.50		1.00		9.09
826.80		1.00		9.09
830.10		1.00		9.09

833.30	1.00	9.09
836.60	1.00	9.09
839.90	1.00	9.09
843.20	1.00	9.09
846.50	1.00	9.09
849.70	1.00	9.10
853.00	1.00	9.10
856.30	1.00	9.15
859.60	1.00	9.27
890.80	1.00	8.84

PART5 LOCATION OF V ZONES

STATION OF GUTTER	LOCATION OF ZONE
837.61	WINDWARD

PART6 NUMBERED A ZONES AND V ZONES

STATION OF GUTTER	ELEVATION	ZONE DESIGNATION	FHF
0.00	14.72		
162.00	15.14	V22 EL=15	120
163.00	15.14	V22 EL=15	120
262.18	15.50	V22 EL=15	120
292.00	15.62	V22 EL=16	120
293.00	15.62	V22 EL=16	120
337.00	15.57	V22 EL=16	120
338.00	15.56	V22 EL=16	120
374.03	15.50	V22 EL=16	120
386.00	15.46	V22 EL=15	120
388.00	15.45	V22 EL=15	120
422.00	15.32	V22 EL=15	120
427.00	15.30	V22 EL=15	120
466.00	14.93	V22 EL=15	120
491.19	14.50	V22 EL=15	120
547.90	13.53	V22 EL=14	120
549.86	13.50	V22 EL=14	120
551.20	13.48	V22 EL=13	120
554.50	13.43	V22 EL=13	120
557.70	13.38	V22 EL=13	120
561.00	13.34	V22 EL=13	120
564.30	13.29	V22 EL=13	120
567.60	13.23	V22 EL=13	120
570.90	13.18	V22 EL=13	120
574.10	13.12	V22 EL=13	120
577.40	13.06	V22 EL=13	120
580.70	13.00	V22 EL=13	120
584.00	12.94	V22 EL=13	120
587.30	12.88	V22 EL=13	120
590.50	12.83	V22 EL=13	120
593.80	12.77	V22 EL=13	120
597.10	12.71	V22 EL=13	120
600.40	12.66	V22 EL=13	120
603.70	12.60	V22 EL=13	120
607.00	12.54	V22 EL=13	120
609.47	12.50	V22 EL=12	120
610.20	12.49	V22 EL=12	120
613.50	12.43	V22 EL=12	120
616.80	12.38	V22 EL=12	120
620.10	12.32	V22 EL=12	120
623.40	12.27	V22 EL=12	120
626.60	12.21	V22 EL=12	120
629.90	12.16	V22 EL=12	120
633.20	12.14		

		V22	EL=12	120
636.50	12.14			
639.80	12.13	V22	EL=12	120
643.00	12.13	V22	EL=12	120
646.30	12.13	V22	EL=12	120
649.60	12.12	V22	EL=12	120
652.90	12.12	V22	EL=12	120
656.20	12.11	V22	EL=12	120
659.40	12.11	V22	EL=12	120
662.70	12.10	V22	EL=12	120
666.00	12.09	V22	EL=12	120
669.30	12.08	V22	EL=12	120
672.60	12.08	V22	EL=12	120
675.90	12.07	V22	EL=12	120
679.10	12.06	V22	EL=12	120
682.40	12.05	V22	EL=12	120
685.70	12.05	V22	EL=12	120
689.00	12.04	V22	EL=12	120
692.30	12.03	V22	EL=12	120
695.50	12.02	V22	EL=12	120
698.80	12.01	V22	EL=12	120
702.10	12.00	V22	EL=12	120
705.40	11.99	V22	EL=12	120
708.70	11.98	V22	EL=12	120
711.90	11.97	V22	EL=12	120
715.20	11.96	V22	EL=12	120
718.50	11.95	V22	EL=12	120
721.80	11.94	V22	EL=12	120
725.10	11.93	V22	EL=12	120
728.30	11.92	V22	EL=12	120
731.60	11.91	V22	EL=12	120
734.90	11.90	V22	EL=12	120
738.20	11.89	V22	EL=12	120
741.50	11.88	V22	EL=12	120
744.70	11.87	V22	EL=12	120
748.00	11.86	V22	EL=12	120
751.30	11.85	V22	EL=12	120
754.60	11.84	V22	EL=12	120
757.90	11.83	V22	EL=12	120
761.20	11.82	V22	EL=12	120
764.40	11.81	V22	EL=12	120
767.70	11.79	V23	EL=12	130
771.00	11.78	V23	EL=12	130
774.30	11.77	V23	EL=12	130
777.60	11.76	V23	EL=12	130
780.80	11.75	V23	EL=12	130
784.10	11.74	V23	EL=12	130
787.40	11.73	V23	EL=12	130
790.70	11.72	V23	EL=12	130
794.00	11.71	V23	EL=12	130
797.20	11.70	V23	EL=12	130
800.50	11.68			

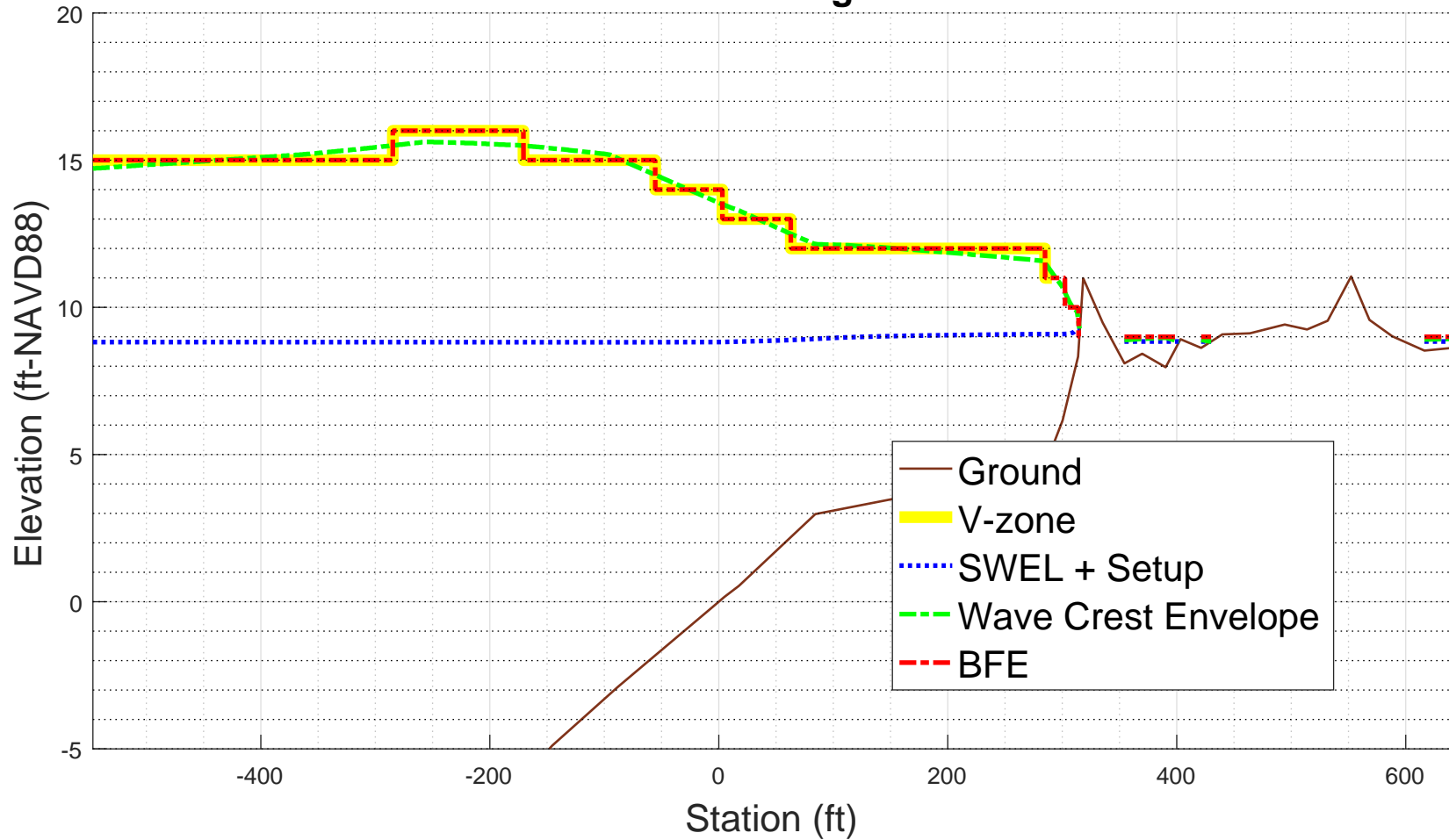
803.80	11.67	V23	EL=12	130
807.10	11.66	V23	EL=12	130
810.40	11.65	V23	EL=12	130
813.60	11.64	V23	EL=12	130
816.90	11.63	V23	EL=12	130
820.20	11.62	V23	EL=12	130
823.50	11.60	V23	EL=12	130
826.80	11.59	V23	EL=12	130
830.10	11.58	V23	EL=12	130
831.76	11.50	V23	EL=11	130
833.30	11.42	V23	EL=11	130
836.60	11.24	V23	EL=11	130
837.61	11.19	A16	EL=11	80
839.90	11.06	A16	EL=11	80
843.20	10.89	A16	EL=11	80
846.50	10.71	A16	EL=11	80
849.09	10.50	A16	EL=10	80
849.70	10.45	A16	EL=10	80
853.00	10.18	A16	EL=10	80
856.30	9.96	A16	EL=10	80
859.60	9.87	A16	EL=10	80
860.91	9.50	A16	EL= 9	80
861.70	9.28			
890.80	8.84	A16	EL= 9	80
948.90	8.84			
954.80	8.84	A16	EL= 9	80
976.70	8.84			
1145.20	8.84	A16	EL= 9	80
1188.00	8.93			

