THIS RUN EXECUTED 10/03/81 8:55:13

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**************************************************

T1      YANCEY CO NC FEMA STUDY          JLB 3-9-81 BOWLEN1                          5
T2      10 YR FLOOD                      HCDQ113                                    10
T3      BOWLENS CREEK                    FLOOD PROFILES                             15

J1  ICHECK      INQ     NINV     IDIR     STRT  METRIC    HVINS      Q      WSEL     FQ
         0.       2.       0.       0. 0.00592       0.     0.0       0.     0.0    0.0      20

J2  NPROF   IPLOT    PRFVS    XSECV    XSECH      FN   ALLDC     IBW   CHNIM ITRACE
         0.       0.      -1.       0.       0.    0.0     0.0       0.      0.      0.      25

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     150.00     0.0   160.00     0.0      0.     0.0     0.0     0.0     0.0     0.0      30

 QT       5.   1285.   2240.   2755.   4275.   2755.       0.      0.      0.      0.      35
 NC   0.150   0.130   0.045     0.1     0.5                                               40


 X1    0.08     15.     55.    102.      0.      0.      0.     0.0     0.0      0.      45
 GR  2624.7     20.   2621.9    33.   2611.2    46.   2611.0    55.   2604.7    62.      50
 GR  2604.3     64.   2604.0    69.   2603.0    73.   2603.0    77.   2604.4    85.      55
 GR  2615.9    102.   2615.7   113.   2617.1   134.   2616.7   140.   2627.4   156.      60


 X1    0.08      0.      0.      0.     60.     60.     60.     0.0     0.0      0.      65
 X3      10.     0.0     0.0     0.     0.0      0.     0.0  2614.6  2615.6               70
 SB    1.25    1.60    3.00      0.    31.00   0.50  336.00     0.0  2603.0  2603.0      75


 X1    0.08      0.      0.      0.     72.     72.     72.     0.0     0.0      0.      80
 X2      0.     0.0      1.  2614.0  2615.1    0.0      0.     0.0     0.0      0.      85
 X3      10.     0.0     0.0     0.     0.0      0.     0.0  2615.1  2616.1               90
 BT    13.0    20.0  2624.7     0.0    33.0  2621.9     0.0    42.0  2615.1     0.0      95
 BT    49.0  2615.2     0.0    49.0  2616.1     0.0    96.0  2617.5     0.0    96.0     100
 BT  2616.1     0.0    98.0  2616.1     0.0   102.0  2615.9     0.0   113.0  2615.7     105
 BT     0.0   134.0  2617.1     0.0   140.0  2616.7     0.0   156.0  2627.4     0.0     110
 NC   0.130   0.150   0.055     0.0     0.8                                               115


 X1    0.08      0.      0.      0.     15.     15.     15.     0.0    2.70      0.     120
 QT       5.   1270.   2210.   2715.   4215.   2715.       0.      0.      0.      0.     125
 NC   0.160   0.160   0.055     0.0     0.5                                               130


 X1    0.25     14.     25.    128.    815.    815.    815.     0.0     0.0      0.     135
 GR  2639.7      0.   2636.5     7.   2629.7    25.   2611.7    67.   2610.7    77.     140
 GR  2610.4     81.   2611.0    87.   2617.5   105.   2634.2   128.   2634.7   136.     145
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B01

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GR 2635.0    155.  2633.7    160.  2640.1    164.  2648.0    175.     0.0      0.    150
QT      5.   1270.   2210.   2715.   4210.   2715.      0.      0.      0.      0.    155

X1   0.27     14.     50.    105.    100.    100.    100.     0.0   10.50      0.    160
GR 2639.7      0.  2636.5      7.  2619.3     50.  2611.7     67.  2610.7     77.    165
GR 2610.4     81.  2611.0     87.  2617.5    105.  2634.2    128.  2634.7    136.    170
GR 2635.0    155.  2633.7    160.  2640.1    164.  2648.0    175.     0.0      0.    175
QT      5.   1255.   2185.   2685.   4165.   2685.      0.      0.      0.      0.    180

X1   0.40      0.      0.      0.    650.    650.    650.     0.0   14.50      0.    185
QT      5.   1235.   2145.   2635.   4085.   2635.      0.      0.      0.      0.    190
NC  0.140   0.150   0.055     0.0     0.0                                           195

X1   0.64     14.     75.    117.   1190.   1190.   1190.     0.0     0.0      0.    200
GR 2671.1      0.  2667.2     27.  2655.6     54.  2655.0     64.  2652.0     75.    205
GR 2648.7     87.  2648.5     94.  2649.8    105.  2650.8    117.  2652.9    137.    210
GR 2657.5    184.  2660.0    217.  2667.0    282.  2671.1    335.     0.0      0.    215
NC  0.100   0.100   0.045     0.0     0.0                                           220

X1   0.64     14.     75.    117.     60.     60.     60.     0.0     0.0      0.    225
GR 2671.1      0.  2667.2     27.  2655.6     54.  2655.0     64.  2652.0     75.    230
GR 2648.7     87.  2648.5     94.  2649.8    105.  2650.8    117.  2652.9    137.    235
GR 2657.5    184.  2660.0    217.  2667.0    282.  2671.1    335.     0.0      0.    240
SB   1.25    1.60    3.00      0.   21.00    0.50  113.00     0.0  2648.5   2648.5    245

X1   0.64      0.      0.      0.     12.     12.     12.     0.0     0.0      0.    250
X2     0.     0.0      1.  2654.0  2654.0     0.0      0.     0.0     0.0      0.    255
X3    10.     0.0     0.0      0.     0.0      0.     0.0  2654.0  2655.7               260
BT  15.0      0.0  2671.1     0.0    27.0  2667.2     0.0    54.0  2655.4     0.0    265
BT  64.0   2655.0     0.0    66.0  2654.1     0.0    70.0  2654.0     0.0    90.0    270
BT 2655.2     0.0    90.0  2655.7     0.0    121.0  2656.4     0.0   121.0  2656.2    275
BT   0.0    142.0  2655.7     0.0   185.0   2657.5     0.0   217.0  2660.0     0.0    280
BT 282.0   2667.0     0.0   335.0  2671.1     0.0     0.0     0.0     0.0     0.0    285
NC 0.150   0.130   0.050     0.0     0.0                                           290

X1   0.64     14.     75.    117.     15.     15.     15.     0.0     0.0      0.    295
GR 2671.1      0.  2667.2     27.  2655.6     54.  2655.0     64.  2652.0     75.    300
GR 2649.4     94.  2650.8    103.  2650.6    112.  2650.8    117.  2652.9    137.    305
GR 2657.5    184.  2660.0    217.  2667.0    282.  2671.1    335.     0.0      0.    310
QT      5.   1215.   2115.   2595.   4025.   2595.      0.      0.      0.      0.    315
NC  0.130   0.130   0.050     0.0     0.0                                           320

X1   0.81     18.    152.    175.    910.    910.    910.     0.0     0.0      0.    325
GR 2681.0     25.  2675.0     37.  2672.0     77.  2670.5    111.  2664.6    116.    330
GR 2664.0    121.  2663.2    122.  2663.8    126.  2664.6    152.  2660.0    162.    335
GR 2659.5    166.  2660.0    171.  2661.2    175.  2662.3    187.  2662.5    187.    340
GR 2668.2    207.  2672.5    246.  2681.6    311.     0.0      0.     0.0      0.    345

X1   0.82      0.      0.      0.     60.     60.     60.     0.0     0.0      0.    350
X3    10.     0.0     0.0      0.     0.0      0.     0.0  2665.2  2665.7               355
SB   1.25    1.60    3.00      0.   21.00    0.10   90.00     0.0  2660.0  2660.0    360
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C01

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X1   0.82      0.      0.      0.     12.     12.     12.     0.0     0.0      0.    365
X2      0.      0.0      1.  2664.3  2665.7     0.0      0.     0.0     0.0      0.    370
X3     10.     0.0     0.0      0.     0.0      0.     0.0  2665.7  2666.2               375
BT   12.0    25.0  2681.0     0.0    37.0  2675.0     0.0    77.0  2672.0     0.0    380
BT  111.0  2670.5     0.0   114.0  2667.0     0.0   147.0  2665.7     0.0   147.0    385
BT 2666.0     0.0   177.0  2666.3     0.0   177.0  2666.2     0.0   195.0  2667.7    390
BT    0.0   297.0  2679.5     0.0   311.0  2681.6     0.0     0.0     0.0     0.0    395
NC  0.150   0.120   0.045     0.0     0.0                                            400

X1   0.82      0.      0.      0.     15.     15.     15.     0.0     0.0      0.    405
QT      5.   1205.   2090.   2570.   3980.   2570.      0.      0.      0.      0.    410
NC  0.150   0.150   0.050     0.0     0.0                                            415

X1   0.94     15.    493.    536.    585.    585.    585.     0.0   -3.00      0.    420
GR 2691.9      0.  2679.4    357.  2676.9    369.  2675.8    430.  2675.3    493.    425
GR 2671.7    506.  2672.0    507.  2671.8    512.  2670.8    518.  2670.8    522.    430
GR 2671.7    529.  2674.7    536.  2674.5    554.  2680.9    582.  2692.5    626.    435

X1   0.95      0.      0.      0.     40.     40.     40.     0.0    3.00      0.    440
X3     10.     0.0     0.0      0.     0.0      0.     0.0  2675.1  2675.2               445
SB   1.25    1.60    3.00      0.   25.00    0.01   75.00     0.0  2671.7  2671.7    450

X1   0.95      0.      0.      0.     12.     12.     12.     0.0     0.0      0.    455
X2      0.      0.0      1.  2674.7  2675.2     0.0      0.     0.0     0.0      0.    460
X3     10.     0.0     0.0      0.     0.0      0.     0.0  2675.6  2675.7               465
BT   12.0     0.0  2691.9     0.0   357.0  2679.4     0.0   369.0  2676.9     0.0    470
BT  430.0  2675.8     0.0   463.0  2675.6     0.0   505.0  2675.9     0.0   505.0    475
BT 2676.2     0.0   539.0  2676.2     0.0   539.0  2676.0     0.0   559.0  2675.7    480
BT    0.0   582.0  2680.9     0.0   626.0  2692.5     0.0     0.0     0.0     0.0    485
NC  0.150   0.130   0.045     0.0     0.0                                            490

X1   0.95      0.      0.      0.     10.     10.     10.     0.0     0.0      0.    495
QT      5.   1190.   2065.   2540.   3930.   2540.      0.      0.      0.      0.    500

X1   1.10      0.      0.      0.    790.    790.    790.     0.0   13.20      0.    505
QT      5.   1175.   2040.   2510.   3885.   2510.      0.      0.      0.      0.    510
NC  0.110   0.120   0.045     0.0     0.0                                            515

X1   1.24     16.    381.    430.    740.    740.    740.     0.0     0.0      0.    520
GR 2720.1      0.  2704.0     65.  2701.6    125.  2700.1    225.  2699.5    325.    525
GR 2700.5    354.  2695.2    372.  2695.3    381.  2691.7    384.  2691.6    395.    530
GR 2691.0    407.  2691.2    412.  2695.4    430.  2697.9    625.  2710.9    659.    535
GR 2715.0    725.     0.0      0.     0.0      0.     0.0      0.     0.0      0.    540
QT      5.   1140.   1985.   2440.   3770.   2440.      0.      0.      0.      0.    545
NC  0.130   0.130   0.045     0.0     0.0                                            550

X1   1.56     16.    306.    345.   1710.   1710.   1710.     0.0   -1.00      0.    555
GR 2738.9      5.  2726.6    143.  2726.6    306.  2718.6    320.  2718.5    325.    560
GR 2717.5    333.  2717.5    335.  2717.7    338.  2718.5    340.  2724.6    345.    565
GR 2724.3    429.  2726.2    442.  2725.0    468.  2727.5    471.  2730.3    479.    570
GR 2739.0    516.     0.0      0.     0.0      0.     0.0      0.     0.0      0.    575
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D01

D01

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X1   1.57      0.      0.      0.     60.     60.     60.     0.0    1.00      0.    580
X3     10.    0.0     0.0      0.    0.0      0.     0.0  2726.1  2724.0            585
SB   1.25     1.60    3.00      0.   30.00   0.40  160.00    0.0  2717.7  2717.7    590

X1   1.57      0.      0.      0.     12.     12.     12.     0.0    0.0       0.    595
X2      0.    0.0      1.  2723.1  2724.5     0.0      0.    0.0    0.0       0.    600
X3     10.    0.0     0.0      0.    0.0      0.     0.0  2726.6  2724.5            605
BT   16.0     5.0  2738.9     0.0    7.0  2732.6     0.0   238.0  2726.6     0.0    610
BT  306.0  2726.6     0.0   309.0  2725.4     0.0   314.0  2725.4     0.0   314.0   615
BT 2726.0     0.0   348.0  2725.7     0.0   348.0  2725.2     0.0   362.0  2724.5   620
BT    0.0   429.0  2724.5     0.0   442.0  2726.2     0.0   468.0  2725.0     0.0   625
BT  471.0  2727.5     0.0   479.0  2730.3     0.0   516.0  2739.0     0.0     0.0   630

X1   1.57      0.      0.      0.     15.     15.     15.     0.0    0.0       0.    635
QT      5.   1140.   1980.   2430.   3760.   2430.      0.      0.     0.      0.    640
NC  0.160   0.160   0.060     0.0     0.8                                           645

X1   1.60      0.      0.      0.    100.    100.    100.     0.0    2.20      0.    650
QT      5.   1135.   1970.   2420.   3740.   2420.      0.      0.     0.      0.    655
NC  0.150   0.150   0.050     0.0     0.0                                           660

X1   1.66     21.     629.    680.    235.    235.    235.     0.0    0.0       0.    665
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.   670
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.2    629.   675
GR 2728.2    640.  2725.7    654.  2726.4    668.  2726.5    670.  2732.6    680.   680
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.   685
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.    690
NC  0.130   0.130   0.045     0.0     0.5                                           695

X1   1.66     21.     629.    680.     40.     40.     40.     0.0    0.0       0.    700
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.   705
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.2    629.   710
GR 2728.2    640.  2725.7    654.  2726.4    668.  2726.5    670.  2732.6    680.   715
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.   720
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.    725
NC  0.070   0.070   0.040     0.0     0.0                                           730

X1   1.66     31.     640.    668.     1.      1.      1.      0.0    0.0       0.    735
BT      4.  640.0  2733.2     0.0   640.0  2733.2  2731.5    668.  2733.3  2731.4   740
BT  668.0  2733.3     0.0      0.     0.0      0.     0.0      0.     0.0      0.    745
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.   750
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.3    611.   755
GR 2732.5    637.  2733.1    637.  2733.1    640.  2729.0    640.  2727.9    645.   760
GR 2725.6    650.  2725.7    654.  2725.7    661.  2726.4    665.  2728.5    668.   765
GR 2733.2    668.  2733.2    670.  2732.5    670.  2732.2    680.  2732.6    680.   770
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.   775
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.    780

X1   1.66      0.      0.      0.     12.     12.     12.     0.0    0.0       0.    785
X2      0.    0.0      0.     0.0    0.0     0.0      1.     0.0    0.0       0.    790
NC  0.130   0.080   0.045     0.0     0.0                                           795
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E01

E01

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X1   1.66     21.    629.    680.     1.      1.      1.     0.0     0.0     0.     800
GR 2747.8      0.   2738.5   103.  2733.8   203.  2734.0   280.  2733.5   404.    805
GR 2732.0    450.   2730.9   500.  2730.1   570.  2730.2   595.  2730.2   629.    810
GR 2728.2    640.   2725.7   654.  2726.4   668.  2726.5   670.  2732.6   680.    815
GR 2733.5    705.   2733.6   720.  2733.1   725.  2734.1   730.  2737.4   772.    820
GR 2748.5    808.     0.0      0.    0.0     0.    0.0      0.    0.0     0.      825
NC  0.150   0.120   0.050     0.0   0.0                                             830

X1   1.66     21.    629.    680.    10.     10.     10.     0.0     0.0     0.     835
GR 2747.8      0.   2738.5   103.  2733.8   203.  2734.0   280.  2733.5   404.    840
GR 2732.0    450.   2730.9   500.  2730.1   570.  2730.2   595.  2730.2   629.    845
GR 2728.2    640.   2725.7   654.  2726.4   668.  2726.5   670.  2732.6   680.    850
GR 2733.5    705.   2733.6   720.  2733.1   725.  2734.1   730.  2737.4   772.    855
GR 2748.5    808.     0.0      0.    0.0     0.    0.0      0.    0.0     0.      860
QT      5.  1125.   1950.    2395.  3705.  2395.     0.      0.    0.0     0.      865
NC  0.150   0.120   0.055     0.0   0.8                                             870

X1   1.76     24.    745.    804.   515.    515.    515.     0.0     0.0     0.     875
GR 2754.7      0.   2747.5    70.  2740.0   135.  2738.5   230.  2739.3   335.    880
GR 2738.3    435.   2736.6   519.  2737.9   534.  2736.2   545.  2735.8   595.    885
GR 2737.0    655.   2739.6   680.  2739.8   695.  2742.0   745.  2736.7   765.    890
GR 2734.0    777.   2734.3   782.  2734.3   786.  2734.7   791.  2741.1   804.    895
GR 2740.7    817.   2741.0   832.  2741.4   837.  2755.0   853.    0.0     0.      900
NC  0.130   0.120   0.045     0.0   0.0                                             905

X1   1.77      0.      0.      0.    40.     40.     40.     0.0     0.0     0.     910

X1   1.77     25.    765.    791.     1.      1.      1.     0.0     0.0     0.     915
BT    4.0   765.0  2744.1     0.0   765.0  2744.1  2741.5   791.0  2744.2  2741.8  920
BT  791.0  2744.2     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0   925
GR 2754.7      0.   2747.5    70.  2740.0   135.  2738.5   230.  2739.2   335.    930
GR 2738.3    435.   2736.6   519.  2737.9   534.  2736.2   535.  2735.8   595.    935
GR 2737.0    655.   2739.1   675.  2742.3   725.  2743.7   756.  2744.1   756.    940
GR 2744.1    765.   2741.5   765.  2735.1   770.  2734.6   775.  2734.1   781.    945
GR 2735.0    791.   2744.2   791.  2741.5   811.  2741.8   838.  2755.0   853.    950

X1   1.77      0.      0.      0.    12.     12.     12.     0.0     0.0     0.     955
X2      0.    0.0       0.    0.0     0.0     0.0     1.     0.0     0.0     0.     960

X1   1.77     24.    745.    804.     1.      1.      1.     0.0     0.0     0.     965
GR 2754.7      0.   2747.5    70.  2740.0   135.  2738.5   230.  2739.2   335.    970
GR 2738.3    435.   2736.6   519.  2737.9   534.  2736.2   545.  2735.8   595.    975
GR 2737.0    655.   2739.6   680.  2739.8   695.  2742.0   745.  2736.7   765.    980
GR 2734.0    777.   2734.3   782.  2734.3   786.  2734.7   791.  2741.1   804.    985
GR 2740.7    817.   2741.0   832.  2741.4   837.  2755.0   853.    0.0     0.      990
NC  0.090   0.080   0.045     0.0   0.5                                             995

X1   1.77      0.      0.      0.    10.     10.     10.     0.0     0.0     0.    1000
QT      5.  1120.   1945.    2390.  3700.  2390.     0.      0.    0.0     0.    1005
NC  0.120   0.100   0.050     0.0   0.8                                            1010
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F01

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X1   1.79     19.    668.    713.     85.     85.     85.    0.0    0.0     0.   1015
GR 2757.5      0.   2750.0     25.   2745.3     38.   2741.3    137.   2741.7   235.   1020
GR 2741.6    250.   2741.2    340.   2738.9    440.   2739.4    540.   2740.2   641.   1025
GR 2743.6    668.   2735.1    690.   2734.5    691.   2734.5    700.   2736.2   703.   1030
GR 2743.5    713.   2744.4    737.   2744.0    742.   2757.8    757.    0.0      0.    1035

X1   1.79      0.     0.       0.     40.     40.     40.    0.0    0.0     0.   1040

X1   1.79     26.    689.    703.      1.      1.      1.    0.0    0.0     0.   1045
BT    4.0   689.0   2743.8    0.0   689.0   2743.8  2742.4  703.0  2743.2  2741.5 1050
BT  703.0  2742.9     0.0     0.0     0.0     0.0     0.0    0.0    0.0     0.0  1055
GR 2757.5      0.   2750.0     25.   2745.3     38.   2741.3    137.   2741.7   235.   1060
GR 2741.6    250.   2741.2    340.   2738.9    440.   2739.4    540.   2742.1   655.   1065
GR 2743.6    668.   2742.6    670.   2743.3    687.   2743.8    687.   2743.8   689.   1070
GR 2733.5    690.   2735.9    693.   2735.6    697.   2734.5    700.   2735.6   703.   1075
GR 2742.9    703.   2742.9    712.   2743.5    713.   2744.4    737.   2744.0   742.   1080
GR 2757.8    757.    0.0       0.     0.0       0.     0.0      0.    0.0      0.    1085

X1   1.79      0.     0.       0.     12.     12.     12.    0.0    0.0     0.   1090
X2    0.     0.0      0.      0.0     0.0     0.0      1.    0.0    0.0     0.   1095

X1   1.79     19.    668.    713.      1.      1.      1.    0.0    0.0     0.   1100
GR 2757.5      0.   2750.0     25.   2745.3     38.   2741.3    137.   2741.7   235.   1105
GR 2741.6    250.   2741.2    340.   2738.9    440.   2739.4    540.   2740.2   641.   1110
GR 2743.6    668.   2735.1    690.   2734.5    691.   2734.5    700.   2736.2   703.   1115
GR 2743.5    713.   2744.4    737.   2744.0    742.   2757.8    757.    0.0      0.    1120
NC   0.0     0.0     0.040     0.0     0.5                                            1125

X1   1.79     19.    668.    713.     10.     10.     10.    0.0    0.0     0.   1130
GR 2757.5      0.   2750.0     25.   2745.3     38.   2741.3    137.   2741.7   235.   1135
GR 2741.6    250.   2741.2    340.   2738.9    440.   2739.4    540.   2740.2   641.   1140
GR 2743.6    668.   2738.7    680.   2737.5    685.   2736.8    698.   2737.3   705.   1145
GR 2743.5    713.   2744.4    737.   2744.0    742.   2757.8    757.    0.0      0.    1150
QT     5.   1105.   1920.    2360.   3650.   2360.      0.      0.     0.       0.    1155
NC 0.120   0.080   0.045     0.0     0.0                                            1160

X1   1.87     19.    532.    595.    395.    395.    395.    0.0   -2.50     0.   1165
GR 2765.6      0.   2757.1     21.   2755.2     33.   2753.4    132.   2752.0   232.   1170
GR 2752.0    532.   2744.8    547.   2744.7    550.   2744.5    556.   2744.7   561.   1175
GR 2746.5    571.   2746.6    582.   2751.4    595.   2751.8    615.   2751.8   632.   1180
GR 2751.0    637.   2752.1    641.   2751.5    732.   2763.0    766.    0.0      0.    1185

X1   1.88     19.    532.    571.     80.     80.     80.    0.0    0.0     0.   1190
GR 2765.6      0.   2757.1     21.   2755.2     33.   2753.4    132.   2752.0   232.   1195
GR 2752.0    532.   2744.8    547.   2744.7    550.   2744.5    556.   2744.7   561.   1200
GR 2746.5    571.   2746.6    582.   2751.4    595.   2751.8    615.   2751.8   632.   1205
GR 2751.0    637.   2752.1    641.   2751.5    732.   2763.0    766.    0.0      0.    1210
SB   1.25    1.60    3.00      0.     24.00   0.40    118.00    0.0   2744.9   2744.9  1215

X1   1.88      0.     0.       0.     12.     12.     12.    0.0    0.0     0.   1220
X2    0.     0.0      1.    2749.9  2751.0    0.0      0.    0.0    0.0     0.   1225
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G01

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BT   19.0     0.0  2765.6     0.0    21.0  2757.1     0.0    33.0  2755.2     0.0  1230
BT  132.0  2753.4     0.0   232.0  2752.0     0.0   532.0  2752.0     0.0   533.0  1235
BT 2751.7     0.0   536.0  2751.8     0.0   541.0  2751.9     0.0   574.0  2751.5  1240
BT    0.0   577.0  2751.1     0.0   594.0  2751.0     0.0   595.0  2751.4     0.0  1245
BT  615.0  2751.8     0.0   632.0  2751.8     0.0   637.0  2751.0     0.0   641.0  1250
BT 2752.1     0.0   732.0  2751.5     0.0   766.0  2763.0     0.0     0.0     0.0  1255

X1   1.88      19.    532.    595.     20.     20.     20.     0.0     0.0      0.  1260
GR 2765.6       0.  2757.1     21.  2755.2     33.  2753.4     132.  2752.0    232.  1265
GR 2752.0     532.  2744.8    547.  2744.7    550.  2744.5     556.  2744.7    561.  1270
GR 2746.5     571.  2746.6    582.  2751.4    595.  2751.8     615.  2751.8    632.  1275
GR 2751.0     637.  2752.1    641.  2751.5    732.  2763.0     766.     0.0      0.  1280
QT      5.   1085.    1885.   2315.   3580.   2315.      0.      0.      0.      0.  1285

XT   2.00      12.     87.    138.    700.    700.    700.     0.0   -15.50      0.  1290
GR 2790.0      50.  2784.0     60.  2773.2     87.  2770.5     114.  2769.7    121.  1295
GR 2769.4     121.  2768.8    126.  2770.5    135.  2774.5     138.  2780.3    169.  1300
GR 2780.3     525.  2795.0    677.     0.0      0.     0.0      0.     0.0      0.  1305
QT      5.   1065.    1845.   2270.   3500.   2270.      0.      0.      0.      0.  1310
NC  0.120   0.080   0.045      0.0     0.0                                         1315

X1   2.12      12.     87.    138.    650.    650.    650.     0.0    -1.30      0.  1320
GR 2790.0      50.  2784.0     60.  2773.2     87.  2770.5     114.  2769.7    121.  1325
GR 2769.4     121.  2768.8    126.  2770.5    135.  2774.5     138.  2780.3    169.  1330
GR 2780.3     525.  2795.0    677.     0.0      0.     0.0      0.     0.0      0.  1335

X1   2.13      12.     87.    138.     60.     60.     60.     0.0     0.0      0.  1340
GR 2790.0      50.  2784.0     60.  2773.2     87.  2770.5     114.  2769.7    121.  1345
GR 2769.4     121.  2768.8    126.  2770.5    135.  2774.5     138.  2780.3    169.  1350
GR 2780.3     525.  2795.0    677.     0.0      0.     0.0      0.     0.0      0.  1355
SB   1.25    1.60    3.00      0.    24.00    0.10  160.00     0.0  2768.8  2768.8  1360

X1   2.13      0.      0.      0.     12.     12.     12.     0.0     0.0      0.  1365
X2     0.     0.0      1.  2775.5  2776.4     0.0      0.     0.0     0.0      0.  1370
BT   11.0    50.0  2790.0     0.0    60.0  2784.0     0.0    76.0  2777.4     0.0  1375
BT  110.0  2776.4     0.0   110.0  2777.0     0.0   137.0  2777.2     0.0   137.0  1380
BT 2776.9     0.0   154.0  2777.4     0.0   169.0  2780.3     0.0   525.0  2780.3  1385
BT    0.0   677.0  2795.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0  1390
NC  0.150   0.100   0.045      0.0     0.0                                         1395

X1   2.13      12.     87.    138.     15.     15.     15.     0.0    2.00      0.  1400
GR 2790.0      50.  2784.0     60.  2773.2     87.  2770.5     114.  2769.7    121.  1405
GR 2769.4     121.  2768.8    126.  2770.5    135.  2774.5     138.  2780.3    169.  1410
GR 2780.3     525.  2795.0    677.     0.0      0.     0.0      0.     0.0      0.  1415
QT      5.   1055.    1825.   2240.   3460.   2240.      0.      0.      0.      0.  1420
NC  0.150   0.150   0.050      0.0     0.8                                         1425

X1   2.20      23.    318.    365.    370.    370.    370.     0.0    -8.90      0.  1430
GR 2809.2      10.  2808.2     13.  2802.2     82.  2797.0     125.  2797.0    190.  1435
GR 2797.0     255.  2797.0    288.  2797.0    318.  2790.5     328.  2789.3    330.  1440
GR 2789.5     332.  2788.8    335.  2788.6    340.  2789.1     347.  2789.5    350.  1445
GR 2791.0     356.  2796.7    365.  2797.0    372.  2797.0     420.  2797.7    480.  1450
GR 2798.3     590.  2802.3    680.  2809.4    750.     0.0      0.     0.0      0.  1455
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H01

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QT      5.   1045.   1810.   2225.   3430.   2225.      0.      0.      0.      0.  1460
NC  0.110  0.080  0.045    0.0     0.0                                              1465

X1   2.24    23.    318.    365.    230.    230.    230.     0.0   -1.00      0.  1470
GR 2807.5    10.  2806.5    13.  2800.5    82.  2794.4   132.  2795.3   185.  1475
GR 2795.0   253.  2794.5   290.  2795.0   318.  2788.8   328.  2787.6   330.  1480
GR 2787.7   332.  2787.1   335.  2786.9   340.  2787.5   347.  2787.6   350.  1485
GR 2789.2   356.  2795.0   365.  2795.3   372.  2795.0   390.  2796.1   480.  1490
GR 2796.6   590.  2800.6   680.  2807.7   750.     0.0     0.     0.0     0.  1495
NC   0.0     0.0    0.0     0.0     0.5                                          1500

X1   2.25     0.     0.     0.     40.     40.     40.     0.0    1.00      0.  1505
X3    10.    0.0    0.0     0.    0.0      0.    0.0  2795.0  2795.0           1510
SB   1.25    1.60   3.00     0.   17.00   0.30  135.00     0.0  2786.9  2786.9  1515

X1   2.25     0.     0.     0.     12.     12.     12.     0.0     0.0      0.  1520
X2     0.    0.0     1.  2795.0  2795.3    0.0     0.     0.0     0.0      0.  1525
X3    10.    0.0    0.0     0.    0.0      0.    0.0  2796.3  2795.3           1530
BT   17.0   10.0 2807.5     0.0   13.0  2806.5     0.0    82.0  2800.5     0.0  1535
BT  112.0 2796.8    0.0   190.0 2796.6     0.0   243.0  2796.5     0.0   275.0  1540
BT 2796.3    0.0  305.0  2797.0    0.0   325.0  2797.7     0.0   351.0  2798.1  1545
BT    0.0  365.0 2796.8     0.0   380.0  2795.6     0.0   410.0  2795.3     0.0  1550
BT  480.0 2796.1    0.0   590.0 2796.6     0.0   680.0  2800.6     0.0   750.0  1555
BT 2807.7    0.0    0.0     0.0    0.0     0.0     0.0     0.0     0.0     0.0  1560
NC  0.130  0.080  0.045     0.0    0.0                                           1565

X1   2.25    23.    318.    365.     10.     10.     10.     0.0     0.0      0.  1570
GR 2809.2    10.  2808.2    13.  2802.2    82.  2797.0   125.  2797.0   190.  1575
GR 2797.0   255.  2797.0   288.  2797.0   318.  2790.5   328.  2789.3   330.  1580
GR 2789.5   332.  2788.8   335.  2788.6   340.  2789.1   347.  2789.5   350.  1585
GR 2791.0   356.  2796.7   365.  2797.0   372.  2797.0   420.  2797.7   480.  1590
GR 2798.3   590.  2802.3   680.  2809.4   750.     0.0     0.     0.0     0.  1595
QT      5.  1010.   1750.  2150.   3315.  2150.      0.      0.      0.      0.  1600
NC  0.100  0.080  0.045     0.0    0.0                                           1605

X1   2.44    19.    158.    222.    970.    970.    970.     0.0   -0.70      0.  1610
GR 2830.1    25.  2827.4    27.  2827.3    97.  2825.9   124.  2824.7   158.  1615
GR 2813.0   180.  2809.3   191.  2809.2   195.  2809.5   200.  2810.2   207.  1620
GR 2812.7   210.  2821.8   222.  2822.1   230.  2821.8   247.  2823.1   275.  1625
GR 2828.1   292.  2828.1   370.  2829.0   377.  2830.2   402.     0.0     0.  1630

X1   2.45     0.     0.     0.     60.     60.     60.     0.0    0.70      0.  1635
X3    10.    0.0    0.0     0.    0.0      0.    0.0  2822.0  2821.7           1640
SB   1.25    1.60   3.00     0.   31.00   0.50  345.00     0.0  2809.2  2809.2  1645

X1   2.45     0.     0.     0.     12.     12.     12.     0.0     0.0      0.  1650
X2     0.    0.0     1.  2820.5  2822.2    0.0     0.     0.0     0.0      0.  1655
X3    10.    0.0    0.0     0.    0.0      0.    0.0  2822.5  2822.2           1660
BT   18.0   25.0 2830.1     0.0   27.0  2827.4     0.0    97.0  2827.3     0.0  1665
BT  124.0 2825.9    0.0   158.0 2824.7     0.0   163.0  2822.5     0.0   175.0  1670
BT 2822.5    0.0  177.0  2823.7    0.0   213.0  2824.2     0.0   213.0  2822.7  1675
BT    0.0  222.0 2821.8     0.0   230.0  2822.1     0.0   247.0  2821.8     0.0  1680
BT  275.0 2823.1    0.0   292.0 2828.1     0.0   370.0  2828.1     0.0   377.0  1685
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                                                                                                                                I01
BT 2829.0      0.0    402.0  2830.2      0.0      0.0      0.0      0.0      0.0      0.0  1690
NC  0.130    0.100    0.050     0.0      0.0                                               1695

X1    2.45      0.       0.       0.      15.      15.      15.      0.0     1.40       0.  1700
QT       5.     990.    1710.    2100.    3235.    2100.       0.       0.       0.       0.  1705
NC  0.150    0.150    0.050     0.0      0.0                                               1710

X1    2.58      0.       0.       0.     630.     630.     630.      0.0    35.40       0.  1715
QT       5.     975.    1685.    2070.    3185.    2070.       0.       0.       0.       0.  1720
NC  0.130    0.080    0.045     0.0      0.0                                               1725

X1    2.66      17.     106.     134.     310.     310.     310.      0.0    -1.30       0.  1730
GR 2886.2       0.   2882.7      12.   2876.2      73.   2870.5      89.   2868.5     106.  1735
GR 2866.2     111.   2865.6     115.   2865.5     125.   2866.1     129.   2870.3     134.  1740
GR 2871.1     144.   2871.1     162.   2871.1     167.   2871.1     169.   2871.1     217.  1745
GR 2872.0     239.   2886.0     325.      0.0       0.      0.0       0.      0.0       0.  1750

X1    2.67      17.     111.     129.      60.      60.      60.      0.0      0.0       0.  1755
X3     10.     0.0      0.0       0.      0.0       0.      0.0   2873.6   2870.6           1760
GR 2886.2       0.   2882.7      12.   2876.2      73.   2870.5      89.   2868.5     106.  1765
GR 2866.2     111.   2865.6     115.   2865.5     125.   2866.1     129.   2870.3     134.  1770
GR 2871.1     144.   2871.1     162.   2871.1     167.   2871.1     169.   2871.1     217.  1775
GR 2872.0     239.   2886.0     325.      0.0       0.      0.0       0.      0.0       0.  1780
SB    1.25    1.60     3.00       0.    16.00     0.60   100.00      0.0   2865.5   2865.5  1785