ZONE TERMINATED AT END OF TRANSECT
PART 7 POSTSCRIPT NOTES

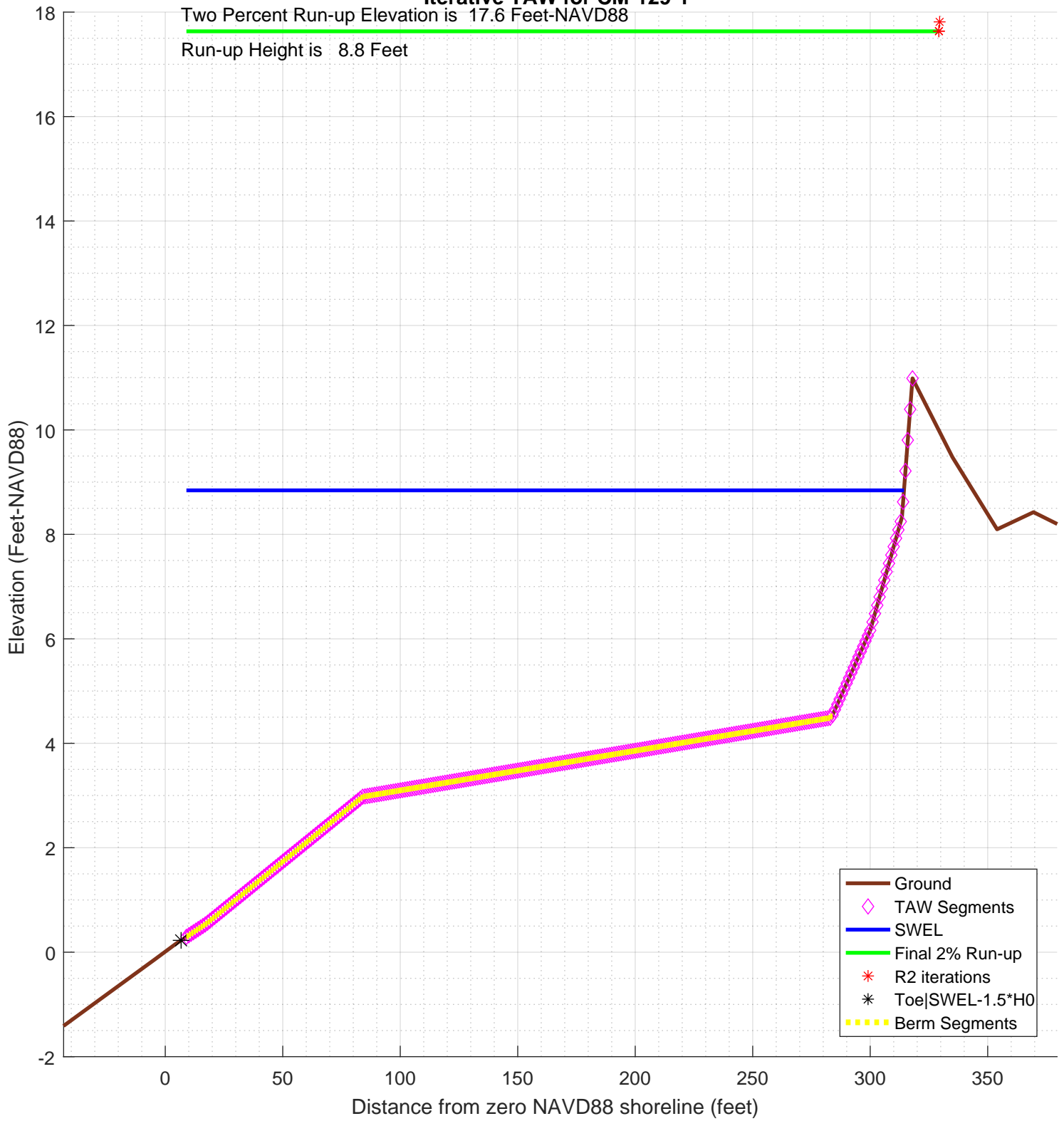
PS# 1 START(418175.4909,4843322.5606)
PS# 2 END(418162.1027,4843691.127)

-1.000000e+00

CM-129-1
100-year WHAFIS Output
Zero Station: -70.01622960, 43.73992309
Onshore Dir: 92.1 deg CCW from E



Iterative TAW for CM-129-1



```

diary on          % begin recording

% FEMA appeal for The Town of Harpswell, Cumberland county, Maine
% TRANSECT ID: CM-129-1
% calculation by SJH, Ransom Consulting, Inc. 20-Feb-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/CM-129-1sta_ele_include.csv'; % file with station, elevation, include
% third column is 0 for excluded points
imgname='logfiles/CM-129-1-runup';
SWEL=8.8189; % 100-yr still water level including wave setup.
H0=5.7154; % significant wave height at toe of structure
Tp=12.3322; % peak period, 1/fma,
T0=Tp/1.1;

gamma_berm=0.6; % this may get changed automatically below
gamma_rough=0.6;
gamma_beta=1;
gamma_perm=1;

setupAtToe=-0.018871;
maxSetup=0.45369; % only used in case of berm/shallow foreshore weighted average

plotTitle='Iterative TAW for CM-129-1'

plotTitle =

Iterative TAW for CM-129-1

% END CONFIG
%-----

SWEL=SWEL+setupAtToe

SWEL =

8.800029

SWEL_fore=SWEL+maxSetup

SWEL_fore =

9.253719

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

L0 =

643.12716977951

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

Ztoe =

    0.2269289999999998

% 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 =

    17.373129

% 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 =

    6.74104459975011

% 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 =

    328.799614395887

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

top_sta =

    328.799614395887

toe_sta

toe_sta =

    6.74104459975011

% 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 339.1 ft landward of toe of slope

ans =

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

ans =

-!!!-      setup is adjusted to 0.02 feet

ans =

-!!!-      SWEL is adjusted to 8.84 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

% 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*gamma_
        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 berm')
        % 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 =
    0.2269289999999998
toe_sta =
    6.74104459975011
top_sta =
    328.799614395887
Z2 =
    17.373129
H0 =
    5.7154
Tp =

```

```

12.3322
T0 =
R2 = 11.2110909090909
17.1462
Z2 =
25.9890730071834
top_sta =
343.371296183168
Lslope =
336.630251583418
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 1
dh =
8.53413200718341
rdh_sum =
0.849745993595662
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 2
dh =
8.50452200718341
rdh_sum =
1.69657260925671
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 3
dh =
8.4749070071834
rdh_sum =
2.5404563797064
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 4
dh =
8.4452920071834
rdh_sum =
3.3813745236441
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 5
dh =
8.41567750718341
rdh_sum =
4.21930450687379
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 6
dh =
8.3860630071834
rdh_sum =
5.05422394327186
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 7
dh =
8.3564530071834
rdh_sum =
5.88611110865488
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 8
dh =
8.3268380071834
rdh_sum =
6.71494350629483
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 9
dh =
8.29481500718341
rdh_sum =
7.54044824566786
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 10
dh =
8.25927450718341
rdh_sum =
8.36223029887695
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 11
dh =
8.2226940071834
rdh_sum =
9.18014867324218
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 12
dh =
8.18618100718341
rdh_sum =
9.99417845342053
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 13
dh =
8.1496680071834
rdh_sum =
10.804288016054
ans =

```

```
Berm Factor Calculation: Iteration 1, Profile Segment: 14
dh =
    8.1131550071834
rdh_sum =
    11.6104461325576
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 15
dh =
    8.07663500718341
rdh_sum =
    12.412621205881
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 16
dh =
    8.0401220071834
rdh_sum =
    13.2107835669669
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 17
dh =
    8.00360900718341
rdh_sum =
    14.0049031903346
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 18
dh =
    7.96708900718341
rdh_sum =
    14.7949496740792
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 19
dh =
    7.93057600718341
rdh_sum =
    15.5808945878995
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 20
dh =
    7.89399600718341
rdh_sum =
    16.3627015313542
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 21
dh =
    7.8574160071834
rdh_sum =
    17.1403420217407
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 22
dh =
    7.82090300718341
rdh_sum =
    17.9137957055424
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 23
dh =
    7.78438300718341
rdh_sum =
    18.6830342349309
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 24
dh =
    7.7478700071834
rdh_sum =
    19.4480313024238
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 25
dh =
    7.71135700718341
rdh_sum =
    20.2087602223446
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 26
dh =
    7.67483700718341
rdh_sum =
    20.9651939130463
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 27
dh =
    7.6383240071834
rdh_sum =
    21.717307371988
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 28
dh =
    7.60181100718341
rdh_sum =
    22.4650752108956
ans =
```

Berm Factor Calculation: Iteration 1, Profile Segment: 29
dh =
7.5652980071834
rdh_sum =
23.2084724791065
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 30
dh =
7.52878500718341
rdh_sum =
23.9474746660825
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 31
dh =
7.49219800718341
rdh_sum =
24.6820487235595
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 32
dh =
7.45561800718341
rdh_sum =
25.4121717876562
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 33
dh =
7.41910500718341
rdh_sum =
26.1378288154829
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 34
dh =
7.3825850071834
rdh_sum =
26.8589962202736
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 35
dh =
7.34607200718341
rdh_sum =
27.575652588465
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 36
dh =
7.30955900718341
rdh_sum =
28.2877761023752
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 37
dh =
7.2730460071834
rdh_sum =
28.9953454007886
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 38
dh =
7.23653300718341
rdh_sum =
29.6983395811073
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 39
dh =
7.20001300718341
rdh_sum =
30.3967373184992
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 40
dh =
7.16350000718341
rdh_sum =
31.0905195130409
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 41
dh =
7.1269870071834
rdh_sum =
31.7796666505205
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 42
dh =
7.09039950718341
rdh_sum =
32.4641501682408
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 43
dh =
7.0538190071834
rdh_sum =
33.1439523100719
ans =

```
Berm Factor Calculation: Iteration 1, Profile Segment: 44
dh =
    7.01730600718341
rdh_sum =
    33.8190635908787
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 45
dh =
    6.9807930071834
rdh_sum =
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ans =
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dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 47
dh =
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rdh_sum =
    35.8160773887376
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 48
dh =
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rdh_sum =
    36.4722527216039
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 49
dh =
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rdh_sum =
    37.1236537789669
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 50
dh =
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rdh_sum =
    37.7702643948281
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 51
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 52
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 53
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 54
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 55
dh =
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rdh_sum =
    40.9309116206413
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 56
dh =
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rdh_sum =
    41.5484731948291
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 57
dh =
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rdh_sum =
    42.1611520602858
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 58
dh =
    6.50596200718341
rdh_sum =
    42.7689359307408
ans =
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dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 60
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 61
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 62
dh =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 63
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 64
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 65
dh =
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rdh_sum =
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ans =
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dh =
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rdh_sum =
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ans =
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dh =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 68
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rdh_sum =
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dh =
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rdh_sum =
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dh =
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rdh_sum =
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Berm Factor Calculation: Iteration 1, Profile Segment: 73
dh =
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rdh_sum =
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ans =
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Berm Factor Calculation: Iteration 1, Profile Segment: 74
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 75
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 76
dh =
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rdh_sum =
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ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 77
dh =
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rdh_sum =
 53.3830601881378
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 78
dh =
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rdh_sum =
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Berm Factor Calculation: Iteration 1, Profile Segment: 79
dh =
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rdh_sum =
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Berm Factor Calculation: Iteration 1, Profile Segment: 80
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Berm Factor Calculation: Iteration 1, Profile Segment: 81
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Berm Factor Calculation: Iteration 1, Profile Segment: 83
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dh =
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dh =
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Berm Factor Calculation: Iteration 1, Profile Segment: 87
dh =
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rdh_sum =
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dh =
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rdh_sum =
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ans =

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rdh_sum =
110.480042188377
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 204
dh =
4.8906785071834
rdh_sum =
110.867678086127
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 205
dh =
4.88308300718341
rdh_sum =
111.254297170543
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 206
dh =
4.87548750718341
rdh_sum =
111.639899935704
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 207
dh =
4.8678925071834
rdh_sum =
112.024486946975
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 208
dh =
4.86029700718341
rdh_sum =
112.408058640405
ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 209
dh =
4.85270150718341
rdh_sum =
112.790615523355
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 210
dh =
4.84510600718341
rdh_sum =
113.172158107609
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 211
dh =
4.8375105071834
rdh_sum =
113.552686909369
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 212
dh =
4.82991500718341
rdh_sum =
113.932202449255
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 213
dh =
4.8223195071834
rdh_sum =
114.310705252306
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 214
dh =
4.8147245071834
rdh_sum =
114.688195914584
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 215
dh =
4.80712900718341
rdh_sum =
115.0646749033
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 216
dh =
4.7995335071834
rdh_sum =
115.440142756723
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 217
dh =
4.79193800718341
rdh_sum =
115.814600017528
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 218
dh =
4.78434250718341
rdh_sum =
116.188047232794
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 219
dh =
4.7767470071834
rdh_sum =
116.560484954002
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 220
dh =
4.76915150718341
rdh_sum =
116.93191373703
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 221
dh =
4.76155650718341
rdh_sum =
117.302334208516
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 222
dh =
4.7539610071834
rdh_sum =
117.671746866732
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 223
dh =
4.74636550718341
rdh_sum =
118.040152280739
ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 224
dh =
4.7387700071834
rdh_sum =
118.407551023989
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 225
dh =
4.7311745071834
rdh_sum =
118.773943674319
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 226
dh =
4.72357900718341
rdh_sum =
119.139330813952
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 227
dh =
4.71598350718341
rdh_sum =
119.503713029492
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 228
dh =
4.7083885071834
rdh_sum =
119.867090978014
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 229
dh =
4.70079300718341
rdh_sum =
120.229465188747
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 230
dh =
4.69319750718341
rdh_sum =
120.590836261422
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 231
dh =
4.68560200718341
rdh_sum =
120.951204800145
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 232
dh =
4.6780065071834
rdh_sum =
121.310571413389
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 233
dh =
4.67041100718341
rdh_sum =
121.668936713993
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 234
dh =
4.6628155071834
rdh_sum =
122.026301319161
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 235
dh =
4.6552205071834
rdh_sum =
122.382665916269
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 236
dh =
4.64762500718341
rdh_sum =
122.738031065384
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 237
dh =
4.6400295071834
rdh_sum =
123.092397396784
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 238
dh =
4.6324340071834
rdh_sum =
123.445765545097
ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 239
dh =
4.62483850718341
rdh_sum =
123.798136149303
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 240
dh =
4.6172430071834
rdh_sum =
124.149509852729
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 241
dh =
4.60964750718341
rdh_sum =
124.499887303043
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 242
dh =
4.60205250718341
rdh_sum =
124.849269217775
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 243
dh =
4.5944570071834
rdh_sum =
125.197656187716
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 244
dh =
4.58686150718341
rdh_sum =
125.545048873549
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 245
dh =
4.5792660071834
rdh_sum =
125.891447940295
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 246
dh =
4.5716705071834
rdh_sum =
126.236854057301
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 247
dh =
4.5640750071834
rdh_sum =
126.581267898242
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 248
dh =
4.55647950718341
rdh_sum =
126.924690141119
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 249
dh =
4.5488845071834
rdh_sum =
127.267121533458
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 250
dh =
4.5412890071834
rdh_sum =
127.608562696646
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 251
dh =
4.53369350718341
rdh_sum =
127.949014321637
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 252
dh =
4.52609800718341
rdh_sum =
128.288477103695
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 253
dh =
4.5185025071834
rdh_sum =
128.626951742395
ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 254
dh =
4.51090700718341
rdh_sum =
128.964438941618
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 255
dh =
4.5033115071834
rdh_sum =
129.300939409549
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 256
dh =
4.4957165071834
rdh_sum =
129.636453923553
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 257
dh =
4.48812100718341
rdh_sum =
129.970983135482
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 258
dh =
4.4805255071834
rdh_sum =
130.304527766407
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 259
dh =
4.4729300071834
rdh_sum =
130.637088541694
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 260
dh =
4.46533450718341
rdh_sum =
130.968666190993
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 261
dh =
4.45773900718341
rdh_sum =
131.299261448241
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 262
dh =
4.45014350718341
rdh_sum =
131.628875051655
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 263
dh =
4.4425480071834
rdh_sum =
131.957507743728
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 264
dh =
4.43495250718341
rdh_sum =
132.285160271231
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 265
dh =
4.42735750718341
rdh_sum =
132.611833449651
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 266
dh =
4.4197620071834
rdh_sum =
132.937527969799
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 267
dh =
4.41216650718341
rdh_sum =
133.262244591248
ans =
Berm Factor Calculation: Iteration 1, Profile Segment: 268
dh =
4.4045710071834
rdh_sum =
133.585984077831
ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 269

dh =

4.3969755071834

rdh_sum =

133.908747197642

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 270

dh =

4.38938000718341

rdh_sum =

134.230534723026

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 271

dh =

4.38178450718341

rdh_sum =

134.551347430583

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 272

dh =

4.3741895071834

rdh_sum =

134.871186165251

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 273

dh =

4.36659400718341

rdh_sum =

135.190051647977

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 274

dh =

4.35899850718341

rdh_sum =

135.507944668092

ans =

Berm Factor Calculation: Iteration 1, Profile Segment: 275

dh =

4.32800000718341

rdh_sum =

135.821877179628

ans =

!----- End Berm Factor Calculation, Iter: 1 -----!

berm_width =

275

rB =

0.816920044192328

rdh_mean =

0.493897735198646

gamma_berm =

0.586554915472641

gamma_berm =

0.6

slope =

0.418011339322766

Irb =

4.43417854621968

gamma_berm =

0.6

gamma_perm =

1

gamma_beta =

1

gamma_rough =

0.6

gamma =

0.36

ans =

!!! - Iribaren number: 2.66 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!

ans =

!!! - slope: 1:2.4 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!

R2_new =

7.28406649359505

! Berm_width is greater than 1/4 wave length

! Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm

fore_H0 =

6.97708284

upper_slope =

0.591280000000001

upper_slope =

0.591280000000001

upper_slope =

0.591280035246893

upper_slope =

0.591280034046847

upper_slope =

0.58418642721665

upper_slope =

0.570677599760422

upper_slope =