X1    2.67       0.       0.       0.      12.      12.      12.      0.0      0.0       0.  1790
X2       0.     0.0       1.  2872.0  2871.1      0.0       0.      0.0      0.0       0.  1795
X3     10.      0.0      0.0       0.      0.0       0.      0.0   2874.0   2871.1           1800
BT   15.0       0.0   2886.2      0.0     12.0   2882.7      0.0     73.0   2876.2      0.0  1805
BT   77.0    2874.7      0.0    110.0   2874.0      0.0    110.0   2874.5      0.0    128.0  1810
BT 2873.8       0.0    128.0   2873.3      0.0    155.0   2871.1      0.0    162.0   2871.1  1815
BT    0.0     167.0   2871.1      0.0    169.0   2871.1      0.0    217.0   2871.1      0.0  1820
BT  239.0    2872.0      0.0    325.0   2886.0      0.0      0.0      0.0      0.0      0.0  1825

X1    2.67       0.       0.       0.      15.      15.      15.      0.0      0.0       0.  1830
NC  0.150    0.080    0.045     0.0      0.0                                               1835
QT       5.     955.    1645.    2020.    3110.    2020.       0.       0.       0.       0.  1840

X1    2.80       0.       0.       0.     680.     680.     680.      0.0    13.50       0.  1845
QT       5.     930.    1600.    1965.    3020.    1965.       0.       0.       0.       0.  1850
NC  0.150    0.130    0.050     0.0      0.0                                               1855

X1    2.94      17.     374.     417.     720.     720.     720.      0.0    -2.00       0.  1860
GR 2920.7      28.   2911.2      50.   2908.4      60.   2908.4     165.   2905.9     188.  1865
GR 2905.9     263.   2905.9     302.   2905.9     311.   2905.9     330.   2902.8     374.  1870
GR 2896.4     380.   2895.6     385.   2895.3     393.   2896.2     397.   2900.4     406.  1875
GR 2905.8     417.   2920.4     436.      0.0       0.      0.0       0.      0.0       0.  1880

X1    2.95       0.       0.       0.      40.      40.      40.      0.0     2.00       0.  1885
X3     10.      0.0      0.0       0.      0.0       0.      0.0   2902.0   2902.0           1890
SB    1.25    1.60     3.00       0.    27.00     0.01   170.00      0.0   2895.3   2895.3  1895
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X1   2.95      0.      0.      0.     22.     22.     22.    0.0    0.0     0.   1900
X2     0.    0.0       1.  2901.6  2903.3    0.0      0.    0.0    0.0     0.   1905
X3    10.    0.0     0.0      0.     0.0      0.     0.0 2904.2 2903.3         1910
BT    8.0   28.0  2916.5     0.0    45.0  2909.1     0.0  367.0 2904.2     0.0  1915
BT  367.0 2905.6     0.0   400.0  2905.1     0.0   400.0 2903.8     0.0   419.0  1920
BT 2903.3    0.0   436.0  2916.2     0.0     0.0     0.0    0.0     0.0     0.0  1925

X1   2.95      0.      0.      0.     10.     10.     10.    0.0    0.0     0.   1930
NC  0.130   0.150   0.050     0.0    0.0                                        1935

X1   2.96     17.    374.    417.    50.     50.     50.    0.0    0.0     0.   1940
GR 2920.7     28.  2911.2     50.  2908.4     60.  2908.4    165.  2905.9   188.  1945
GR 2905.9    263.  2905.9    302.  2905.9    311.  2905.9    330.  2902.8   374.  1950
GR 2900.6    380.  2899.8    385.  2899.5    393.  2900.4    397.  2900.4   406.  1955
GR 2905.8    417.  2920.4    436.     0.0     0.     0.0     0.     0.0     0.   1960
QT     5.    910.  1565.   1920.   2950.  1920.       0.      0.      0.     0.  1965
NC  0.080   0.130   0.050     0.0    0.0                                        1970

X1   3.06     14.    307.    340.   510.    510.    510.    0.0   -2.00     0.   1975
GR 2939.2     0.   2934.0    210.  2930.4    250.  2924.4    273.  2924.4   299.  1980
GR 2923.6    307.  2921.0    311.  2918.5    315.  2917.2    320.  2918.1   334.  1985
GR 2926.7    340.  2926.7    342.  2926.7    537.  2938.2    565.    0.0     0.   1990

X1   3.07     14.    311.    342.    60.     60.     60.    0.0    0.0     0.   1995
GR 2939.2     0.   2934.0    210.  2930.4    250.  2924.4    273.  2924.4   299.  2000
GR 2923.6    307.  2921.0    311.  2918.5    315.  2917.2    320.  2918.1   334.  2005
GR 2926.7    340.  2926.7    342.  2926.7    537.  2938.2    565.    0.0     0.   2010
SB   1.25    1.60    3.00      0.   23.00    0.90  183.00    0.0  2917.2  2917.2  2015

X1   3.07      0.      0.      0.     12.     12.     12.    0.0    0.0     0.   2020
X2     0.    0.0       1.  2925.5  2925.6    0.0      0.    0.0    0.0     0.   2025
BT   10.0    0.0  2939.2     0.0   210.0  2934.0     0.0  250.0 2930.4     0.0  2030
BT  270.0 2925.6     0.0   309.0  2926.4     0.0   309.0 2927.0     0.0   345.0  2035
BT 2927.0    0.0   345.0  2926.7     0.0   537.0  2926.7    0.0   565.0  2938.2  2040
BT    0.0    0.0     0.0     0.0     0.0     0.0     0.0    0.0     0.0     0.0  2045

X1   3.07     14.    307.    340.    15.     15.     15.    0.0    2.00     0.   2050
GR 2939.2     0.   2934.0    210.  2930.4    250.  2924.4    273.  2924.4   299.  2055
GR 2923.6    307.  2921.0    311.  2918.5    315.  2917.2    320.  2918.1   334.  2060
GR 2926.7    340.  2926.7    342.  2926.7    537.  2938.2    565.    0.0     0.   2065
QT     5.    885.  1520.   1865.   2865.  1865.       0.      0.      0.     0.  2070
NC  0.100   0.160   0.055     0.0    0.8                                        2075

X1   3.21     16.    200.    242.   710.    710.    710.    0.0   -1.80     0.   2080
GR 2954.8     25.  2951.7    124.  2949.5    144.  2943.4    160.  2943.5   168.  2085
GR 2944.0    185.  2943.9    193.  2938.7    200.  2934.2    207.  2932.5   212.  2090
GR 2932.0    216.  2932.1    222.  2933.3    229.  2934.1    234.  2943.2   242.  2095
GR 2954.5    259.    0.0       0.    0.0       0.    0.0       0.    0.0     0.   2100

X1   3.22      0.      0.      0.     60.     60.     60.    0.0    1.80     0.   2105
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KO1

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X3    10.     0.0     0.0      0.     0.0      0.     0.0  2943.7  2945.0              2110
SB    1.25    1.60    3.00     0.    29.00    0.30  330.00    0.0  2932.0  2932.0      2115
NC   0.0      0.0     0.0      0.0    0.5                                              2120

X1    3.22     0.      0.      0.     12.      12.    12.    0.0     0.0      0.      2125
X2     0.    0.0      1.   2943.5  2944.2    0.0     0.     0.0     0.0      0.      2130
X3    10.     0.0     0.0      0.     0.0      0.     0.0  2944.2  2945.5              2135
BT    10.0    25.0  2954.8     0.0  124.0   2951.7    0.0  144.0  2949.5     0.0      2140
BT   157.0  2944.2     0.0   200.0  2945.0     0.0  200.0  2945.2     0.0   239.0     2145
BT  2945.0     0.0   239.0  2945.2     0.0   245.0  2945.7     0.0   259.0  2954.5     2150
BT     0.0     0.0     0.0     0.0     0.0     0.0    0.0     0.0     0.0     0.0     2155
NC   0.100   0.150   0.050     0.0     0.0                                             2160

X1    3.22     0.      0.      0.     15.      15.    15.    0.0     2.90     0.      2165
QT       5.    880.   1510.   1855.   2845.   1855.     0.      0.      0.      0.     2170
NC   0.150   0.150   0.055     0.0     0.0                                             2175

X1    3.25     0.      0.      0.    100.     100.   100.    0.0     7.60     0.      2180
QT       5.    865.   1490.   1825.   2805.   1825.     0.      0.      0.      0.     2185
NC   0.130   0.140   0.060     0.0     0.8                                             2190

X1    3.31    17.    310.    350.    315.     315.   315.    0.0    -2.40     0.      2195
GR  2984.8     0.   2980.8     9.   2975.6     44.  2975.6   176.  2974.7    260.     2200
GR  2976.5   270.   2976.1   297.   2972.3    310.  2964.5   320.  2963.9    324.     2205
GR  2964.2   335.   2963.9   340.   2965.3    344.  2967.5   350.  2979.4    465.     2210
GR  2980.4   488.   2984.9   500.     0.0      0.     0.0     0.     0.0      0.      2215

X1    3.32    17.    324.    344.     60.      60.    60.    0.0     0.0      0.      2220
X3     10.    0.0     0.0      0.     0.0      0.     0.0  2974.2  2969.7              2225
GR  2984.8     0.   2980.8     9.   2975.6     44.  2975.6   176.  2974.7    260.     2230
GR  2976.5   270.   2976.1   297.   2972.3    310.  2964.5   320.  2963.9    324.     2235
GR  2964.2   335.   2963.9   340.   2965.3    344.  2967.5   350.  2979.4    465.     2240
GR  2980.4   488.   2984.9   500.     0.0      0.     0.0     0.     0.0      0.      2245
NC   0.070   0.070   0.040     0.0     0.5                                             2250

X1    3.32    21.    324.    344.      1.      1.     1.    0.0     0.0      0.      2255
BT     4.0  324.0  2974.0     0.0   324.0  2974.0  2973.0  344.0  2973.4  2971.0     2260
BT   344.0 2973.4     0.0     0.0     0.0     0.0    0.0     0.0     0.0     0.0     2265
GR  2984.8     0.   2980.8     9.   2975.6     44.  2975.6   176.  2974.7    260.     2270
GR  2976.5   270.   2976.2   302.   2973.5    323.  2974.1   323.  2974.0    324.     2275
GR  2965.1   325.   2963.9   334.   2964.0    337.  2967.2   344.  2973.5    344.     2280
GR  2973.4   346.   2972.7   346.   2969.8    373.  2979.4   465.  2980.4    488.     2285
GR  2984.9   500.     0.0      0.     0.0      0.     0.0     0.     0.0      0.      2290

X1    3.32     0.      0.      0.     12.      12.    12.    0.0     0.0      0.      2295
X2     0.    0.0      0.    0.0     0.0     0.0      1.    0.0     0.0      0.      2300
NC   0.100   0.100   0.045     0.0     0.0                                             2305

X1    3.32    17.    324.    344.      1.      1.     1.    0.0     0.0      0.      2310
X3     10.    0.0     0.0      0.     0.0      0.     0.0  2974.7  2970.2              2315
GR  2984.8     0.   2980.8     9.   2975.6     44.  2975.6   176.  2974.7    260.     2320
GR  2976.5   270.   2976.1   297.   2972.3    310.  2964.5   320.  2963.9    324.     2325
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L01

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GR 2964.2    335.  2963.9    340.  2965.3    344.  2967.5    350.  2979.4    465.  2330
GR 2980.4    488.  2984.9    500.     0.0      0.     0.0      0.     0.0      0.  2335
NC  0.120   0.140   0.050     0.0     0.0                                          2340

X1   3.32     17.   310.     350.    15.      15.    15.      0.0    2.60      0.  2345
GR 2984.8      0.  2980.8      9.  2975.6     44.  2975.6    176.  2974.7    260.  2350
GR 2976.5    270.  2976.1    297.  2972.3    310.  2964.5    320.  2963.9    324.  2355
GR 2964.2    335.  2963.9    340.  2965.3    344.  2967.5    350.  2979.4    465.  2360
GR 2980.4    488.  2984.9    500.     0.0      0.     0.0      0.     0.0      0.  2365
QT     5.    860.  1480.    1810.  2780.    1810.     0.      0.     0.       0.  2370
NC  0.120   0.120   0.050     0.0     0.0                                          2375

X1   3.36     15.    85.     120.    160.     160.   160.     0.0    0.0       0.  2380
GR 2995.6      0.  2987.5      7.  2988.4      9.  2988.7     33.  2981.6     51.  2385
GR 2982.0     74.  2977.5     85.  2974.4     93.  2973.7     97.  2973.8    107.  2390
GR 2976.2    120.  2977.9    146.  2980.6    168.  2988.3    174.  2994.6    200.  2395

X1   3.36      0.     0.      0.     60.      60.    60.      0.0    0.0       0.  2400
X3    10.     0.0    0.0      0.     0.0      0.     0.0   2979.0 2977.3          2405
SB   1.25    1.60   3.00      0.    17.00    0.80   60.00    0.0  2973.7  2973.7  2410

X1   3.36      0.     0.      0.     12.      12.    12.      0.0    0.0       0.  2415
X2     0.     0.0     1.   2977.4  2977.8    0.0     0.      0.0    0.0       0.  2420
X3    10.     0.0    0.0      0.     0.0      0.     0.0   2979.5 2977.8          2425
BT   14.0     0.0 2995.6      0.0    7.0   2987.5    0.0     9.0 2988.4     0.0  2430
BT   33.0  2988.7    0.0     51.0 2981.6      0.0   74.0  2982.0    0.0    80.0  2435
BT 2979.5     0.0  112.0   2979.6    0.0    112.0 2978.8     0.0  144.0  2977.8  2440
BT    0.0   147.0 2977.9      0.0  168.0   2980.6    0.0   174.0 2988.3     0.0  2445
BT  200.0  2994.6    0.0      0.0    0.0      0.0    0.0     0.0    0.0     0.0  2450
NC  0.130   0.140   0.050     0.0     0.0                                          2455

X1   3.36      0.     0.      0.     15.      15.    15.      0.0    2.00      0.  2460
QT     5.    840.  1445.    1765.  2710.    1765.     0.      0.     0.       0.  2465

X1   3.48     13.    82.     128.    600.     600.   600.     0.0  -31.00      0.  2470
GR 3049.5      0.  3041.4     14.  3041.3     50.  3034.5     82.  3029.7     89.  2475
GR 3028.4     93.  3028.5    101.  3029.5    107.  3032.5    121.  3035.0    124.  2480
GR 3038.4    128.  3040.2    186.  3055.0    220.     0.0      0.     0.0      0.  2485
QT     5.    835.  1435.    1760.  2700.    1760.     0.      0.     0.       0.  2490

X1   3.50      0.     0.      0.    100.     100.   100.     0.0   20.00      0.  2495
QT     5.    830.  1425.    1745.  2675.    1745.     0.      0.     0.       0.  2500
NC  0.130   0.150   0.050     0.0     0.0                                          2505

X1   3.54      0.     0.      0.    275.     275.   275.     0.0   11.00      0.  2510
EJ                                                                               2515
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*PROF 1

CCHV=   0.100 CEHV=   0.500
*SECNO .080
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    BOWLENS CREEK                10 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

    0.08     1285.        0.     1285.        0.       0.74          0        37.
 2610.07      0.0         0.      186.        0.       0.50          0     2611.00
    7.07      0.0        0.0      6.91       0.0       0.0        2610.81     2615.90
0.005915      0.0       0.150    0.045      0.130      0.0         -0.00      56.04
            2603.00       0.       0.         0.       22.          15.       93.38        0.

*SECNO .080

*** GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2614.60 ELREA=     2615.60

    0.08     1285.        0.     1285.        0.       0.62          2        38.
 2610.51      0.0         0.      203.        0.      -0.12          0     2611.00
    7.51      0.0        0.0      6.34       0.0       0.31        2611.13     2615.90
0.004641      0.044     0.150    0.045      0.130      0.01         -0.00      55.54
            2603.00       60.      60.        60.      23.          16.       94.03        0.



SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN      BWC        BWP      BAREA       SS
      1.25        1.60       3.00       0.0      31.00       0.50     336.00      0.0
    ELCHU      ELCHD
  2603.00    2603.00

*SECNO .080

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2610.49 BRIDGE VELOCITY=,       5.62
     CALCULATED CHANNEL AREA=,      228.
     EGPRS      EGLWC         H3       QWEIR        QPR      BAREA      TAREA       ELLC
       0.0    2611.16       0.04         0.       1285.      336.       336.    2614.00

     ELTRD
  2615.10


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2615.10 ELREA=     2616.10

    0.08     1285.        0.     1285.        0.       0.62          0        39.
 2610.55      0.0         0.      204.        0.      -0.01          0     2611.00
```

```
    7.55        0.0         0.0         6.29        0.0         0.03    2611.16     2615.90
0.004553        0.044       0.150       0.045       0.130       0.0       -0.00       55.50
             2603.00         72.         72.         72.         23.         16.       94.09          1.

CCHV=   0.100 CEHV=   0.800
*SECNO .080

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                   10 YR FLOOD             10/03/81
   MILE        Q           QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS       ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK       VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN         XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN       XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.08        1285.          0.       1285.          0.       1.85           2         32.
  2610.81     2610.81           0.        118.          0.       1.23          14    2613.70
     5.11         0.0         0.0        10.90         0.0       0.14     2612.66    2618.60
0.032280        0.045       0.130       0.055       0.150       0.98       -0.00       58.21
             2605.70          15.         15.         15.         20.         12.       90.48          1.


CCHV=   0.100 CEHV=   0.500
*SECNO .250

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                   10 YR FLOOD             10/03/81
   MILE        Q           QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS       ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK       VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN         XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN       XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

     0.25        1270.          0.       1270.          0.       0.30           6         56.
  2618.58         0.0           0.        287.          0.      -1.54           0    2629.70
     8.18         0.0         0.0         4.42         0.0       6.08     2618.89    2634.20
0.003203        0.053       0.160       0.055       0.160       0.15       -0.00       50.93
             2610.40         815.        815.        815.         26.         30.      106.49          4.

*SECNO .270

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                   10 YR FLOOD             10/03/81
   MILE        Q           QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS       ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK       VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN         XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN       XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED

0.27	1270.	0.	1270.	0.	1.60	20	40.	
2625.73	2625.73	0.	125.	0.	1.30	14	2629.80	
4.83	0.0	0.0	10.16	0.0	0.74	2627.33	2628.00	
0.032222	0.054	0.160	0.055	0.160	0.65	-0.00	59.10	
	2620.90	100.	100.	100.	18.	21.	98.71	5.

*SECNO .400

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.40	1255.	0.	1255.	0.	0.98	3	44.	
2641.02	0.0	0.	158.	0.	-0.62	0	2644.30	
5.62	0.0	0.0	7.96	0.0	14.60	2642.00	2642.50	
0.016496	0.054	0.160	0.055	0.160	0.06	-0.00	57.34	
	2635.40	650.	650.	650.	20.	23.	100.90	7.

*SECNO .640

0.64	1235.	8.	1154.	73.	0.56	6	83.	
2654.15	0.0	9.	186.	54.	-0.42	0	2652.00	
5.65	0.0	0.94	6.21	1.35	12.67	2654.71	2650.80	
0.007400	0.054	0.140	0.055	0.150	0.04	-0.00	67.10	
	2648.50	1190.	1190.	1190.	29.	54.	149.81	13.

*SECNO .640

0.64	1235.	12.	1118.	104.	0.42	2	89.	
2654.59	0.0	12.	204.	70.	-0.14	0	2652.00	
6.09	0.0	1.01	5.47	1.50	0.29	2655.02	2650.80	
0.003390	0.054	0.100	0.045	0.100	0.01	-0.00	65.48	
	2648.50	60.	60.	60.	31.	58.	154.32	13.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	21.00	0.50	113.00	0.0
ELCHU	ELCHD							
2648.50	2648.50							

*SECNO .640

*** GR CARDS REPEATED

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2657.56	2655.05	0.03	278.	953.	113.	113.	2654.00

```
   ELTRD
 2654.00


     0.64      1235.        32.      1049.       154.      0.20         2      118.
  2656.16       0.0         38.       270.       140.     -0.22         0   2652.00
     7.66       0.0        0.84      3.88       1.10      1.34   2656.36   2650.80
 0.001178     0.054       0.100     0.045      0.100       0.0     -0.00     52.70
             2648.50         12.       12.        12.       43.       74.    170.29       13.

*SECNO .640
     0.64      1235.        29.      1041.       164.      0.26         2      118.
  2656.15       0.0         38.       234.       140.      0.06         0   2652.00
     6.75       0.0        0.77      4.44       1.17      0.02   2656.41   2650.80
 0.002278     0.054       0.150     0.050      0.130      0.03     -0.00     52.72
             2649.40         15.       15.        15.       43.       74.    170.22       13.


*SECNO .810

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                10 YR FLOOD          10/03/81
   MILE       Q          QLOB        QCH         QROB        HV         ITRIAL      TOPWID
   ELEV       CRIWS      ALOB        ACH         AROB        DHV        IDC         BANK ELEV
   DEPTH      WSELK      VLOB        VCH         VROB        HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL         XNCH        XNR         OLOSS      CORAR       SSTA
              ELMIN      XLOBL       XLCH        XLOBR       WSDL       WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.81      1215.        59.       989.       168.      1.41        20       81.
  2665.10   2665.10         36.        94.        52.      1.15        15   2664.60
     5.60       0.0        1.65      10.49       3.22      4.62   2666.52   2661.20
 0.020376     0.053       0.130     0.050      0.130      0.58     -0.00    115.57
             2659.50         910.      910.       910.       48.       33.    196.14       19.


*SECNO .820

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

     0.82      1215.       146.       885.       184.      0.54         2       87.
  2666.64       0.0         93.       130.        89.     -0.87         0   2664.60
     7.14       0.0        1.57      6.82       2.07      0.58   2667.19   2661.20
 0.005623     0.053       0.130     0.050      0.130      0.09     -0.00    114.26
             2659.50         60.       60.        60.       49.       38.    201.55       20.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
     1.25         1.60       3.00         0.0      21.00       0.10        90.00     0.0
    ELCHU      ELCHD
  2660.00    2660.00
```

*SECNO .820

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2671.17	2667.19	0.01	537.	687.	90.	90.	2664.30

ELTRD
2665.70

0.82	1215.	188.	833.	195.	0.31	2	92.	
2667.78	0.0	136.	156.	121.	-0.23	0	2664.60	
8.28	0.0	1.38	5.35	1.61	0.91	2668.09	2661.20	
0.002707	0.053	0.130	0.050	0.130	0.0	-0.00	113.31	
	2659.50	12.	12.	12.	50.	42.	205.52	20.

*SECNO .820

*** GR CARDS REPEATED
BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.82	1215.	153.	865.	197.	0.35	2	92.	
2667.80	0.0	137.	156.	122.	0.03	0	2664.60	
8.30	0.0	1.12	5.54	1.62	0.04	2668.15	2661.20	
0.002343	0.053	0.150	0.045	0.120	0.02	-0.00	113.29	
	2659.50	15.	15.	15.	50.	42.	205.59	20.

*SECNO .940

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.94	1205.	0.	1191.	14.	1.38	20	64.	
2672.23	2672.23	0.	126.	12.	1.03	11	2672.30	
4.43	0.0	0.0	9.47	1.11	3.20	2673.60	2671.70	
0.025051	0.053	0.150	0.050	0.150	0.51	-0.00	493.27	
	2667.80	585.	585.	585.	21.	43.	557.18	24.

*SECNO .950

```
*** GR CARDS REPEATED
    BOWLENS CREEK                    10 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELFV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.95       1205.          0.       1191.         14.       1.36          20         64.
  2675.25    2675.25           0.        127.         13.      -0.02           5    2675.30
     4.45       0.0           0.0        9.40        1.13       0.99     2676.60     2674.70
 0.024483       0.053       0.150       0.050       0.150       0.00       -0.00     493.19
             2670.80          40.         40.         40.         21.          43.    557.27          24.


SPECIAL BRIDGE

SB      HK         XKOR       COFQ       RDLEN       BWC         BWP       BAREA       SS
        1.25       1.60       3.00         0.0       25.00       0.01       75.00      0.0
    ELCHU      ELCHD
  2671.70    2671.70

*SECNO .950

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

     EGPRS      EGLWC          H3       QWEIR         QPR       BAREA       TAREA       ELLC
  2681.66    2676.61        0.01         580.        631.         75.         75.    2674.70

     ELTRD
  2675.20


     0.95       1205.         48.       1109.         48.       0.55           3        169.
  2676.45        0.0          69.        179.         42.      -0.80           0    2675.30
     5.65        0.0         0.70        6.21        1.14       0.40     2677.01     2674.70
 0.006797       0.053       0.150       0.050       0.150        0.0       -0.00     393.65
             2670.80          12.         12.         12.        121.         48.    562.56          24.

*SECNO .950

*** GR CARDS REPEATED
     0.95       1205.         50.       1103.         52.       0.52           2        174.
  2676.55        0.0          78.        183.         44.      -0.03           0    2675.30
     5.75        0.0         0.64        6.04        1.17       0.06     2677.07     2674.70
 0.005065       0.053       0.150       0.045       0.130       0.00       -0.00     388.55
             2670.80          10.         10.         10.        126.         48.    562.96          24.


*SECNO 1.100
```

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			10 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.10	1190.	0.	1176.	14.	1.36	20	64.	
2688.40	2688.40	0.	125.	12.	0.84	15	2688.50	
4.40	0.0	0.0	9.42	1.13	7.08	2689.77	2687.90	
0.020232	0.051	0.150	0.045	0.130	0.42	-0.00	493.35	
	2684.00	790.	790.	790.	21.	43.	557.08	28.

*SECNO 1.240

3301 HV CHANGED MORE THAN HVINS

1.24	1175.	10.	1152.	13.	0.53	6	126.	
2696.22	0.0	11.	196.	26.	-0.84	0	2695.30	
5.22	0.0	0.91	5.88	0.50	6.90	2696.75	2695.40	
0.005308	0.051	0.110	0.045	0.120	0.00	-0.00	368.53	
	2691.00	740.	740.	740.	37.	89.	494.17	31.

*SECNO 1.560

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			10 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.56	1140.	0.	1140.	0.	1.80	20	30.	
2721.40	2721.40	0.	106.	0.	1.27	11	2725.60	
4.90	0.0	0.0	10.76	0.0	16.23	2723.19	2723.60	
0.022305	0.049	0.130	0.045	0.130	0.63	-0.00	313.36	
	2716.50	1710.	1710.	1710.	12.	18.	343.19	38.

*SECNO 1.570

*** GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.10 ELREA= 2724.00

1.57	1140.	0..	1140.	0.	1.30	2	31.

```
 2722.99      0.0         0.       124.        0.      -0.49         0   2726.60
    5.49      0.0         0.0     9.16        0.0       1.05   2724.29    2724.60
0.014135    0.049       0.130    0.045      0.130       0.05     -0.00     312.30
          2717.50          60.      60.        60.        13.       18.     343.69        38.


SPECIAL BRIDGE

SB      HK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS
      1.25          1.60        3.00          0.0       30.00        0.40        160.00      0.0
    ELCHU       ELCHD
  2717.70     2717.70

*SECNO 1.570

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2722.95 BRIDGE VELOCITY=,      7.33
     CALCULATED CHANNEL AREA=,      155.
     EGPRS       EGLWC         H3        QWEIR         QPR       BAREA       TAREA       ELLC
   2724.25     2724.35       0.14           0.        1140.       160.        160.     2723.10

     ELTRD
   2724.50


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2726.60 ELREA=     2724.50

      1.57      1140.          0.      1140.          0.        1.22           0        32.
   2725.12        0.0          0.       128.          0.       -0.08           0   2726.60
      5.62        0.0         0.0       8.88         0.0        0.06     2724.35    2724.60
 0.012928      0.049       0.130      0.045       0.130         0.0      -0.00     312.08
             2717.50          12.       12.        12.         13.        18.     343.79        38.


*SECNO 1.570

*** GR CARDS REPEATED
     BOWLENS CREEK                    10 YR FLOOD              10/03/81
    MILE         Q           QLOB        QCH         QROB        HV          ITRIAL      TOPWID
    ELEV       CRIWS         ALOB        ACH         AROB        DHV           IDC       BANK ELEV
    DEPTH      WSELK         VLOB        VCH         VROB        HL            EG      LEFT/RIGHT
    SLOPE      WTN           XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN         XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

      1.57      1140.          0.      1140.          0.        1.00           2        33.
   2723.53        0.0          0.       142.          0.       -0.22           0   2726.60
      6.03        0.0         0.0       8.04         0.0        0.17     2724.54    2724.60
 0.009776      0.049       0.130      0.045       0.130        0.02      -0.00     311.36
             2717.50          15.       15.        15.         14.        19.     344.13        38.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.600

*** GR CARDS REPEATED
      1.60      1140.          0.      1140.          0.        1.44           2        31.
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 2725.01      0.0        0.      119.        0.     -0.43         0   2728.80
    5.31      0.0        0.0     9.62        0.0     1.56   2726.44    2726.80
0.028823      0.049      0.160   0.060       0.160   0.35     -0.00    312.63
          2719.70        100.    100.        100.    13.      18.      343.53      38.

*SECNO 1.660

3301 HV CHANGED MORE THAN HVINS

    1.66     1135.       12.     1123.       0.      0.91          7     139.
 2730.47     2729.92     23.     146.        0.     -0.53         12   2730.20
    4.77      0.0        0.51    7.70        0.0     4.88   2731.38    2732.60
0.015667      0.049      0.150   0.050       0.150   0.05     -0.00    537.96
          2725.70        235.    235.        235.    117.     22.      676.50      39.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.660
    1.66     1135.       100.    1035.       0.      0.44          2     197.
 2731.32      0.0        128.    187.        0.     -0.48          0   2730.20
    5.62      0.0        0.78    5.54        0.0     0.32   2731.75    2732.60
0.004936      0.049      0.130   0.045       0.130   0.05     -0.00    481.12
          2725.70        40.     40.         40.     173.     23.      677.89      39.

*SECNO 1.660

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF  2731.500 EGLC=  2731.932
EGC=  2731.963 WSEL=  2731.440

3265 DIVIDED FLOW

   BOWLENS CREEK              10 YR FLOOD          10/03/81
  MILE      Q         QLOB     QCH       QROB      HV        ITRIAL    TOPWID
  ELEV      CRIWS     ALOB     ACH       AROB      DHV       IDC       BANK ELEV
  DEPTH     WSELK     VLOB     VCH       VROB      HL        EG     LEFT/RIGHT
  SLOPE     WTN       XNL      XNCH      XNR       OLOSS     CORAR     SSTA
            ELMIN     XLOBL    XLCH      XLOBR     WSDL      WSDR      ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    1.66     1135.       315.    820.        0.      0.43          2     180.
 2731.50     2731.50     141.    136.        0.     -0.00         16   2733.10
    5.90      0.0        2.24    6.05        0.0     0.01   2731.93    2733.20
0.010596      0.049      0.070   0.040       0.070   0.00     -1.43    472.73
          2725.60        1.      1.          1.      181.     14.      668.00      39.


*SECNO 1.660

*** GR CARDS REPEATED

3265 DIVIDED FLOW

   BOWLENS CREEK              10 YR FLOOD          10/03/81
  MILE      Q         QLOB     QCH       QROB      HV        ITRIAL    TOPWID
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ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50								
1.66	1135.	398.	737.	0.	0.33	2	194.	
2731.73	0.0	178.	136.	0.	-0.11	0	2733.10	
6.13	0.0	2.24	5.44	0.0	0.11	2732.06	2733.20	
0.008566	0.049	0.070	0.040	0.070	0.01	-7.96	462.12	
	2725.60	12.	12.	12.	192.	14.	668.00	39.
*SECNO 1.660								
1.66	1135.	154.	981.	0.	0.30	2	218.	
2731.77	0.0	200.	209.	0.	-0.03	0	2730.20	
6.07	0.0	0.77	4.69	0.0	0.00	2732.06	2732.60	
0.003114	0.049	0.130	0.045	0.080	0.00	-0.00	460.55	
	2725.70	1.	1.	1.	194.	24.	678.64	39.
*SECNO 1.660								
1.66	1135.	155.	980.	0.	0.29	1	220.	
2731.81	0.0	208.	212.	0.	-0.01	0	2730.20	
6.11	0.0	0.74	4.63	0.0	0.03	2732.10	2732.60	
0.003697	0.049	0.150	0.050	0.120	0.00	-0.00	458.23	
	2725.70	10.	10.	10.	196.	24.	678.72	39.
CCHV= 0.100 CEHV= 0.800								
*SECNO 1.760								
3265 DIVIDED FLOW								
BOWLENS CREEK			10 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.76	1125.	417.	708.	0.	0.68	12	229.	
2737.70	2737.70	209.	86.	0.	0.39	14	2742.00	
3.70	0.0	2.00	8.18	0.0	4.14	2738.37	2741.10	
0.029561	0.050	0.150	0.055	0.120	0.31	-0.00	464.82	
	2734.00	515.	515.	515.	310.	23.	797.09	44.
*SECNO 1.770								
*** GR CARDS REPEATED								
3265 DIVIDED FLOW								
1.77	1125.	538.	587.	0.	0.20	2	336.	
2738.63	0.0	424.	123.	0.	-0.48	0	2742.00	

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    4.63       0.0       1.27       4.79       0.0       0.41    2738.83    2741.10
0.005168     0.050      0.130      0.045      0.120       0.05      -0.00     221.53
            2734.00        40.        40.        40.       553.        24.     798.99        44.

*SECNO 1.770

3265 DIVIDED FLOW

    BOWLENS CREEK                 10 YR FLOOD          10/03/81
   MILE        Q         QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV      CRIWS       ALOB       ACH        AROB      DHV        IDC        BANK ELEV
   DEPTH     WSELK       VLOB       VCH        VROB      HL         EG      LEFT/RIGHT
   SLOPE     WTN         XNL        XNCH       XNR       OLOSS      CORAR      SSTA
             ELMIN       XLOBL      XLCH       XLOBR     WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

    1.77       1125.      644.       481.       0.        0.21          1       329.
 2738.64        0.0       438.        91.       0.        0.01          0    2744.10
    4.54        0.0       1.47       5.31       0.0       0.01    2738.84    2744.20
0.006686      0.050      0.130      0.045      0.120       0.01      -0.00     220.83
            2734.10         1.         1.         1.       557.        13.     791.00        44.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

    1.77       1125.      657.       468.       0.        0.18          2       361.
 2738.74        0.0       469.        93.       0.       -0.02          0    2744.10
    4.64        0.0       1.40       5.04       0.0       0.08    2738.92    2744.20
0.005907      0.050      0.130      0.045      0.120       0.00      -0.00     214.78
            2734.10        12.        12.        12.       563.        13.     791.00        44.

*SECNO 1.770

3265 DIVIDED FLOW

    1.77       1125.      551.       574.       0.        0.17          0       381.
 2738.76        0.0       460.       127.       0.       -0.01          0    2742.00
    4.76        0.0       1.20       4.51       0.0       0.01    2738.93    2741.10
0.004452      0.050      0.130      0.045      0.120       0.00      -0.00     214.41
            2734.00         1.         1.         1.       560.        25.     799.22        44.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW
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    1.77     1125.      668.      457.       0.      0.09         2      426.
 2738.88      0.0       508.      133.       0.     -0.08         0   2742.00
    4.88      0.0       1.31      3.44      0.0      0.03   2738.97   2741.10
0.002502     0.050     0.090     0.045     0.080     0.01     -0.00    206.03
            2734.00      10.       10.       10.      568.       25.    799.49       44.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.790

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                10 YR FLOOD          10/03/81
  MILE      Q         QLOB      QCH       QROB      HV        ITRIAL     TOPWID
  ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC        BANK ELEV
  DEPTH     WSELK     VLOB      VCH       VROB      HL        EG       LEFT/RIGHT
  SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR      SSTA
            ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    1.79     1120.      227.      893.       0.      0.74         2      289.
 2740.20  2740.20       183.      116.       0.      0.65         8   2743.60
    5.70      0.0       1.24      7.70      0.0      0.41   2740.94   2743.50
0.013375     0.050     0.120     0.050     0.100     0.52     -0.00    383.46
            2734.50      85.       85.       85.      307.       18.    708.48       45.


*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                10 YR FLOOD          10/03/81
  MILE      Q         QLOB      QCH       QROB      HV        ITRIAL     TOPWID
  ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC        BANK ELEV
  DEPTH     WSELK     VLOB      VCH       VROB      HL        EG       LEFT/RIGHT
  SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR      SSTA
            ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST       VOL

    1.79     1120.      443.      677.       0.      0.21         3      337.
 2741.06      0.0       422.      144.       0.     -0.53         0   2743.60
    6.56      0.0       1.05      4.68      0.0      0.28   2741.27   2743.50
0.004240     0.050     0.120     0.050     0.100     0.05     -0.00    346.23
            2734.50      40.       40.       40.      344.       19.    709.65       46.


*SECNO 1.790

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=   4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40
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     1.79     1120.      638.      482.        0.      0.28         1      278.
  2741.05      0.0       351.       79.        0.      0.06         0     2743.80
     7.55      0.0       1.82      6.09       0.0      0.01    2741.33     2742.90
 0.012945     0.050     0.120     0.050     0.100      0.05     -0.00      346.12
             2733.50       1.        1.        1.       350.       7.      703.00       46.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

     1.79     1120.      684.      436.        0.      0.20         2      310.
  2741.27      0.0       411.       82.        0.     -0.08         0     2743.80
     7.77      0.0       1.67      5.31       0.0      0.13    2741.47     2742.90
 0.009613     0.050     0.120     0.050     0.100      0.01     -0.00      323.32
             2733.50       12.       12.       12.       373.       7.      703.00       46.

*SECNO 1.790

3265 DIVIDED FLOW

     1.79     1120.      496.      624.        0.      0.15         2      384.
  2741.33      0.0       508.      154.        0.     -0.05         0     2743.60
     6.83      0.0       0.98      4.05       0.0      0.00    2741.48     2743.50
 0.003024     0.050     0.120     0.050     0.100      0.00     -0.00      136.23
             2734.50       1.        1.        1.       554.      20.      710.03       46.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.790

3265 DIVIDED FLOW

     1.79     1120.      550.      570.        0.      0.19         2      391.
  2741.34      0.0       513.      120.        0.      0.04         0     2743.60
     4.54      0.0       1.07      4.75       0.0      0.03    2741.53     2743.50
 0.003626     0.050     0.120     0.040     0.100      0.02     -0.00      135.89
             2736.80       10.       10.       10.       555.      20.      710.22       46.

*SECNO 1.870

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  10 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED
      1.87      1105.         0.      1105.         0.      1.30        20        48.
   2745.94   2745.94          0.       121.         0.      1.11        15   2749.50
      3.94       0.0         0.0       9.15        0.0     2.92   2747.24   2748.90
 0.022953     0.049       0.120      0.045      0.080      0.56     -0.00    539.42
              2742.00         395.       395.       395.       24.        23.    586.98        49.

*SECNO 1.880
    BOWLENS CREEK                  10 YR FLOOD          10/03/81
    MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
    ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
    DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
    SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
                ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      1.88      1105.         0.       995.       110.      1.38         2        48.
   2748.61   2748.61          0.       101.        28.      0.08         8   2752.00
      4.11       0.0         0.0       9.85       3.92      1.71   2749.99   2746.50
 0.020013     0.049       0.120      0.045      0.080      0.04       0.0    539.06
              2744.50          80.        80.        80.       12.        36.    587.45        50.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2748.54 ,NOT   2748.61
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB      HK        XKOR       COFQ      RDLEN       BWC       BWP      BAREA       SS
        1.25      1.60       3.00        0.0     24.00      0.40     118.00      0.0
     ELCHU     ELCHD
   2744.90   2744.90

*SECNO 1.880

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

     EGPRS      EGLWC        H3      QWEIR       QPR      BAREA      TAREA       ELLC
   2750.79    2750.31       0.0         0.      1105.      118.       118.    2749.90

     ELTRD
   2751.00


      1.88       1105.         0.       944.       161.      0.49         2        57.
   2750.30        0.0          0.       158.        60.     -0.89         0   2752.00
      5.80        0.0         0.0       5.96       2.69      0.80   2750.79   2746.50
 0.004673      0.049       0.120      0.045      0.080       0.0     -0.00    535.52
               2744.50          12.        12.        12.       16.        41.    592.05        50.


*SECNO 1.880
      1.88       1105.         0.      1105.         0.      0.36         2        58.
```

2750.53	0.0	0.	231.	0.	-0.13	0	2752.00	
6.03	0.0	0.0	4.79	0.0	0.08	2750.88	2751.40	
0.003476	0.049	0.120	0.045	0.080	0.01	-0.00	535.07	
	2744.50	20.	20.	20.	28.	29.	592.64	50.