```

0.558003389946922
upper_slope =
0.546088737673167
upper_slope =
0.534867405326031
upper_slope =
0.524280561027568
upper_slope =
0.514275843043501
upper_slope =
0.504806574401893
upper_slope =
0.495830839707974
upper_slope =
0.487311083636256
upper_slope =
0.479213397543815
upper_slope =
0.471507151258171
upper_slope =
0.464164677005949
upper_slope =
0.457160766499722
upper_slope =
0.449138648664121
upper_slope =
0.441470151664179
upper_slope =
0.434132397931349
upper_slope =
0.427104441663401
upper_slope =
0.420367069143356
upper_slope =
0.413902623325299
upper_slope =
0.407694849314715
upper_slope =
0.401728757896232
upper_slope =
0.395990504696518
upper_slope =
0.39046728293168
upper_slope =
0.385147227990241
upper_slope =
0.380019332355453
upper_slope =
0.375073369583025
upper_slope =
0.370299826229417
upper_slope =
0.365689840777235
upper_slope =
0.361235148732762
w2 =
0.236797558185952
w1 =
0.763202441814049
R2_new =
8.97010981212523
R2del =
8.17609018787477
Z2 =
17.8129828193086
ans =
!----- STARTING ITERATION 2 -----!
Ztoe =
0.226928999999998
toe_sta =
6.74104459975011
top_sta =
329.54351545682
Z2 =
17.8129828193086
H0 =
5.7154
Tp =
12.3322
T0 =
11.2110909090909
R2 =
8.97010981212523
Z2 =
17.8129828193086
top_sta =
329.54351545682
Lslope =
322.80247085707
ans =

```



```
Berm Factor Calculation: Iteration 2, Profile Segment: 1
dh =
    8.53413200718341
rdh_sum =
    0.849745993595662
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 2
dh =
    8.50452200718341
rdh_sum =
    1.69657260925671
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 3
dh =
    8.4749070071834
rdh_sum =
    2.5404563797064
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 4
dh =
    8.4452920071834
rdh_sum =
    3.3813745236441
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 5
dh =
    8.41567750718341
rdh_sum =
    4.21930450687379
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 6
dh =
    8.3860630071834
rdh_sum =
    5.05422394327186
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 7
dh =
    8.3564530071834
rdh_sum =
    5.88611110865488
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 8
dh =
    8.3268380071834
rdh_sum =
    6.71494350629483
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 9
dh =
    8.29481500718341
rdh_sum =
    7.54044824566786
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 10
dh =
    8.25927450718341
rdh_sum =
    8.36223029887695
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 11
dh =
    8.2226940071834
rdh_sum =
    9.18014867324218
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 12
dh =
    8.18618100718341
rdh_sum =
    9.99417845342053
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 13
dh =
    8.1496680071834
rdh_sum =
    10.804288016054
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 14
dh =
    8.1131550071834
rdh_sum =
    11.6104461325576
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 15
dh =
    8.07663500718341
rdh_sum =
    12.412621205881
ans =
```

```
Berm Factor Calculation: Iteration 2, Profile Segment: 16
dh =
    8.0401220071834
rdh_sum =
    13.2107835669669
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 17
dh =
    8.00360900718341
rdh_sum =
    14.0049031903346
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 18
dh =
    7.96708900718341
rdh_sum =
    14.7949496740792
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 19
dh =
    7.93057600718341
rdh_sum =
    15.5808945878995
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 20
dh =
    7.89399600718341
rdh_sum =
    16.3627015313542
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 21
dh =
    7.8574160071834
rdh_sum =
    17.1403420217407
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 22
dh =
    7.82090300718341
rdh_sum =
    17.9137957055424
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 23
dh =
    7.78438300718341
rdh_sum =
    18.6830342349309
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 24
dh =
    7.7478700071834
rdh_sum =
    19.4480313024238
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 25
dh =
    7.71135700718341
rdh_sum =
    20.2087602223446
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 26
dh =
    7.67483700718341
rdh_sum =
    20.9651939130463
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 27
dh =
    7.6383240071834
rdh_sum =
    21.717307371988
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 28
dh =
    7.60181100718341
rdh_sum =
    22.4650752108956
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 29
dh =
    7.5652980071834
rdh_sum =
    23.2084724791065
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 30
dh =
    7.52878500718341
rdh_sum =
    23.9474746660825
ans =
```

```
Berm Factor Calculation: Iteration 2, Profile Segment: 31
dh =
    7.49219800718341
rdh_sum =
    24.6820487235595
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 32
dh =
    7.45561800718341
rdh_sum =
    25.4121717876562
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 33
dh =
    7.41910500718341
rdh_sum =
    26.1378288154829
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 34
dh =
    7.3825850071834
rdh_sum =
    26.8589962202736
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 35
dh =
    7.34607200718341
rdh_sum =
    27.575652588465
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 36
dh =
    7.30955900718341
rdh_sum =
    28.2877761023752
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 37
dh =
    7.2730460071834
rdh_sum =
    28.9953454007886
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 38
dh =
    7.23653300718341
rdh_sum =
    29.6983395811073
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 39
dh =
    7.20001300718341
rdh_sum =
    30.3967373184992
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 40
dh =
    7.16350000718341
rdh_sum =
    31.0905195130409
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 41
dh =
    7.1269870071834
rdh_sum =
    31.7796666505205
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 42
dh =
    7.09039950718341
rdh_sum =
    32.4641501682408
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 43
dh =
    7.0538190071834
rdh_sum =
    33.1439523100719
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 44
dh =
    7.01730600718341
rdh_sum =
    33.8190635908787
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 45
dh =
    6.9807930071834
rdh_sum =
    34.4894663766434
ans =
```

Berm Factor Calculation: Iteration 2, Profile Segment: 46
dh =
rdh_sum = 6.94428000718341
ans = 35.155143507502
Berm Factor Calculation: Iteration 2, Profile Segment: 47
dh =
rdh_sum = 6.90776000718341
ans = 35.8160773887376
Berm Factor Calculation: Iteration 2, Profile Segment: 48
dh =
rdh_sum = 6.8712470071834
ans = 36.4722527216039
Berm Factor Calculation: Iteration 2, Profile Segment: 49
dh =
rdh_sum = 6.83473400718341
ans = 37.1236537789669
Berm Factor Calculation: Iteration 2, Profile Segment: 50
dh =
rdh_sum = 6.7982140071834
ans = 37.7702643948281
Berm Factor Calculation: Iteration 2, Profile Segment: 51
dh =
rdh_sum = 6.7617010071834
ans = 38.4120707220032
Berm Factor Calculation: Iteration 2, Profile Segment: 52
dh =
rdh_sum = 6.7251210071834
ans = 39.049049625619
Berm Factor Calculation: Iteration 2, Profile Segment: 53
dh =
rdh_sum = 6.6885410071834
ans = 39.6811872609871
Berm Factor Calculation: Iteration 2, Profile Segment: 54
dh =
rdh_sum = 6.6520280071834
ans = 40.3084791763822
Berm Factor Calculation: Iteration 2, Profile Segment: 55
dh =
rdh_sum = 6.61550800718341
ans = 40.9309116206413
Berm Factor Calculation: Iteration 2, Profile Segment: 56
dh =
rdh_sum = 6.5789950071834
ans = 41.5484731948291
Berm Factor Calculation: Iteration 2, Profile Segment: 57
dh =
rdh_sum = 6.5424820071834
ans = 42.1611520602858
Berm Factor Calculation: Iteration 2, Profile Segment: 58
dh =
rdh_sum = 6.50596200718341
ans = 42.7689359307408
Berm Factor Calculation: Iteration 2, Profile Segment: 59
dh =
rdh_sum = 6.46944900718341
ans = 43.3718148893465
Berm Factor Calculation: Iteration 2, Profile Segment: 60
dh =
rdh_sum = 6.4329360071834
ans = 43.9697785760086

```
Berm Factor Calculation: Iteration 2, Profile Segment: 61
dh =
    6.3964230071834
rdh_sum =
    44.5628171256095
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 62
dh =
    6.35991000718341
rdh_sum =
    45.1509211690015
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 63
dh =
    6.32332300718341
rdh_sum =
    45.7340718066554
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 64
dh =
    6.28674300718341
rdh_sum =
    46.3122615812694
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 65
dh =
    6.25023000718341
rdh_sum =
    46.885491697791
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 66
dh =
    6.2137170071834
rdh_sum =
    47.453754781817
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 67
dh =
    6.1772040071834
rdh_sum =
    48.0170439591334
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 68
dh =
    6.14068400718341
rdh_sum =
    48.5753519010462
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 69
dh =
    6.10417100718341
rdh_sum =
    49.1286736900291
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 70
dh =
    6.0676580071834
rdh_sum =
    49.6770039564831
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 71
dh =
    6.03113800718341
rdh_sum =
    50.2203368751593
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 72
dh =
    5.99462500718341
rdh_sum =
    50.7586690397757
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 73
dh =
    5.95804500718341
rdh_sum =
    51.291987403695
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 74
dh =
    5.92146500718341
rdh_sum =
    51.8202885993738
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 75
dh =
    5.88495200718341
rdh_sum =
    52.343578963363
ans =
```

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Berm Factor Calculation: Iteration 2, Profile Segment: 76
dh =
    5.8628940071834
rdh_sum =
    52.8638410470743
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 77
dh =
    5.8552985071834
rdh_sum =
    53.3830601881378
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 78
dh =
    5.84770300718341
rdh_sum =
    53.9012363028023
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 79
dh =
    5.84010750718341
rdh_sum =
    54.4183693118615
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 80
dh =
    5.83251200718341
rdh_sum =
    54.9344591406546
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 81
dh =
    5.8249165071834
rdh_sum =
    55.4495057190669
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 82
dh =
    5.81732150718341
rdh_sum =
    55.9635090502117
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 83
dh =
    5.80972600718341
rdh_sum =
    56.4764690043887
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 84
dh =
    5.8021305071834
rdh_sum =
    56.9883855251222
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 85
dh =
    5.7945350071834
rdh_sum =
    57.4992585604835
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 86
dh =
    5.7869395071834
rdh_sum =
    58.0090880630911
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 87
dh =
    5.77934400718341
rdh_sum =
    58.5178739901108
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 88
dh =
    5.77174850718341
rdh_sum =
    59.0256163032561
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 89
dh =
    5.76415300718341
rdh_sum =
    59.5323149687883
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 90
dh =
    5.75655750718341
rdh_sum =
    60.0379699575164
ans =
```