*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			10 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.00	1085.	0.	1085.	0.	1.25	20	51.	
2757.85	2757.85	0.	121.	0.	0.90	19	2757.70	
4.55	0.0	0.02	8.99	0.0	5.08	2759.10	2759.00	
0.024222	0.049	0.120	0.045	0.080	0.45	-0.00	86.63	
	2753.30	700.	700.	700.	26.	25.	137.14	53.

*SECNO 2.120

BOWLENS CREEK			10 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

2.12	1065.	0.	1065.	0.	1.09	4	51.	
2772.18	0.0	0.	127.	0.	-0.17	0	2771.90	
4.68	0.0	0.02	8.36	0.0	14.15	2773.27	2773.20	
0.019641	0.049	0.120	0.045	0.080	0.02	-0.00	86.30	
	2767.50	650.	650.	650.	26.	25.	137.23	55.

*SECNO 2.130

2.13	1065.	0.	1065.	0.	1.17	4	51.	
2773.39	2773.35	0.	123.	0.	0.08	8	2773.20	
4.59	0.0	0.02	8.68	0.0	1.25	2774.56	2774.50	
0.022187	0.049	0.120	0.045	0.080	0.04	-0.00	86.54	
	2768.80	60.	60.	60.	26.	25.	137.16	55.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.10	160.00	0.0
	ELCHU	ELCHD						
	2768.80	2768.80						

*SECNO 2.130

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*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2773.37 BRIDGE VELOCITY=,      9.74
     CALCULATED CHANNEL AREA=,     109.
    EGPRS      EGLWC          H3       QWEIR       QPR       BAREA      TAREA      ELLC
      0.0    2774.56        0.04          0.    1065.       160.       160.   2775.50

    ELTRD
  2776.40


     2.13     1065.          0.       1065.        0.       1.13          0       51.
  2773.43      0.0           0.        125.        0.      -0.04          0   2773.20
     4.63      0.0         0.02        8.52       0.0      -0.00    2774.56   2774.50
 0.020873      0.049       0.120       0.045     0.080        0.0      -0.00     86.42
              2768.80        12.         12.        12.        26.        25.   137.20       55.


*SECNO 2.130
    BOWLENS CREEK                  10 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV         ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV        IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL         EG        LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS      CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL       WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.13     1065.          0.       1065.        0.       1.21         20       50.
  2775.34  2775.34           0.        121.        0.       0.08          8   2775.20
     4.54      0.0         0.02        8.83       0.0       0.33    2776.56   2776.50
 0.023461      0.049       0.150       0.045     0.100       0.04      -0.00     86.64
              2770.80        15.         15.        15.        26.        25.   137.13       55.


CCHV=   0.100 CEHV=   0.800
*SECNO 2.200
     2.20     1055.          0.       1055.        0.       1.42          2       35.
  2784.08      0.0           0.        110.        0.       0.21          0   2788.10
     4.38      0.0           0.0       9.56       0.0       8.78    2785.49   2787.80
 0.023979      0.049       0.150       0.050     0.150       0.16      -0.00    324.18
              2779.70        370.        370.       370.       17.        18.   359.13       56.


*SECNO 2.240
    BOWLENS CREEK                  10 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV         ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV        IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL         EG        LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS      CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL       WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.24     1045.          0.       1045.        0.       1.52          3       35.
  2790.10  2790.10           0.        106.        0.       0.11          8   2794.00
     4.20      0.0           0.0       9.91       0.0       5.26    2791.62   2794.00
 0.021853      0.049       0.110       0.045     0.080       0.08      -0.00    324.29
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2785.90	230.	230.	230.	17.	17.	358.95	56.

CCHV= 0.100 CEHV= 0.500
*SECNO 2.250

*** GR CARDS REPEATED

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2795.00 ELREA= 2795.00

2.25	1045.	0.	1045.	0.	1.54	1	35.	
2791.08	2791.08	0.	105.	0.	0.01	5	2795.00	
4.18	0.0	0.0	9.95	0.0	0.88	2792.62	2795.00	
0.022148	0.049	0.110	0.045	0.080	0.01	-0.00	324.32	
	2786.90	40.	40.	40.	17.	17.	358.92	56.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.30	135.00	0.0

ELCHU	ELCHD
2786.90	2786.90

*SECNO 2.250

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2791.32 BRIDGE VELOCITY= 14.16
CALCULATED CHANNEL AREA= 74.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2792.65	0.29	0.	1045.	135.	135.	2795.00

ELTRD
2795.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2796.30 ELREA= 2795.30

2.25	1045.	0.	1045.	0.	1.28	0	36.	
2791.38	0.0	0.	115.	0.	-0.26	0	2795.00	
4.48	0.0	0.0	9.06	0.0	0.03	2792.65	2795.00	
0.016875	0.049	0.110	0.045	0.080	0.0	-0.00	323.84	
	2786.90	12.	12.	12.	18.	18.	359.38	56.

*SECNO 2.250
BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.25	1045.	0.	1045.	0.	1.54	20	34.	
2792.82	2792.82	0.	105.	0.	0.27	11	2797.00	
4.22	0.0	0.0	9.97	0.0	0.19	2794.36	2796.70	
0.022172	0.049	0.130	0.045	0.080	0.13	-0.00	324.43	
	2788.60	10.	10.	10.	17.	17.	358.87	56.

*SECNO 2.440

2.44	1010.	0.	1010.	0.	1.43	5	33.	
2813.09	0.0	0.	105.	0.	-0.11	0	2824.00	
4.59	0.0	0.0	9.59	0.0	20.14	2814.52	2821.10	
0.019445	0.048	0.100	0.045	0.080	0.01	-0.00	178.52	
	2808.50	970.	970.	970.	11.	21.	211.43	59.

*SECNO 2.450

*** GR CARDS REPEATED
BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2822.00 ELREA= 2821.70

2.45	1010.	0.	1010.	0.	0.96	2	35.	
2814.46	0.0	0.	128.	0.	-0.47	0	2824.70	
5.26	0.0	0.0	7.87	0.0	0.86	2815.42	2821.80	
0.011055	0.048	0.100	0.045	0.080	0.05	-0.00	177.25	
	2809.20	60.	60.	60.	13.	22.	212.33	59.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	31.00	0.50	345.00	0.0
ELCHU	ELCHD							
2809.20	2809.20							

*SECNO 2.450

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2814.43 BRIDGE VELOCITY= 6.33
CALCULATED CHANNEL AREA= 160.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC

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    0.0    2815.47      0.10        0.     1010.      345.      345.   2820.50

   ELTRD
 2822.20


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.50 ELREA=     2822.20

     2.45     1010.        0.     1010.        0.      0.91         0       35.
  2814.56      0.0         0.      132.        0.     -0.05         0  2824.70
     5.36      0.0        0.0      7.67       0.0      0.05   2815.47  2821.80
 0.010280    0.048      0.100     0.045     0.080       0.0     -0.00   177.07
           2809.20         12.      12.        12.      13.       22.   212.45       59.


*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  10 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.45     1010.        0.     1010.        0.      1.58        20       32.
  2815.03  2815.03         0.      100.        0.      0.66        15  2826.10
     4.43      0.0        0.0     10.08       0.0      0.24   2816.61  2823.20
 0.027655    0.048      0.130     0.050     0.100      0.33     -0.00   178.81
           2810.60         15.      15.        15.      11.       21.   211.23       59.


*SECNO 2.580

*** GR CARDS REPEATED
    BOWLENS CREEK                  10 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.58      990.        0.      990.        0.      1.56         9       32.
  2850.39  2850.39         0.       99.        0.     -0.02         5  2861.50
     4.39      0.0        0.0     10.03       0.0     17.46   2851.95  2858.60
 0.027759    0.048      0.150     0.050     0.150      0.00     -0.00   178.90
           2846.00         630.     630.       630.      11.       21.   211.17       60.


*SECNO 2.660
    BOWLENS CREEK                  10 YR FLOOD          10/03/81
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MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.66	975.	9.	966.	0.	1.61	11	38.	
2868.50	2868.50	7.	94.	0.	0.05	8	2867.20	
4.30	0.0	1.21	10.24	0.0	7.31	2870.11	2869.00	
0.020244	0.048	0.130	0.045	0.080	0.03	-0.00	94.99	
	2864.20	310.	310.	310.	25.	13.	133.40	61.

*SECNO 2.670

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2873.60 ELREA= 2870.60

2.67	975.	0.	975.	0.	2.32	3	18.	
2870.11	2870.11	0.	80.	0.	0.71	11	2866.20	
4.61	0.0	0.0	12.23	0.0	1.18	2872.43	2866.10	
0.018975	0.048	0.130	0.045	0.080	0.35	-0.00	111.00	
	2865.50	60.	60.	60.	9.	9.	129.00	61.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2869.68 ,NOT 2870.11
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	16.00	0.60	100.00	0.0

ELCHU	ELCHD
2865.50	2865.50

*SECNO 2.670

*** GR CARDS REPEATED
6840,FLOW IS BY WEIR AND LOW FLOW
6870 D.S. ENERGY OF 2872.43 HIGHER THAN COMPUTED ENERGY OF 2872.07

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV

DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3420 BRIDGE W.S.= 2870.65 BRIDGE VELOCITY=, 9.56
CALCULATED CHANNEL AREA=, 79.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2872.47	2872.07	0.54	213.	758.	100.	100.	2872.00

ELTRD
2871.10

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2874.00 ELREA= 2871.10

2.67	975.	0.	927.	48.	1.32	20	107.	
2871.13	2870.18	0.	98.	21.	-1.00	5	2866.20	
5.63	0.0	0.0	9.45	2.24	0.15	2872.45	2866.10	
0.008587	0.048	0.130	0.045	0.080	-0.15	0.0	111.00	
	2865.50	12.	12.	12.	9.	98.	217.81	61.

*SECNO 2.670

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

2.67	975.	96.	729.	151.	0.46	4	156.	
2872.15	0.0	73.	116.	124.	-0.86	0	2866.20	
6.65	0.0	1.32	6.26	1.22	0.07	2872.61	2866.10	
0.003004	0.048	0.130	0.045	0.080	0.09	-0.00	84.38	
	2865.50	15.	15.	15.	36.	120.	239.90	61.

*SECNO 2.800

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.80	955.	41.	885.	29.	1.86	20	40.	
2883.51	2883.51	23.	78.	9.	1.40	11	2879.70	
4.51	0.0	1.79	11.36	3.16	4.01	2885.37	2879.60	
0.016886	0.048	0.150	0.045	0.080	0.70	-0.00	93.16	
	2879.00	680.	680.	680.	27.	14.	133.66	65.

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*SECNO 2.940
     2.94        930.          0.        930.          0.        1.42          4         29.
  2898.08          0.          0.         97.          0.       -0.44          0    2900.80
     4.78          0.0         0.0        9.58         0.0      14.08       2899.50    2903.80
0.023028         0.048       0.150      0.050        0.130       0.04         -0.00     376.56
              2893.30         720.       720.         720.        19.           10.     405.30        66.

*SECNO 2.950

*** GR CARDS REPEATED
    BOWLENS CREEK                  10 YR FLOOD              10/03/81
   MILE          Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS        ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK        VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN          XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN        XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST         VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2902.00 ELREA=     2902.00

     2.95        930.          0.        930.          0.        1.63         20         28.
  2899.85     2899.85          0.         91.          0.        0.21         11    2902.80
     4.55          0.0         0.0       10.26         0.0       1.01       2901.48    2905.80
0.027909         0.048       0.150      0.050        0.130       0.10          0.0     376.77
              2895.30          40.        40.          40.        19.            9.     404.82        67.


SPECIAL BRIDGE

SB      HK          XKOR        COFQ       RDLEN       BWC         BWP       BAREA        SS
      1.25          1.60        3.00         0.0       27.00        0.01      170.00       0.0
    ELCHU       ELCHD
  2895.30     2895.30

*SECNO 2.950

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=    2899.84 BRIDGE VELOCITY=,       7.58
     CALCULATED CHANNEL AREA=,      123.
    EGPRS       EGLWC          H3       QWEIR         QPR       BAREA       TAREA        ELLC
      0.0     2901.48        0.01          0.         930.        170.        170.     2901.60

    ELTRD
  2903.30


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2904.20 ELREA=     2903.30

     2.95        930.          0.        930.          0.        1.63          0         28.
  2899.85          0.          0.         91.          0.       -0.01          0    2902.80
     4.55          0.0         0.0       10.24         0.0      -0.00       2901.48    2905.80
```

0.027748	0.048	0.150	0.050	0.130	0.0	0.0	376.76	
	2895.30	22.	22.	22.	19.	9.	404.83	67.

*SECNO 2.950

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

2.95	930.	0.	930.	0.	0.97	4	31.	
2900.76	0.0	0.	117.	0.	-0.65	0	2902.80	
5.46	0.0	0.0	7.92	0.0	0.19	2901.73	2905.80	
0.013527	0.048	0.150	0.050	0.130	0.07	-0.00	375.91	
	2895.30	10.	10.	10.	20.	11.	406.73	67.

*SECNO 2.960

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.96	930.	1.	929.	0.	1.32	20	44.	
2903.25	2903.25	1.	101.	0.	0.35	19	2902.80	
3.75	0.0	0.70	9.24	0.0	0.93	2904.57	2905.80	
0.027366	0.048	0.130	0.050	0.150	0.18	-0.00	367.60	
	2899.50	50.	50.	50.	28.	16.	411.81	67.

*SECNO 3.060

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.06	910.	0.	910.	0.	1.68	4	26.	
2919.66	2919.66	0.	88.	0.	0.35	11	2921.60	
4.46	0.0	0.0	10.39	0.0	14.26	2921.34	2924.70	
0.028602	0.048	0.080	0.050	0.130	0.18	-0.00	309.99	
	2915.20	510.	510.	510.	14.	13.	336.48	68.

*SECNO 3.070

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.07       910.         0.       910.         0.       1.71          2       26.
  2921.63    2921.63         0.        87.         0.       0.04          5  2921.00
     4.43       0.0         1.29      10.51       0.0      1.70     2923.35  2926.70
 0.028055     0.048        0.080     0.050      0.130       0.02       -0.00   310.03
             2917.20         60.       60.        60.        16.         10.   336.46      68.


SPECIAL BRIDGE

SB      HK         XKOR       COFQ      RDLEN      BWC       BWP      BAREA       SS
      1.25         1.60       3.00        0.0    23.00       0.90     183.00      0.0
    ELCHU      ELCHD
  2917.20    2917.20

*SECNO 3.070

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

CLASS A LOW FLOW

3420 BRIDGE W.S.=   2921.28 BRIDGE VELOCITY=,     10.10
     CALCULATED CHANNEL AREA=,       90.
    EGPRS      EGLWC          H3      QWEIR       QPR      BAREA      TAREA       ELLC
      0.0    2923.52        0.76         0.      910.      183.       183.    2925.50

    ELTRD
  2925.60


     3.07       910.         2.       908.         0.       1.13          0       28.
  2922.39        0.0         1.       106.         0.      -0.58          0  2921.00
     5.19        0.0        1.58       8.56       0.0       0.18     2923.52  2926.70
 0.014809      0.048       0.080     0.050      0.130        0.0       -0.00   308.86
             2917.20         12.       12.        12.        18.         10.   336.99      68.

*SECNO 3.070

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  10 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.07       910.         0.       910.         0.       1.66         20       27.
  2923.67    2923.67         0.        88.         0.       0.53         11  2925.60
     4.47        0.0        0.0       10.35       0.0       0.30     2925.33  2928.70
 0.028292      0.048       0.080     0.050      0.130       0.26        0.0    309.97
             2919.20         15.       15.        15.        14.         13.   336.49      68.
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CCHV=   0.100 CEHV=   0.800
*SECNO 3.210

3301 HV CHANGED MORE THAN HVINS

     3.21       885.        0.       885.        0.       0.61         5       35.
  2935.71         0.0        0.       141.        0.      -1.05         0  2936.90
     5.51         0.0        0.0      6.28        0.0     10.88   2936.32  2941.40
 0.009476       0.049      0.100     0.055      0.160      0.11     -0.00   201.86
              2930.20        710.      710.        710.      19.        16.  236.99      70.


*SECNO 3.220

*** GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2943.70 ELREA=     2945.00

     3.22       885.        0.       885.        0.       1.11         2       33.
  2936.44         0.0        0.       105.        0.       0.49         0  2938.70
     4.44         0.0        0.0      8.44        0.0      0.84   2937.55  2943.20
 0.022407       0.049      0.100     0.055      0.160      0.40     -0.00   203.51
              2932.00         60.       60.         60.      17.        15.  236.06      70.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN      BWC        BWP      BAREA      SS
       1.25       1.60       3.00        0.0      29.00      0.30     330.00     0.0
    ELCHU      ELCHD
  2932.00    2932.00

CCHV=   0.100 CEHV=   0.500
*SECNO 3.220

*** GR CARDS REPEATED
    BOWLENS CREEK                  10 YR FLOOD            10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.=   2936.42 BRIDGE VELOCITY=,       6.98
     CALCULATED CHANNEL AREA=,      127.
    EGPRS      EGLWC         H3       QWEIR       QPR       BAREA      TAREA       ELLC
      0.0   2937.58       0.09          0.       885.       330.       330.    2943.50

    ELTRD
  2944.20


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2944.20 ELREA=     2945.50

     3.22       885.        0.       885.        0.       1.05         0       33.
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 2936.53      0.0         0.      108.        0.     -0.06         0   2938.70
    4.53      0.0        0.0      8.21       0.0     0.03     2937.58   2943.20
0.020665      0.049      0.100    0.055      0.160   0.0        -0.00   203.37
          2932.00        12.      12.        12.     18.         15.    236.14      70.

*SECNO 3.220

*** GR CARDS REPEATED
   BOWLENS CREEK                10 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.22       885.        0.      885.        0.     1.47         20        32.
 2938.91    2938.91        0.       91.        0.     0.42         11   2941.60
    4.01       0.0        0.0      9.72       0.0     0.36     2940.38   2946.10
0.028020       0.049      0.100    0.050      0.150   0.21       -0.00   204.18
          2934.90        15.      15.        15.     17.         15.    235.68      70.

*SECNO 3.250

*** GR CARDS REPEATED
   BOWLENS CREEK                10 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.25       880.        0.      880.        0.     1.47         20        31.
 2946.50    2946.50        0.       91.        0.     0.00          5   2949.20
    4.00       0.0        0.0      9.72       0.0     3.08     2947.96   2953.70
0.034093       0.049      0.150    0.055      0.150   0.00       -0.00   204.21
          2942.50       100.     100.       100.     17.         15.    235.67      70.


CCHV=   0.100 CEHV=   0.800
*SECNO 3.310
   BOWLENS CREEK                10 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.31       865.        0.      865.        0.     1.38          4        34.
 2965.08    2965.08        0.       92.        0.    -0.09         11   2969.90
    3.58       0.0        0.0      9.43       0.0    11.72     2966.46   2965.10
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 0.040820     0.049     0.130     0.060     0.140      0.01     -0.00    316.18
              2961.50    315.      315.      315.       14.       20.     349.95       71.

*SECNO 3.320

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    10 YR FLOOD          10/03/81
   MILE       Q          QLOB        QCH       QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB        ACH       AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB        VCH       VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL         XNCH      XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL       XLCH      XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.20 ELREA=     2969.70

     3.32       865.        0.       865.        0.       1.94          1        20.
  2968.03    2968.03        0.        77.        0.       0.56          8   2963.90
     4.13        0.0        0.0      11.18       0.0      2.23    2969.97    2965.30
 0.034083      0.049      0.130      0.060      0.140      0.45        0.0     324.00
              2963.90         60.        60.        60.       10.         10.   344.00       71.


CCHV=   0.100 CEHV=    0.500
*SECNO 3.320
    BOWLENS CREEK                    10 YR FLOOD          10/03/81
   MILE       Q          QLCB        QCH       QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB        ACH       AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB        VCH       VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL         XNCH      XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL       XLCH      XLOBR      WSDL       WSDR       ENDST       VOL


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.32       865.        0.       865.        0.       2.00         20        19.
  2968.79    2968.79        0.        76.        0.       0.06         15   2974.00
     4.89        0.0        0.0      11.34       0.0      0.03    2970.79    2973.50
 0.022940      0.049      0.070      0.040      0.070      0.03        0.0     324.58
              2963.90          1.         1.         1.        9.         10.   344.00       71.


*SECNO 3.320

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

     3.32       865.        0.       865.        0.       1.27          4        20.
  2969.79        0.0        0.        96.        0.      -0.72          0   2974.00
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    5.89        0.0         0.0         9.05        0.0         0.20      2971.06     2973.50
0.012484        0.049       0.070       0.040       0.070       0.07        -0.00      324.47
              2963.90        12.         12.         12.         10.         10.       344.00        71.

*SECNO 3.320

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.70 ELREA=     2970.20

    3.32        865.         0.         765.        100.        0.48           5        57.
 2970.67        0.0          0.         130.         74.       -0.79           0      2963.90
    6.77        0.0         0.0         5.88        1.35        0.00      2971.14     2965.30
0.002657        0.049       0.100       0.045       0.100       0.08        -0.00      324.00
              2963.90         1.          1.          1.         10.         47.       380.57        71.

*SECNO 3.320

3301 HV CHANGED MORE THAN HVINS

    3.32        865.         0.         865.         0.         1.05           2        38.
 2970.46        0.0          0.         105.         1.         0.57           0      2974.90
    3.96        0.0         0.0         8.23        0.47        0.08      2971.51     2970.10
0.018529        0.049       0.120       0.050       0.140       0.29        -0.00      315.68
              2966.50        15.         15.         15.         14.         24.       353.57        71.

*SECNO 3.360
    BOWLENS CREEK                    10 YR FLOOD              10/03/81
   MILE        Q           QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS       ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK       VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN         XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN       XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST        VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.36        860.         0.         843.        17.         1.21          20        54.
 2977.45     2977.45         0.          94.        12.         0.16          12      2977.50
    3.75        0.0         0.0         8.92        1.42        3.40      2978.66     2976.20
0.024629        0.049       0.120       0.050       0.120       0.08        -0.00       85.13
              2973.70        160.        160.        160.        17.         37.       139.13        72.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    10 YR FLOOD              10/03/81
   MILE        Q           QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS       ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK       VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN         XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN       XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST        VOL
```

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2979.00 ELREA= 2977.30

3.36	860.	0.	793.	67.	0.43	2	69.	
2978.90	0.0	0.	145.	52.	-0.78	0	2977.50	
5.20	0.0	0.0	5.46	1.29	0.59	2979.33	2976.20	
0.005230	0.049	0.120	0.050	0.120	0.08	-0.00	85.00	
	2973.70	60.	60.	60.	18.	52.	154.15	72.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2977.32 ,NOT 2978.90
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.80	60.00	0.0

ELCHU	ELCHD
2973.70	2973.70

*SECNO 3.360

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2984.00	2979.63	0.0	419.	442.	60.	60.	2977.40

ELTRD
2977.80

3.36	860.	5.	753.	102.	0.23	2	84.	
2980.02	0.0	8.	184.	96.	-0.20	0	2977.50	
6.32	0.0	0.63	4.08	1.07	0.92	2980.25	2976.20	
0.002125	0.049	0.120	0.050	0.120	0.0	-0.00	78.84	
	2973.70	12.	12.	12.	24.	61.	163.29	72.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3.36	860.	0.	839.	21.	0.99	4	59.	
2979.71	2979.43	0.	104.	18.	0.76	14	2979.50	
4.01	0.0	0.02	8.07	1.18	0.07	2980.70	2978.20	
0.017838	0.049	0.130	0.050	0.140	0.38	-0.00	84.46	
	2975.70	15.	15.	15.	18.	41.	143.27	72.

*SECNO 3.480
BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA

	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.48	840.	0.	840.	0.	1.30	9	36.	
3001.44	3001.44	0.	92.	0.	0.31	5	3003.50	
4.04	0.0	0.0	9.14	0.0	13.26	3002.74	3007.40	
0.028286	0.049	0.130	0.050	0.140	0.15	-0.00	85.00	
	2997.40	600.	600.	600.	20.	16.	120.74	73.

*SECNO 3.500

*** GR CARDS REPEATED

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.50	835.	0.	835.	0.	1.31	20	36.	
3021.42	3021.42	0.	91.	0.	0.01	5	3023.50	
4.02	0.0	0.0	9.17	0.0	2.85	3022.73	3027.40	
0.028666	0.049	0.130	0.050	0.140	0.00	-0.00	85.03	
	3017.40	100.	100.	100.	20.	16.	120.63	74.

*SECNO 3.540

*** GR CARDS REPEATED

BOWLENS CREEK 10 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.54	830.	0.	830.	0.	1.30	10	36.	
3032.41	3032.41	0.	91.	0.	-0.01	5	3034.50	
4.01	0.0	0.0	9.14	0.0	7.86	3033.71	3038.40	
0.028523	0.049	0.130	0.050	0.150	0.00	-0.00	85.04	
	3028.40	275.	275.	275.	20.	16.	120.59	74.

THIS RUN EXECUTED 10/03/81 8:55:18

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**********************************************************

T1      YANCEY CO NC FEMA STUDY                                          2520
T2      50 YR FLOOD                                                      2525
T3      BOWLENS CREEK                                                    2530

J1  ICHECK     INQ    NINV    IDIR    STRT  METRIC   HVINS      Q      WSEL    FQ

        0.      3.      0.      0. 0.00592      0.     0.0       0.     0.0     0.0    2535

J2  NPROF   IPLOT   PRFVS   XSECV   XSECH      FN   ALLDC     IBW   CHNIM ITRACE

        2.      0.     -1.      0.      0.     0.0     0.0      0.      0.      0.    2540
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*PROF 2

CCHV=   0.100 CEHV=   0.500
*SECNO .080
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

    0.08       2240.        8.        2232.         0.        1.06           0         52.
 2612.19         0.0       10.         270.         0.        0.50           0    2611.00
    9.19         0.0      0.79         8.26        0.0         0.0     2613.24     2615.90
0.006013         0.0     0.150        0.045      0.130         0.0       -0.00       44.80
              2603.00        0.           0.          0.         34.         18.       96.51          0.

*SECNO .080

*** GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2614.60 ELREA=     2615.60

    0.08       2240.        0.        2240.         0.        0.93           2         42.
 2612.65         0.0        0.         290.         0.       -0.13           0    2611.00
    9.65         0.0        0.0        7.73        0.0        0.33     2613.58     2615.90
0.004916       0.044      0.150       0.045       0.130        0.01       -0.00       55.00
              2603.00         60.         60.         60.        24.         19.       97.20          0.


SPECIAL BRIDGE

SB      HK          XKOR        COFQ        RDLEN       BWC         BWP       BAREA       SS
        1.25        1.60        3.00          0.0       31.00        0.50      336.00       0.0
     ELCHU       ELCHD
   2603.00     2603.00

*SECNO .080

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2612.62 BRIDGE VELOCITY=,       7.63
       CALCULATED CHANNEL AREA=,       293.
      EGPRS       EGLWC         H3        QWEIR        QPR       BAREA       TAREA       ELLC
        0.0     2613.62       0.06           0.      2240.       336.        336.    2614.00

     ELTRD
   2615.10


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2615.10 ELREA=     2616.10

    0.08       2240.        0.        2240.         0.        0.91           0         42.
 2612.71         0.0        0.         292.         0.       -0.02           0    2611.00
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     9.71        0.0        0.0        7.67        0.0        0.04    2613.62     2615.90
 0.004790      0.044      0.150      0.045      0.130         0.0     -0.00       55.00
             2603.00        72.        72.        72.         24.       19.       97.29          1.

CCHV=   0.100 CEHV=   0.800
*SECNO .080

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    50 YR FLOOD              10/03/81
   MILE        Q          QLOB       QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.08     2240.         0.     2240.         0.       2.46          2        37.
  2612.55  2612.55          0.      178.         0.       1.55         19   2613.70
     6.85      0.0        0.0      12.58        0.0       0.15    2615.01     2618.60
 0.030345      0.045      0.130      0.055      0.150       1.24     -0.00       56.28
             2605.70        15.        15.        15.         22.       15.       93.06          1.


CCHV=   0.100 CEHV=   0.500
*SECNO .250

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    50 YR FLOOD              10/03/81
   MILE        Q          QLOB       QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

     0.25     2210.         0.     2210.         0.       0.42          6        64.
  2620.86      0.0          0.      424.         0.      -2.04          0   2629.70
    10.46      0.0        0.0       5.21        0.0       6.07    2621.28     2634.20
 0.003257      0.053      0.160      0.055      0.160       0.20     -0.00       45.61
             2610.40       815.       815.       815.         31.       33.      109.64          7.

*SECNO .270

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    50 YR FLOOD              10/03/81
   MILE        Q          QLOB       QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED

0.27	2210.	0.	2210.	0.	2.06	20	47.	
2627.27	2627.27	0.	192.	0.	1.64	14	2629.80	
6.37	0.0	0.0	11.53	0.0	0.74	2629.33	2628.00	
0.029934	0.054	0.160	0.055	0.160	0.82	-0.00	55.67	
	2620.90	100.	100.	100.	22.	25.	102.96	7.

*SECNO .400

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.40	2185.	0.	2185.	0.	1.38	5	51.	
2642.57	0.0	0.	232.	0.	-0.68	0	2644.30	
7.17	0.0	0.0	9.43	0.01	14.56	2643.95	2642.50	
0.017336	0.054	0.160	0.055	0.160	0.07	-0.00	53.86	
	2635.40	650.	650.	650.	24.	28.	105.10	10.

*SECNO .640

3301 HV CHANGED MORE THAN HVINS

0.64	2145.	41.	1897.	207.	0.77	7	113.	
2655.79	0.0	30.	254.	121.	-0.61	0	2652.00	
7.29	0.0	1.35	7.46	1.71	12.54	2656.55	2650.80	
0.007027	0.054	0.140	0.055	0.150	0.06	-0.00	53.57	
	2648.50	1190.	1190.	1190.	42.	70.	166.48	19.

*SECNO .640

*SECNO .640

0.64	2145.	59.	1812.	274.	0.58	2	119.	
2656.27	0.0	41.	275.	147.	-0.19	0	2652.00	
7.77	0.0	1.44	6.59	1.86	0.28	2656.85	2650.80	
0.003310	0.054	0.100	0.045	0.100	0.02	-0.00	52.43	
	2648.50	60.	60.	60.	44.	76.	171.50	20.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2654.57 ,NOT 2656.27
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	21.00	0.50	113.00	0.0

ELCHU	ELCHD
2648.50	2648.50

*SECNO .640

*** GR CARDS REPEATED

BOWLENS CREEK 50 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2665.23	2657.27	0.0	1237.	918.	113.	113.	2654.00

ELTRD
2654.00

0.64	2145.	93.	1715.	337.	0.34	2	136.	
2657.57	0.0	72.	329.	226.	-0.23	0	2652.00	
9.07	0.0	1.29	5.21	1.49	1.06	2657.91	2650.80	
0.001623	0.054	0.100	0.045	0.100	0.0	-0.00	49.41	
	2648.50	12.	12.	12.	47.	89.	184.97	20.

*SECNO .640

0.64	2145.	83.	1717.	346.	0.43	2	135.	
2657.56	0.0	72.	294.	225.	0.09	0	2652.00	
8.16	0.0	1.15	5.85	1.54	0.03	2657.99	2650.80	
0.002925	0.054	0.150	0.050	0.130	0.04	-0.00	49.44	
	2649.40	15.	15.	15.	47.	89.	184.78	20.

*SECNO .810

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 50 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.81	2115.	235.	1563.	317.	1.86	20	86.	
2666.42	2666.42	84.	124.	83.	1.43	15	2664.60	
6.92	0.0	2.79	12.56	3.82	5.55	2668.27	2661.20	
0.020179	0.053	0.130	0.050	0.130	0.71	-0.00	114.46	
	2659.50	910.	910.	910.	49.	37.	200.74	29.

*SECNO .820

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.82	2115.	349.	1420.	346.	0.80	3	94.	
2668.21	0.0	153.	166.	135.	-1.06	0	2664.60	
8.71	0.0	2.28	8.57	2.56	0.63	2669.01	2661.20	
0.006403	0.053	0.130	0.050	0.130	0.11	-0.00	112.94	
	2659.50	60.	60.	60.	51.	44.	207.12	30.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	21.00	0.10	90.00	0.0

ELCHU	ELCHD
2660.00	2660.00

*SECNO .820

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2681.93	2669.02	0.02	1431.	687.	90.	90.	2664.30

ELTRD
2665.70

0.82	2115.	385.	1363.	367.	0.56	2	103.	
2669.10	0.0	188.	186.	167.	-0.24	0	2664.60	
9.60	0.0	2.04	7.31	2.20	0.65	2669.66	2661.20	
0.003993	0.053	0.130	0.050	0.130	0.0	-0.00	112.18	
	2659.50	12.	12.	12.	51.	52.	215.23	30.

*SECNO .820

*** GR CARDS REPEATED

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.82	2115.	314.	1426.	375.	0.63	2	103.	
2669.12	0.0	189.	187.	168.	0.07	0	2664.60	
9.62	0.0	1.67	7.64	2.24	0.06	2669.75	2661.20	
0.003518	0.053	0.150	0.045	0.120	0.04	-0.00	112.17	
	2659.50	15.	15.	15.	51.	52.	215.35	30.

*SECNO .940

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.94	2090.	118.	1880.	92.	1.38	4	184.	
2673.71	2673.71	96.	189.	49.	0.75	11	2672.30	
5.91	0.0	1.23	9.93	1.90	3.80	2675.09	2671.70	
0.016072	0.053	0.150	0.050	0.150	0.37	-0.00	379.75	

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        2667.80      585.      585.      585.      135.       49.    563.65       36.

*SECNO .950

*** GR CARDS REPEATED
    BOWLENS CREEK                 50 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH       VROB      HL        EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH      XNR       OLOSS     CORAR      SSTA
              ELMIN      XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      0.95     2090.      117.      1881.      92.      1.39        20      184.
   2676.70  2676.70        95.       189.      48.      0.01         5   2675.30
      5.90      0.0        1.23      9.94      1.90     0.64   2678.09   2674.70
  0.016158     0.053      0.150     0.050     0.150     0.00     -0.00    380.06
              2670.80       40.       40.       40.      134.       49.    563.63       36.


SPECIAL BRIDGE

SB      HK         XKOR       COFQ       RDLEN      BWC        BWP       BAREA       SS
        1.25       1.60       3.00       0.0        25.00      0.01       75.00      0.0
     ELCHU      ELCHD
   2671.70    2671.70

*SECNO .950

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2678.09 HIGHER THAN COMPUTED ENERGY OF 2677.96
PRESSURE AND WEIR FLOW

     EGPRS      EGLWC        H3       QWEIR      QPR       BAREA      TAREA      ELLC
   2695.99    2678.09      0.00       1560.      533.       75.        75.    2674.70

     ELTRD
   2675.20


      0.95     2090.      133.      1861.      96.      1.27         5      190.
   2676.81      0.0        109.      194.      52.      -0.11        0   2675.30
      6.01      0.0        1.23      9.59      1.86     0.0    2678.09   2674.70
  0.014503     0.053      0.150     0.050     0.150     0.0      -0.00    373.66
              2670.80       12.       12.       12.      141.       50.    564.13       36.


*SECNO .950

*** GR CARDS REPEATED
      0.95     2090.      189.      1785.      116.     0.92         4      199.
   2677.31      0.0        169.      215.      66.      -0.36        0   2675.30
      6.51      0.0        1.12      8.30      1.76     0.10   2678.22   2674.70
  0.007688     0.053      0.150     0.045     0.130     0.04     -0.00    367.06
              2670.80       10.       10.       10.      147.       52.    566.26       37.
```

*SECNO 1.100

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.10	2065.	97.	1875.	93.	1.43	10	180.	
2689.84	2689.84	89.	187.	47.	0.51	11	2688.50	
5.84	0.0	1.10	10.05	1.98	7.90	2691.27	2687.90	
0.013594	0.051	0.150	0.045	0.130	0.25	-0.00	383.27	
	2684.00	790.	790.	790.	131.	49.	563.37	44.

*SECNO 1.240

3301 HV CHANGED MORE THAN HVINS

1.24	2040.	39.	1873.	128.	0.83	4	210.	
2697.26	0.0	25.	246.	134.	-0.60	0	2695.30	
6.26	0.0	1.55	7.61	0.95	6.76	2698.08	2695.40	
0.006528	0.051	0.110	0.045	0.120	0.06	-0.00	365.03	
	2691.00	740.	740.	740.	40.	169.	574.59	50.

*SECNO 1.560

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.56	1985.	0.	1985.	0.	2.41	14	34.	
2723.06	2723.06	0.	159.	0.	1.58	11	2725.60	
6.56	0.0	0.0	12.46	0.0	18.37	2725.47	2723.60	
0.021356	0.049	0.130	0.045	0.130	0.79	-0.00	310.44	
	2716.50	1710.	1710.	1710.	15.	19.	344.56	61.

*SECNO 1.570

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.10 ELREA= 2724.00

1.57	1985.	0.	1960.	25.	1.69	4	124.	
2724.85	2723.99	0.	187.	35.	-0.72	6	2726.60	
7.35	0.0	0.0	10.49	0.71	0.99	2726.54	2724.60	
0.013213	0.049	0.130	0.045	0.130	0.07	-0.00	309.06	
	2717.50	60.	60.	60.	16.	107.	432.76	61.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	30.00	0.40	160.00	0.0

ELCHU	ELCHD
2717.70	2717.70

*SECNO 1.570

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2726.54 HIGHER THAN COMPUTED ENERGY OF 2726.36
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2728.68	2726.71	0.17	737.	1248.	160.	160.	2723.10

ELTRD
2724.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.60 ELREA= 2724.50

1.57	1985.	0.	1956.	29.	1.65	5	124.	
2724.89	0.0	0.	189.	39.	-0.04	0	2726.60	
7.39	0.0	0.0	10.37	0.75	0.0	2726.54	2724.60	
0.012812	0.049	0.130	0.045	0.130	0.0	-0.00	308.98	
	2717.50	12.	12.	12.	17.	108.	433.07	61.

*SECNO 1.570

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.57	1985.	0.	1862.	123.	1.08	8	146.	
2725.67	2724.41	0.	217.	113.	-0.57	9	2726.60	
8.17	0.0	0.0	8.59	1.09	0.15	2726.74	2724.60	

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 0.007674     0.049     0.130     0.045     0.130      0.06     -0.00    307.64
              2717.50     15.       15.       15.       18.      143.     468.79        61.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.600

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

     1.60     1980.       0.      1973.       7.      1.89         4      122.
  2726.81     2726.35     0.       178.      14.      0.82        11     2728.80
     7.11       0.0      0.0     11.06      0.46     1.31     2728.70    2726.80
 0.027330     0.049     0.160     0.060     0.160     0.65     -0.00    309.48
              2719.70     100.      100.      100.      16.      106.     431.14        62.


*SECNO 1.660

3301 HV CHANGED MORE THAN HVINS

     1.66     1970.      271.     1699.       0.      0.86         3      221.
  2731.83       0.0     210.      212.       0.     -1.03         0     2730.20
     6.13       0.0     1.29      8.01      0.0      3.89     2732.69    2732.60
 0.011049     0.049     0.150     0.050     0.150     0.10     -0.00    457.86
              2725.70     235.      235.      235.      197.     24.      678.73        63.


CCHV=   0.100 CEHV=   0.500
*SECNO 1.660
     1.66     1970.      411.     1559.       0.      0.50         2      245.
  2732.51       0.0     335.      246.       0.     -0.37         0     2730.20
     6.81       0.0     1.23      6.33      0.0      0.28     2733.01    2732.60
 0.004726     0.049     0.130     0.045     0.130     0.04     -0.00    434.38
              2725.70     40.       40.       40.      220.     25.      679.85        64.


*SECNO 1.660

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

     1.66     1970.     1198.      767.       4.      0.29         3      251.
  2732.74       0.0     369.      136.       4.     -0.20         0     2733.10
     7.14       0.0     3.25      5.66      1.00     0.01     2733.03    2733.20
 0.009285     0.049     0.070     0.040     0.070     0.02     -36.10    427.36
              2725.60      1.        1.        1.      227.      30.      683.83        64.


*SECNO 1.660

*** GR CARDS REPEATED

3265 DIVIDED FLOW

    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH       QROB       HV        ITRIAL     TOPWID
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ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50								
1.66	1970.	1254.	709.	7.	0.25	2	260.	
2732.89	0.0	401.	136.	7.	-0.04	0	2733.10	
7.29	0.0	3.13	5.23	1.07	0.10	2733.14	2733.20	
0.007928	0.049	0.070	0.040	0.070	0.00	-40.37	422.69	
	2725.60	12.	12.	12.	231.	34.	688.07	64.
*SECNO 1.660								
1.66	1970.	462.	1508.	0.	0.40	2	261.	
2732.82	0.0	397.	262.	1.	0.15	0	2730.20	
7.12	0.0	1.16	5.75	0.26	0.01	2733.22	2732.60	
0.003603	0.049	0.130	0.045	0.080	0.07	-0.00	424.81	
	2725.70	1.	1.	1.	230.	32.	686.14	64.
*SECNO 1.660								
1.66	1970.	457.	1513.	0.	0.39	1	264.	
2732.86	0.0	408.	265.	1.	-0.00	0	2730.20	
7.16	0.0	1.12	5.71	0.22	0.04	2733.26	2732.60	
0.004335	0.049	0.150	0.050	0.120	0.00	-0.00	423.25	
	2725.70	10.	10.	10.	231.	33.	687.56	64.
CCHV= 0.100 CEHV= 0.800								
*SECNO 1.760								
3265 DIVIDED FLOW								
BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.76	1950.	898.	1052.	0.	0.79	13	278.	
2738.35	2738.35	351.	111.	0.	0.40	14	2742.00	
4.35	0.0	2.56	9.45	0.0	4.76	2739.15	2741.10	
0.032361	0.050	0.150	0.055	0.120	0.32	-0.00	429.65	
	2734.00	515.	515.	515.	345.	24.	798.42	71.
*SECNO 1.770								
*** GR CARDS REPEATED								
3265 DIVIDED FLOW								
3301 HV CHANGED MORE THAN HVINS								

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     1.77      1950.      1086.       864.         0.       0.23          2       553.
  2739.43       0.0        753.       157.         0.      -0.57          0    2742.00
     5.43       0.0        1.44       5.49       0.0        0.45    2739.65    2741.10
 0.005637     0.050       0.130      0.045      0.120        0.06      -0.00    171.19
              2734.00        40.        40.        40.        603.        26.    800.60        72.

*SECNO 1.770

3265 DIVIDED FLOW

    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

     1.77      1950.      1294.       656.         0.       0.21          0       535.
  2739.45       0.0        783.       110.         0.      -0.01          0    2744.10
     5.35       0.0        1.65       5.96       0.0        0.01    2739.66    2744.20
 0.007224     0.050       0.130      0.045      0.120        0.00      -0.00    170.04
              2734.10          1.         1.         1.        608.        13.    791.00        72.

*SECNO 1.770

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

     1.77      1950.      1318.       632.         0.       0.18          2       544.
  2739.56       0.0        841.       113.         0.      -0.03          0    2744.10
     5.46       0.0        1.57       5.61       0.0        0.08    2739.74    2744.20
 0.006273     0.050       0.130      0.045      0.120        0.00      -0.00    162.85
              2734.10         12.        12.        12.        615.        13.    791.00        72.


*SECNO 1.770

3265 DIVIDED FLOW

     1.77      1950.      1116.       834.         0.       0.19          0       564.
  2739.56       0.0        834.       164.         0.       0.00          0    2742.00
     5.56       0.0        1.34       5.09       0.0        0.01    2739.75    2741.10
 0.004703     0.050       0.130      0.045      0.120        0.00      -0.00    162.43
              2734.00          1.         1.         1.        612.        26.    800.89        72.


CCHV=   0.100 CEHV=   0.500
*SECNO 1.770

*** GR CARDS REPEATED
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3265 DIVIDED FLOW

1.77	1950.	1307.	643.	0.	0.09	2	581.	
2739.70	0.0	904.	170.	0.	-0.09	0	2742.00	
5.70	0.0	1.45	3.78	0.0	0.03	2739.80	2741.10	
0.002517	0.050	0.090	0.045	0.080	0.01	-0.00	153.92	
	2734.00	10.	10.	10.	621.	27.	801.16	72.

CCHV= 0.100 CEHV= 0.800
*SECNO 1.790

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.79	1945.	733.	1212.	0.	0.74	20	331.	
2740.95	2740.95	391.	141.	0.	0.64	8	2743.60	
6.45	0.0	1.87	8.61	0.0	0.43	2741.69	2743.50	
0.014572	0.050	0.120	0.050	0.100	0.51	-0.00	350.74	
	2734.50	85.	85.	85.	340.	19.	709.51	74.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.79	1945.	1010.	935.	0.	0.23	3	568.	
2741.82	0.0	737.	173.	0.	-0.50	0	2743.60	
7.32	0.0	1.37	5.42	0.0	0.32	2742.06	2743.50	
0.005015	0.050	0.120	0.050	0.100	0.05	-0.00	124.02	
	2734.50	40.	40.	40.	566.	20.	710.70	74.

*SECNO 1.790

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3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

     1.79      1945.      1432.       513.        0.      0.19         2      537.
  2741.89       0.0        679.        89.        0.     -0.05         0   2743.80
     8.39       0.0        2.11       5.74       0.0      0.01   2742.07   2742.90
 0.012984     0.050       0.120      0.050      0.100      0.00     -1.17    122.48
             2733.50          1.         1.         1.      574.        7.   703.00        74.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

     1.79      1945.      1508.       437.        0.      0.13         2      551.
  2742.09       0.0        787.        91.        0.     -0.06         0   2743.80
     8.59       0.0        1.92       4.82       0.0      0.14   2742.21   2742.90
 0.010005     0.050       0.120      0.050      0.100      0.01     -2.71    117.46
             2733.50         12.        12.        12.      579.        7.   703.00        75.

*SECNO 1.790

3265 DIVIDED FLOW

3265 DIVIDED FLOW

     1.79      1945.      1083.       862.        0.      0.17         1      578.
  2742.09       0.0        880.       183.        0.      0.04         0   2743.60
     7.59       0.0        1.23       4.71       0.0      0.01   2742.25   2743.50
 0.003645     0.050       0.120      0.050      0.100      0.03     -0.00    117.38
             2734.50          1.         1.         1.      573.       21.   711.07        75.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.790

3265 DIVIDED FLOW

     1.79      1945.      1137.       808.        0.      0.20         2      579.
  2742.10       0.0        886.       149.        0.      0.04         0   2743.60
     5.30       0.0        1.28       5.42       0.0      0.04   2742.31   2743.50
 0.003944     0.050       0.120      0.040      0.100      0.02     -0.00    117.10
             2736.80         10.        10.        10.      573.       21.   711.20        75.

*SECNO 1.870

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
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	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.87	1920.	0.	1920.	0.	1.72	20	53.	
2747.16	2747.16	0.	183.	0.	1.51	8	2749.50	
5.16	0.0	0.0	10.52	0.0	3.00	2748.88	2748.90	
0.020605	0.049	0.120	0.045	0.080	0.76	-0.00	536.87	
	2742.00	395.	395.	395.	27.	27.	590.29	80.

*SECNO 1.880

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.88	1920.	0.	1657.	263.	1.84	3	55.	
2749.89	2749.89	0.	144.	51.	0.12	8	2752.00	
5.39	0.0	0.0	11.55	5.10	1.59	2751.73	2746.50	
0.019288	0.049	0.120	0.045	0.080	0.06	0.0	536.39	
	2744.50	80.	80.	80.	15.	39.	590.91	81.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.40	118.00	0.0

ELCHU	ELCHD
2744.90	2744.90

*SECNO 1.880

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2756.47	2751.76	0.33	723.	1200.	118.	118.	2749.90

ELTRD
2751.00

1.88	1920.	0.	1586.	334.	0.77	3	114.	
2751.69	0.0	0.	209.	99.	-1.08	0	2752.00	
7.19	0.0	0.0	7.58	3.37	0.73	2752.46	2746.50	
0.005814	0.049	0.120	0.045	0.080	0.0	-0.00	532.64	
	2744.50	12.	12.	12.	19.	181.	732.57	81.

*SECNO 1.880

3265 DIVIDED FLOW

1.88	1920.	1.	1895.	23.	0.53	4	497.	
2752.05	2749.64	14.	323.	42.	-0.24	19	2752.00	
7.55	0.0	0.10	5.87	0.56	0.09	2752.58	2751.40	
0.003770	0.049	0.120	0.045	0.080	0.02	-0.00	228.63	
	2744.50	20.	20.	20.	335.	170.	733.62	81.

*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.00	1885.	2.	1883.	0.	1.77	20	54.	
2758.95	2758.95	2.	176.	0.	1.24	19	2757.70	
5.65	0.0	1.26	10.68	0.0	5.20	2760.71	2759.00	
0.021366	0.049	0.120	0.045	0.080	0.62	-0.00	83.88	
	2753.30	700.	700.	700.	29.	25.	137.96	85.

*SECNO 2.120

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.12	1845.	2.	1843.	0.	1.74	4	54.	
2773.10	2773.10	2.	174.	0.	-0.02	5	2771.90	
5.60	0.0	1.23	10.60	0.0	13.92	2774.84	2773.20	
0.021461	0.049	0.120	0.045	0.080	0.00	-0.00	84.01	
	2767.50	650.	650.	650.	28.	25.	137.92	88.

*SECNO 2.130

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.13	1845.	2.	1843.	0.	1.73	0	54.	
2774.42	2774.42	2.	175.	0.	-0.02	5	2773.20	
5.62	0.0	1.23	10.55	0.0	1.28	2776.14	2774.50	
0.021085	0.049	0.120	0.045	0.080	0.00	-0.00	83.96	
	2768.80	60.	60.	60.	29.	25.	137.94	88.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2774.18 ,NOT 2774.42
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.10	160.00	0.0

ELCHU	ELCHD
2768.80	2768.80

*SECNO 2.130

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2777.72	2776.23	0.0	70.	1772.	160.	160.	2775.50

ELTRD
2776.40

2.13	1845.	18.	1809.	19.	0.54	2	73.	
2776.92	0.0	17.	303.	16.	-1.18	0	2773.20	
8.12	0.0	1.02	5.97	1.19	1.32	2777.46	2774.50	
0.003259	0.049	0.120	0.045	0.080	0.0	-0.00	77.69	
	2768.80	12.	12.	12.	35.	38.	150.96	88.

*SECNO 2.130

3301 HV CHANGED MORE THAN HVINS

2.13	1845.	2.	1843.	0.	1.70	6	54.	
2776.44	2776.40	2.	176.	0.	1.15	19	2775.20	
5.64	0.0	0.99	10.45	0.0	0.10	2778.14	2776.50	
0.020490	0.049	0.150	0.045	0.100	0.58	-0.00	83.88	
	2770.80	15.	15.	15.	29.	25.	137.96	89.

CCHV= 0.100 CEHV= 0.800
*SECNO 2.200

BOWLENS CREEK 50 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.20     1825.        0.     1825.        0.      2.05         9       39.
  2785.39  2785.39         0.      159.        0.      0.35         5  2788.10
     5.69      0.0        0.0     11.48       0.0      8.37   2787.44  2787.80
 0.025117    0.049      0.150     0.050     0.150      0.28     -0.00   322.17
             2779.70      370.      370.      370.       19.       20.  361.20      90.


*SECNO 2.240
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.24     1810.        0.     1810.        0.      2.06         2       39.
  2791.50  2791.50         0.      157.        0.      0.01         5  2794.00
     5.60      0.0        0.0     11.52       0.0      5.25   2793.56  2794.00
 0.020782    0.049      0.110     0.045     0.080      0.01     -0.00   322.03
             2785.90      230.      230.      230.       19.       20.  361.12      91.


CCHV=   0.100 CEHV=   0.500
*SECNO 2.250

*** GR CARDS REPEATED
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2795.00 ELREA=     2795.00

     2.25     1810.        0.     1810.        0.      2.04         2       39.
  2792.52  2792.52         0.      158.        0.     -0.02         5  2795.00
     5.62      0.0        0.0     11.46       0.0      0.82   2794.56  2795.00
 0.020456    0.049      0.110     0.045     0.080      0.00     -0.00   322.00
             2786.90       40.       40.       40.       20.       20.  361.15      91.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
     1.25       1.60       3.00         0.0      17.00       0.30     135.00       0.0
   ELCHU      ELCHD
  2786.90    2786.90

*SECNO 2.250

*** GR CARDS REPEATED
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CLASS A LOW FLOW

3420 BRIDGE W.S.= 2792.73 BRIDGE VELOCITY=, 18.59
CALCULATED CHANNEL AREA=, 97.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2794.60	0.38	0.	1810.	135.	135.	2795.00

ELTRD
2795.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2796.30 ELREA= 2795.30

2.25	1810.	0.	1810.	0.	1.69	0	40.	
2792.91	0.0	0.	173.	0.	-0.34	0	2795.00	
6.01	0.0	0.0	10.45	0.0	0.04	2794.60	2795.00	
0.015728	0.049	0.110	0.045	0.080	0.0	-0.00	321.38	
	2786.90	12.	12.	12.	20.	20.	361.75	91.

*SECNO 2.250

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.25	1810.	0.	1810.	0.	2.06	20	39.	
2794.25	2794.25	0.	157.	0.	0.36	11	2797.00	
5.65	0.0	0.0	11.51	0.0	0.18	2796.31	2796.70	
0.020646	0.049	0.130	0.045	0.080	0.18	-0.00	322.23	
	2788.60	10.	10.	10.	19.	20.	361.13	91.

*SECNO 2.440

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.44	1750.	0.	1750.	0.	2.07	4	37.	
2814.40	2814.40	0.	151.	0.	0.02	8	2824.00	
5.90	0.0	0.0	11.56	0.0	20.09	2816.48	2821.10	
0.020779	0.048	0.100	0.045	0.080	0.01	-0.00	176.05	
	2808.50	970.	970.	970.	14.	23.	213.17	94.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2822.00 ELREA= 2821.70

2.45	1750.	0.	1750.	0.	1.30	3	40.	
2816.13	0.0	0.	191.	0.	-0.77	0	2824.70	
6.93	0.0	0.0	9.16	0.0	0.88	2817.43	2821.80	
0.010820	0.048	0.100	0.045	0.080	0.08	-0.00	174.12	
	2809.20	60.	60.	60.	16.	25.	214.52	95.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	31.00	0.50	345.00	0.0

ELCHU	ELCHD
2809.20	2809.20

*SECNO 2.450

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.= 2816.08 BRIDGE VELOCITY=, 8.34
CALCULATED CHANNEL AREA=, 210.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2817.49	0.13	0.	1750.	345.	345.	2820.50

ELTRD
2822.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2822.50 ELREA= 2822.20

2.45	1750.	0.	1750.	0.	1.23	0	41.	
2816.26	0.0	0.	197.	0.	-0.07	0	2824.70	
7.06	0.0	0.0	8.90	0.0	0.06	2817.49	2821.80	
0.010002	0.048	0.100	0.045	0.080	0.0	-0.00	173.87	
	2809.20	12.	12.	12.	16.	25.	214.70	95.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV

DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.45	1750.	0.	1750.	0.	2.08	20	37.	
2816.50	2816.50	0.	151.	0.	0.85	15	2826.10	
5.90	0.0	0.0	11.57	0.0	0.23	2818.58	2823.20	
0.025701	0.048	0.130	0.050	0.100	0.42	-0.00	176.05	
	2810.60	15.	15.	15.	14.	23.	213.17	95.

*SECNO 2.580

*** GR CARDS REPEATED

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.58	1710.	0.	1710.	0.	2.06	12	37.	
2851.83	2851.83	0.	149.	0.	-0.02	5	2861.50	
5.83	0.0	0.0	11.51	0.0	16.23	2853.88	2858.60	
0.025818	0.048	0.150	0.050	0.150	0.00	-0.00	176.19	
	2846.00	630.	630.	630.	14.	23.	213.07	97.

*SECNO 2.660

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.66	1685.	85.	1472.	128.	1.25	20	152.	
2870.62	2870.62	44.	154.	80.	-0.81	8	2867.20	
6.42	0.0	1.93	9.58	1.60	4.60	2871.87	2869.00	
0.009581	0.048	0.130	0.045	0.080	0.08	-0.00	85.02	
	2864.20	310.	310.	310.	35.	117.	236.98	98.

*SECNO 2.670

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	

LO5

	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2873.60 ELREA= 2870.60

2.67	1685.	0.	1288.	397.	1.29	20	132.	
2872.60	2872.60	0.	125.	175.	0.04	8	2866.20	
7.10	0.0	0.0	10.34	2.27	0.51	2873.89	2866.10	
0.007477	0.048	0.130	0.045	0.080	0.02	-0.00	111.00	
	2865.50	60.	60.	60.	9.	123.	242.71	99.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2871.52 ,NOT 2872.60
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	16.00	0.60	100.00	0.0

ELCHU	ELCHD
2865.50	2865.50

*SECNO 2.670

*** GR CARDS REPEATED
PRESS FLOW BECAUSE EGLWC OF 2875.51 EXCEEDS 1.5 DEPTH
6870 D.S. ENERGY OF 2873.89 HIGHER THAN COMPUTED ENERGY OF 2873.61
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2879.66	2875.51	0.0	1053.	638.	100.	100.	2872.00

ELTRD
2871.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2874.00 ELREA= 2871.10

2.67	1685.	0.	1250.	435.	1.12	4	133.	
2872.77	0.0	0.	128.	195.	-0.16	0	2866.20	
7.27	0.0	0.0	9.79	2.23	0.0	2873.89	2866.10	
0.006492	0.048	0.130	0.045	0.080	0.0	-0.00	111.00	
	2865.50	12.	12.	12.	9.	124.	243.76	99.

*SECNO 2.670

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

2.67	1685.	177.	984.	525.	0.46	4	168.	
2873.56	0.0	113.	142.	287.	-0.67	0	2866.20	
8.06	0.0	1.56	6.94	1.83	0.06	2874.02	2866.10	
0.002832	0.048	0.130	0.045	0.080	0.07	-0.00	80.41	

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        2865.50      15.      15.      15.      40.     129.    248.59      99.


*SECNO 2.800

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE       Q         QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV       CRIWS     ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH      WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE      WTN       XNL       XNCH      XNR       OLOSS     CORAR      SSTA
              ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.80      1645.      144.      1211.      290.      1.20        20       157.
  2885.80   2885.80        77.       119.       141.      0.74        12   2879.70
     6.80       0.0       1.87      10.17      2.06      2.97   2887.00    2879.60
 0.007687     0.048      0.150      0.045     0.080      0.37     -0.00      83.95
             2879.00       680.       680.       680.       36.       121.    240.83      106.


*SECNO 2.940

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE       Q         QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV       CRIWS     ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH      WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE      WTN       XNL       XNCH      XNR       OLOSS     CORAR      SSTA
              ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.94      1600.        0.      1600.        0.      2.13        15        33.
  2899.37   2899.37         0.       137.        0.      0.93        11   2900.80
     6.07       0.0        0.0      11.70       0.0      9.24   2901.49    2903.80
 0.026249     0.048      0.150      0.050     0.130      0.46     -0.00     375.34
             2893.30       720.       720.       720.       20.       12.    407.97      110.


*SECNO 2.950

*** GR CARDS REPEATED
    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE       Q         QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV       CRIWS     ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH      WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE      WTN       XNL       XNCH      XNR       OLOSS     CORAR      SSTA
              ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2902.00 ELREA=     2902.00

     2.95     1600.        0.     1600.        0.     2.12       20       33.
  2901.37  2901.37        0.      137.        0.    -0.00        5  2902.80
     6.07      0.0       0.0     11.69       0.0     1.05  2903.49  2905.80
 0.026196    0.048     0.150     0.050     0.130     0.00      0.0   375.34
           2895.30      40.       40.       40.      20.       12.   407.97      110.


SPECIAL BRIDGE

SB     HK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS
     1.25        1.60      3.00        0.0    27.00       0.01     170.00     0.0
   ELCHU     ELCHD
  2895.30   2895.30

*SECNO 2.950

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

    EGPRS     EGLWC        H3     QWEIR       QPR     BAREA     TAREA      ELLC
  2903.57   2903.49      0.01        1.     1597.      170.      170.  2901.60

    ELTRD
  2903.30

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2904.20 ELREA=     2903.30

     2.95     1600.        0.     1600.        0.     1.65        4       34.
  2901.91      0.0        0.      155.        0.    -0.47        0  2902.80
     6.61      0.0       0.0     10.31       0.0     0.07  2903.56  2905.80
 0.018480    0.048     0.150     0.050     0.130      0.0    -0.00   374.83
           2895.30      22.       22.       22.      21.       14.   409.09      110.

*SECNO 2.950

*** GR CARDS REPEATED
     2.95     1600.        0.     1600.        0.     1.33        3       36.
  2902.42      0.0        0.      173.        0.    -0.32        0  2902.80
     7.12      0.0       0.0     9.26        0.0     0.16  2903.75  2905.80
 0.013781    0.048     0.150     0.050     0.130     0.03    -0.00   374.36
           2895.30      10.       10.       10.      21.       15.   410.11      110.


*SECNO 2.960
   BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE      Q         QLOB      QCH       QROB      HV        ITRIAL    TOPWID
   ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC       BANK ELEV
   DEPTH     WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR     SSTA
             ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR      ENDST     VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
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3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.96      1600.       33.      1567.        0.      1.65        20       65.
  2904.52   2904.52        21.       150.        0.      0.32        16  2902.80
     5.02       0.0      1.55      10.43       0.0      0.87   2906.18  2905.80
 0.022423     0.048     0.130      0.050     0.150      0.16     -0.00   349.54
             2899.50        50.       50.       50.       46.       19.  414.40      110.


*SECNO 3.060

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.06      1565.        0.      1565.        0.      2.22        14       30.
  2921.19   2921.19         0.       131.        0.      0.56        11  2921.60
     5.99       0.0       0.0      11.95       0.0     12.50   2923.41  2924.70
 0.026964     0.048     0.080      0.050     0.130      0.28     -0.00   307.62
             2915.20       510.      510.      510.       16.       14.  337.55      112,


*SECNO 3.070
    BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.07      1565.       10.      1555.        0.      2.34         2       30.
  2923.16   2923.16         4.       126.        0.      0.12         5  2921.00
     5.96       0.0      2.77      12.30       0.0      1.57   2925.50  2926.70
 0.025284     0.048     0.080      0.050     0.130      0.06     -0.00   307.67
             2917.20        60.       60.       60.       19.       11.  337.53      112.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2921.68 ,NOT   2923.16
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK         XKOR       COFQ      RDLEN       BWC       BWP      BAREA       SS
     1.25         1.60       3.00        0.0     23.00      0.90     183.00      0.0
   ELCHU      ELCHD
  2917.20    2917.20

*SECNO 3.070

*** GR CARDS REPEATED
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3301 HV CHANGED MORE THAN HVINS

CLASS B LOW FLOW

3420 BRIDGE W.S.=   2922.58 BRIDGE VELOCITY=,     13.17
     CALCULATED CHANNEL AREA=,      119.
    EGPRS      EGLWC         H3       QWEIR        QPR      BAREA      TAREA       ELLC
  2924.98    2925.58        0.0          0.     1565.      183.       183.    2925.50

    ELTRD
  2925.60

     3.07       1565.        16.       1549.        0.       1.83          0         32.
  2923.75        0.0         6.        142.        0.      -0.51          0    2921.00
     6.55        0.0        2.76       10.90       0.0       0.08    2925.58    2926.70
 0.017501      0.048       0.080      0.050      0.130        0.0      -0.00     305.46
              2917.20          12.       12.        12.       21.         11.     337.94      112.


*SECNO 3.070
    BOWLENS CREEK                  50 YR FLOOD          10/03/81
    MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
    ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
    DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
    SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
                ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.07       1565.         0.       1565.        0.       2.22         20         30.
  2925.19    2925.19          0.        131.        0.       0.39         11    2925.60
     5.99        0.0         0.0       11.95       0.0       0.32    2927.41    2928.70
 0.026964      0.048       0.080      0.050      0.130        0.20      -0.00     307.62
              2919.20          15.       15.        15.       16.         14.     337.55      112.


CCHV=   0.100 CEHV=   0.800
*SECNO 3.210

3301 HV CHANGED MORE THAN HVINS

     3.21       1520.         0.       1520.        0.       0.87          4         39.
  2937.39        0.0          0.        203.        0.      -1.35          0    2936.90
     7.19        0.0        0.49       7.47        0.0      10.71    2938.26    2941.40
 0.009511      0.049       0.100      0.055      0.160       0.14      -0.00     199.34
              2930.20          710.      710.       710.      22.         17.     238.48      115.


*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2943.70 ELREA=     2945.00
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3.22	1520.	0.	1520.	0.	1.38	2	37.	
2938.07	0.0	0.	161.	0.	0.51	0	2938.70	
6.07	0.0	0.0	9.43	0.0	0.78	2939.45	2943.20	
0.018963	0.049	0.100	0.055	0.160	0.41	-0.00	200.98	
	2932.00	60.	60.	60.	20.	16.	237.49	115.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	29.00	0.30	330.00	0.0

ELCHU	ELCHD
2932.00	2932.00

CCHV= 0.100 CEHV= 0.500
*SECNO 3.220

*** GR CARDS REPEATED

BOWLENS CREEK 50 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.= 2938.03 BRIDGE VELOCITY=, 8.78
CALCULATED CHANNEL AREA=, 173.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2939.49	0.10	0.	1520.	330.	330.	2943.50

ELTRD
2944.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2944.20 ELREA= 2945.50

3.22	1520.	0.	1520.	0.	1.32	0	37.	
2938.18	0.0	0.	165.	0.	-0.06	0	2938.70	
6.18	0.0	0.0	9.21	0.0	0.04	2939.49	2943.20	
0.017740	0.049	0.100	0.055	0.160	0.0	-0.00	200.81	
	2932.00	12.	12.	12.	20.	17.	237.58	115.

*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 50 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.22      1520.        0.      1520.        0.      1.98        20        35.
  2940.23   2940.23         0.       135.        0.      0.66        15   2941.60
     5.33       0.0       0.0      11.29       0.0      0.32   2942.21    2946.10
 0.026278       0.049     0.100     0.050     0.150      0.33     -0.00    202.13
             2934.90        15.       15.       15.       19.        16.    236.84      115.


*SECNO 3.250

*** GR CARDS REPEATED
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.25      1510.        0.      1510.        0.      1.96        20        35.
  2947.82   2947.82         0.       134.        0.     -0.01         5   2949.20
     5.32       0.0       0.0      11.25       0.0      2.88   2949.78    2953.70
 0.031668       0.049     0.150     0.055     0.150      0.00     -0.00    202.15
             2942.50       100.      100.      100.       19.        16.    236.83      116.


CCHV=   0.100 CEHV=   0.800
*SECNO 3.310
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.31      1490.        0.      1479.       11.      1.82         4        48.
  2966.36   2966.36         0.       136.        8.     -0.14        11   2969.90
     4.86       0.0       0.0      10.87       1.45     10.43   2968.18    2965.10
 0.034663       0.049     0.130     0.060     0.140      0.01     -0.00    314.54
             2961.50       315.      315.      315.       15.        32.    362.18      117.


*SECNO 3.320
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.20 ELREA=     2969.70
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    3.32      1490.        0.      1366.       124.      2.04         2       49.
 2969.88   2969.88         0.       114.        48.      0.22        12  2963.90
    5.98       0.0       0.0      11.94      2.56      1.68   2971.92    2965.30
0.023096     0.049     0.130      0.060     0.140      0.17     -0.00    324.00
            2963.90       50.       60.       60.       10.        39.   373.00      117.

CCHV=   0.100 CEHV=   0.500
*SECNO 3.320

3265 DIVIDED FLOW

   BOWLENS CREEK                50 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    3.32      1490.        0.      1460.        30.      2.27        20       43.
 2971.01   2971.01         0.       120.        14.      0.23        16  2974.00
    7.11       0.0       0.0      12.20      2.13      0.02   2973.28    2973.50
0.019726     0.049     0.070      0.040     0.070      0.11     -0.00    324.34
            2963.90         1.        1.        1.       10.        51.   384.63      117.

*SECNO 3.320

*SECNO 3.320
*** GR CARDS REPEATED
3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

    3.32      1490.        0.      1286.       204.      1.20         6       69.
 2972.40       0.0         0.       137.        64.     -1.07         0  2974.00
    8.50       0.0       0.0       9.37      3.19      0.21   2973.60    2973.50
0.016029     0.049     0.070      0.040     0.070      0.11     -9.78    324.18
            2963.90        12.       12.       12.       10.        64.   397.90      117.

*SECNO 3.320
3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.70 ELREA=     2970.20
    3.32      1490.        0.      1184.       306.      0.55         3       80.
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2973.12	0.0	0.	179.	193.	-0.65	0	2963.90	
9.22	0.0	0.0	6.60	1.59	0.00	2973.67	2965.30	
0.002181	0.049	0.100	0.045	0.100	0.07	-0.00	324.00	
	2963.90	1.	1.	1.	10.	70.	404.35	117.

*SECNO 3.320

3.32	1490.	0.	1441.	49.	0.80	2	66.	
2973.05	0.0	0.	198.	42.	0.25	0	2974.90	
6.55	0.0	0.0	7.27	1.16	0.05	2973.85	2970.10	
0.007186	0.049	0.120	0.050	0.140	0.12	-0.00	312.36	
	2966.50	15.	15.	15.	18.	49.	378.56	117.

*SECNO 3.360

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV,	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.36	1480.	2.	1382.	96.	1.55	20	69.	
2978.58	2978.58	1.	134.	42.	0.75	19	2977.50	
4.88	0.0	1.12	10.31	2.30	1.82	2980.13	2976.20	
0.020720	0.049	0.120	0.050	0.120	0.38	-0.00	82.35	
	2973.70	160.	160.	160.	20.	49.	151.56	118.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3.36	1480.	9.	1287.	183.	0.63	2	86.	
2980.18	0.0	9.	190.	103.	-0.92	0	2977.50	
6.48	0.0	1.07	6.77	1.78	0.58	2980.80	2976.20	
0.005619	0.049	0.120	0.050	0.120	0.09	-0.00	78.44	
	2973.70	60.	60.	60.	24.	62.	164.59	118.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2978.91 ,NOT 2980.18
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.80	60.00	0.0

ELCHU	ELCHD
2973.70	2973.70

*SECNO 3.360

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2995.29	2982.22	0.0	1050.	434.	60.	60.	2977.40

ELTRD
2977.80

3.36	1480.	15.	1240.	224.	0.42	2	92.	
2981.06	0.0	16.	221.	144.	-0.21	0	2977.50	
7.36	0.0	0.97	5.61	1.55	0.67	2981.48	2976.20	
0.003155	0.049	0.120	0.050	0.120	0.0	-0.00	76.28	
	2973.70	12.	12.	12.	26.	66.	168.36	118.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.36	1480.	2.	1395.	84.	1.58	3	69.	
2980.59	2980.59	1.	134.	42.	1.16	14	2979.50	
4.89	0.0	1.05	10.38	1.99	0.10	2982.17	2978.20	
0.020942	0.049	0.130	0.050	0.140	0.58	-0.00	82.33	
	2975.70	15.	15.	15.	20.	49.	151.63	118.

*SECNO 3.480

BOWLENS CREEK			50 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH		WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.48	1445.	0.	1445.	0.	1.77	11	39.	
3002.60	3002.60	0.	135.	0.	0.19	8	3003.50	
5.20	0.0	0.0	10.68	0.0	14.06	3004.37	3007.40	