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Berm Factor Calculation: Iteration 2, Profile Segment: 91
dh =
    5.74896250718341
rdh_sum =
    60.5425813135037
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 92
dh =
    5.74136700718341
rdh_sum =
    61.0461489479507
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 93
dh =
    5.73377150718341
rdh_sum =
    61.5486728453108
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 94
dh =
    5.7261760071834
rdh_sum =
    62.0501529945854
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 95
dh =
    5.7185805071834
rdh_sum =
    62.5505893893246
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 96
dh =
    5.71098500718341
rdh_sum =
    63.0499820276265
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 97
dh =
    5.70338950718341
rdh_sum =
    63.5483309121381
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 98
dh =
    5.6957945071834
rdh_sum =
    64.0456361187622
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 99
dh =
    5.68819900718341
rdh_sum =
    64.5418975905334
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 100
dh =
    5.68060350718341
rdh_sum =
    65.0371153437432
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 101
dh =
    5.67300800718341
rdh_sum =
    65.5312893992312
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 102
dh =
    5.6654125071834
rdh_sum =
    66.0244197823851
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 103
dh =
    5.6578170071834
rdh_sum =
    66.5165065231409
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 104
dh =
    5.6502215071834
rdh_sum =
    67.0075496559821
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 105
dh =
    5.6426265071834
rdh_sum =
    67.4975492886354
ans =
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Berm Factor Calculation: Iteration 2, Profile Segment: 106
dh =
    5.6350310071834
rdh_sum =
    67.9865053959816
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 107
dh =
    5.6274355071834
rdh_sum =
    68.4744180261467
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 108
dh =
    5.6198400071834
rdh_sum =
    68.9612872318041
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 109
dh =
    5.61224450718341
rdh_sum =
    69.4471130701738
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 110
dh =
    5.60464900718341
rdh_sum =
    69.9318956030229
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 111
dh =
    5.59705350718341
rdh_sum =
    70.4156348966646
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 112
dh =
    5.58945850718341
rdh_sum =
    70.8983310906261
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 113
dh =
    5.58186300718341
rdh_sum =
    71.3799841916398
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 114
dh =
    5.57426750718341
rdh_sum =
    71.8605942796563
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 115
dh =
    5.5666720071834
rdh_sum =
    72.340161439171
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 116
dh =
    5.5590765071834
rdh_sum =
    72.8186857592244
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 117
dh =
    5.5514810071834
rdh_sum =
    73.2961673334013
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 118
dh =
    5.54388550718341
rdh_sum =
    73.7726062598304
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 119
dh =
    5.5362905071834
rdh_sum =
    74.2480027098098
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 120
dh =
    5.5286950071834
rdh_sum =
    74.7223567219221
ans =
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Berm Factor Calculation: Iteration 2, Profile Segment: 121
dh =
ans = 5.52109950718341
rdh_sum = 75.1956684079249
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 122
dh =
ans = 5.51350400718341
rdh_sum = 75.6679378841182
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 123
dh =
ans = 5.50590850718341
rdh_sum = 76.1391652713437
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 124
dh =
ans = 5.49831300718341
rdh_sum = 76.609350694984
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 125
dh =
ans = 5.4907175071834
rdh_sum = 77.0784942849624
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 126
dh =
ans = 5.4831225071834
rdh_sum = 77.5465962443112
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 127
dh =
ans = 5.4755270071834
rdh_sum = 78.0136566434547
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 128
dh =
ans = 5.4679315071834
rdh_sum = 78.4796756259343
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 129
dh =
ans = 5.4603360071834
rdh_sum = 78.9446533398294
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 130
dh =
ans = 5.45274050718341
rdh_sum = 79.4085899377569
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 131
dh =
ans = 5.44514500718341
rdh_sum = 79.8714855768707
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 132
dh =
ans = 5.43754950718341
rdh_sum = 80.3333404188608
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 133
dh =
ans = 5.42995450718341
rdh_sum = 80.7941546984504
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 134
dh =
ans = 5.42235900718341
rdh_sum = 81.2539285178908
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 135
dh =
ans = 5.41476350718341
rdh_sum = 81.712662052476
ans =

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Berm Factor Calculation: Iteration 2, Profile Segment: 136
dh =
    5.4071680071834
rdh_sum =
    82.1703554820333
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 137
dh =
    5.3995725071834
rdh_sum =
    82.6270089909226
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 138
dh =
    5.3919770071834
rdh_sum =
    83.0826227680352
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 139
dh =
    5.3843815071834
rdh_sum =
    83.5371970067934
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 140
dh =
    5.3767865071834
rdh_sum =
    83.9907319735611
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 141
dh =
    5.3691910071834
rdh_sum =
    84.4432278023948
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 142
dh =
    5.3615955071834
rdh_sum =
    84.8946847003037
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 143
dh =
    5.35400000718341
rdh_sum =
    85.3451028788247
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 144
dh =
    5.34640450718341
rdh_sum =
    85.794482554021
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 145
dh =
    5.33880900718341
rdh_sum =
    86.2428239464813
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 146
dh =
    5.3312135071834
rdh_sum =
    86.6901272813188
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 147
dh =
    5.3236180071834
rdh_sum =
    87.1363927881704
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 148
dh =
    5.3160225071834
rdh_sum =
    87.5816207011953
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 149
dh =
    5.3084275071834
rdh_sum =
    88.0258113273539
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 150
dh =
    5.3008320071834
rdh_sum =
    88.468964841552
ans =
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Berm Factor Calculation: Iteration 2, Profile Segment: 151
dh =
    5.2932365071834
rdh_sum =
    88.9110814915101
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 152
dh =
    5.28564100718341
rdh_sum =
    89.352161529467
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 153
dh =
    5.27804550718341
rdh_sum =
    89.7922052121788
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 154
dh =
    5.27045000718341
rdh_sum =
    90.2312128009179
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 155
dh =
    5.26285450718341
rdh_sum =
    90.6691845614713
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 156
dh =
    5.25525950718341
rdh_sum =
    91.1061208323005
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 157
dh =
    5.24766400718341
rdh_sum =
    91.5420218200406
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 158
dh =
    5.24006850718341
rdh_sum =
    91.9768878040168
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 159
dh =
    5.2324730071834
rdh_sum =
    92.410719068064
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 160
dh =
    5.2248775071834
rdh_sum =
    92.8435159005265
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 161
dh =
    5.21728200718341
rdh_sum =
    93.2752785942562
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 162
dh =
    5.20968650718341
rdh_sum =
    93.7060074466115
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 163
dh =
    5.2020915071834
rdh_sum =
    94.1357028274823
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 164
dh =
    5.19449600718341
rdh_sum =
    94.5643649751894
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 165
dh =
    5.18690050718341
rdh_sum =
    94.9919942006025
ans =
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Berm Factor Calculation: Iteration 2, Profile Segment: 166
dh =
 5.17930500718341
rdh_sum =
 95.4185908190924
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 167
dh =
 5.1717095071834
rdh_sum =
 95.8441551505299
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 168
dh =
 5.1641140071834
rdh_sum =
 96.2686875192839
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 169
dh =
 5.1565185071834
rdh_sum =
 96.6921882542206
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 170
dh =
 5.1489235071834
rdh_sum =
 97.1146577565793
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 171
dh =
 5.1413280071834
rdh_sum =
 97.5360962963157
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 172
dh =
 5.1337325071834
rdh_sum =
 97.9565042157778
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 173
dh =
 5.1261370071834
rdh_sum =
 98.3758818618047
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 174
dh =
 5.11854150718341
rdh_sum =
 98.7942295857254
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 175
dh =
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rdh_sum =
 99.2115477433568
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 176
dh =
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rdh_sum =
 99.6278366950024
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 177
dh =
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rdh_sum =
 100.043096873166
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 178
dh =
 5.08816000718341
rdh_sum =
 100.457328579379
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 179
dh =
 5.08056450718341
rdh_sum =
 100.870532187396
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 180
dh =
 5.0729690071834
rdh_sum =
 101.282708075449
ans =

Berm Factor Calculation: Iteration 2, Profile Segment: 181
dh =
5.0653735071834
rdh_sum =
101.693856626252
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 182
dh =
5.0577780071834
rdh_sum =
102.103978226992
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 183
dh =
5.05018250718341
rdh_sum =
102.513073269335
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 184
dh =
5.0425875071834
rdh_sum =
102.921142216954
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 185
dh =
5.0349920071834
rdh_sum =
103.328185402895
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 186
dh =
5.02739650718341
rdh_sum =
103.734203232237
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 187
dh =
5.01980100718341
rdh_sum =
104.139196114527
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 188
dh =
5.01220550718341
rdh_sum =
104.543164463779
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 189
dh =
5.00461000718341
rdh_sum =
104.946108698469
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 190
dh =
4.9970145071834
rdh_sum =
105.348029241541
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 191
dh =
4.9894195071834
rdh_sum =
105.74892658774
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 192
dh =
4.9818240071834
rdh_sum =
106.148801101553
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 193
dh =
4.9742285071834
rdh_sum =
106.547653219299
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 194
dh =
4.9666330071834
rdh_sum =
106.945483381751
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 195
dh =
4.95903750718341
rdh_sum =
107.342292034134
ans =