```
0.026476      0.049      0.130      0.050      0.140      0.10      -0.00      83.31
              2997.40     600.       600.       600.       22.        17.      122.32       121.


*SECNO 3.500

*** GR CARDS REPEATED
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS     CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      3.50       1435.        0.       1435.        0.       1.76        20        39.
   3022.59    3022.59         0.        135.        0.      -0.02         5   3023.50
      5.19       0.0         0.0       10.63        0.0      2.64   3024.35   3027.40
 0.026302       0.049       0.130      0.050       0.140      0.00      -0.00      83.32
              3017.40        100.       100.        100.       22.        17.      122.31       121.


*SECNO 3.540

*** GR CARDS REPEATED
    BOWLENS CREEK                    50 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS     CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      3.54       1425.        0.       1425.        0.       1.75        10        39.
   3033.57    3033.57         0.        134.        0.      -0.00         5   3034.50
      5.17       0.0         0.0       10.63        0.0      7.26   3035.32   3038.40
 0.026468       0.049       0.130      0.050       0.150      0.00      -0.00      83.36
              3028.40        275.       275.        275.       22.        17.      122.28       122.
```

J06

THIS RUN EXECUTED 10/03/81 8:55:21

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**************************************************

T1       YANCEY CO NC FEMA STUDY                                        2545
T2       100 YR FLOOD                                                   2550
T3       BOWLENS CREEK                                                  2555

J1  ICHECK      INQ     NINV     IDIR     STRT  METRIC    HVINS      Q      WSEL     FQ

         0.       4.       0.       0. 0.00592       0.     0.0       0.     0.0      0.0    2560

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH       FN    ALLDC     IBW   CHNIM ITRACE

         3.       0.     -1.       0.       0.     0.0      0.0      0.      0.       0.    2565
```

```
*PROF 3

CCHV=   0.100 CEHV=   0.500
*SECNO .080
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
    BOWLENS CREEK                100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

    0.08      2755.       24.      2731.        0.       1.19          0        54.
 2613.15       0.0        21.       311.        0.       0.50          0     2611.00
   10.15       0.0       1.16       8.78       0.0       0.0        2614.34    2615.90
0.005912       0.0       0.150     0.045      0.130      0.0         -0.00      43.63
            2603.00         0.        0.         0.        35.         19.      97.94          0.

*SECNO .080

*** GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2614.60 ELREA=     2615.60

    0.08      2755.        0.       2755.        0.       1.08          2        44.
 2613.60       0.0         0.        330.        0.      -0.11          0     2611.00
   10.60       0.0        0.0       8.35       0.0       0.33       2614.68    2615.90
0.005036       0.044     0.150     0.045      0.130      0.01        -0.00      55.00
            2603.00        60.       60.        60.       24.         20.      98.59          0.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
      1.25        1.60       3.00        0.0       31.00      0.50       336.00     0.0
    ELCHU      ELCHD
  2603.00    2603.00

*SECNO .080

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

     EGPRS      EGLWC        H3       QWEIR       QPR       BAREA      TAREA      ELLC
  2615.27    2614.73       0.07         1.       2760.       336.       336.    2614.00

    ELTRD
  2615.10

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2615.10 ELREA=     2616.10

    0.08      2755.        0.       2755.        0.       0.88          3        45.
 2614.39       0.0         0.        365.        0.      -0.20          0     2611.00
```

```
   11.39      0.0       0.0       7.55      0.0       0.59    2615.27    2615.90
0.003742      0.044     0.150     0.045     0.130     0.0       -0.00      55.00
           2603.00       72.       72.       72.       24.       21.      99.76        1.

CCHV=   0.100 CEHV=   0.800
*SECNO .080

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

     0.08     2755.        4.     2751.        0.      1.95         2        50.
  2614.28      0.0         4.      245.        0.      1.07         0   2613.70
     8.58      0.0       0.93     11.22       0.0      0.11   2616.23   2618.60
 0.018245      0.045     0.130     0.055     0.150     0.85      -0.00     45.54
           2605.70       15.       15.       15.       33.       17.      95.61        1.


CCHV=   0.100 CEHV=   0.500
*SECNO .250

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH         QROB      HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH         AROB      DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH         VROB      HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH        XNR       OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH        XLOBR     WSDL       WSDR       ENDST       VOL

     0.25     2715.        0.     2715.        0.      0.52         3        67.
  2621.59      0.0         0.      471.        0.     -1.43         0   2629.70
    11.19      0.0       0.0       5.76        0.0     5.73   2622.11   2634.20
 0.003668      0.053     0.160     0.055     0.160     0.14      -0.00     43.92
           2610.40       815.      815.      815.       33.       34.     110.63        8.

*SECNO .270

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH         QROB      HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH         AROB      DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH         VROB      HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH        XNR       OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH        XLOBR     WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.27     2715.        0.     2715.        0.      2.27        20        51.
  2627.94   2627.94         0.      225.        0.      1.75        14   2629.80
     7.04      0.0         0.0      12.08       0.0     0.80   2630.21   2628.00
 0.029227      0.054     0.160     0.055     0.160     0.88      -0.00     54.16
           2620.90       100.      100.      100.       23.       27.     104.83        9.


*SECNO .400
```

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.40	2685.	0.	2685.	0.	1.61	5	53.	
2643.19	0.0	0.	264.	0.	-0.66	0	2644.30	
7.79	0.0	0.0	10.18	0.53	14.53	2644.80	2642.50	
0.017601	0.054	0.160	0.055	0.160	0.07	-0.00	52.47	
	2635.40	650.	650.	650.	25.	28.	105.96	12.

*SECNO .640

3301 HV CHANGED MORE THAN HVINS

0.64	2635.	72.	2269.	294.	0.86	6	122.	
2656.50	0.0	46.	285.	160.	-0.75	0	2652.00	
8.00	0.0	1.56	7.97	1.84	12.49	2657.36	2650.80	
0.006910	0.054	0.140	0.055	0.150	0.08	-0.00	51.89	
	2648.50	1190.	1190.	1190.	44.	78.	173.84	23.

*SECNO .640

0.64	2635.	97.	2157.	381.	0.64	2	128.	
2657.02	0.0	58.	306.	190.	-0.22	0	2652.00	
8.52	0.0	1.66	7.05	2.00	0.28	2657.66	2650.80	
0.003277	0.054	0.100	0.045	0.100	0.02	-0.00	50.70	
	2648.50	60.	60.	60.	45.	83.	179.09	23.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2655.46 ,NOT 2657.02
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	21.00	0.50	113.00	0.0

ELCHU	ELCHD
2648.50	2648.50

*SECNO .640

*** GR CARDS REPEATED

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2670.53	2658.54	0.0	1761.	875.	113.	113.	2654.00

ELTRD
2654.00

```
      0.64      2635.       129.      2057.       450.      0.43         2      144.
   2658.08       0.0        85.       351.       263.     -0.22         0   2652.00
      9.58       0.0       1.50       5.86       1.71      0.85   2658.51   2650.80
  0.001890     0.054      0.100      0.045      0.100       0.0     -0.00     48.22
                2648.50       12.        12.        12.       48.        96.    191.73        24.

*SECNO .640
      0.64      2635.       113.      2065.       457.      0.53         2      143.
   2658.06       0.0        85.       315.       261.      0.11         0   2652.00
      8.67       0.0       1.33       6.56       1.75      0.04   2658.60   2650.80
  0.003353     0.054      0.150      0.050      0.130      0.05     -0.00     48.26
                2649.40       15.        15.        15.       48.        95.    191.46        24.

*SECNO .810

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST        VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      0.81      2595.       341.      1853.       400.      2.08        20       89.
   2666.98   2666.98        105.       137.        98.      1.54        15   2664.60
      7.48       0.0       3.23      13.48       4.08      6.14   2669.06   2661.20
  0.020353     0.053      0.130      0.050      0.130      0.77     -0.00    113.98
                2659.50       910.       910.       910.       50.        39.    202.73        34.


*SECNO .820

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

      0.82      2595.       463.      1686.       445.      0.91         3      101.
   2668.92       0.0       181.       182.       160.     -1.17         0   2664.60
      9.42       0.0       2.57       9.27       2.79      0.64   2669.82   2661.20
  0.006625     0.053      0.130      0.050      0.130      0.12     -0.00    112.34
                2659.50       60.        60.        60.       51.        50.    213.48        35.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
      1.25       1.60       3.00        0.0       21.00      0.10        90.00      0.0
    ELCHU      ELCHD
   2660.00    2660.00

*SECNO .820
```

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	EI.C
2689.57	2669.84	0.02	1915.	681.	90.	90.	2664.30

ELTRD
2665.70

0.82	2595.	493.	1635.	467.	0.70	3	108.
2669.64	0.0	210.	199.	190.	-0.21	0	2664.60
10.14	0.0	2.35	8.23	2.45	0.52	2670.34	2661.20
0.004642	0.053	0.130	0.050	0.130	0.0	-0.00	111.73
	2659.50	12.	12.	12.	52.	57.	220.09

35.

*SECNO .820

*** GR CARDS REPEATED

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.82	2595.	404.	1714.	478.	0.79	2	109.	
2669.66	0.0	210.	199.	191.	0.09	0	2664.60	
10.16	0.0	1.92	8.61	2.50	0.07	2670.45	2661.20	
0.004096	0.053	0.150	0.045	0.120	0.04	-0.00	111.71	
	2659.50	15.	15.	15.	52.	57.	220.27	35.

*SECNO .940

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.94	2570.	236.	2201.	133.	1.46	5	198.
2674.20	2674.20	156.	211.	63.	0.67	14	2672.30
6.40	0.0	1.51	10.45	2.11	4.16	2675.66	2671.70
0.015452	0.053	0.150	0.050	0.150	0.34	-0.00	367.56
	2667.80	585.	585.	585.	147.	51.	565.81

42.

*SECNO .950

*** GR CARDS REPEATED

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV

DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.95	2570.	239.	2198.	133.	1.44	20	198.
2677.22	2677.22	158.	211.	63.	-0.02	5	2675.30
6.42	0.0	1.51	10.40	2.11	0.61	2678.66	2674.70
0.015254	0.053	0.150	0.050	0.150	0.00	-0.00	367.49
	2670.80	40.	40.	40.	147.	51.	565.88 42.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	25.00	0.01	75.00	0.0

ELCHU	ELCHD
2671.70	2671.70

*SECNO .950

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2678.66 HIGHER THAN COMPUTED ENERGY OF 2678.37
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2706.39	2678.66	0.00	2060.	512.	75.	75.	2674.70

ELTRD
2675.20

0.95	2570.	262.	2171.	137.	1.33	5	199.
2677.33	0.0	173.	216.	67.	-0.12	0	2675.30
6.53	0.0	1.51	10.03	2.05	0.0	2678.66	2674.70
0.013740	0.053	0.150	0.050	0.150	0.0	-0.00	366.91
	2670.80	12.	12.	12.	148.	52.	566.40 43.

*SECNO .950

*** GR CARDS REPEATED

0.95	2570.	305.	2107.	157.	1.04	4	203.
2677.75	0.0	226.	234.	80.	-0.29	0	2675.30
6.95	0.0	1.35	8.99	1.97	0.10	2678.79	2674.70
0.008035	0.053	0.150	0.045	0.130	0.03	-0.00	364.90
	2670.80	10.	10.	10.	150.	54.	568.23 43.

*SECNO 1.100

*** GR CARDS REPEATED
BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA

	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.10	2540.	206.	2198.	136.	1.49	9	198.	
2690.37	2690.37	152.	209.	62.	0.45	11	2688.50	
6.37	0.0	1.36	10.51	2.20	7.89	2691.86	2687.90	
0.012769	0.051	0.150	0.045	0.130	0.23	-0.00	367.72	
	2684.00	790.	790.	790.	147.	51.	565.67	51.

*SECNO 1.240

3301 HV CHANGED MORE THAN HVINS

1.24	2510.	59.	2215.	236.	0.93	4	247.	
2697.72	0.0	33.	269.	210.	-0.56	0	2695.30	
6.72	0.0	1.78	8.23	1.13	6.74	2698.65	2695.40	
0.006798	0.051	0.110	0.045	0.120	0.06	-0.00	363.45	
	2691.00	740.	740.	740.	42.	205.	610.81	59.

*SECNO 1.560

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.56	2440.	0.	2319.	121.	1.80	14	140.	
2724.48	2724.48	0.	210.	94.	0.87	12	2725.60	
7.98	0.0	0.0	11.05	1.29	15.64	2726.28	2723.60	
0.013101	0.049	0.130	0.045	0.130	0.44	-0.00	307.96	
	2716.50	1710.	1710.	1710.	18.	143.	468.57	75.

*SECNO 1.570

*** GR CARDS REPEATED

3265 DIVIDED FLOW

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.10 ELREA= 2724.00

1.57	2440.	0.	2318.	122.	1.80	2	140.	
2725.48	2725.48	0.	210.	95.	-0.01	5	2726.60	
7.98	0.0	0.0	11.03	1.29	0.78	2727.28	2724.60	
0.013036	0.049	0.130	0.045	0.130	0.00	-0.00	307.95	
	2717.50	60.	60.	60.	18.	143.	468.58	76.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	30.00	0.40	160.00	0.0

ELCHU	ELCHD
2717.70	2717.70

*SECNO 1.570

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2727.28 HIGHER THAN COMPUTED ENERGY OF 2726.90

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2731.26	2727.46	0.18	1236.	1209.	160.	160.	2723.10

ELTRD
2724.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.60 ELREA= 2724.50

1.57	2440.	0.	2294.	146.	1.66	5	145.	
2725.62	0.0	0.	215.	110.	-0.14	0	2726.60	
8.12	0.0	0.0	10.65	1.33	0.0	2727.28	2724.60	
0.011852	0.049	0.130	0.045	0.130	0.0	-0.00	307.70	
	2717.50	12.	12.	12.	18.	143.	468.75	76.

*SECNO 1.570

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTH	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.57	2440.	0.	2159.	281.	1.07	4	163.	
2726.40	0.0	0.	245.	200.	-0.58	0	2726.60	
8.90	0.0	0.0	8.83	1.40	0.14	2727.48	2724.60	

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 0.007224      0.049      0.130      0.045      0.130      0.06      -0.00     306.36
               2717.50     15.        15.        15.       19.       144.      469.67        76.

CCHV=   0.100 CEHV=   0.800
*SECNO 1.600

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.60      2430.        0.      2293.      137.       1.73         2       141.
  2727.72   2727.72         0.       211.       98.       0.65        12      2728.80
     8.02      0.0         0.0      10.85      1.40       1.17     2729.44    2726.80
 0.022321      0.049       0.160     0.060     0.160      0.52       -0.00     307.90
               2719.70     100.       100.      100.       18.       143.      468.62        77.

*SECNO 1.660

3301 HV CHANGED MORE THAN HVINS

     1.66      2420.      428.      1992.        0.       0.95         2       236.
  2732.23      0.0        282.       232.        0.      -0.78         0      2730.20
     6.53      0.0        1.52       8.57       0.0       3.65     2733.18    2732.60
 0.011434      0.049      0.150      0.050     0.150      0.08       -0.00     442.91
               2725.70    235.       235.      235.       212.       25.       679.40        79.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.660
     1.66      2420.      592.      1827.        0.       0.55         2       269.
  2732.95      0.0        425.       269.        2.      -0.40         0      2730.20
     7.25      0.0        1.39       6.79       0.25      0.29     2733.50    2732.60
 0.004866      0.049      0.130      0.045     0.130      0.04       -0.00     420.79
               2725.70    40.        40.       40.        234.       35.       689.79        80.

*SECNO 1.660

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

     1.66      2420.      1789.      607.       24.       0.23         2       292.
  2733.31      0.0        492.       137.       17.      -0.32         0      2733.10
     7.71      0.0        3.63       4.43       1.43      0.01     2733.54    2733.20
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0.008858      0.049      0.070      0.040      0.070       0.03     -50.40     410.11
              2725.60         1.         1.         1.       244.        72.     726.00        80.

*SECNO 1.660

*** GR CARDS REPEATED

3265 DIVIDED FLOW

    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

     1.66       2420.      1805.       585.        31.       0.20          2       302.
  2733.44        0.0        524.       141.        22.      -0.03          0      2733.10
     7.84        0.0        3.44       4.15       1.39       0.10    2733.64      2733.20
 0.007514      0.049      0.070      0.040      0.070       0.00     -50.40     405.93
              2725.60         12.        12.        12.       248.        73.     726.68        80.

*SECNO 1.660

3265 DIVIDED FLOW

     1.66       2420.       657.       1759.        4.       0.43          2       294.
  2733.33        0.0        505.       288.        8.       0.22          0      2730.20
     7.63        0.0        1.30       6.10       0.55       0.01    2733.76      2732.60
 0.003582      0.049      0.130      0.045      0.080       0.11     -0.00     409.23
              2725.70         1.         1.         1.       245.        72.     726.15        80.

*SECNO 1.660

3265 DIVIDED FLOW

     1.66       2420.       647.       1770.        4.       0.43          1       298.
  2733.37        0.0        516.       291.        9.      -0.00          0      2730.20
     7.67        0.0        1.25       6.09       0.42       0.04    2733.80      2732.60
 0.004351      0.049      0.150      0.050      0.120       0.00     -0.00     407.76
              2725.70         10.        10.        10.       247.        72.     726.39        80.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.760

3265 DIVIDED FLOW

    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL
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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.76	2395.	1179.	1216.	0.	0.83	11	337.	
2738.64	2738.64	424.	123.	0.	0.41	14	2742.00	
4.64	0.0	2.78	9.91	0.0	4.80	2739.47	2741.10	
0.033025	0.050	0.150	0.055	0.120	0.32	-0.00	221.45	
	2734.00	515.	515.	515.	553.	24.	798.99	88.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.77	2395.	1406.	989.	0.	0.23	2	589.	
2739.75	0.0	922.	173.	0.	-0.60	0	2742.00	
5.75	0.0	1.52	5.73	0.0	0.46	2739.99	2741.10	
0.005729	0.050	0.130	0.045	0.120	0.06	-0.00	150.60	
	2734.00	40.	40.	40.	624.	27.	801.27	89.

*SECNO 1.770

3265 DIVIDED FLOW

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

1.77	2395.	1667.	728.	0.	0.21	0	561.	
2739.78	0.0	953.	118.	0.	-0.02	0	2744.10	
5.68	0.0	1.75	6.17	0.0	0.01	2739.99	2744.20	
0.007326	0.050	0.130	0.045	0.120	0.00	-0.00	149.41	
	2734.10	1.	1.	1.	629.	13.	791.00	89.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

1.77	2395.	1693.	702.	0.	0.18	2	571.	
2739.89	0.0	1019.	121.	0.	-0.03	0	2744.10	
5.79	0.0	1.66	5.80	0.0	0.08	2740.08	2744.20	
0.006351	0.050	0.130	0.045	0.120	0.00	-0.00	141.65	

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          2734.10      12.       12.       12.      636.       13.    791.00      89.

*SECNO 1.770

3265 DIVIDED FLOW

     1.77     2395.     1442.      953.       0.      0.19        0      605.
  2739.90      0.0      1013.      180.       0.      0.01        0   2742.00
     5.90      0.0       1.42      5.31      0.0      0.01  2740.09   2741.10
 0.004767     0.050     0.130     0.045     0.120     0.01    -0.00    141.26
          2734.00         1.        1.        1.      633.       27.    801.56      89.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

     1.77     2395.     1666.      729.       0.      0.10        2      615.
  2740.04      0.0      1089.      186.       0.     -0.10        0   2742.00
     6.04      0.0       1.53      3.91      0.0      0.03  2740.13   2741.10
 0.002524     0.050     0.090     0.045     0.080     0.01    -0.00    134.68
          2734.00        10.       10.       10.      640.       27.    801.84      90.

CCHV=   0.100 CEHV=   0.800
*SECNO 1.790

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.79     2390.     1016.     1374.       0.      0.78       20      351.
  2741.23  2741.23      474.      150.       0.      0.68        8   2743.60
     6.73      0.0       2.14      9.13      0.0      0.44  2742.00   2743.50
 0.015680     0.050     0.120     0.050     0.100     0.54    -0.00    334.12
          2734.50        85.       85.       85.      356.       19.    709.89      91.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW
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3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

     1.79      2390.      1350.       1040.         0.        0.23           3        580.
  2742.16        0.0       914.        185.         0.       -0.54           0     2743.60
     7.66        0.0       1.48        5.61        0.0        0.33     2742.39     2743.50
 0.005120      0.050      0.120       0.050       0.100        0.05       -0.00      115.83
             2734.50        40.         40.         40.         575.         21.     711.16       92.


*SECNO 1.790

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

     1.79      2390.      1928.        462.         0.        0.14           2        557.
  2742.27        0.0       884.         91.         0.       -0.10           0     2743.80
     8.77        0.0       2.18        5.06        0.0        0.01     2742.40     2742.90
 0.011936      0.050      0.120       0.050       0.100        0.01       -4.62      112.99
             2733.50         1.          1.          1.         583.          7.     703.00       92.


*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

     1.79      2390.      1979.        411.         0.        0.11           2        563.
  2742.43        0.0       970.         91.         0.       -0.03           0     2743.80
     8.93        0.0       2.04        4.50        0.0        0.13     2742.54     2742.90
 0.009721      0.050      0.120       0.050       0.100        0.00       -6.63      109.11
             2733.50        12.         12.         12.         587.          7.     703.00       92.


*SECNO 1.790

3265 DIVIDED FLOW

     1.79      2390.      1427.        963.         0.        0.17           1        590.
  2742.42        0.0       1064.       196.         0.        0.06           0     2743.60
     7.92        0.0       1.34        4.90        0.0        0.01     2742.59     2743.50
 0.003759      0.050      0.120       0.050       0.100        0.05       -0.00      109.02
             2734.50         1.          1.          1.         581.         21.     711.53       93.


CCHV=   0.100 CEHV=   0.500
*SECNO 1.790
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3265 DIVIDED FLOW

     1.79      2390.      1475.       915.         0.      0.21         2       591.
  2742.44       0.0       1069.       162.         0.      0.04         0   2743.60
     5.64       0.0        1.38       5.63       0.0       0.04   2742.65   2743.50
 0.003959     0.050       0.120      0.040     0.100       0.02     -0.00    108.78
             2736.80         10.        10.        10.       582.       21.    711.63       93.


*SECNO 1.870

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.87      2360.         0.      2360.         0.      1.91        20        56.
  2747.72   2747.72          0.       213.         0.      1.70         5   2749.50
     5.72       0.0         0.0      11.08       0.0       2.98   2749.62   2748.90
 0.015919     0.049       0.120      0.045     0.080       0.85     -0.00    535.71
             2742.00         395.       395.       395.       28.       28.    591.80       99.


*SECNO 1.880
    BOWLENS CREEK                    100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS       CORAR       SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.88      2360.         0.      2007.       353.      2.04        20        57.
  2750.48   2750.48          0.       164.        64.      0.14         8   2752.00
     5.98       0.0         0.0      12.22       5.55      1.55   2752.52   2746.50
 0.018955     0.049       0.120      0.045     0.080       0.07     -0.00    535.17
             2744.50          80.        80.        80.       16.       41.    592.51       100.


SPECIAL BRIDGE

SB     HK          XKOR        COFQ       RDLEN       BWC         BWP       BAREA       SS
      1.25         1.60        3.00         0.0       24.00       0.40      118.00      0.0
    ELCHU       ELCHD
  2744.90     2744.90

*SECNO 1.880

*** GR CARDS REPEATED
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3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2760.42	2752.56	0.37	1258.	1123.	118.	118.	2749.90

ELTRD
2751.00

1.88	2360.	0.	1967.	393.	1.34	3	65.	
2751.39	0.0	0.	198.	85.	-0.70	0	2752.00	
6.89	0.0	0.0	9.96	4.63	0.21	2752.73	2746.50	
0.010595	0.049	0.120	0.045	0.080	0.0	-0.00	533.28	
	2744.50	12.	12.	12.	18.	87.	638.39	100.

*SECNO 1.880

3301 HV CHANGED MORE THAN HVINS

1.88	2360.	22.	2284.	54.	0.70	6	518.	
2752.23	2750.22	70.	334.	66.	-0.64	12	2752.00	
7.73	0.0	0.32	6.83	0.81	0.14	2752.93	2751.40	
0.004884	0.049	0.120	0.045	0.080	0.06	-0.00	215.86	
	2744.50	20.	20.	20.	348.	171.	734.15	100.

*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.00	2315.	6.	2308.	1.	2.00	4	58.	
2759.48	2759.48	4.	203.	1.	1.29	15	2757.70	
6.18	0.0	1.54	11.35	1.00	6.09	2761.47	2759.00	
0.020011	0.049	0.120	0.045	0.080	0.65	-0.00	82.56	
	2753.30	700.	700.	700.	30.	28.	140.55	105.

*SECNO 2.120

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID,	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.12	2270.	6.	2264.	0.	1.97	5	58.	
2773.62	2773.62	4.	201.	0.	-0.02	5	2771.90	
6.12	0.0	1.52	11.29	0.93	13.05	2775.59	2773.20	
0.020149	0.049	0.120	0.045	0.080	0.00	-0.00	82.70	
	2767.50	650.	650.	650.	30.	28.	140.25	109.

*SECNO 2.130

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.13	2270.	6.	2264.	0.	1.96	0	58.	
2774.94	2774.94	4.	201.	1.	-0.02	5	2773.20	
6.14	0.0	1.51	11.24	0.94	1.20	2776.90	2774.50	
0.019885	0.049	0.120	0.045	0.080	0.00	-0.00	82.66	
	2768.80	60.	60.	60.	30.	28.	140.34	109.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.10	160.00	0.0

ELCHU	ELCHD
2768.80	2768.80

*SECNO 2.130

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2779.94	2776.90	0.08	377.	1882.	160.	160.	2775.50

ELTRD
2776.40

2.13	2270.	30.	2200.	41.	0.61	2	80.	
2777.77	0.0	26.	346.	29.	-1.35	0	2773.20	
8.97	0.0	1.14	6.36	1.42	1.48	2778.38	2774.50	
0.003088	0.049	0.120	0.045	0.080	0.0	-0.00	75.56	
	2768.80	12.	12.	12.	37.	43.	155.50	109.

*SECNO 2.130

3301 HV CHANGED MORE THAN HVINS

```
    2.13      2270.        7.      2261.        2.      1.59         3       61.
 2777.36       0.0         6.       223.        2.      0.98         0  2775.20
    6.56       0.0        1.18     10.14       1.00     0.09   2778.95   2776.50
0.014107       0.049      0.150     0.045      0.100    0.49     -0.00     81.59
           2770.80         15.       15.        15.      31.       30.    142.61      109.


CCHV=   0.100 CEHV=   0.800
*SECNO 2.200

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                 100 YR FLOOD          10/03/81
  MILE       Q          QLOB      QCH        QROB      HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB      ACH        AROB      DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB      VCH        VROB      HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL       XNCH       XNR       OLOSS      CORAR      SSTA
             ELMIN      XLOBL     XLCH       XLOBR     WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.20      2240.        0.      2240.        0.      2.26        12       41.
 2786.06   2786.06         0.       186.        0.      0.67         8  2788.10
    6.36       0.0        0.0     12.07        0.0     6.72   2788.32   2787.80
0.024384       0.049      0.150     0.050      0.150    0.54     -0.00    321.14
           2779.70         370.      370.       370.     20.       21.    362.25      111.


*SECNO 2.240
   BOWLENS CREEK                 100 YR FLOOD          10/03/81
  MILE       Q          QLOB      QCH        QROB      HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB      ACH        AROB      DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB      VCH        VROB      HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL       XNCH       XNR       OLOSS      CORAR      SSTA
             ELMIN      XLOBL     XLCH       XLOBR     WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.24      2225.        0.      2225.        0.      2.28         2       41.
 2792.15   2792.15         0.       183.        0.      0.02         5  2794.00
    6.25       0.0        0.0     12.13        0.0     5.10   2794.44   2794.00
0.020225       0.049      0.110     0.045      0.080    0.02     -0.00    320.98
           2785.90         230.      230.       230.     21.       21.    362.14      112.


CCHV=   0.100 CEHV=   0.500
*SECNO 2.250

*** GR CARDS REPEATED
   BOWLENS CREEK                 100 YR FLOOD          10/03/81
  MILE       Q          QLOB      QCH        QROB      HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB      ACH        AROB      DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB      VCH        VROB      HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL       XNCH       XNR       OLOSS      CORAR      SSTA
             ELMIN      XLOBL     XLCH       XLOBR     WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2795.00 ELREA=     2795.00
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2.25	2225.	0.	2225.	0.	2.26	2	41.	
2793.18	2793.18	0.	185.	0.	-0.03	5	2795.00	
6.28	0.0	0.0	12.06	0.0	0.80	2795.44	2795.00	
0.019884	0.049	0.110	0.045	0.080	0.00	-0.00	320.93	
	2786.90	40.	40.	40.	21.	21.	362.18	112.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.30	135.00	0.0

ELCHU	ELCHD
2786.90	2786.90

*SECNO 2.250

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2799.93	2795.48	0.42	605.	1636.	135.	135.	2795.00

ELTRD
2795.30

2.25	2225.	253.	1871.	101.	0.42	3	434.	
2796.41	0.0	294.	331.	120.	-1.84	0	2795.00	
9.51	0.0	0.86	5.65	0.84	1.39	2796.83	2795.00	
0.002419	0.049	0.110	0.045	0.080	0.0	-0.00	115.49	
	2786.90	12.	12.	12.	226.	208.	549.07	112.

*SECNO 2.250

3301 HV CHANGED MORE THAN HVINS

2.25	2225.	0.	2225.	0.	1.50	3	44.	
2795.92	0.0	0.	227.	0.	1.08	0	2797.00	
7.32	0.0	0.0	9.82	0.0	0.04	2797.42	2796.70	
0.011105	0.049	0.130	0.045	0.080	0.54	-0.00	319.66	
	2788.60	10.	10.	10.	22.	22.	363.77	112.

*SECNO 2.440

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.44      2150.         0.      2150.         0.      2.29        13       39.
  2815.07   2815.07          0.       177.         0.      0.80        11  2824.00
     6.57       0.0         0.0      12.15        0.0     14.15   2817.36  2821.10
 0.020245     0.048       0.100      0.045      0.080      0.40     -0.00   174.79
          2808.50          970.       970.       970.       15.        24.   214.05      117.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH          QROB        HV         ITRIAL     TOPWID
   ELEV      CRIWS        ALOB        ACH          AROB        DHV        IDC        BANK ELEV
   DEPTH     WSELK        VLOB        VCH          VROB        HL         EG      LEFT/RIGHT
   SLOPE     WTN          XNL         XNCH         XNR         OLOSS      CORAR      SSTA
             ELMIN        XLOBL       XLCH         XLOBR       WSDL       WSDR       ENDST       VOL

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.00 ELREA=     2821.70

     2.45      2150.         0.      2150.         0.      1.47         3       43.
  2816.85       0.0          0.       221.         0.     -0.82         0  2824.70
     7.65       0.0         0.0       9.74        0.0      0.87   2818.32  2821.80
 0.010926     0.048       0.100      0.045      0.080      0.08     -0.00   172.78
          2809.20           60.        60.        60.        17.        25.   215.46      117.

SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN       BWC        BWP      BAREA       SS
      1.25       1.60       3.00        0.0       31.00      0.50     345.00      0.0
    ELCHU      ELCHD
  2809.20    2809.20

*SECNO 2.450

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=    2816.78 BRIDGE VELOCITY=,       9.30
     CALCULATED CHANNEL AREA=,      231.
    EGPRS       EGLWC         M3       QWEIR        QPR       BAREA      TAREA       ELLC
      0.0    2818.38         0.15          0.     2150.        345.       345.    2820.50

    ELTRD
  2822.20


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.50 ELREA=     2822.20

     2.45      2150.         0.      2150.         0.      1.39         0       43.
  2817.00       0.0          0.       227.         0.     -0.09         0  2824.70
     7.80       0.0         0.0       9.45        0.0      0.07   2818.38  2821.80
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0.010056      0.048      0.100      0.045      0.080       0.0       -0.00     172.48
              2809.20      12.        12.        12.        18.        26.     215.67       117.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS      CORAR      SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.45       2150.         0.       2150.         0.        2.29         20        39.
  2817.18    2817.18          0.        177.         0.        0.90         15      2826.10
     6.58        0.0         0.0       12.14        0.0       0.23       2819.46     2823.20
 0.024922        0.048       0.130      0.050       0.100      0.45         -0.00     174.78
              2810.60         15.        15.         15.        15.          24.     214.06       117.


*SECNO 2.580

*** GR CARDS REPEATED
    BOWLENS CREEK                    100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS      CORAR      SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.58       2100.         0.       2100.         0.        2.28         14        39.
  2852.48    2852.48          0.        173.         0.       -0.01          5      2861.50
     6.48        0.0         0.0       12.12        0.0       15.81      2854.76     2858.60
 0.025267        0.048       0.150      0.050       0.150      0.00         -0.00     174.96
              2846.00         630.       630.        630.       15.          24.     213.93       120.


*SECNO 2.660

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    100 YR FLOOD          10/03/81
   MILE        Q          QLOB        QCH         QROB        HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB        ACH         AROB        DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB        VCH         VROB        HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH        XNR         OLOSS      CORAR      SSTA
               ELMIN      XLOBL       XLCH        XLOBR       WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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2.66	2070.	115.	1684.	270.	1.31	20	158.	
2871.07	2871.07	54.	166.	128.	-0.97	8	2867.20	
6.87	0.0	2.14	10.13	2.11	4.58	2872.38	2869.00	
0.009636	0.048	0.130	0.045	0.080	0.10	-0.00	83.75	
	2864.20	310.	310.	310.	36.	121.	241.27	121.

*SECNO 2.670

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2873.60 ELREA= 2870.60

2.67	2070.	0.	1493.	577.	1.49	20	134.	
2872.94	2872.94	0.	131.	214.	0.19	11	2866.20	
7.44	0.0	0.0	11.43	2.70	0.55	2874.43	2866.10	
0.008581	0.048	0.130	0.045	0.080	0.09	-0.00	111.00	
	2865.50	60.	60.	60.	9.	125.	244.77	122.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2872.40 ,NOT 2872.94
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	16.00	0.60	100.00	0.0

ELCHU	ELCHD
2865.50	2865.50

*SECNO 2.670

*** GR CARDS REPEATED
PRESS FLOW BECAUSE EGLWC OF 2877.00 EXCEEDS 1.5 DEPTH
6870 D.S. ENERGY OF 2874.43 HIGHER THAN COMPUTED ENERGY OF 2874.07
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2883.58	2877.00	0.0	1398.	674.	100.	100.	2872.00

ELTRD
2871.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2874.00 ELREA= 2871.10

2.67	2070.	0.	1436.	634.	1.26	6	135.	
2873.18	0.0	0.	135.	241.	-0.24	0	2866.20	
7.68	0.0	0.0	10.65	2.63	0.0	2874.43	2866.10	
0.007150	0.048	0.130	0.045	0.080	0.0	-0.00	111.00	

2865.50	12.	12.	12.	9.	126.	246.19	122.

*SECNO 2.670

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

2.67	2070.	219.	1118.	733.	0.49	4	173.
2874.09	0.0	130.	151.	351.	-0.77	0	2866.20
8.59	0.0	1.69	7.39	2.09	0.07	2874.58	2866.10
0.002948	0.048	0.130	0.045	0.080	0.08	-0.00	78.93
	2865.50	15.	15.	15.	41.	132.	251.83	122.

*SECNO 2.800

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.80	2020.	180.	1392.	447.	1.34	20	160.	
2886.16	2886.16	87.	126.	182.	0.86	9	2879.70	
7.16	0.0	2.08	11.08	2.46	3.16	2887.50	2879.60	
0.008507	0.048	0.150	0.045	0.080	0.43	-0.00	82.94	
	2879.00	680.	680.	680.	37.	123.	243.05	130.

*SECNO 2.940

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.94	1965.	0.	1965.	0.	2.34	15	35.	
2900.05	2900.05	0.	160.	0.	1.00	11	2900.80	
6.75	0.0	0.0	12.29	0.0	9.80	2902.40	2903.80	
0.025691	0.048	0.150	0.050	0.130	0.50	0.0	374.70	
	2893.30	720.	720.	720.	21.	14.	409.37	135.

*SECNO 2.950

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*** GR CARDS REPEATED
    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.95      1965.         0.      1965.         0.       2.33         20        35.
  2902.07   2902.07          0.       160.         0.      -0.01          5   2902.80
     6.77       0.0         0.0     12.25         0.0       1.02    2904.40   2905.80
 0.025503     0.048       0.150     0.050       0.130       0.00      -0.00    374.69
              2895.30        40.       40.         40.        21.         14.   409.40      135.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN      BWC        BWP       BAREA       SS
     1.25         1.60       3.00        0.0     27.00       0.01      170.00      0.0
   ELCHU      ELCHD
  2895.30    2895.30

*SECNO 2.950

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC          H3      QWEIR       QPR       BAREA      TAREA       ELLC
  2905.39    2904.40        0.01       133.      1830.       170.       170.    2901.60

    ELTRD
  2903.30


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2904.20 ELREA=     2903.30

     2.95      1965.         0.      1965.         0.       1.22          3        39.
  2903.73       0.0          0.       222.         0.      -1.11          0   2902.80
     8.43       0.0         0.0      8.86         0.0      0.55    2904.95   2905.80
 0.010094     0.048       0.150     0.050       0.130       0.0      -0.00    374.00
              2895.30        22.       22.         22.        22.         17.   412.79      135.


*SECNO 2.950

*** GR CARDS REPEATED
     2.95      1965.         6.      1959.         0.       1.14          0        55.
  2903.91       0.0          9.       229.         0.      -0.08          0   2902.80
     8.61       0.0        0.64       8.57         0.0       0.10    2905.05   2905.80
 0.009190     0.048       0.150     0.050       0.130       0.01      -0.00    358.30
              2895.30        10.       10.         10.        37.         18.   413.14      135.
```

*SECNO 2.960

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.96	1965.	67.	1898.	0.	1.81	20	74.	
2905.07	2905.07	37.	173.	0.	0.68	14	2902.80	
5.57	0.0	1.82	10.99	0.0	0.67	2906.88	2905.80	
0.021502	0.048	0.130	0.050	0.150	0.34	-0.00	341.76	
	2899.50	50.	50.	50.	54.	20.	415.52	135.

*SECNO 3.060

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.06	1920.	0.	1920.	0.	2.58	15	33.	
2921.79	2921.79	0.	149.	0.	0.77	11	2921.60	
6.59	0.0	0.64	12.89	0.0	12.42	2924.36	2924.70	
0.027903	0.048	0.080	0.050	0.130	0.38	-0.00	305.15	
	2915.20	510.	510.	510.	18.	14.	337.97	137.

*SECNO 3.070

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.07	1920.	23.	1897.	0.	2.58	2	34.	
2923.91	2923.91	7.	146.	0.	0.00	9	2921.00	
6.71	0.0	3.33	12.97	0.0	1.55	2926.49	2926.70	
0.024056	0.048	0.080	0.050	0.130	0.00	-0.00	303.94	
	2917.20	60.	60.	60.	23.	12.	338.05	138.

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SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2922.34 ,NOT   2923.91
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS
     1.25        1.60      3.00        0.0     23.00      0.90     183.00     0.0
   ELCHU     ELCHD
 2917.20   2917.20

*SECNO 3.070

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2926.49 HIGHER THAN COMPUTED ENERGY OF 2926.47
PRESSURE AND WEIR FLOW

    EGPRS     EGLWC        H3     QWEIR       QPR     BAREA     TAREA      ELLC
  2926.64   2926.57       0.0        41.     1860.     183.      183.   2925.50

    ELTRD
  2925.60

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

     3.07      1920.       28.      1892.        0.      2.35         5       37.
  2924.14       0.0         9.       153.        0.     -0.23         0  2921.00
     6.94       0.0       3.19      12.39       0.0       0.0   2926.49  2926.70
 0.020984     0.048      0.080      0.050     0.130       0.0     -0.00   301.57
             2917.20        12.        12.        12.        25.        12.   338.22      138.

*SECNO 3.070
    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.07      1920.        0.      1920.        0.      2.47        20       34.
  2925.89   2925.89         0.       152.        0.      0.12        11  2925.60
     6.69       0.0       0.82      12.63       0.0      0.35   2928.36  2928.70
 0.026173     0.048      0.080      0.050     0.130      0.06     -0.00   304.15
             2919.20        15.        15.        15.        19.        15.   338.04      138.

CCHV=   0.100 CEHV=   0.800
*SECNO 3.210

3301 HV CHANGED MORE THAN HVINS

     3.21      1865.        1.      1864.        0.      1.01         5       41.
  2938.12       0.0         1.       232.        0.     -1.47         0  2936.90
     7.92       0.0       0.90       8.05       0.0     10.62   2939.13  2941.40
 0.009553     0.049      0.100      0.055     0.160      0.15     -0.00   198.36
             2930.20       710.       710.       710.        23.        18.   239.12      141.
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*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2943.70 ELREA=     2945.00

     3.22      1865.         0.      1865.         0.      1.53         2      38.
  2938.79       0.0          0.       188.         0.      0.52         0   2938.70
     6.79       0.0         0.0       9.92        0.0      0.77   2940.32   2943.20
 0.018324       0.049       0.100     0.055       0.160    0.42     -0.00    200.00
              2932.00        60.       60.         60.      21.        17.    238.12      141.

SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
      1.25       1.60       3.00        0.0       29.00      0.30       330.00     0.0
    ELCHU      ELCHD
  2932.00    2932.00

CCHV=   0.100 CEHV=   0.500
*SECNO 3.220

*** GR CARDS REPEATED
    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.=   2938.73 BRIDGE VELOCITY=,      9.65
     CALCULATED CHANNEL AREA=,       193.
     EGPRS      EGLWC        H3       QWEIR       QPR       BAREA      TAREA      ELLC
       0.0   2940.36        0.11        0.      1865.        330.       330.   2943.50

     ELTRD
  2944.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2944.20 ELREA=     2945.50

     3.22      1865.         0.      1865.         0.      1.46         0      38.
  2938.90       0.0          0.       192.         0.     -0.07         0   2938.70
     6.90       0.0         0.0       9.70        0.0      0.05   2940.36   2943.20
 0.017056       0.049       0.100     0.055       0.160    0.0      -0.00    200.00
              2932.00        12.       12.         12.      21.        17.    238.22      141.

*SECNO 3.220

*** GR CARDS REPEATED
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3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      3.22       1865.        0.       1865.        0.       2.18         20        36.
   2940.87    2940.87         0.        157.        0.       0.72         11     2941.60
      5.97       0.0         0.0       11.85       0.0       0.31    2943.05     2946.10
 0.025282       0.049       0.100      0.050      0.150      0.36      -0.00      201.14
              2934.90          15.        15.        15.        20.        16.     237.40       141.

*SECNO 3.250

*** GR CARDS REPEATED
    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      3.25       1855.        0.       1855.        0.       2.20         20        36.
   2948.43    2948.43         0.        156.        0.       0.01          5     2949.20
      5.93       0.0         0.0       11.89       0.0       2.79    2950.63     2953.70
 0.031026       0.049       0.150      0.055      0.150      0.01      -0.00      201.20
              2942.50         100.       100.       100.       20.        16.     237.37       142.


CCHV=   0.100 CEHV=   0.800
*SECNO 3.310
    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      3.31       1825.        0.       1794.       31.       1.98          9        54.
   2966.97    2966.97         0.        158.       17.      -0.22         11     2969.90
      5.47       0.0         0.0       11.37       1.81      9.96    2968.94     2965.10
 0.032260       0.049       0.130      0.060      0.140      0.02      -0.00      313.76
              2961.50         315.       315.       315.       16.        38.     368.03       143.


*SECNO 3.320
    BOWLENS CREEK                 100 YR FLOOD          10/03/81
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MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2974.20 ELREA= 2969.70

3.32	1825.	0.	1635.	190.	2.34	2	55.	
2970.48	2970.48	0.	127.	68.	0.36	18	2963.90	
6.58	0.0	0.0	12.93	2.81	1.65	2972.82	2965.30	
0.023674	0.049	0.130	0.060	0.140	0.29	-0.00	324.00	
	2963.90	60.	60.	60.	10.	45.	378.84	143.

CCHV= 0.100 CEHV= 0.500
*SECNO 3.320

3265 DIVIDED FLOW

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.32	1825.	0.	1665.	160.	2.21	20	61.	
2971.98	2971.98	0.	134.	45.	-0.13	6	2974.00	
8.08	0.0	0.0	12.43	3.58	0.02	2974.18	2973.50	
0.025483	0.049	0.070	0.040	0.070	0.01	-4.77	324.23	
	2963.90	1.	1.	1.	10.	60.	393.86	143.

*SECNO 3.320

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3.32	1825.	1.	1101.	723.	0.69	8	91.	
2973.89	0.0	1.	144.	152.	-1.52	0	2974.00	
9.99	0.0	0.86	7.66	4.74	0.25	2974.58	2973.50	
0.016804	0.049	0.070	0.040	0.070	0.15	-32.86	319.96	
	2963.90	12.	12.	12.	14.	78.	412.20	143.

```
*SECNO 3.320

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.70 ELREA=     2970.20

     3.32      1825.        0.      1395.       430.       0.61          2        89.
  2973.98       0.0         0.       197.       249.      -0.08          0   2963.90
    10.08       0.0        0.0       7.10       1.73       0.00    2974.59   2965.30
 0.002233     0.049       0.100     0.045      0.100       0.01      -0.00    324.00
             2963.90         1.        1.         1.         10.        79.    412.67       143.


*SECNO 3.320
     3.32      1825.        0.      1732.        93.       0.83          2        76.
  2973.93       0.0         0.       231.        71.       0.22          0   2974.90
     7.43       0.0        0.0       7.48       1.31       0.05    2974.76   2970.10
 0.006473     0.049       0.120     0.050      0.140       0.11      -0.00    311.24
             2966.50        15.       15.        15.         19.        57.    387.00       143.

*SECNO 3.360

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH         QROB       HV          ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH         AROB       DHV         IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH         VROB       HL          EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH        XNR        OLOSS       CORAR      SSTA
              ELMIN      XLOBL     XLCH        XLOBR      WSDL        WSDR       ENDST        VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.36      1810.        4.      1653.       153.       1.71         20        74.
  2979.06   2979.06         3.       151.        58.       0.89         19   2977.50
     5.36       0.0        1.41     10.96       2.64       1.68    2980.77   2976.20
 0.020011     0.049       0.120     0.050      0.120       0.44      -0.00    U1.18
             2973.70       160.      160.       160.        21.        53.    155.47       144.


*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH         QROB       HV          ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH         AROB       DHV         IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH         VROB       HL          EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH        XNR        OLOSS       CORAR      SSTA
              ELMIN      XLOBL     XLCH        XLOBR      WSDL        WSDR       ENDST        VOL

     3.36      1810.       16.      1538.       256.       0.72          2        91.
  2980.74       0.0        13.       210.       129.      -1.00          0   2977.50
     7.04       0.0        1.23      7.32       1.98       0.59    2981.46   2976.20
 0.005753     0.049       0.120     0.050      0.120       0.10      -0.00     77.06
             2973.70        60.       60.        60.         25.        66.    168.12       145.
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SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2979.65 ,NOT 2980.74
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.80	60.00	0.0

ELCHU	ELCHD
2973.70	2973.70

*SECNO 3.360

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
3003.35	2983.44	0.0	1383.	427.	60.	60.	2977.40

ELTRD
2977.80

3.36	1810.	22.	1491.	297.	0.52	2	93.	
2981.48	0.0	19.	236.	165.	-0.20	0	2977.50	
7.78	0.0	1.13	6.32	1.80	0.54	2982.00	2976.20	
0.003673	0.049	0.120	0.050	0.120	0.0	-0.00	75.25	
	2973.70	12.	12.	12.	27.	66.	168.69	145.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.36	1810.	4.	1673.	133.	1.76	3	74.	
2981.07	2981.07	3.	151.	58.	1.24	19	2979.50	
5.37	0.0	1.32	11.06	2.29	0.11	2982.83	2979.20	
0.020306	0.049	0.130	0.050	0.140	0.62	-0.00	81.15	
	2975.70	15.	15.	15.	21.	53.	155.56	145.

*SECNO 3.480

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.48     1765.        0.     1765.        0.     1.97        12      60.
  3003.14  3003.14         0.      157.        0.     0.21         8  3003.50
     5.74      0.0        0.0     11.26       0.0    13.62   3005.11  3007.40
 0.025613    0.049      0.130     0.050     0.140     0.10     -0.00   82.52
             2997.40      600.      600.      600.      22.        18.  122.97      147.


*SECNO 3.500

*** GR CARDS REPEATED
    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS     CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.50     1760.        0.     1760.        0.     1.96        20      40.
  3023.14  3023.14         0.      157.        0.    -0.01         5  3023.50
     5.74      0.0        0.0     11.24       0.0     2.56   3025.10  3027.40
 0.025549    0.049      0.130     0.050     0.140     0.00     -0.00   82.53
             3017.40      100.      100.      100.      22.        18.  122.96      148.


*SECNO 3.540

*** GR CARDS REPEATED
    BOWLENS CREEK                  100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS     CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.54     1745.        0.     1745.        0.     1.96        10      40.
  3034.11  3034.11         0.      155.        0.    -0.00         5  3034.50
     5.71      0.0        0.0     11.23       0.0     7.04   3036.07  3038.40
 0.025677    0.049      0.130     0.050     0.150     0.00     -0.00   82.57
             3028.40      275.      275.      275.      22.        18.  122.93      149.
```

C09

THIS RUN EXECUTED 10/03/81 8:55:24

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**************************************************

T1      YANCEY CO NC FEMA STUDY                                          2570
T2      500 YR FLOOD                                                     2575
T3      BOWLENS CREEK                                                    2580

J1  ICHECK     INQ    NINV    IDIR    STRT  METRIC   HVINS      Q      WSEL    FQ
        0.      5.      0.      0. 0.00592      0.     0.0      0.     0.0     0.0   2585

J2  NPROF   IPLOT   PRFVS    XSECV   XSECH      FN   ALLDC     IBW   CHNIM ITRACE
       15.      0.     -1.      0.      0.     0.0     0.0      0.      0.      0.   2590
```

D09

274
0.00
CCHV=
*SECN
3265
274
0.00
*SECN
3301
B
MI
EL
DE
SL
3685
3693
3720
275
0.00
*SECN
B
MI
EL
DE
SL
3685
3693
3720
275
0.00

*PROF 4

CCHV= 0.100 CEHV= 0.500
*SECNO .080
2096 WSEL NOT GIVEN, AVG OF MAX,MIN USED

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.08	4275.	92.	4183.	0.	1.56	0	61.	
2615.45	0.0	50.	414.	0.	0.50	0	2611.00	
12.45	0.0	1.83	10.11	0.0	0.0	2617.0	2615.90	
0.005975	0.0	0.150	0.045	0.130	0.0	-0.00	40.83	
	2603.00	0.	0.	0.	38.	7.	101.34	0.

*SECNO .080

*** GR CARDS REPEATED

0.08	4275.	103.	4171.	1.	1.37	2	77.	
2615.98	0.0	58.	438.	3.	-0.18	0	2611.00	
12.98	0.0	1.78	9.52	0.25	0.33	2617.35	2615.90	
0.004996	0.044	0.150	0.045	0.130	0.02	-0.00	40.19	
	2603.00	60.	60.	60.	38.	39.	117.21	1.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	31.00	0.50	336.00	0.0

ELCHU	ELCHD
2603.00	2603.00

*SECNO .080

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2620.00	2617.45	0.09	904.	3366.	336.	336.	2614.00

ELTRD
2615.10

0.08	4275.	130.	4112.	33.	0.97	3	103.	
2617.50	0.0	82.	510.	46.	-0.40	0	2611.00	
14.50	0.0	1.59	8.07	0.73	1.12	2618.47	2615.90	
0.002935	0.044	0.150	0.045	0.130	0.0	-0.00	38.35	
	2603.00	72.	72.	72.	40.	63.	141.20	2.

CCHV= 0.100 CEHV= 0.800
*SECNO .080

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.08	4275.	104.	4171.	0.	1.83	2	58.	
2617.40	0.0	40.	379.	0.	0.86	0	2613.70	
11.70	0.0	2.62	10.99	0.0	0.08	2619.24	2618.60	
0.011430	0.045	0.130	0.055	0.150	0.69	-0.00	41.74	
	2605.70	15.	15.	15.	37.	22.	100.23	2.

CCHV= 0.100 CEHV= 0.500
*SECNO .250

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.25	4215.	0.	4215.	0.	0.70	2	75.	
2623.81	0.0	0.	629.	0.	-1.14	0	2629.70	
13.41	0.0	0.0	6.71	0.0	5.16	2624.51	2634.20	
0.003990	0.053	0.160	0.055	0.160	0.11	-0.00	38.74	
	2610.40	815.	815.	815.	38.	37.	113.69	12.

*SECNO .270

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.27	4210.	0.	4208.	2.	2.87	20	57.	
2629.55	2629.55	0.	309.	2.	2.18	14	2629.80	
8.65	0.0	0.0	13.61	1.11	0.83	2632.42	2628.00	
0.026756	0.054	0.160	0.055	0.160	1.09	-0.00	50.57	
	2620.90	100.	100.	100.	27.	30.	107.13	13.

*SECNO .400

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.40	4165.	0.	4161.	4.	2.28	5	59.	
2644.66	0.0	0.	343.	3.	-0.59	0	2644.30	
9.26	0.0	0.39	12.13	1.17	14.47	2646.95	2642.50	

0.018769	0.054	0.160	0.055	0.160	0.06	-0.00	49.09
	2635.40	650.	650.	650.	28.	30.	107.98 18.

*SECNO .640

3301 HV CHANGED MORE THAN HVINS

0.64	4085.	191.	3280.	614.	1.04	6	148.
2658.34	0.0	92.	362.	282.	-1.24	0	2652.00
9.84	0.0	2.06	9.07	2.17	12.31	2659.38	2650.80
0.006491	0.054	0.140	0.055	0.150	0.12	-0.00	47.61
	2648.50	1190.	1190.	1190.	48.	99.	195.13 32.

*SECNO .640

0.64	4085.	232.	3074.	779.	0.76	2	156.
2658.91	0.0	108.	385.	328.	-0.28	0	2652.00
10.41	0.0	2.14	7.97	2.37	0.26	2659.67	2650.80
0.003090	0.054	0.100	0.045	0.100	0.03	-0.00	46.30
	2648.50	60.	60.	60.	50.	107.	202.56 33.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2657.83 ,NOT 2658.91
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	21.00	0.50	113.00	0.0

ELCHU	ELCHD
2648.50	2648.50

*SECNO .640

*** GR CARDS REPEATED

BOWLENS CREEK			500 YR FLOOD		10/03/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2691.37	2661.85	0.0	3318.	762.	113.	113.	2654.00

ELTRD
2654.00

0.64	4085.	249.	3011.	825.	0.65	2	164.
2659.38	0.0	123.	406.	372.	-0.11	0	2652.00
10.88	0.0	2.03	7.42	2.22	0.36	2660.03	2650.80
0.002494	0.054	0.100	0.045	0.100	0.0	-0.00	45.17
	2648.50	12.	12.	12.	51.	113.	209.00 34.

```
*SECNO .640
     0.64      4085.       215.      3047.       823.      0.81         2      163.
  2659.35       0.0        121.       369.       368.      0.16         0   2652.00
     9.95       0.0        1.77       8.26       2.24      0.05   2660.16   2650.80
 0.004303     0.054       0.150      0.050      0.130      0.08     -0.00     45.26
             2649.40         15.        15.        15.       51.       112.    208.46       34.

*SECNO .810

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     0.81      4025.       688.      2666.       671.      2.57        14       97.
  2668.50   2668.50        164.       172.       144.      1.76        11   2664.60
     9.00       0.0        4.19      15.47       4.65      7.25   2671.06   2661.20
 0.019830     0.053       0.130      0.050      0.130      0.88     -0.00    112.70
             2659.50         910.       910.       910.       51.        46.    209.70       48.

*SECNO .820

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

     0.82      4025.       814.      2439.       772.      1.20         3      122.
  2670.67       0.0        252.       222.       241.     -1.37         0   2664.60
    11.17       0.0        3.24      10.98       3.20      0.67   2671.87   2661.20
 0.007108     0.053       0.130      0.050      0.130      0.14     -0.00    107.23
             2659.50          60.        60.        60.       56.        66.    229.37       49.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2669.86 ,NOT   2670.67
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
     1.25       1.60       3.00        0.0       21.00      0.10       90.00      0.0
   ELCHU      ELCHD
  2660.00    2660.00

*SECNO .820

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

    EGPRS      EGLWC        H3       QWEIR       QPR       BAREA      TAREA      ELLC
  2720.36    2672.53       0.0        3394.      664.       90.        90.    2664.30
```

```
   ELTRD
 2665.70


    0.82      4025.      825.      2416.      784.      1.11         3      130.
 2670.92       0.0       264.       228.      255.     -0.09         0   2664.60
   11.42       0.0       3.13      10.60      3.08      0.16   2672.02   2661.20
0.006404     0.053      0.130      0.050     0.130       0.0     -0.00    101.54
            2659.50       12.        12.       12.       62.       68.    231.64       49.

*SECNO .820

*** GR CARDS REPEATED
    BOWLENS CREEK                    500 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV          ITRIAL     TOPWID
   ELEV      CRIWS        ALOB       ACH        AROB       DHV         IDC        BANK ELEV
   DEPTH     WSELK        VLOB       VCH        VROB       HL          EG      LEFT/RIGHT
   SLOPE     WTN          XNL        XNCH       XNR        OLOSS       CORAR      SSTA
             ELMIN        XLOBL      XLCH       XLOBR      WSDL        WSDR       ENDST       VOL

    0.82      4025.      678.      2542.      805.      1.27         2      130.
 2670.93       0.0       264.       228.      255.      0.16         0   2664.60
   11.43       0.0       2.57      11.14      3.15      0.09   2672.19   2661.20
0.005725     0.053      0.150      0.045     0.120      0.08     -0.00    101.33
            2659.50       15.        15.       15.       62.       68.    231.73       49.


*SECNO .940
    0.94      3980.      712.      3003.      265.      1.46         2      211.
 2675.58       0.0       335.       270.      108.      0.20         0   2672.30
    7.78       0.0       2.12      11.11      2.44      4.76   2677.05   2671.70
0.012514     0.053      0.150      0.050     0.150      0.10     -0.00    360.88
            2667.80       585.       585.      585.      154.       57.    571.90       59.


*SECNO .950

*** GR CARDS REPEATED
    BOWLENS CREEK                    500 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV          ITRIAL     TOPWID
   ELEV      CRIWS        ALOB       ACH        AROB       DHV         IDC        BANK ELEV
   DEPTH     WSELK        VLOB       VCH        VROB       HL          EG      LEFT/RIGHT
   SLOPE     WTN          XNL        XNCH       XNR        OLOSS       CORAR      SSTA
             ELMIN        XLOBL      XLCH       XLOBR      WSDL        WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    0.95      3980.      639.      3088.      252.      1.78        20      208.
 2678.25   2678.25       290.       256.       96.      0.31        11   2675.30
    7.45       0.0       2.20      12.07      2.62      0.56   2680.03   2674.70
0.015932     0.053      0.150      0.050     0.150      0.16       0.0    362.52
            2670.80        40.        40.       40.      152.       56.    570.41       60.