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Berm Factor Calculation: Iteration 2, Profile Segment: 196
dh =
    4.95144200718341
rdh_sum =
    107.738079626128
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 197
dh =
    4.94384650718341
rdh_sum =
    108.132846611859
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 198
dh =
    4.93625150718341
rdh_sum =
    108.526593517042
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 199
dh =
    4.92865600718341
rdh_sum =
    108.919320737528
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 200
dh =
    4.92106050718341
rdh_sum =
    109.31102874078
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 201
dh =
    4.9134650071834
rdh_sum =
    109.701717998702
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 202
dh =
    4.9058695071834
rdh_sum =
    110.091388987641
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 203
dh =
    4.8982740071834
rdh_sum =
    110.480042188377
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 204
dh =
    4.8906785071834
rdh_sum =
    110.867678086127
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 205
dh =
    4.88308300718341
rdh_sum =
    111.254297170543
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 206
dh =
    4.87548750718341
rdh_sum =
    111.639899935704
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 207
dh =
    4.8678925071834
rdh_sum =
    112.024486946975
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 208
dh =
    4.86029700718341
rdh_sum =
    112.408058640405
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 209
dh =
    4.85270150718341
rdh_sum =
    112.790615523355
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 210
dh =
    4.84510600718341
rdh_sum =
    113.172158107609
ans =
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Berm Factor Calculation: Iteration 2, Profile Segment: 211
dh =
4.8375105071834
rdh_sum =
113.552686909369
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 212
dh =
4.82991500718341
rdh_sum =
113.932202449255
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 213
dh =
4.8223195071834
rdh_sum =
114.310705252306
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 214
dh =
4.8147245071834
rdh_sum =
114.688195914584
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 215
dh =
4.80712900718341
rdh_sum =
115.0646749033
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 216
dh =
4.7995335071834
rdh_sum =
115.440142756723
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 217
dh =
4.79193800718341
rdh_sum =
115.814600017528
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 218
dh =
4.78434250718341
rdh_sum =
116.188047232794
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 219
dh =
4.7767470071834
rdh_sum =
116.560484954002
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 220
dh =
4.76915150718341
rdh_sum =
116.93191373703
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 221
dh =
4.76155650718341
rdh_sum =
117.302334208516
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 222
dh =
4.7539610071834
rdh_sum =
117.671746866732
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 223
dh =
4.74636550718341
rdh_sum =
118.040152280739
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 224
dh =
4.7387700071834
rdh_sum =
118.407551023989
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 225
dh =
4.7311745071834
rdh_sum =
118.773943674319
ans =

Berm Factor Calculation: Iteration 2, Profile Segment: 226
dh =
rdh_sum = 4.72357900718341
119.139330813952
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 227
dh =
rdh_sum = 4.71598350718341
119.503713029492
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 228
dh =
rdh_sum = 4.7083885071834
119.867090978014
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 229
dh =
rdh_sum = 4.70079300718341
120.229465188747
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 230
dh =
rdh_sum = 4.69319750718341
120.590836261422
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 231
dh =
rdh_sum = 4.68560200718341
120.951204800145
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 232
dh =
rdh_sum = 4.6780065071834
121.310571413389
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 233
dh =
rdh_sum = 4.67041100718341
121.668936713993
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 234
dh =
rdh_sum = 4.6628155071834
122.026301319161
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 235
dh =
rdh_sum = 4.6552205071834
122.382665916269
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 236
dh =
rdh_sum = 4.64762500718341
122.738031065384
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 237
dh =
rdh_sum = 4.6400295071834
123.092397396784
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 238
dh =
rdh_sum = 4.6324340071834
123.445765545097
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 239
dh =
rdh_sum = 4.62483850718341
123.798136149303
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 240
dh =
rdh_sum = 4.6172430071834
124.149509852729
ans =

Berm Factor Calculation: Iteration 2, Profile Segment: 241
dh =
rdh_sum = 4.60964750718341
ans = 124.499887303043
Berm Factor Calculation: Iteration 2, Profile Segment: 242
dh =
rdh_sum = 4.60205250718341
ans = 124.849269217775
Berm Factor Calculation: Iteration 2, Profile Segment: 243
dh =
rdh_sum = 4.5944570071834
ans = 125.197656187716
Berm Factor Calculation: Iteration 2, Profile Segment: 244
dh =
rdh_sum = 4.58686150718341
ans = 125.545048873549
Berm Factor Calculation: Iteration 2, Profile Segment: 245
dh =
rdh_sum = 4.5792660071834
ans = 125.891447940295
Berm Factor Calculation: Iteration 2, Profile Segment: 246
dh =
rdh_sum = 4.5716705071834
ans = 126.236854057301
Berm Factor Calculation: Iteration 2, Profile Segment: 247
dh =
rdh_sum = 4.5640750071834
ans = 126.581267898242
Berm Factor Calculation: Iteration 2, Profile Segment: 248
dh =
rdh_sum = 4.55647950718341
ans = 126.924690141119
Berm Factor Calculation: Iteration 2, Profile Segment: 249
dh =
rdh_sum = 4.5488845071834
ans = 127.267121533458
Berm Factor Calculation: Iteration 2, Profile Segment: 250
dh =
rdh_sum = 4.5412890071834
ans = 127.608562696646
Berm Factor Calculation: Iteration 2, Profile Segment: 251
dh =
rdh_sum = 4.53369350718341
ans = 127.949014321637
Berm Factor Calculation: Iteration 2, Profile Segment: 252
dh =
rdh_sum = 4.52609800718341
ans = 128.288477103695
Berm Factor Calculation: Iteration 2, Profile Segment: 253
dh =
rdh_sum = 4.5185025071834
ans = 128.626951742395
Berm Factor Calculation: Iteration 2, Profile Segment: 254
dh =
rdh_sum = 4.51090700718341
ans = 128.964438941618
Berm Factor Calculation: Iteration 2, Profile Segment: 255
dh =
rdh_sum = 4.5033115071834
ans = 129.300939409549

Berm Factor Calculation: Iteration 2, Profile Segment: 256
dh =
4.4957165071834
rdh_sum =
129.636453923553
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 257
dh =
4.48812100718341
rdh_sum =
129.970983135482
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 258
dh =
4.4805255071834
rdh_sum =
130.304527766407
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 259
dh =
4.4729300071834
rdh_sum =
130.637088541694
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 260
dh =
4.46533450718341
rdh_sum =
130.968666190993
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 261
dh =
4.45773900718341
rdh_sum =
131.299261448241
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 262
dh =
4.45014350718341
rdh_sum =
131.628875051655
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 263
dh =
4.4425480071834
rdh_sum =
131.957507743728
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 264
dh =
4.43495250718341
rdh_sum =
132.285160271231
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 265
dh =
4.42735750718341
rdh_sum =
132.611833449651
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 266
dh =
4.4197620071834
rdh_sum =
132.937527969799
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 267
dh =
4.41216650718341
rdh_sum =
133.262244591248
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 268
dh =
4.4045710071834
rdh_sum =
133.585984077831
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 269
dh =
4.3969755071834
rdh_sum =
133.908747197642
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 270
dh =
4.38938000718341
rdh_sum =
134.230534723026
ans =

```

Berm Factor Calculation: Iteration 2, Profile Segment: 271
dh =
    4.38178450718341
rdh_sum =
    134.551347430583
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 272
dh =
    4.3741895071834
rdh_sum =
    134.871186165251
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 273
dh =
    4.36659400718341
rdh_sum =
    135.190051647977
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 274
dh =
    4.35899850718341
rdh_sum =
    135.507944668092
ans =
Berm Factor Calculation: Iteration 2, Profile Segment: 275
dh =
    4.32800000718341
rdh_sum =
    135.821877179628
ans =
!----- End Berm Factor Calculation, Iter: 2 -----!
berm_width =
    275
rB =
    0.851914172992078
rdh_mean =
    0.493897735198646
gamma_berm =
    0.568844307632337
gamma_berm =
    0.6
slope =
    0.367890058902837
Irb =
    3.90250228426186
gamma_berm =
    0.6
gamma_perm =
    1
gamma_beta =
    1
gamma_rough =
    0.6
gamma =
    0.36
ans =
!!! - - Iribaren number: 2.34 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!
ans =
!!! - - slope: 1:2.7 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!
R2_new =
    7.18096908069943
! Berm_width is greater than 1/4 wave length
! Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm
fore_H0 =
    6.97708284
upper_slope =
    0.591280000000001
upper_slope =
    0.591280000000001
upper_slope =
    0.591280068759167
upper_slope =
    0.591280064335511
upper_slope =
    0.578257314431004
upper_slope =
    0.554438809214106
upper_slope =
    0.533189234928601
upper_slope =
    0.514114200257779
upper_slope =
    0.496896251314169
upper_slope =
    0.481276736848733
upper_slope =
    0.467042899297382
upper_slope =
    0.454018255638716
upper_slope =

```

```

0.442054922343806
upper_slope =
0.431028330376857
upper_slope =
0.420832569728005
upper_slope =
0.411377111141526
upper_slope =
0.402584216954361
upper_slope =
0.394386539284337
upper_slope =
0.384787855737291
upper_slope =
0.375797771669918
upper_slope =
0.367360183787495
upper_slope =
0.359425679005785
upper_slope =
0.351950566076745
upper_slope =
0.344896070682744
upper_slope =
0.33822766268651
upper_slope =
0.331914490896321
upper_slope =
0.325928905820285
upper_slope =
0.320246054833865
upper_slope =
0.314843537258222
upper_slope =
0.309701109254499
upper_slope =
0.304800430337495
upper_slope =
0.300124844818007
upper_slope =
0.295659192684851
upper_slope =
0.291389645401677
w2 =
0.236797558185952
w1 =
0.763202441814049
R2_new =
8.79483149783466
R2del =
0.175278314290576
Z2 =
17.6377045050181
ans =
!----- STARTING ITERATION 3 -----!
Ztoe =
0.226928999999999
toe_sta =
6.74104459975011
top_sta =
329.247076689585
Z2 =
17.6377045050181
H0 =
5.7154
Tp =
12.3322
T0 =
11.2110909090909
R2 =
8.79483149783466
Z2 =
17.6377045050181
top_sta =
329.247076689585
Lslope =
322.506032089835
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 1
dh =
8.53413200718341
rdh_sum =
0.849745993595662
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 2
dh =
8.50452200718341
rdh_sum =
1.69657260925671
ans =