SPECIAL BRIDGE

SB     HK        XKOR       COFQ       RDLEN      BWC        BWP      BAREA       SS
```

1.25	1.60	3.00	0.0	25.00	0.01	75.00	0.0

ELCHU	ELCHD
2671.70	2671.70

*SECNO .950

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2680.03 HIGHER THAN COMPUTED ENERGY OF 2679.39
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2748.21	2680.03	0.01	3473.	508.	75.	75.	2674.70

ELTRD
2675.20

0.95	3980.	685.	3035.	260.	1.57	4	210.	
2678.45	0.0	318.	265.	104.	-0.20	0	2675.30	
7.65	0.0	2.15	11.46	2.50	0.0	2680.03	2674.70	
0.013703	0.053	0.150	0.050	0.150	0.0	-0.00	361.51	
	2670.80	12.	12.	12.	153.	57.	571.33	60.

*SECNO .950

*** GR CARDS REPEATED

0.95	3980.	685.	3010.	286.	1.39	2	213.	
2678.77	0.0	360.	278.	115.	-0.18	0	2675.30	
7.97	0.0	1.90	10.81	2.48	0.11	2680.16	2674.70	
0.009244	0.053	0.150	0.045	0.130	0.02	-0.00	360.00	
	2670.80	10.	10.	10.	154.	58.	572.70	60.

*SECNO 1.100

*** GR CARDS REPEATED
BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.10	3930.	572.	3096.	262.	1.82	9	208.	
2691.43	2691.43	288.	255.	96.	0.43	11	2688.50	
7.43	0.0	1.99	12.14	2.73	8.62	2693.25	2687.90	
0.013091	0.051	0.150	0.045	0.130	0.21	-0.00	362.60	
	2684.00	790.	790.	790.	152.	56.	570.33	73.

*SECNO 1.240

3301 HV CHANGED MORE THAN HVINS

1.24	3885.	123.	3000.	762.	1.01	4	268.
2698.92	0.0	57.	328.	444.	-0.80	0	2695.30
7.92	0.0	2.17	9.15	1.71	6.60	2699.94	2695.40

0.006447	0.051	0.110	0.045	0.120	0.08	-0.00	359.37
	2691.00	740.	740.	740.	46.	222.	627.67

85.

*SECNO 1.560

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST
7185 MINIMUM SPECIFIC ENERGY							
3720 CRITICAL DEPTH ASSUMED							
1.56	3770.	80.	3063.	627.	1.56	18	334.
2726.20	2726.20	100.	276.	301.	0.55	11	2725.60
9.70	0.0	0.80	11.10	2.08	13.42	2727.77	2723.60
0.009827	0.049	0.130	0.045	0.130	0.27	-0.00	136.24
	2716.50	1710.	1710.	1710.	189.	145.	470.64

115.

*SECNO 1.570

*** GR CARDS REPEATED

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST
7185 MINIMUM SPECIFIC ENERGY							
3720 CRITICAL DEPTH ASSUMED							
1.57	3770.	82.	3059.	629.	1.55	2	335.
2727.21	2727.21	102.	276.	302.	-0.01	5	2726.60
9.71	0.0	0.81	11.07	2.08	0.59	2728.77	2724.60
0.009758	0.049	0.130	0.045	0.130	0.00	-0.00	136.13
	2717.50	60.	60.	60.	189.	145.	470.65

116.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	30.00	0.40	160.00	0.0

ELCHU	ELCHD
2717.70	2717.70

*SECNO 1.570

*** GR CARDS REPEATED

6870 D.S. ENERGY OF 2728.77 HIGHER THAN COMPUTED ENERGY OF 2728.10
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2741.01	2728.88	0.12	2817.	958.	160.	160.	2723.10

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   ELTRD
 2724.50


    1.57     3770.      118.     2990.      661.     1.38        4      337.
 2727.38      0.0      132.      283.      325.    -0.17        0   2726.60
    9.88      0.0     0.90     10.55     2.04      0.0     2728.77   2724.60
0.008589    0.049    0.130     0.045    0.130      0.0       -0.00   134.15
          2717.50       12.       12.       12.      191.      145.   470.87      116.

*SECNO 1.570

*** GR CARDS REPEATED
    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH         QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH         AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH         VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH        XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH        XLOBR      WSDL       WSDR       ENDST       VOL

    1.57     3770.      238.     2786.      746.     0.97        4      344.
 2727.94      0.0      228.      305.      394.    -0.41        0   2726.60
   10.44      0.0     1.04      9.15     1.90      0.11     2728.91   2724.60
0.005856    0.049    0.130     0.045    0.130      0.04      -0.00   128.02
          2717.50       15.       15.       15.      197.      147.   472.24      116.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.600

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH         QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH         AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH         VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH        XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH        XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    1.60     3760.       79.     3020.      661.     1.52        2      334.
 2729.37  2729.37        95.      275.      297.     0.55       11   2728.80
    9.67      0.0     0.83     10.99     2.22      0.93     2730.89   2726.80
0.017252    0.049    0.160     0.060    0.160      0.44      -0.00   136.61
          2719.70      100.      100.      100.      189.      145.   470.60      118.


*SECNO 1.660

3265 DIVIDED FLOW

    1.66     3740.      945.     2793.       2.     1.17        2      282.
 2733.16      0.0      468.      280.       4.    -0.35        0   2730.20
    7.46      0.0     2.02      9.99     0.47      3.41     2734.33   2732.60
0.012347    0.049    0.150     0.050    0.150      0.03      -0.00   414.45
          2725,70      235.      235.      235.      240.       71.   725.30      122.
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CCHV=   0.100 CEHV=   0.500
*SECNO 1.660

3301 HV CHANGED MORE THAN HVINS

     1.66     3740.     1186.     2528.       27.     0.65        2      532.
  2734.03      0.0       711.      324.       38.    -0.52        0     2730.20
     8.33      0.0       1.67      7.79      0.71     0.30     2734.68   2732.60
 0.004990     0.049     0.130     0.045     0.130     0.05     -0.00     197.94
             2725.70      40.       40.       40.      457.      75.      729.69      123.


*SECNO 1.660

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

     1.66     3740.     2913.      654.      173.     0.15        3      550.
  2734.58      0.0       956.      173.       91.    -0.50        0     2733.10
     8.98      0.0       3.05      3.78      1.89     0.00     2734.74   2733.20
 0.004745     0.049     0.070     0.040     0.070     0.05     -50.40     186.36
             2725.60       1.        1.        1.      468.      82.      736.14      123.


*SECNO 1.660

*** GR CARDS REPEATED
    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH         QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH         AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH         VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH        XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH        XLOBR      WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

     1.66     3740.     2918.      643.      179.     0.15        0      552.
  2734.65      0.0       984.      175.       96.    -0.01        0     2733.10
     9.05      0.0       2.97      3.68      1.87     0.06     2734.79   2733.20
 0.004441     0.049     0.070     0.040     0.070     0.00     -50.40     185.08
             2725.60      12.       12.       12.      469.      83.      736.90      123.

*SECNO 1.660
     1.66     3740.     1296.     2367.       77.     0.47        2      547.
  2734.49      0.0       909.      348.       61.     0.32        0     2730.20
     8.79      0.0       1.43      6.81      1.25     0.00     2734.96   2732.60
 0.003476     0.049     0.130     0.045     0.080     0.16     -0.00     188.28
             2725.70       1.        1.        1.      466.      80.      734.99      123.

*SECNO 1.660
     1.66     3740.     1281.     2399.       60.     0.48        0      548.
  2734.52      0.0       926.      349.       63.     0.01        0     2730.20
     8.82      0.0       1.38      6.86      0.95     0.04     2735.00   2732.60
 0.004327     0.049     0.150     0.050     0.120     0.01     -0.00     187.47
             2725.70      10.       10.       10.      467.      81.      735.47      123.
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CCHV=   0.100 CEHV=   0.800
*SECNO 1.760

3265 DIVIDED FLOW

    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.76     3705.      2080.     1625.        0.       0.85          9       545.
  2739.33  2739.33       704.      153.        0.       0.37         14    2742.00
     5.33      0.0        2.95     10.63       0.0       4.75    2740.18    2741.10
 0.032189     0.050      0.150     0.055      0.120      0.29      -0.00     177.27
             2734.00       515.      515.       515.       597.       26.     800.41       136.


*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

     1.77     3705.      2374.     1331.        0.       0.26          2       631.
  2740.46      0.0       1320.      208.        0.      -0.58          0    2742.00
     6.46      0.0        1.80      6.41       0.0       0.48    2740.72    2741.10
 0.006265     0.050      0.130     0.045      0.120      0.06      -0.00     131.03
             2734.00        40.       40.        40.       643.       28.     802.70       137.


*SECNO 1.770

3265 DIVIDED FLOW

    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

     1.77     3705.      2790.      915.        0.       0.22          2       592.
  2740.51      0.0       1362.      136.        0.      -0.04          0    2744.10
     6.41      0.0        2.05      6.72       0.0       0.01    2740.73    2744.20
 0.007789     0.050      0.130     0.045      0.120      0.00      -0.00     130.60
             2734.10         1.        1.         1.       647.       13.     791.00       137.


*SECNO 1.770
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*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

     1.77     3705.     2816.      889.       0.     0.20        2      594.
  2740.62      0.0      1426.      139.       0.    -0.02        0   2744.10
     6.52      0.0       1.97      6.39      0.0     0.09  2740.82   2744.20
 0.006948     0.050     0.130     0.045     0.120     0.00    -0.00    129.61
             2734.10       12.       12.       12.      648.       13.   791.00      138.

*SECNO 1.770

3265 DIVIDED FLOW

     1.77     3705.     2419.     1286.       0.     0.22        0      637.
  2740.62      0.0      1430.      217.       0.     0.02        0   2742.00
     6.62      0.0       1.69      5.94      0.0     0.01  2740.84   2741.10
 0.005206     0.050     0.130     0.045     0.120     0.02    -0.00    129.55
             2734.00        1.        1.        1.      645.       29.   803.04      138.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

     1.77     3705.     2734.      971.       0.     0.11        2      649.
  2740.78      0.0      1517.      224.       0.    -0.11        0   2742.00
     6.78      0.0       1.80      4.32      0.11    0.04  2740.89   2741.10
 0.002693     0.050     0.090     0.045     0.080     0.01    -0.00    128.27
             2734.00       10.       10.       10.      646.       46.   820.83      138.

CCHV=   0.100 CEHV=   0.800
*SECNO 1.790

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                 500 YR FLOOD          10/03/81
  MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.79     3700.     1926.     1774.       0.     0.84       20      568.
  2741.83  2741.83       740.      173.       0.     0.73        8   2743.60
     7.33      0.0       2.60     10.26      0.0     0.48  2742.67   2743.50
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 0.017995      0.050      0.120      0.050      0.100      0.58      -0.00     123.84
               2734.50     85.        85.        85.       567.        20.     710.71       141.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                    500 YR FLOOD          10/03/81
    MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
    ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
    DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
    SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
                ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST        VOL
      1.79      3700.      2363.      1337.         0.       0.25          2       606.
   2742.85       0.0       1304.       214.         0.      -0.59          0    2743.60
      8.35       0.0        1.81       6.24        0.0       0.38    2743.10    2743.50
 0.005744       0.050      0.120      0.050      0.100       0.06      -0.00      98.34
               2734.50     40.        40.        40.        592.        22.     712.13       142.

*SECNO 1.790

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

      1.79      3700.      3250.       450.         0.       0.13          2       601.
   2742.99       0.0       1288.        92.         1.      -0.12          0    2743.80
      9.49       0.0        2.52       4.89        0.33      0.01    2743.12    2742.90
  0.011601       0.050      0.120      0.050      0.100       0.01     -13.99      95.09
               2733.50      1.         1.         1.         601.        16.     712.16       142.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

      1.79      3700.      3285.       414.         1.       0.11          2       610.
   2743.14       0.0       1374.        92.         2.      -0.02          0    2743.80
      9.64       0.0        2.39       4.50        0.55      0.13    2743.25    2742.90
 0.009824       0.050      0.120      0.050      0.100       0.00     -15.90      91.45
               2733.50     12.        12.        12.        605.        16.     712.40       142.

*SECNO 1.790

3265 DIVIDED FLOW
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     1.79      3700.      2441.      1259.         0.      0.19         2      616.
  2743.13         0.      1456.       226.         0.      0.08         0   2743.60
     8.63         0.       1.68       5.58       0.0      0.01   2743.32    2743.50
 0.004429       0.050      0.120      0.050      0.100      0.06     -0.00     91.69
              2734.50         1.         1.         1.      599.       22.    712.49      142.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.790

3265 DIVIDED FLOW

     1.79      3700.      2473.      1227.         0.      0.24         2      617.
  2743.15         0.      1469.       192.         0.      0.05         0   2743.60
     6.35         0.       1.68       6.38       0.0      0.04   2743.39    2743.50
 0.004435       0.050      0.120      0.040      0.100      0.02     -0.00     91.16
              2736.80        10.        10.        10.      599.       22.    712.55      143.

*SECNO 1.870

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.87      3650.       189.      3254.       208.      1.11        20      554.
  2750.21   2750.21        230.       365.       133.      0.87        12   2749.50
     8.21         0.       0.82       8.92       1.56      2.23   2751.31    2748.90
 0.007427       0.049      0.120      0.045      0.080      0.43     -0.00     181.58
              2742.00        395.       395.       395.      382.       172.    735.56      154.


*SECNO 1.880
    BOWLENS CREEK                  500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.88      3650.       273.      2520.       857.      1.08        20      566.
  2752.86   2752.86        285.       255.       275.     -0.02         8   2752.00
     8.36         0.       0.96       9.89       3.12      0.61   2753.95    2746.50
 0.007798       0.049      0.120      0.045      0.080      0.00     -0.00     170.39
              2744.50         80.        80.        80.      381.       183.    736.03      155.
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SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.40	118.00	0.0

ELCHU	ELCHD
2744.90	2744.90

*SECNO 1.880

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2753.95 HIGHER THAN COMPUTED ENERGY OF 2753.46
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2776.63	2754.04	0.09	3082.	580.	118.	118.	2749.90

ELTRD
2751.00

1.88	3650.	367.	2388.	895.	0.87	3	583.	
2753.08	0.0	370.	264.	313.	-0.22	0	2752.00	
0.58	0.0	0.99	9.06	2.06	0.0	2753.95	2746.50	
0.000249	0.049	0.120	0.045	0.080	0.0	-0.00	154.11	
	2744.50	12.	12.	12.	397.	185.	736.70	155.

*SECNO 1.880

1.88	3650.	506.	2741.	403.	0.51	3	615.	
2753.57	0.0	555.	418.	255.	-0.36	0	2752.00	
9.07	0.0	0.91	6.55	1.58	0.09	2754.07	2751.40	
0.003329	0.049	0.120	0.045	0.080	0.04	-0.00	123.13	
	2744.50	20.	20.	20.	440.	175.	738.09	156.

*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.00	3580.	26.	3532.	22.	2.54	20	69.	
2760.87	2760.87	13.	274.	9.	2.03	15	2757.70	
7.57	0.0	2.10	12.87	2.31	4.47	2763.41	2759.00	
0.017246	0.049	0.120	0.045	0.080	1.02	-0.00	79.07	
	2753.30	700.	700.	700.	33.	35.	148.00	168.

*SECNO 2.120

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV

DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.12	3500.	25.	3456.	19.	2.51	2	68.	
2774.98	2774.98	12.	270.	9.	-0.02	5	2771.90	
7.48	0.0	2.08	12.80	2.25	11.27	2777.50	2773.20	
0.017445	0.049	0.120	0.045	0.080	0.00	-0.00	79.29	
	2767.50	650.	650.	650.	33.	35.	147.53	172.

*SECNO 2.130

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.13	3500.	25.	3455.	20.	2.49	2	68.	
2776.31	2776.31	12.	271.	9.	-0.03	5	2773.20	
7.51	0.0	2.07	12.73	2.25	1.04	2778.80	2774.50	
0.017137	0.049	0.120	0.045	0.080	0.00	-0.00	79.22	
	2768.80	60.	60.	60.	33.	35.	147.67	173.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.10	160.00	0.0

ELCHU	ELCHD
2768.80	2768.80

*SECNO 2.130

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2788.20	2778.90	0.10	1500.	2026.	160.	160.	2775.50

ELTRD
2776.40

2.13	3500.	71.	3303.	126.	0.87	3	93.	
2779.43	0.0	49.	430.	65.	-1.62	0	2773.20	
10.63	0.0	1.46	7.68	1.94	1.50	2780.29	2774.50	
0.003366	0.049	0.120	0.045	0.080	0.0	-0.00	71.43	
	2768.80	12.	12.	12.	41.	52.	164.34	173.

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*SECNO 2.130

3301 HV CHANGED MORE THAN HVINS

     2.13      3500.        28.      3443.        30.      1.94         3      74.
  2778.97         0.        18.       305.        16.      1.08         0   2775.20
     8.17         0.      1.54     11.28        1.82      0.09   2780.92   2776.50
 0.011496     0.049     0.150     0.045     0.100      0.54     -0.00     77.56
              2770.80        15.       15.       15.       35.       39.    151.22      173.

CCHV=   0.100 CEHV=   0.800
*SECNO 2.200

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  500 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH         QROB       HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB       DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB       HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR        OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR      WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.20      3460.         0.      3460.         0.      2.74        10       46.
  2787.76   2787.76         0.       260.         0.      0.80         8    2788.10
     8.06         0.       0.0     13.30         0.0      5.78   2790.51    2787.80
 0.022510     0.049     0.150     0.050     0.150      0.64     -0.00     318.52
              2779.70       370.      370.      370.       23.       23.    364.94      176.

*SECNO 2.240

*SECNO 2.240

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  500 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH         QROB       HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB       DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB       HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR        OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR      WSDL        WSDR        ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.24      3430.       274.      3078.        77.      1.35         2      354.
  2795.02   2795.02       214.       313.        64.     -1.39         9    2794.00
     9.12         0.       1.28      9.85        1.21      2.88   2796.37    2794.00
 0.007952     0.049     0.110     0.045     0.080      0.14     -0.00     118.75
              2785.90       230.      230.      230.       223.      132.    473.15      178.

CCHV=   0.100 CEHV=   0.500
*SECNO 2.250

*** GR CARDS REPEATED
    BOWLENS CREEK                  500 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH         QROB       HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB       DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB       HL          EG       LEFT/RIGHT
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SLOPE	WTN ELMIN	XNL XLOBL	XNCH XLCH	XNR XLOBR	OLOSS WSDL	CORAR WSDR	SSTA ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.25	3430.	278.	3073.	79.	1.34	2	355.	
2796.03	2796.03	216.	313.	65.	-0.01	5	2795.00	
9.43	0.0	1.29	9.81	1.21	0.32	2797.37	2795.00	
0.007876	0.049	0.110	0.045	0.080	0.00	-0.00	118.65	
	2786.90	40.	40.	40.	223.	133.	474.13	178.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.30	135.00	0.0

ELCHU	ELCHD
2786.90	2786.90

*SECNO 2.250

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2812.07	2797.50	0.13	2313.	1120.	135.	135.	2795.00

ELTRD
2795.30

2.25	3430.	579.	2456.	394.	0.50	3	496.	
2797.24	0.0	464.	370.	308.	-0.85	0	2795.00	
10.34	0.0	1.25	6.64	1.28	0.37	2797.74	2795.00	
0.002881	0.049	0.110	0.045	0.080	0.0	-0.00	108.70	
	2786.90	12.	12.	12.	233.	263.	604.44	179.

*SECNO 2.250

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.25	3430.	183.	3114.	133.	1.32	20	413.	
2797.97	2797.97	191.	322.	98.	0.83	14	2797.00	
9.37	0.0	0.96	9.68	1.35	0.04	2799.29	2796.70	
0.007424	0.049	0.130	0.045	0.080	0.41	-0.00	116.97	

H10

2788.60 10. 10. 10. 225. 188. 529.63 179.

*SECNO 2.440

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.44	3315.	0.	3315.	0.	2.80	20	45.	
2816.74	2816.74	0.	247.	0.	1.47	11	2824.00	
8.24	0.0	0.0	13.42	0.0	10.83	2819.54	2821.10	
0.019022	0.048	0.100	0.045	0.080	0.74	-0.00	171.64	
	2808.50	970.	970.	970.	18.	26.	216.26	188.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2822.00 ELREA= 2821.70

2.45	3315.	0.	3315.	0.	1.89	4	48.	
2818.60	0.0	0.	301.	0.	-0.91	0	2824.70	
9.40	0.0	0.0	11.03	0.0	0.86	2820.49	2821.80	
0.011083	0.048	0.100	0.045	0.080	0.09	-0.00	169.47	
	2809.20	60.	60.	60.	21.	28.	217.78	189.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	31.00	0.50	345.00	0.0

ELCHU	ELCHD
2809.20	2809.20

*SECNO 2.450

*** GR CARDS REPEATED
PRESSURE FLOW

EGPRS	EGLHC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2820.89	2820.57	0.20	0.	3315.	345.	345.	2820.50

ELTRD
2822.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2822.50 ELREA= 2822.20

2.45	3315.	0.	3315.	0.	1.45	3	51.	
2819.44	0.0	0.	343.	0.	-0.44	0	2824.70	
10.24	0.0	0.0	9.67	0.0	0.41	2820.89	2821.80	
0.007740	0.048	0.100	0.045	0.080	0.0	-0.00	167.88	
	2809.20	12.	12.	12.	22.	29.	218.90	189.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

2.45	3315.	0.	3315.	0.	2.60	3	45.	
2819.05	0.0	0.	256.	0.	1.15	0	2826.10	
8.45	0.0	0.0	12.94	0.0	0.18	2821.65	2823.20	
0.021255	0.048	0.130	0.050	0.100	0.57	-0.00	171.26	
	2810.60	15.	15.	15.	19.	27.	216.52	189.

*SECNO 2.580

*** GR CARDS REPEATED

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.58	3235.	0.	3235.	0.	2.75	20	44.	
2854.16	2854.16	0.	243.	0.	0.15	8	2861.50	
8.16	0.0	0.0	13.30	0.0	14.02	2856.90	2858.60	
0.023367	0.048	0.150	0.050	0.150	0.07	-0.00	171.81	
	2846.00	630.	630.	630.	18.	26.	216.14	193.

*SECNO 2.660

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.66     3185.      200.     2253.      732.     1.55       20      166.
  2872.01  2872.01        76.      193.      231.    -1.20       11  2867.20
     7.81      0.0       2.64     11.70     3.16     4.70  2873.55  2869.00
 0.010572    0.048      0.130     0.045    0.080     0.12    -0.00    81.12
           2864.20        310.      310.      310.      39.      127.  247.04      195.

*SECNO 2.670
    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS     CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.67     3185.      335.     1802.     1048.     1.42       20      170.
  2873.77  2873.77       120.      146.      312.    -0.13        9  2866.20
     8.27      0.0       2.80     12.38     3.36     0.57  2875.18  2866.10
 0.008715    0.048      0.130     0.045    0.080     0.01    -0.00    79.83
           2865.50         60.       60.       60.      40.      130.  249.86      196.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP       BAREA      SS
     1.25       1.60       3.00        0.0       16.00       0.60      100.00      0.0
   ELCHU      ELCHD
  2865.50    2865.50

*SECNO 2.670

*** GR CARDS REPEATED
 PRESS FLOW BECAUSE EGLWC OF   2875.50  EXCEEDS 1.5 DEPTH
6870 D.S. ENERGY OF 2875.18 HIGHER THAN COMPUTED ENERGY OF 2875.12
    BOWLENS CREEK                 500 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV       CR1WS      ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS     CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC        H3       QWEIR       QPR       BAREA      TAREA      ELLC
  2898.97    2875.50      0.31        2449.      737.       100.       100.   2872.00

    ELTRD
  2871.10


3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF
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2.67	3185.	337.	1738.	1111.	1.21	20	172.	
2874.02	0.0	127.	150.	342.	0.50	0	2866.20	
8.52	0.0	2.64	11.58	3.25	0.0	2875.23	2866.10	
0.007330	0.048	0.130	0.045	0.080	0.0	-0.00	79.13	
	2865.50	12.	12.	12.	41.	131.	251.38	196.

*SECNO 2.670

*** GR CARDS REPEATED

2.67	3185.	338.	1655.	1192.	0.97	3	175.	
2874.37	0.0	139.	156.	386.	-0.24	0	2866.20	
8.87	0.0	2.43	10.58	3.09	0.10	2875.34	2866.10	
0.005790	0.048	0.130	0.045	0.080	0.02	-0.00	78.14	
	2865.50	15.	15.	15.	42.	134.	253.56	196.

*SECNO 2.800

*** GR CARDS REPEATED

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.80	3110.	288.	1779.	1044.	1.38	20	170.	
2887.29	2887.29	120.	146.	314.	0.42	10	2879.70	
8.29	0.0	2.39	12.19	3.32	4.70	2888.67	2879.60	
0.008417	0.048	0.150	0.045	0.080	0.21	-0.00	79.77	
	2879.00	680.	680.	680.	40.	130.	249.99	206.

*SECNO 2.940

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.94	3020.	7.	3013.	0.	2.79	20	53.	
2901.80	2901.80	7.	224.	0.	1.41	8	2900.80	
8.50	0.0	0.94	13.42	0.0	9.33	2904.59	2903.80	
0.022941	0.048	0.150	0.050	0.130	0.70	0.0	359.82	
	2893.30	720.	720.	720.	36.	17.	412.92	213.

*SECNO 2.950

*** GR CARDS REPEATED

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.95	3020.	7.	3013.	0.	2.79	20	53.	
2903.80	2903.80	7.	225.	0.	-0.00	5	2902.80	
8.50	0.0	0.95	13.42	0.0	0.92	2906.59	2905.80	
0.022895	0.048	0.150	0.050	0.130	0.00	0.0	359.77	
	2895.30	40.	40.	40.	36.	17.	412.93	213.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	27.00	0.01	170.00	0.0

ELCHU	ELCHD
2895.30	2895.30

*SECNO 2.950

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2911.64	2906.60	0.01	1189.	1835.	170.	170.	2901.60

ELTRD
2903.30

2.95	3020.	26.	2994.	0.	2.10	4	66.	
2904.59	0.0	23.	256.	0.	-0.69	0	2902.80	
9.29	0.0	1.14	11.68	0.0	0.11	2906.70	2905.80	
0.015382	0.048	0.150	0.050	0.130	0.0	-0.00	348.48	
	2895.30	22.	22.	22.	47.	19.	414.55	213.

*SECNO 2.950

*** GR CARDS REPEATED

2.95	3020.	45.	2975.	0.	1.77	3	74.	
2905.09	0.0	37.	277.	0.	-0.33	0	2902.80	
9.79	0.0	1.20	10.76	0.0	0.14	2906.87	2905.80	
0.012170	0.048	0.150	0.050	0.130	0.03	-0.00	341.45	
	2895.30	10.	10.	10.	54.	20.	415.56	213.

*SECNO 2.960

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.96	3020.	429.	2590.	0.	1.45	20	239.	
2906.85	2906.85	249.	249.	1.	-0.32	16	2902.80	
7.35	0.0	1.72	.0.41	0.62	0.62	2908.30	2905.80	
0.012494	0.048	0.130	0.050	0.150	0.03	-0.00	179.25	
	2899.50	50.	50.	50.	216.	23.	418.37	214.

*SECNO 3.060

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.06	2950.	198.	2752.	0.	2.35	20	72.	
2923.91	2923.91	59.	216.	0.	0.90	8	2921.60	
8.71	0.0	3.35	12.72	0.0	7.59	2926.27	2924.70	
0.018134	0.048	0.080	0.050	0.130	0.45	-0.00	267.20	
	2915.20	510.	510.	510.	56.	16.	339.45	218.

*SECNO 3.070

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.07	2950.	306.	2644.	0.	2.28	20	73.	
2926.11	2926.11	82.	207.	0.	-0.07	11	2921.00	
8.91	0.0	3.72	12.75	0.0	1.03	2928.39	2926.70	
0.016280	0.048	0.080	0.050	0.130	0.01	-0.00	266.46	
	2917.20	60.	60.	60.	60.	13.	339.59	219.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2924.04 ,NOT 2926.11
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	23.00	0.90	183.00	0.0

ELCHU	ELCHD
2917.20	2917.20

*SECNO 3.070

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2928.39 HIGHER THAN COMPUTED ENERGY OF 2928.01
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2932.56	2929.48	0.0	1351.	1602.	183.	183.	2925.50

ELTRD
2925.60

3.07	2950.	340.	2610.	0.	2.08	5	74.	
2926.31	0.0	91.	213.	0.	-0.20	0	2921.00	
9.11	0.0	3.73	12.24	0.0	0.0	2928.39	2926.70	
0.014607	0.048	0.080	0.050	0.130	0.0	-0.00	265.68	
	2917.20	12.	12.	12.	61.	13.	339.73	219.

*SECNO 3.070

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.07	2950.	220.	2730.	0.	2.20	20	73.	
2928.06	2928.06	65.	221.	0.	0.12	10	2925.60	
8.86	0.0	3.39	12.35	0.0	0.23	2930.26	2928.70	
0.016705	0.048	0.080	0.050	0.130	0.06	-0.00	266.64	
	2919.20	15.	15.	15.	57.	16.	339.55	219.

CCHV= 0.100 CEHV= 0.800
*SECNO 3.210

3301 HV CHANGED MORE THAN HVINS

3.21	2865.	6.	2859.	0.	1.68	3	43.	
2939.21	0.0	4.	275.	0.	-0.52	0	2936.90	
9.01	0.0	1.63	10.41	0.0	10.57	2940.89	2941.40	
0.013312	0.049	0.100	0.055	0.160	0.05	-0.00	196.90	
	2930.20	710.	710.	710.	24.	19.	240.07	224.

*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2943.70 ELREA= 2945.00

3.22	2865.	0.	2865.	0.	2.25	2	39.	
2940.08	0.0	0.	238.	0.	0.58	0	2938.70	
8.08	0.0	0.0	12.05	0.0	0.99	2942.33	2943.20	
0.020825	0.049	0.100	0.055	0.160	0.46	-0.00	200.00	
	2932.00	60.	60.	60.	21.	18.	239.25	224.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	29.00	0.30	330.00	0.0

ELCHU	ELCHD
2932.00	2932.00

CCHV= 0.100 CEHV= 0.500
*SECNO 3.220

*** GR CARDS REPEATED

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.= 2939.96 BRIDGE VELOCITY=, 12.54
CALCULATED CHANNEL AREA=, 228.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
0.0	2942.39	0.20	0.	2865.	330.	330.	2943.50

ELTRD
2944.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2944.20 ELREA= 2945.50

3.22	2865.	0.	2865.	0.	2.11	0	39.	
2940.28	0.0	0.	246.	0.	-0.14	0	2938.70	
8.28	0.0	0.0	11.66	0.0	0.06	2942.39	2943.20	
0.018831	0.049	0.100	0.055	0.160	0.0	-0.00	200.00	
	2932.00	12.	12.	12.	21.	18.	239.43	224.

*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 500 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID

ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.22	2865.	0.	2865.	0.	2.79	20	40.	
2942.36	2942.36	0.	214.	0.	0.68	11	2941.60	
7.46	0.0	1.04	13.42	0.0	0.32	2945.15	2946.10	
0.024000	0.049	0.100	0.050	0.150	0.34	-0.00	198.98	
	2934.90	15.	15.	15.	22.	18.	238.71	224.

*SECNO 3.250

*** GR CARDS REPEATED

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.25	2845.	0.	2845.	0.	2.78	20	40.	
2949.93	2949.93	0.	213.	0.	-0.01	5	2949.20	
7.43	0.0	0.75	13.39	0.0	2.63	2952.71	2953.70	
0.029058	0.049	0.150	0.055	0.150	0.00	-0.00	199.02	
	2942.50	100.	100.	100.	22.	18.	238.69	225.

CCHV= 0.100 CEHV= 0.800

*SECNO 3.310

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.31	2805.	0.	2670.	135.	2.34	11	70.	
2968.43	2968.43	0.	212.	54.	-0.44	11	2969.90	
6.93	0.0	0.0	12.57	2.52	9.10	2970.77	2965.10	
0.028722	0.049	0.130	0.060	0.140	0.04	-0.00	311.88	
	2961.50	315.	315.	315.	18.	52.	382.22	226.

*SECNO 3.320

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.20 ELREA=     2969.70

     3.32     2805.       0.     2336.      469.      2.72         0       72.
  2972.25  2972.25        0.      162.      144.      0.38        11  2963.90
     8.35      0.0       0.0     14.44      3.25      1.47   2974.97  2965.30
 0.021277     0.049     0.130     0.060     0.140      0.31     -0.00   324.00
             2963.90        60.       60.       60.       10.       62.   395.89      227.


CCHV=   0.100 CEHV=   0.500
*SECNO 3.320

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK              500 YR FLOOD          10/03/81
   MILE      Q         QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH     WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR      SSTA
             ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.32     2805.       1.     1661.     1142.      1.54        20       92.
  2973.95  2973.95        1.      145.      157.     -1.18        11  2974.00
    10.05      0.0      1.43     11.46      7.29      0.03   2975.50  2973.50
 0.038732     0.049     0.070     0.040     0.070      0.12    -32.96   319.48
             2963.90         1.        1.        1.       15.       79.   412.80      227.


*SECNO 3.320

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

     3.32     2805.       31.     1383.     1391.      0.78         3      150.
  2975.08      0.0        18.      167.      240.     -0.76         0  2974.00
    11.18      0.0      1.75      8.26      5.80      0.29   2975.87  2973.50
 0.016782     0.049     0.070     0.040     0.070      0.08    -32.96   224.90
             2963.90        12.       12.       12.      109.       90.   423.56      227.
```

*SECNO 3.320

3265 DIVIDED FLOW

3.32	2805.	332.	1791.	681.	0.68	2	174.	
2975.20	0.0	139.	221.	340.	-0.10	0	2963.90	
11.30	0.0	2.39	8.11	2.01	0.01	2975.88	2965.30	
0.002493	0.049	0.100	0.045	0.100	0.01	-0.00	213.09	
	2963.90	1.	1.	1.	121.	90.	424.44	227.

*SECNO 3.320

3301 HV CHANGED MORE THAN HVINS

3.32	2805.	0.	2599.	206.	1.32	2	87.	
2974.95	0.0	0.	272.	114.	0.64	0	2974.90	
8.45	0.0	0.01	9.57	1.81	0.06	2976.27	2970.10	
0.008974	0.049	0.120	0.050	0.140	0.32	-0.00	309.83	
	2966.50	15.	15.	15.	20.	67.	396.87	227.

*SECNO 3.360

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.36	2780.	19.	2412.	350.	2.14	20	87.	
2980.25	2980.25	9.	192.	106.	0.82	15	2977.50	
6.55	0.0	2.00	12.53	3.31	2.01	2982.39	2976.20	
0.018931	0.049	0.120	0.050	0.120	0.41	-0.00	78.28	
	2973.70	160.	160.	160.	24.	63.	165.14	228.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3.36	2780.	47.	2231.	502.	0.94	3	120.	
2982.15	0.0	35.	259.	197.	-1.20	0	2977.50	
8.45	0.0	1.35	8.61	2.54	0.59	2983.10	2976.20	
0.006013	0.049	0.120	0.050	0.120	0.12	-0.00	49.60	

2973.70	60.	60.	60.	53.	67.	169.21	229.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2981.62 ,NOT 2982.15
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.80	60.00	0.0
	ELCHU	ELCHD						
	2973.70	2973.70						

*SECNO 3.360

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
3035.49	2986.66	0.0	2373.	404.	60.	60.	2977.40

ELTRD
2977.80

3.36	2780.	59.	2203.	518.	0.84	3	121.	
2982.44	0.0	45.	269.	212.	-0.10	0	2977.50	
8.74	0.0	1.29	8.19	2.45	0.19	2983.28	2976.20	
0.005162	0.049	0.120	0.050	0.120	0.0	-0.00	48.87	
	2973.70	12.	12.	12.	54.	67.	169.43	229.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.36	2780.	18.	2452.	310.	2.19	20	88.	
2982.31	2982.31	10.	195.	108.	1.35	15	2979.50	
6.61	0.0	1.87	12.60	2.86	0.13	2984.50	2978.20	
0.018850	0.049	0.130	0.050	0.140	0.67	-0.00	78.13	
	2975.70	15.	15.	15.	24.	63.	165.64	229.

*SECNO 3.480

BOWLENS CREEK			500 YR FLOOD		10/03/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV

DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.48	2710.	3.	2707.	0.	2.50	14	47.	
3004.49	3004.49	2.	213.	0.	0.32	8	3003.50	
7.09	0.0	1.08	12.70	0.0	12.57	3007.00	3007.40	
0.023495	0.049	0.130	0.050	0.140	0.16	-0.00	77.33	
	2997.40	600.	600.	600.	28.	20.	124.58	233.
*SECNO 3.500								
*** GR CARDS REPEATED								
BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.50	2700.	2.	2698.	0.	2.50	20	47.	
3024.48	3024.48	2.	213.	0.	-0.01	5	3023.50	
7.08	0.0	1.08	12.68	0.0	2.35	3026.98	3027.40	
0.023461	0.049	0.130	0.050	0.140	0.00	-0.00	77.37	
	3017.40	100.	100.	100.	28.	20.	124.57	233.
*SECNO 3.540								
*** GR CARDS REPEATED								
BOWLENS CREEK			500 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.54	2675.	2.	2673.	0.	2.49	10	47.	
3035.44	3035.44	2.	211.	0.	-0.00	5	3034.50	
7.04	0.0	1.05	12.67	0.0	6.48	3037.93	3038.40	
0.023642	0.049	0.130	0.050	0.150	0.00	-0.00	77.57	
	3028.40	275.	275.	275.	27.	20.	124.52	235.