```

```
Berm Factor Calculation: Iteration 3, Profile Segment: 3
dh =
    8.4749070071834
rdh_sum =
    2.5404563797064
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 4
dh =
    8.4452920071834
rdh_sum =
    3.3813745236441
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 5
dh =
    8.41567750718341
rdh_sum =
    4.21930450687379
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 6
dh =
    8.3860630071834
rdh_sum =
    5.05422394327186
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 7
dh =
    8.3564530071834
rdh_sum =
    5.88611110865488
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 8
dh =
    8.3268380071834
rdh_sum =
    6.71494350629483
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 9
dh =
    8.29481500718341
rdh_sum =
    7.54044824566786
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 10
dh =
    8.25927450718341
rdh_sum =
    8.36223029887695
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 11
dh =
    8.2226940071834
rdh_sum =
    9.18014867324218
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 12
dh =
    8.18618100718341
rdh_sum =
    9.99417845342053
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 13
dh =
    8.1496680071834
rdh_sum =
    10.804288016054
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 14
dh =
    8.1131550071834
rdh_sum =
    11.6104461325576
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 15
dh =
    8.07663500718341
rdh_sum =
    12.412621205881
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 16
dh =
    8.0401220071834
rdh_sum =
    13.2107835669669
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 17
dh =
    8.00360900718341
rdh_sum =
    14.0049031903346
ans =
```

```
Berm Factor Calculation: Iteration 3, Profile Segment: 18
dh =
    7.96708900718341
rdh_sum =
    14.7949496740792
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 19
dh =
    7.93057600718341
rdh_sum =
    15.5808945878995
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 20
dh =
    7.89399600718341
rdh_sum =
    16.3627015313542
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 21
dh =
    7.8574160071834
rdh_sum =
    17.1403420217407
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 22
dh =
    7.82090300718341
rdh_sum =
    17.9137957055424
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 23
dh =
    7.78438300718341
rdh_sum =
    18.6830342349309
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 24
dh =
    7.7478700071834
rdh_sum =
    19.4480313024238
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 25
dh =
    7.71135700718341
rdh_sum =
    20.2087602223446
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 26
dh =
    7.67483700718341
rdh_sum =
    20.9651939130463
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 27
dh =
    7.6383240071834
rdh_sum =
    21.717307371988
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 28
dh =
    7.60181100718341
rdh_sum =
    22.4650752108956
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 29
dh =
    7.5652980071834
rdh_sum =
    23.2084724791065
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 30
dh =
    7.52878500718341
rdh_sum =
    23.9474746660825
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 31
dh =
    7.49219800718341
rdh_sum =
    24.6820487235595
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 32
dh =
    7.45561800718341
rdh_sum =
    25.4121717876562
ans =
```

```
Berm Factor Calculation: Iteration 3, Profile Segment: 33
dh =
    7.41910500718341
rdh_sum =
    26.1378288154829
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 34
dh =
    7.3825850071834
rdh_sum =
    26.8589962202736
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 35
dh =
    7.34607200718341
rdh_sum =
    27.575652588465
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 36
dh =
    7.30955900718341
rdh_sum =
    28.2877761023752
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 37
dh =
    7.2730460071834
rdh_sum =
    28.9953454007886
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 38
dh =
    7.23653300718341
rdh_sum =
    29.6983395811073
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 39
dh =
    7.20001300718341
rdh_sum =
    30.3967373184992
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 40
dh =
    7.16350000718341
rdh_sum =
    31.0905195130409
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 41
dh =
    7.1269870071834
rdh_sum =
    31.7796666505205
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 42
dh =
    7.09039950718341
rdh_sum =
    32.4641501682408
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 43
dh =
    7.0538190071834
rdh_sum =
    33.1439523100719
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 44
dh =
    7.01730600718341
rdh_sum =
    33.8190635908787
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 45
dh =
    6.9807930071834
rdh_sum =
    34.4894663766434
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 46
dh =
    6.94428000718341
rdh_sum =
    35.155143507502
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 47
dh =
    6.90776000718341
rdh_sum =
    35.8160773887376
ans =
```

```
Berm Factor Calculation: Iteration 3, Profile Segment: 48
dh =
    6.8712470071834
rdh_sum =
    36.4722527216039
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 49
dh =
    6.83473400718341
rdh_sum =
    37.1236537789669
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 50
dh =
    6.7982140071834
rdh_sum =
    37.7702643948281
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 51
dh =
    6.7617010071834
rdh_sum =
    38.4120707220032
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 52
dh =
    6.7251210071834
rdh_sum =
    39.049049625619
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 53
dh =
    6.6885410071834
rdh_sum =
    39.6811872609871
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 54
dh =
    6.6520280071834
rdh_sum =
    40.3084791763822
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 55
dh =
    6.61550800718341
rdh_sum =
    40.9309116206413
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 56
dh =
    6.5789950071834
rdh_sum =
    41.5484731948291
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 57
dh =
    6.5424820071834
rdh_sum =
    42.1611520602858
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 58
dh =
    6.50596200718341
rdh_sum =
    42.7689359307408
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 59
dh =
    6.46944900718341
rdh_sum =
    43.3718148893465
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 60
dh =
    6.4329360071834
rdh_sum =
    43.9697785760086
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 61
dh =
    6.3964230071834
rdh_sum =
    44.5628171256095
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 62
dh =
    6.35991000718341
rdh_sum =
    45.1509211690015
ans =
```



```
Berm Factor Calculation: Iteration 3, Profile Segment: 63
dh =
rdh_sum = 6.32332300718341
         45.7340718066554
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 64
dh =
rdh_sum = 6.28674300718341
         46.3122615812694
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 65
dh =
rdh_sum = 6.25023000718341
         46.885491697791
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 66
dh =
rdh_sum = 6.2137170071834
         47.453754781817
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 67
dh =
rdh_sum = 6.1772040071834
         48.0170439591334
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 68
dh =
rdh_sum = 6.14068400718341
         48.5753519010462
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 69
dh =
rdh_sum = 6.10417100718341
         49.1286736900291
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 70
dh =
rdh_sum = 6.0676580071834
         49.6770039564831
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 71
dh =
rdh_sum = 6.03113800718341
         50.2203368751593
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 72
dh =
rdh_sum = 5.99462500718341
         50.7586690397757
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 73
dh =
rdh_sum = 5.95804500718341
         51.291987403695
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 74
dh =
rdh_sum = 5.92146500718341
         51.8202885993738
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 75
dh =
rdh_sum = 5.88495200718341
         52.343578963363
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 76
dh =
rdh_sum = 5.8628940071834
         52.8638410470743
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 77
dh =
rdh_sum = 5.8552985071834
         53.3830601881378
ans =
```

Berm Factor Calculation: Iteration 3, Profile Segment: 78
dh =
rdh_sum = 5.84770300718341
53.9012363028023
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 79
dh =
rdh_sum = 5.84010750718341
54.4183693118615
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 80
dh =
rdh_sum = 5.83251200718341
54.9344591406546
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 81
dh =
rdh_sum = 5.8249165071834
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4.60964750718341
rdh_sum =
124.499887303043
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 242
dh =
4.60205250718341
rdh_sum =
124.849269217775
ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 243
dh =
4.5944570071834
rdh_sum =
125.197656187716
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 244
dh =
4.58686150718341
rdh_sum =
125.545048873549
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 245
dh =
4.5792660071834
rdh_sum =
125.891447940295
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 246
dh =
4.5716705071834
rdh_sum =
126.236854057301
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 247
dh =
4.5640750071834
rdh_sum =
126.581267898242
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 248
dh =
4.55647950718341
rdh_sum =
126.924690141119
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 249
dh =
4.5488845071834
rdh_sum =
127.267121533458
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 250
dh =
4.5412890071834
rdh_sum =
127.608562696646
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 251
dh =
4.53369350718341
rdh_sum =
127.949014321637
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 252
dh =
4.52609800718341
rdh_sum =
128.288477103695
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 253
dh =
4.5185025071834
rdh_sum =
128.626951742395
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 254
dh =
4.51090700718341
rdh_sum =
128.964438941618
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 255
dh =
4.5033115071834
rdh_sum =
129.300939409549
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 256
dh =
4.4957165071834
rdh_sum =
129.636453923553
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 257
dh =
4.48812100718341
rdh_sum =
129.970983135482
ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 258
dh =
 4.4805255071834
rdh_sum =
 130.304527766407
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 259
dh =
 4.4729300071834
rdh_sum =
 130.637088541694
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 260
dh =
 4.46533450718341
rdh_sum =
 130.968666190993
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 261
dh =
 4.45773900718341
rdh_sum =
 131.299261448241
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 262
dh =
 4.45014350718341
rdh_sum =
 131.628875051655
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 263
dh =
 4.4425480071834
rdh_sum =
 131.957507743728
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 264
dh =
 4.43495250718341
rdh_sum =
 132.285160271231
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 265
dh =
 4.42735750718341
rdh_sum =
 132.611833449651
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 266
dh =
 4.4197620071834
rdh_sum =
 132.937527969799
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 267
dh =
 4.41216650718341
rdh_sum =
 133.262244591248
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 268
dh =
 4.4045710071834
rdh_sum =
 133.585984077831
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 269
dh =
 4.3969755071834
rdh_sum =
 133.908747197642
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 270
dh =
 4.38938000718341
rdh_sum =
 134.230534723026
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 271
dh =
 4.38178450718341
rdh_sum =
 134.551347430583
ans =
Berm Factor Calculation: Iteration 3, Profile Segment: 272
dh =
 4.3741895071834
rdh_sum =
 134.871186165251
ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 273

dh =

4.36659400718341

rdh_sum =

135.190051647977

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 274

dh =

4.35899850718341

rdh_sum =

135.507944668092

ans =

Berm Factor Calculation: Iteration 3, Profile Segment: 275

dh =

4.32800000718341

rdh_sum =

135.821877179628

ans =

!----- End Berm Factor Calculation, Iter: 3 -----!

berm_width =

275

rB =

0.852697229313831

rdh_mean =

0.493897735198646

gamma_berm =

0.568448001054431

gamma_berm =

0.6

slope =

0.36649610037087

Irb =

3.88771545807963

gamma_berm =

0.6

gamma_perm =

1

gamma_beta =

1

gamma_rough =

0.6

gamma =

0.36

ans =

!!! - - Iribaren number: 2.33 is in the valid range (0.5-10), TAW RECOMMENDED - - !!!

ans =

!!! - - slope: 1:2.7 V:H is in the valid range (1:8 - 1:1), TAW RECOMMENDED - - !!!

R2_new =

7.1778029002531

! Berm_width is greater than 1/4 wave length

! Runup will be weighted average with foreshore calculation assuming depth limited wave height on berm

fore_H0 =

6.97708284

upper_slope =

0.59128

upper_slope =

0.59128

upper_slope =

0.591280070189838

upper_slope =

0.591280065586343

upper_slope =

0.578019706833655

upper_slope =

0.55380559134324

upper_slope =

0.532245502676118

upper_slope =

0.512925711485317

upper_slope =

0.495514372708364

upper_slope =

0.47974197363416

upper_slope =

0.465387459641602

upper_slope =

0.452267940842998

upper_slope =

0.440230533423556

upper_slope =

0.42914673402515

upper_slope =

0.418907508636221

upper_slope =

0.409419829954896

upper_slope =

0.400603950255503

upper_slope =

0.392390891808502

upper_slope =

```

0.382764113829367
upper_slope =
0.373753507281228
upper_slope =
0.365301748695333
upper_slope =
0.357358411265668
upper_slope =
0.34987895795094
upper_slope =
0.342823905977667
upper_slope =
0.33615812964357
upper_slope =
0.329850275429892
upper_slope =
0.323872268867834
upper_slope =
0.318198896794063
upper_slope =
0.312807451883228
upper_slope =
0.307677428888491
upper_slope =
0.302790264022493
upper_slope =
0.298129110495992
upper_slope =
0.293678644493967
upper_slope =
0.289424896880295
w2 =
0.236797558185952
w1 =
0.763202441814049
R2_new =
8.78920187834023
R2del =
0.00562961949442276
Z2 =
17.6320748855236
% final 2% runup elevation
Z2=R2_new+SWEL
Z2 =
17.6320748855236
diary off
-1.000000e+00
-1.000000e+00
-1.000000e+00

```

PART 5: RUNUP2

for transect: CM-129-1

Station locations shifted by: -0.32 feet from their
original location to set the shoreline to
elevation 0 for RUNUP2 input

RUNUP2 INPUT CONVERSIONS

for transect: CM-129-1

Incident significant wave height: 5.27 feet

Peak wave period: 12.31 seconds

Mean wave height: 3.30 feet

Local Depth below SWEL: 25.76 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 Jersey

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

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

Depth, $D = 25.76$

Period, $T = 10.46$

Waveheight, $H = 3.30$

Deep water wavelength, $L0$ (ft)

$L0 = g \cdot T^2 / 2\pi$

$L0 = 32.17 \cdot 10.46^2 / 6.28 = 560.67$

Deep water wave celerity, $C0$ (ft/s)

$C0 = L0 / T$

$C0 = 560.67 / 10.46 = 53.58$

Angular frequency, σ (rad/s)

$\sigma = 2\pi / T$

$\sigma = 6.28 / 10.46 = 0.60$

Hunts (1979) approximation for Celerity $C1H$ (ft/s) at Depth D (ft)

$y = \sigma \cdot \sigma \cdot D / g$

$y = 0.60 \cdot 0.60 \cdot 25.76 / 32.17 = 0.29$

$C1H = \sqrt{g \cdot D / (y + 1. / (1 + 0.6522 \cdot y + 0.4622 \cdot y^2 + 0.0864 \cdot y^4 + 0.0675 \cdot y^5))}$

$C1H = 27.41$

Shoaling Coefficient KsH

$KsH = \sqrt{C0 / C1H}$

$KsH = \sqrt{53.58 / 27.41} = 1.40$

Deepwater Wave Height $H0_H$ (ft)

$H0_H = H / KsH$

$H0_H = 3.30 / 1.40 = 2.36$

Deepwater mean wave height: 2.36 feet

END RUNUP2 CONVERSIONS

RUNUP2 RESULTS

for transect: CM-129-1

RUNUP2 SWEL:

8.80

8.80

8.80

8.80

8.80
8.80
8.80
8.80
8.80

RUNUP2 deepwater mean wave heights:

2.24
2.24
2.24
2.36
2.36
2.36
2.48
2.48
2.48

RUNUP2 mean wave periods:

9.94
10.46
10.99
9.94
10.46
10.99
9.94
10.46
10.99

RUNUP2 runup above SWEL:

0.36
0.40
0.41
0.38
0.40
0.42
0.39
0.42
0.45

RUNUP2 Mean runup height above SWEL: 0.40 feet

RUNUP2 2-percent runup height above SWEL: 0.89 feet

RUNUP2 2-percent runup elevation: 9.69 feet-NAVD88

RUNUP2 Messages:

No Messages

END RUNUP2 RESULTS

ACES BEACH RUNUP

Incident significant wave height: 5.27 feet

Significant wave height deshoaled using Hunt equation

Deepwater significant wave height: 3.30 feet

Peak wave period: 12.31 seconds

Average beach Slope: 1:30.98 (H:V)

ACES RUNUP CALCULATED USING 'Aces_Beach_Runup.m'

ACES Beach 2-percent runup height above SWEL: 3.73 feet

ACES Beach 2-percent runup elevation: 12.53 feet-NAVD88

ACES BEACH RUNUP is valid

_____END ACES BEACH RESULTS_____

PART 5 COMPLETE_____

FEMA
RUNUP2 transect: CM-129-1

sjh

job 2
1

2.00
-16.94 -546.7 0.6
-16.82 -540.7 0.6
-15.55 -502.7 0.6
-13.40 -424.7 0.6
-11.79 -361.7 0.6
-9.91 -302.7 0.6
-8.97 -272.7 0.6
-6.55 -190.7 0.6
-6.03 -171.7 0.6
-5.99 -170.7 0.6
-4.90 -145.7 0.6
-2.88 -87.7 0.6
-0.16 -4.7 0.6
0.18 5.3 0.6
0.57 18.3 0.6
2.98 84.3 0.6
4.49 283.8 0.6
6.16 300.3 0.6
8.33 313.8 0.6
1 10.99 318.3 0.6
8.8 2.24 9.94
8.8 2.24 10.46
8.8 2.24 10.99
8.8 2.36 9.94
8.8 2.36 10.46
8.8 2.36 10.99
8.8 2.48 9.94
8.8 2.48 10.46
8.8 2.48 10.99

CLIENT- FEMA
PROJECT-RUNUP2 transect: CM-129-1

** WAVE RUNUP-VERSION 2.0 **

ENGINEERED BY sjh

JOB job 2
RUN 1 PAGE 1

CROSS SECTION PROFILE

	LENGTH	ELEV.	SLOPE	ROUGHNESS
1	-546.0	-16.9		
2	-540.0	-16.8	.00	.60
3	-502.0	-15.5	29.23	.60
4	-424.0	-13.4	37.14	.60
5	-361.0	-11.7	37.06	.60
6	-302.7	-9.9	32.57	.60
7	-272.7	-9.0	31.91	.60
8	-190.7	-6.5	33.88	.60
9	-171.7	-6.0	36.54	.60
10	-170.7	-6.0	25.00	.60
11	-145.7	-4.9	22.94	.60
12	-87.7	-2.9	28.71	.60
13	-4.7	-.2	30.51	.60
14	5.3	.2	29.41	.60
15	18.3	.6	33.33	.60
16	84.3	3.0	27.39	.60
17	283.8	4.5	132.12	.60
18	300.3	6.2	9.88	.60
19	313.8	8.3	6.22	.60
20	318.3	11.0	1.69	.60
	LAST SLOPE	2.00	LAST ROUGHNESS	.60

CLIENT- FEMA
PROJECT-RUNUP2 transect: CM-129-1

** WAVE RUNUP-VERSION 2.0 **

ENGINEERED BY sjh

JOB job 2
RUN 1 PAGE 2

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.)
8.80	2.24	9.94	11	19	.36	4.73
8.80	2.24	10.46	11	19	.40	4.85
8.80	2.24	10.99	11	19	.41	4.97
8.80	2.36	9.94	11	19	.38	4.93
8.80	2.36	10.46	11	19	.40	5.05
8.80	2.36	10.99	11	19	.42	5.17
8.80	2.48	9.94	11	19	.39	5.12
8.80	2.48	10.46	11	19	.42	5.24
8.80	2.48	10.99	11	19	.45	5.37

Runup2 2% runup elevation for Transect: CM-129-1