THIS RUN EXECUTED 10/0 31 8:55:27

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER
INDICATES MESSAGE IN SUMMARY OF ERRORS LIST/

BOWLENS CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	0.080	0.	0.0	0.0	2603.0	1285.0	2610.07	0.0	2610.81	59.15	6.91	185.94	167.08
	0.080	0.	0.0	0.0	2603.0	2240.0	2612.19	0.0	2613.24	60.13	8.26	280.50	288.88
	0.080	0.	0.0	0.0	2603.0	2755.0	2613.15	0.0	2614.34	59.12	8.78	331.71	358.31
	0.080	0.	0.0	0.0	2603.0	4275.0	2615.45	0.0	2617.01	59.75	10.11	463.74	553.05
	0.080	60.	0.0	0.0	2603.0	1285.0	2610.51	0.0	2611.13	46.41	6.34	202.76	188.63
	0.080	60.	0.0	0.0	2603.0	2240.0	2612.65	0.0	2613.58	49.16	7.73	289.62	319.48
	0.080	60.	0.0	0.0	2603.0	2755.0	2613.60	0.0	2614.68	50.36	8.35	330.11	388.21
	0.080	60.	0.0	0.0	2603.0	4275.0	2615.98	0.0	2617.35	49.96	9.52	498.69	604.83
	0.080	72.	2615.1	2614.0	2603.0	1285.0	2610.55	0.0	2611.16	45.53	6.29	204.15	190.43
	0.080	72.	2615.1	2614.0	2603.0	2240.0	2612.71	0.0	2613.62	47.90	7.67	292.14	323.66
	0.080	72.	2615.1	2614.0	2603.0	2755.0	2614.39	0.0	2615.27	37.42	7.55	364.99	450.38
	0.080	72.	2615.1	2614.0	2603.0	4275.0	2617.50	0.0	2618.47	29.35	8.07	637.33	789.12
*	0.080	15.	0.0	0.0	2605.7	1285.0	2610.81	2610.81	2612.66	322.80	10.90	117.85	71.52
*	0.080	15.	0.0	0.0	2605.7	2240.0	2612.55	2612.55	2615.01	303.45	12.58	178.02	128.59
	0.080	15.	0.0	0.0	2605.7	2755.0	2614.28	0.0	2616.23	182.45	11.22	249.69	203.96
	0.080	15.	0.0	0.0	2605.7	4275.0	2617.40	0.0	2619.24	114.30	10.99	419.29	399.86
	0.250	815.	0.0	0.0	2610.4	1270.0	2618.58	0.0	2618.89	32.03	4.42	287.50	224.40
	0.250	815.	0.0	0.0	2610.4	2210.0	2620.86	0.0	2621.28	32.57	5.21	424.00	387.21
	0.250	815.	0.0	0.0	2610.4	2715.0	2621.59	0.0	2622.11	36.68	5.76	471.13	448.29
	0.250	815.	0.0	0.0	2610.4	4215.0	2623.81	0.0	2624.51	39.90	6.71	628.58	667.28
*	0.270	100.	0.0	0.0	2620.9	1270.0	2625.73	2625.73	2627.33	322.22	10.16	124.96	70.75
*	0.270	100.	0.0	0.0	2620.9	2210.0	2627.27	2627.27	2629.33	299.34	11.53	191.66	127.74
*	0.270	100.	0.0	0.0	2620.9	2715.0	2627.94	2627.94	2630.21	292.27	12.08	224.70	158.81
*	0.270	100.	0.0	0.0	2620.9	4210.0	2629.55	2629.55	2632.42	267.56	13.61	310.86	257.38
	0.400	650.	0.0	0.0	2635.4	1255.0	2641.02	0.0	2642.00	164.96	7.96	157.75	97.71
	0.400	650.	0.0	0.0	2635.4	2185.0	2642.57	0.0	2643.95	173.36	9.43	231.59	165.95
	0.400	650.	0.0	0.0	2635.4	2685.0	2643.19	0.0	2644.80	176.01	10.18	264.14	202.39
	0.400	650.	0.0	0.0	2635.4	4165.0	2644.66	0.0	2646.95	187.69	12.13	346.49	304.02
	0.640	1190.	0.0	0.0	2648.5	1235.0	2654.15	0.0	2654.71	74.00	6.21	248.45	143.56
	0.640	1190.	0.0	0.0	2648.5	2145.0	2655.79	0.0	2656.55	70.27	7.46	405.64	255.88
	0.640	1190.	0.0	0.0	2648.5	2635.0	2656.50	0.0	2657.36	69.10	7.97	490.34	316.98
	0.640	1190.	0.0	0.0	2648.5	4085.0	2658.34	0.0	2659.38	64.91	9.07	736.64	507.03

I11

J11

J11

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	0.640	60.	0.0	0.0	2648.5	1235.0	2654.59	0.0	2655.02	33.90	5.47	286.34	212.12
	0.640	60.	0.0	0.0	2648.5	2145.0	2656.27	0.0	2656.85	33.10	6.59	462.67	372.85
	0.640	60.	0.0	0.0	2648.5	2635.0	2657.02	0.0	2657.66	32.77	7.05	554.52	460.27
	0.640	60.	0.0	0.0	2648.5	4085.0	2658.91	0.0	2659.67	30.90	7.97	822.15	734.93
	0.640	12.	2654.0	2654.0	2648.5	1235.0	2656.16	0.0	2656.36	11.78	3.88	448.70	359.85
*	0.640	12.	2654.0	2654.0	2648.5	2145.0	2657.57	0.0	2657.91	16.23	5.21	627.68	532.48
*	0.640	12.	2654.0	2654.0	2648.5	2635.0	2658.08	0.0	2658.51	18.90	5.86	699.11	606.06
*	0.640	12.	2654.0	2654.0	2648.5	4085.0	2659.38	0.0	2660.03	24.94	7.42	900.21	818.00
	0.640	15.	0.0	0.0	2649.4	1235.0	2656.15	0.0	2656.41	22.78	4.44	412.49	258.78
	0.640	15.	0.0	0.0	2649.4	2145.0	2657.56	0.0	2657.99	29.25	5.85	590.33	396.58
	0.640	15.	0.0	0.0	2649.4	2635.0	2658.06	0.0	2658.60	33.53	6.56	660.81	455.06
	0.640	15.	0.0	0.0	2649.4	4085.0	2659.35	0.0	2660.16	43.03	8.26	858.16	622.73
*	0.810	910.	0.0	0.0	2659.5	1215.0	2665.10	2665.10	2666.52	203.76	10.49	181.97	85.12
*	0.810	910.	0.0	0.0	2659.5	2115.0	2666.42	2666.42	2668.27	201.79	12.56	291.40	148.89
*	0.810	910.	0.0	0.0	2659.5	2595.0	2666.98	2666.98	2669.06	203.53	13.48	341.01	181.90
*	0.810	910.	0.0	0.0	2659.5	4025.0	2668.50	2668.50	2671.06	198.30	15.47	480.70	285.83
	0.820	60.	0.0	0.0	2659.5	1215.0	2666.64	0.0	2667.19	56.23	6.82	311.57	162.03
	0.820	60.	0.0	0.0	2659.5	2115.0	2668.21	0.0	2669.01	64.03	8.57	453.53	264.32
	0.820	60.	0.0	0.0	2659.5	2595.0	2668.92	0.0	2669.82	66.25	9.27	521.97	318.82
	0.820	60.	0.0	0.0	2659.5	4025.0	2670.67	0.0	2671.87	71.08	10.98	714.76	477.43
	0.820	12.	2665.7	2664.3	2659.5	1215.0	2667.78	0.0	2668.09	27.07	5.35	413.01	233.52
	0.820	12.	2665.7	2664.3	2659.5	2115.0	2669.10	0.0	2669.66	39.93	7.31	541.71	334.72
	0.820	12.	2665.7	2664.3	2659.5	2595.0	2669.64	0.0	2670.34	46.42	8.23	598.42	380.87
*	0.820	12.	2665.7	2664.3	2659.5	4025.0	2670.92	0.0	2672.02	64.04	10.60	746.42	502.98
	0.820	15.	0.0	0.0	2659.5	1215.0	2667.80	0.0	2668.15	23.43	5.54	414.79	251.00
	0.820	15.	0.0	0.0	2659.5	2115.0	2669.12	0.0	2669.75	35.18	7.64	543.07	356.57
	0.820	15.	0.0	0.0	2659.5	2595.0	2669.66	0.0	2670.45	40.96	8.61	600.57	405.46
	0.820	15.	0.0	0.0	2659.5	4025.0	2670.93	0.0	2672.19	57.25	11.14	747.60	531.94
*	0.940	585.	0.0	0.0	2667.8	1205.0	2672.23	2672.23	2673.60	250.51	9.47	138.19	76.13
*	0.940	585.	0.0	0.0	2667.8	2090.0	2673.71	2673.71	2675.09	160.72	9.93	333.69	164.86
*	0.940	585.	0.0	0.0	2667.8	2570.0	2674.20	2674.20	2675.66	154.52	10.45	429.59	206.74
	0.940	585.	0.0	0.0	2667.8	3980.0	2675.58	0.0	2677.05	125.14	11.11	714.08	355.79
*	0.950	40.	0.0	0.0	2670.8	1205.0	2675.25	2675.25	2676.60	244.83	9.40	139.56	77.01
*	0.950	40.	0.0	0.0	2670.8	2090.0	2676.70	2676.70	2678.09	161.58	9.94	332.60	164.42
*	0.950	40.	0.0	0.0	2670.8	2570.0	2677.22	2677.22	2678.66	152.54	10.40	432.49	208.08
*	0.950	40.	0.0	0.0	2670.8	3980.0	2678.25	2678.25	2680.03	159.32	12.07	642.72	315.32
	0.950	12.	2675.2	2674.7	2670.8	1205.0	2676.45	0.0	2677.01	67.97	6.21	289.45	146.16
	0.950	12.	2675.2	2674.7	2670.8	2090.0	2676.81	0.0	2678.09	145.03	9.59	354.27	173.55
	0.950	12.	2675.2	2674.7	2670.8	2570.0	2677.33	0.0	2678.66	137.40	10.03	456.34	219.25
	0.950	12.	2675.2	2674.7	2670.8	3980.0	2678.45	0.0	2680.03	137.03	11.46	686.63	339.99
	0.950	10.	0.0	0.0	2670.8	1205.0	2676.55	0.0	2677.07	50.65	6.04	305.28	169.32
	0.950	10.	0.0	0.0	2670.8	2090.0	2677.31	0.0	2678.22	76.88	8.30	449.98	238.37
	0.950	10.	0.0	0.0	2670.8	2570.0	2677.75	0.0	2678.79	80.35	8.99	540.64	286.70
	0.950	10.	0.0	0.0	2670.8	3980.0	2678.77	0.0	2680.16	92.44	10.81	753.11	413.96

K11

K11

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	1.100	790.	0.0	0.0	2684.0	1190.0	2688.40	2688.40	2689.77	202.32	9.42	136.83	83.66
*	1.100	790.	0.0	0.0	2684.0	2065.0	2689.84	2689.84	2691.27	135.94	10.05	322.08	177.11
*	1.100	790.	0.0	0.0	2684.0	2540.0	2690.37	2690.37	2691.86	127.69	10.51	422.99	224.77
*	1.100	790.	0.0	0.0	2684.0	3930.0	2691.43	2691.43	2693.25	130.91	12.14	639.21	343.49
	1.240	740.	0.0	0.0	2691.0	1175.0	2696.22	0.0	2696.75	53.08	5.88	232.78	161.28
	1.240	740.	0.0	0.0	2691.0	2040.0	2697.26	0.0	2698.08	65.28	7.61	405.63	252.49
	1.240	740.	0.0	0.0	2691.0	2510.0	2697.72	0.0	2698.65	67.98	8.23	511.71	304.44
	1.240	740.	0.0	0.0	2691.0	3885.0	2698.92	0.0	2699.94	64.47	9.15	828.87	483.85
*	1.560	1710.	0.0	0.0	2716.5	1140.0	2721.40	2721.40	2723.19	223.05	10.76	105.99	76.33
*	1.560	1710.	0.0	0.0	2716.5	1985.0	2723.06	2723.06	2725.47	213.56	12.46	159.36	135.83
*	1.560	1710.	0.0	0.0	2716.5	2440.0	2724.48	2724.48	2726.28	131.01	11.05	303.56	213.17
*	1.560	1710.	0.0	0.0	2716.5	3770.0	2726.20	2726.20	2727.77	98.27	11.10	677.54	380.30
	1.570	60.	0.0	0.0	2717.5	1140.0	2722.99	0.0	2724.29	141.35	9.16	124.42	95.89
	1.570	60.	0.0	0.0	2717.5	1985.0	2724.85	2723.99	2726.54	132.13	10.49	221.55	172.68
*	1.570	60.	0.0	0.0	2717.5	2440.0	2725.48	2725.48	2727.28	130.36	11.03	304.63	213.71
*	1.570	60.	0.0	0.0	2717.5	3770.0	2727.21	2727.21	2728.77	97.58	11.07	680.81	381.65
	1.570	12.	2724.5	2723.1	2717.5	1140.0	2723.12	0.0	2724.35	129.28	8.88	128.41	100.26
	1.570	12.	2724.5	2723.1	2717.5	1985.0	2724.89	0.0	2726.54	128.12	10.37	227.26	175.37
	1.570	12.	2724.5	2723.1	2717.5	2440.0	2725.62	0.0	2727.28	118.52	10.65	325.12	224.13
	1.570	12.	2724.5	2723.1	2717.5	3770.0	2727.38	0.0	2728.77	85.89	10.55	740.17	406.78
	1.570	15.	0.0	0.0	2717.5	1140.0	2723.53	0.0	2724.54	97.76	8.04	141.79	115.30
	1.570	15.	0.0	0.0	2717.5	1985.0	2725.67	2724.41	2726.74	76.74	8.59	329.94	226.59
	1.570	15.	0.0	0.0	2717.5	2440.0	2726.40	0.0	2727.48	72.24	8.83	444.53	287.08
	1.570	15.	0.0	0.0	2717.5	3770.0	2727.94	0.0	2728.91	58.56	9.15	926.09	492.64
	1.600	100.	0.0	0.0	2719.7	1140.0	2725.01	0.0	2726.44	288.23	9.62	118.55	67.15
	1.600	100.	0.0	0.0	2719.7	1980.0	2726.81	2726.35	2728.70	273.30	11.06	192.67	119.77
*	1.600	100.	0.0	0.0	2719.7	2430.0	2727.72	2727.72	2729.44	223.21	10.85	309.07	162.65
*	1.600	100.	0.0	0.0	2719.7	3760.0	2729.37	2729.37	2730.89	172.52	10.99	666.91	286.27
	1.660	235.	0.0	0.0	2725.7	1135.0	2730.47	2729.92	2731.38	156.67	7.70	168.89	90.68
	1.660	235.	0.0	0.0	2725.7	1970.0	2731.83	0.0	2732.69	110.49	8.01	421.88	187.41
	1.660	235.	0.0	0.0	2725.7	2420.0	2732.23	0.0	2733.18	114.34	8.57	514.58	226.32
	1.660	235.	0.0	0.0	2725.7	3740.0	2733.16	0.0	2734.33	123.47	9.99	752.18	336.59
	1.660	40.	0.0	0.0	2725.7	1135.0	2731.32	0.0	2731.75	49.36	5.54	315.01	161.54
	1.660	40.	0.0	0.0	2725.7	1970.0	2732.51	0.0	2733.01	47.26	6.33	581.66	286.56
	1.660	40.	0.0	0.0	2725.7	2420.0	2732.95	0.0	2733.50	48.66	6.79	695.29	346.92
	1.660	40.	0.0	0.0	2725.7	3740.0	2734.03	0.0	2734.68	49.90	7.79	1073.21	529.43
*	1.660	1.	2733.2	2731.5	2725.6	1135.0	2731.50	2731.50	2731.93	105.96	6.05	276.06	110.26
	1.660	1.	2733.2	2731.5	2725.6	1970.0	2732.74	0.0	2733.03	92.85	5.66	508.59	204.44
	1.660	1.	2733.2	2731.5	2725.6	2420.0	2733.31	0.0	2733.54	88.58	4.43	646.13	257.12
	1.660	1.	2733.2	2731.5	2725.6	3740.0	2734.58	0.0	2734.74	47.45	3.78	1220.77	542.96
	1.660	12.	2733.2	2731.5	2725.6	1135.0	2731.73	0.0	2732.06	85.66	5.44	313.18	122.64
	1.660	12.	2733.2	2731.5	2725.6	1970.0	2732.89	0.0	2733.14	79.28	5.23	543.35	221.24
	1.660	12.	2733.2	2731.5	2725.6	2420.0	2733.44	0.0	2733.64	75.14	4.15	686.70	279.18
	1.660	12.	2733.2	2731.5	2725.6	3740.0	2734.65	0.0	2734.79	44.41	3.68	1253.76	561.25

L11

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	1.660	1.	0.0	0.0	2725.7	1135.0	2731.77	0.0	2732.08	31.14	4.69	408.92	203.38
	1.660	1.	0.0	0.0	2725.7	1970.0	2732.82	0.0	2733.22	36.03	5.75	660.44	328.20
	1.660	1.	0.0	0.0	2725.7	2420.0	2733.33	0.0	2733.76	35.82	6.10	801.21	404.32
	1.660	1.	0.0	0.0	2725.7	3740.0	2734.49	0.0	2734.96	34.76	6.81	1317.98	634.32
	1.660	10.	0.0	0.0	2725.7	1135.0	2731.81	0.0	2732.10	36.97	4.63	420.05	186.67
	1.660	10.	0.0	0.0	2725.7	1970.0	2732.86	0.0	2733.26	43.35	5.71	673.88	299.21
	1.660	10.	0.0	0.0	2725.7	2420.0	2733.37	0.0	2733.80	43.51	6.09	815.47	366.87
	1.660	10.	0.0	0.0	2725.7	3740.0	2734.52	0.0	2735.00	43.27	6.86	1338.81	568.56
*	1.760	515.	0.0	0.0	2734.0	1125.0	2737.70	2737.70	2738.37	295.61	8.18	295.55	65.43
*	1.760	515.	0.0	0.0	2734.0	1950.0	2738.35	2738.35	2739.15	323.61	9.45	462.10	108.40
*	1.760	515.	0.0	0.0	2734.0	2395.0	2738.64	2738.64	2739.47	330.25	9.91	546.77	131.79
*	1.760	515.	0.0	0.0	2734.0	3705.0	2739.33	2739.33	2740.18	321.89	10.63	857.19	206.51
	1.770	40.	0.0	0.0	2734.0	1125.0	2738.63	0.0	2738.83	51.68	4.79	546.26	156.49
	1.770	40.	0.0	0.0	2734.0	1950.0	2739.43	0.0	2739.65	56.37	5.49	910.12	259.73
	1.770	40.	0.0	0.0	2734.0	2395.0	2739.75	0.0	2739.99	57.29	5.73	1094.90	316.42
	1.770	40.	0.0	0.0	2734.0	3705.0	2740.46	0.0	2740.72	62.65	6.41	1527.94	468.08
	1.770	1.	2744.1	2741.8	2734.1	1125.0	2738.64	0.0	2738.84	66.86	5.31	528.82	137.58
	1.770	1.	2744.1	2741.8	2734.1	1950.0	2739.45	0.0	2739.66	72.24	5.96	892.49	229.43
	1.770	1.	2744.1	2741.8	2734.1	2395.0	2739.78	0.0	2739.99	73.26	6.17	1070.97	279.82
	1.770	1.	2744.1	2741.8	2734.1	3705.0	2740.51	0.0	2740.73	77.89	6.72	1497.83	419.79
	1.770	12.	2744.1	2741.8	2734.1	1125.0	2738.74	0.0	2738.92	59.07	5.04	561.76	146.37
	1.770	12.	2744.1	2741.8	2734.1	1950.0	2739.56	0.0	2739.74	62.73	5.61	953.69	246.20
	1.770	12.	2744.1	2741.8	2734.1	2395.0	2739.89	0.0	2740.08	63.51	5.80	1140.20	300.53
	1.770	12.	2744.1	2741.8	2734.1	3705.0	2740.62	0.0	2740.82	69.48	6.39	1565.32	444.49
	1.770	1.	0.0	0.0	2734.0	1125.0	2738.76	0.0	2738.93	44.52	4.51	587.76	168.60
	1.770	1.	0.0	0.0	2734.0	1950.0	2739.56	0.0	2739.75	47.03	5.09	997.22	284.34
	1.770	1.	0.0	0.0	2734.0	2395.0	2739.90	0.0	2740.09	47.67	5.31	1192.97	346.86
	1.770	1.	0.0	0.0	2734.0	3705.0	2740.62	0.0	2740.84	52.06	5.94	1646.77	513.49
	1.770	10.	0.0	0.0	2734.0	1125.0	2738.88	0.0	2738.97	25.02	3.44	641.33	224.93
	1.770	10.	0.0	0.0	2734.0	1950.0	2739.70	0.0	2739.80	25.17	3.78	1074.18	388.65
	1.770	10.	0.0	0.0	2734.0	2395.0	2740.04	0.0	2740.13	25.24	3.91	1275.54	476.69
	1.770	10.	0.0	0.0	2734.0	3705.0	2740.78	0.0	2740.89	26.93	4.32	1741.22	714.01
*	1.790	85.	0.0	0.0	2734.5	1120.0	2740.20	2740.20	2740.94	133.75	7.70	298.52	96.84
*	1.790	85.	0.0	0.0	2734.5	1945.0	2740.95	2740.95	2741.69	145.72	8.61	531.79	161.12
*	1.790	85.	0.0	0.0	2734.5	2390.0	2741.23	2741.23	2742.00	156.80	9.13	624.37	190.86
*	1.790	85.	0.0	0.0	2734.5	3700.0	2741.83	2741.83	2742.67	179.95	10.26	913.17	275.82
	1.790	40.	0.0	0.0	2734.5	1120.0	2741.06	0.0	2741.27	42.40	4.68	566.57	172.01
	1.790	40.	0.0	0.0	2734.5	1945.0	2741.82	0.0	2742.06	50.15	5.42	909.15	274.65
	1.790	40.	0.0	0.0	2734.5	2390.0	2742.16	0.0	2742.39	51.20	5.61	1098.91	334.02
	1.790	40.	0.0	0.0	2734.5	3700.0	2742.85	0.0	2743.10	57.44	6.24	1518.03	488.20
	1.790	1.	2742.9	2742.4	2733.5	1120.0	2741.05	0.0	2741.33	129.45	6.09	430.34	98.44
	1.790	1.	2742.9	2742.4	2733.5	1945.0	2741.89	0.0	2742.07	129.84	5.74	768.49	170.69
	1.790	1.	2742.9	2742.4	2733.5	2390.0	2742.27	0.0	2742.40	119.36	5.06	975.47	218.76
	1.790	1.	2742.9	2742.4	2733.5	3700.0	2742.99	0.0	2743.12	116.01	4.89	1380.72	343.53

M11

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	1.790	12.	2742.9	2742.4	2733.5	1120.0	2741.27	0.0	2741.47	96.13	5.31	492.72	114.23
	1.790	12.	2742.9	2742.4	2733.5	1945.0	2742.09	0.0	2742.21	100.05	4.82	877.39	194.45
	1.790	12.	2742.9	2742.4	2733.5	2390.0	2742.43	0.0	2742.54	97.21	4.50	1061.15	242.41
	1.790	12.	2742.9	2742.4	2733.5	3700.0	2743.14	0.0	2743.25	98.24	4.50	1467.92	373.29
	1.790	1.	0.0	0.0	2734.5	1120.0	2741.33	0.0	2741.48	30.24	4.05	662.75	203.66
	1.790	1.	0.0	0.0	2734.5	1945.0	2742.09	0.0	2742.25	36.45	4.71	1062.74	322.14
	1.790	1.	0.0	0.0	2734.5	2390.0	2742.42	0.0	2742.59	37.59	4.90	1259.94	389.80
	1.790	1.	0.0	0.0	2734.5	3700.0	2743.13	0.0	2743.32	44.29	5.58	1682.15	555.98
	1.790	10.	0.0	0.0	2736.8	1120.0	2741.34	0.0	2741.53	36.26	4.75	633.19	186.01
	1.790	10.	0.0	0.0	2736.8	1945.0	2742.10	0.0	2742.31	39.44	5.42	1034.88	309.69
	1.790	10.	0.0	0.0	2736.8	2390.0	2742.44	0.0	2742.65	39.59	5.63	1231.52	379.83
	1.790	10.	0.0	0.0	2736.8	3700.0	2743.15	0.0	2743.39	44.35	6.38	1661.16	555.56
*	1.870	395.	0.0	0.0	2742.0	1105.0	2745.94	2745.94	2747.24	229.53	9.15	120.82	72.94
*	1.870	395.	0.0	0.0	2742.0	1920.0	2747.16	2747.16	2748.88	206.05	10.52	182.55	133.76
*	1.870	395.	0.0	0.0	2742.0	2360.0	2747.72	2747.72	2749.62	199.19	11.08	213.03	167.22
*	1.870	395.	0.0	0.0	2742.0	3650.0	2750.21	2750.21	2751.31	74.27	8.92	727.61	423.53
*	1.880	80.	0.0	0.0	2744.5	1105.0	2748.61	2748.61	2749.99	200.13	9.85	129.13	78.11
*	1.880	80.	0.0	0.0	2744.5	1920.0	2749.89	2749.89	2751.73	192.88	11.55	194.98	136.25
*	1.880	80.	0.0	0.0	2744.5	2360.0	2750.48	2750.48	2752.52	189.55	12.22	227.89	171.41
*	1.880	80.	0.0	0.0	2744.5	3650.0	2752.86	2752.86	2753.95	77.98	9.89	815.39	413.34
*	1.880	12.	2751.0	2749.9	2744.5	1105.0	2750.30	0.0	2750.79	46.73	5.96	218.37	161.64
	1.880	12.	2751.0	2749.9	2744.5	1920.0	2751.69	0.0	2752.46	58.14	7.58	308.36	251.80
	1.880	12.	2751.0	2749.9	2744.5	2360.0	2751.39	0.0	2752.73	105.95	9.96	282.44	229.28
	1.880	12.	2751.0	2749.9	2744.5	3650.0	2753.08	0.0	2753.95	62.49	9.06	946.08	461.75
	1.880	20.	0.0	0.0	2744.5	1105.0	2750.53	0.0	2750.88	34.76	4.79	230.63	187.43
	1.880	20.	0.0	0.0	2744.5	1920.0	2752.05	2749.64	2752.58	37.70	5.87	378.94	312.71
	1.880	20.	0.0	0.0	2744.5	2360.0	2752.23	2750.22	2752.93	48.84	6.83	470.29	337.69
	1.880	20.	0.0	0.0	2744.5	3650.0	2753.57	0.0	2754.07	33.29	6.55	1228.48	632.62
*	2.000	700.	0.0	0.0	2753.3	1085.0	2757.85	2757.85	2759.10	242.22	8.99	120.78	69.71
*	2.000	700.	0.0	0.0	2753.3	1885.0	2758.95	2758.95	2760.71	213.66	10.68	178.28	128.96
*	2.000	700.	0.0	0.0	2753.3	2315.0	2759.48	2759.48	2761.47	200.11	11.35	207.89	163.65
*	2.000	700.	0.0	0.0	2753.3	3580.0	2760.87	2760.87	2763.41	172.46	12.87	296.35	272.61
	2.120	650.	0.0	0.0	2767.5	1065.0	2772.18	0.0	2773.27	196.41	8.36	127.42	75.99
*	2.120	650.	0.0	0.0	2767.5	1845.0	2773.10	2773.10	2774.84	214.61	10.60	175.57	125.94
*	2.120	650.	0.0	0.0	2767.5	2270.0	2773.62	2773.62	2775.59	201.49	11.29	204.75	159.92
*	2.120	650.	0.0	0.0	2767.5	3500.0	2774.98	2774.98	2777.50	174.45	12.80	290.33	264.99
	2.130	60.	0.0	0.0	2768.8	1065.0	2773.39	2773.35	2774.56	221.87	8.68	122.68	71.50
*	2.130	60.	0.0	0.0	2768.8	1845.0	2774.42	2774.42	2776.14	210.85	10.55	176.58	127.06
*	2.130	60.	0.0	0.0	2768.8	2270.0	2774.94	2774.94	2776.90	198.85	11.24	205.64	160.98
*	2.130	60.	0.0	0.0	2768.8	3500.0	2776.31	2776.31	2778.80	171.37	12.73	292.20	267.36
	2.130	12.	2776.4	2775.5	2768.8	1065.0	2773.43	0.0	2774.56	208.73	8.52	125.03	73.71
*	2.130	12.	2776.4	2775.5	2768.8	1845.0	2776.92	0.0	2777.46	32.59	5.97	335.84	323.17
	2.130	12.	2776.4	2775.5	2768.8	2270.0	2777.77	0.0	2778.38	30.88	6.36	400.88	408.51
	2.130	12.	2776.4	2775.5	2768.8	3500.0	2779.43	0.0	2780.29	33.66	7.68	543.79	603.29

A12

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	2.130	15.	0.0	0.0	2770.8	1065.0	2775.34	2775.34	2776.56	234.61	8.83	120.58	69.53
	2.130	15.	0.0	0.0	2770.8	1845.0	2776.44	2776.40	2778.14	204.90	10.45	178.25	128.89
	2.130	15.	0.0	0.0	2770.8	2270.0	2777.36	0.0	2778.95	141.07	10.14	230.88	191.12
	2.130	15.	0.0	0.0	2770.8	3500.0	2778.97	0.0	2780.92	114.96	11.28	339.39	326.44
	2.200	370.	0.0	0.0	2779.7	1055.0	2784.08	0.0	2785.49	239.79	9.56	110.41	68.13
*	2.200	370.	0.0	0.0	2779.7	1825.0	2785.39	2785.39	2787.44	251.17	11.48	158.95	115.15
*	2.200	370.	0.0	0.0	2779.7	2240.0	2786.06	2786.06	2788.32	243.84	12.07	185.55	143.45
*	2.200	370.	0.0	0.0	2779.7	3460.0	2787.76	2787.76	2790.51	225.10	13.30	260.24	230.61
*	2.240	230.	0.0	0.0	2785.9	1045.0	2790.10	2790.10	2791.62	218.53	9.91	105.50	70.69
*	2.240	230.	0.0	0.0	2785.9	1810.0	2791.50	2791.50	2793.56	207.82	11.52	157.12	125.56
*	2.240	230.	0.0	0.0	2785.9	2225.0	2792.15	2792.15	2794.44	202.25	12.13	183.44	156.46
*	2.240	230.	0.0	0.0	2785.9	3430.0	2795.02	2795.02	2796.37	79.52	9.85	590.44	384.65
*	2.250	40.	0.0	0.0	2786.9	1045.0	2791.08	2791.08	2792.62	221.48	9.95	105.01	70.22
*	2.250	40.	0.0	0.0	2786.9	1810.0	2792.52	2792.52	2794.56	204.56	11.46	158.00	126.55
*	2.250	40.	0.0	0.0	2786.9	2225.0	2793.18	2793.18	2795.44	198.84	12.06	184.55	157.79
*	2.250	40.	0.0	0.0	2786.9	3430.0	2796.03	2796.03	2797.37	78.76	9.81	594.70	386.49
	2.250	12.	2795.3	2795.0	2786.9	1045.0	2791.38	0.0	2792.65	168.75	9.06	115.30	80.44
	2.250	12.	2795.3	2795.0	2786.9	1810.0	2792.91	0.0	2794.60	157.28	10.45	173.29	144.32
	2.250	12.	2795.3	2795.0	2786.9	2225.0	2796.41	0.0	2796.83	24.19	5.65	745.47	452.35
	2.250	12.	2795.3	2795.0	2786.9	3430.0	2797.24	0.0	2797.74	28.81	6.64	1141.95	639.00
*	2.250	10.	0.0	0.0	2788.6	1045.0	2792.82	2792.82	2794.36	221.72	9.97	104.82	70.18
*	2.250	10.	0.0	0.0	2788.6	1810.0	2794.25	2794.25	2796.31	206.46	11.51	157.22	125.97
	2.250	10.	0.0	0.0	2788.6	2225.0	2795.92	0.0	2797.42	111.05	9.82	226.56	211.14
*	2.250	10.	0.0	0.0	2788.6	3430.0	2797.97	2797.97	2799.29	74.24	9.68	611.34	398.08
	2.440	970.	0.0	0.0	2808.5	1010.0	2813.09	0.0	2814.52	194.45	9.59	105.30	72.43
*	2.440	970.	0.0	0.0	2808.5	1750.0	2814.40	2814.40	2816.48	207.79	11.56	151.40	121.40
*	2.440	970.	0.0	0.0	2808.5	2150.0	2815.07	2815.07	2817.36	202.45	12.15	176.93	151.11
*	2.440	970.	0.0	0.0	2808.5	3315.0	2816.74	2816.74	2819.54	190.22	13.42	247.08	240.36
	2.450	60.	0.0	0.0	2809.2	1010.0	2814.46	0.0	2815.42	110.55	7.87	128.31	96.06
	2.450	60.	0.0	0.0	2809.2	1750.0	2816.13	0.0	2817.43	108.20	9.16	191.07	168.24
	2.450	60.	0.0	0.0	2809.2	2150.0	2816.84	0.0	2818.32	109.26	9.74	220.78	205.69
	2.450	60.	0.0	0.0	2809.2	3315.0	2818.60	0.0	2820.49	110.83	11.03	300.67	314.89
	2.450	12.	2822.2	2820.5	2809.2	1010.0	2814.56	0.0	2815.47	102.80	7.67	131.64	99.62
	2.450	12.	2822.2	2820.5	2809.2	1750.0	2816.26	0.0	2817.49	100.02	8.90	196.53	174.98
	2.450	12.	2822.2	2820.5	2809.2	2150.0	2817.00	0.0	2818.38	100.56	9.45	227.49	214.40
	2.450	12.	2822.2	2820.5	2809.2	3315.0	2819.44	0.0	2820.89	77.40	9.67	342.79	376.80
*	2.450	15.	0.0	0.0	2810.6	1010.0	2815.03	2815.03	2816.61	276.55	10.08	100.25	60.73
*	2.450	15.	0.0	0.0	2810.6	1750.0	2816.50	2816.50	2818.58	257.01	11.57	151.30	109.16
*	2.450	15.	0.0	0.0	2810.6	2150.0	2817.18	2817.18	2819.46	249.22	12.14	177.11	136.19
	2.450	15.	0.0	0.0	2810.6	3315.0	2819.05	0.0	2821.65	212.55	12.94	256.17	227.38
*	2.580	630.	0.0	0.0	2846.0	990.0	2850.39	2850.39	2851.95	277.59	10.03	98.74	59.42
*	2.580	630.	0.0	0.0	2846.0	1710.0	2851.83	2851.83	2853.88	258.18	11.51	148.60	106.42
*	2.580	630.	0.0	0.0	2846.0	2100.0	2852.48	2852.48	2854.76	252.67	12.12	173.31	132.11
*	2.580	630.	0.0	0.0	2846.0	3235.0	2854.16	2854.16	2856.90	233.67	13.30	243.19	211.63

B12

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	2.660	310.	0.0	0.0	2864.2	975.0	2868.50	2868.50	2870.11	202.44	10.24	101.53	68.53
*	2.660	310.	0.0	0.0	2864.2	1685.0	2870.62	2870.62	2871.87	95.81	9.58	277.69	172.15
*	2.660	310.	0.0	0.0	2864.2	2070.0	2871.07	2871.07	2872.38	96.36	10.13	348.02	210.88
*	2.660	310.	0.0	0.0	2864.2	3185.0	2872.01	2872.01	2873.55	105.72	11.70	499.72	309.76
*	2.670	60.	0.0	0.0	2865.5	975.0	2870.11	2870.11	2872.43	189.75	12.23	79.73	70.78
*	2.670	60.	0.0	0.0	2865.5	1685.0	2872.60	2872.60	2873.89	74.77	10.34	299.73	194.86
*	2.670	60.	0.0	0.0	2865.5	2070.0	2872.94	2872.94	2874.43	85.81	11.43	344.25	223.45
*	2.670	60.	0.0	0.0	2865.5	3185.0	2873.77	2873.77	2875.18	87.15	12.38	576.97	341.18
*	2.670	12.	2871.1	2872.0	2865.5	975.0	2871.13	2870.18	2872.45	85.87	9.45	119.61	105.22
*	2.670	12.	2871.1	2872.0	2865.5	1685.0	2872.77	0.0	2873.89	64.92	9.79	322.38	209.13
*	2.670	12.	2871.1	2872.0	2865.5	2070.0	2873.18	0.0	2874.43	71.50	10.65	375.50	244.81
*	2.670	12.	2871.1	2872.0	2865.5	3185.0	2874.02	0.0	2875.22	73.30	11.58	619.40	372.02
	2.670	15.	0.0	0.0	2865.5	975.0	2872.15	0.0	2872.61	30.04	6.26	313.06	177.88
	2.670	15.	0.0	0.0	2865.5	1685.0	2873.56	0.0	2874.02	28.32	6.94	542.01	316.62
	2.670	15.	0.0	0.0	2865.5	2070.0	2874.09	0.0	2874.58	29.48	7.39	631.82	381.23
	2.670	15.	0.0	0.0	2865.5	3185.0	2874.37	0.0	2875.34	57.90	10.58	680.92	418.58
*	2.800	680.	0.0	0.0	2879.0	955.0	2883.51	2883.51	2885.37	168.86	11.36	110.03	73.49
*	2.800	680.	0.0	0.0	2879.0	1645.0	2885.80	2885.80	2887.00	76.87	10.17	336.67	187.62
*	2.800	680.	0.0	0.0	2879.0	2020.0	2886.16	2886.16	2887.50	85.07	11.08	393.91	219.01
*	2.800	680.	0.0	0.0	2879.0	3110.0	2887.29	2887.29	2888.67	84.17	12.19	580.65	338.99
	2.940	720.	0.0	0.0	2893.3	930.0	2898.08	0.0	2899.50	230.28	9.58	97.09	61.28
*	2.940	720.	0.0	0.0	2893.3	1600.0	2899.37	2899.37	2901.49	262.49	11.70	136.74	98.76
*	2.940	720.	0.0	0.0	2893.3	1965.0	2900.05	2900.05	2902.40	256.91	12.29	159.92	122.60
*	2.940	720.	0.0	0.0	2893.3	3020.0	2901.80	2901.80	2904.59	229.41	13.42	231.55	199.39
*	2.950	40.	0.0	0.0	2895.3	930.0	2899.85	2899.85	2901.48	279.09	10.26	90.65	55.67
*	2.950	40.	0.0	0.0	2895.3	1600.0	2901.37	2901.37	2903.49	261.96	11.69	136.84	98.86
*	2.950	40.	0.0	0.0	2895.3	1965.0	2902.07	2902.07	2904.40	255.03	12.25	160.35	123.05
*	2.950	40.	0.0	0.0	2895.3	3020.0	2903.80	2903.80	2906.59	228.95	13.42	231.76	199.59
	2.950	22.	2903.3	2901.6	2895.3	930.0	2899.85	0.0	2901.48	277.48	10.24	90.84	55.83
	2.950	22.	2903.3	2901.6	2895.3	1600.0	2901.91	0.0	2903.56	184.80	10.31	155.26	117.70
	2.950	22.	2903.3	2901.6	2895.3	1965.0	2903.73	0.0	2904.95	100.94	8.86	221.87	195.58
	2.950	22.	2903.3	2901.6	2895.3	3020.0	2904.59	0.0	2906.70	153.82	11.68	279.19	243.50
	2.950	10.	0.0	0.0	2895.3	930.0	2900.76	0.0	2901.73	135.27	7.92	117.46	79.96
	2.950	10.	0.0	0.0	2895.3	1600.0	2902.42	0.0	2903.75	137.81	9.26	172.73	136.30
	2.950	10.	0.0	0.0	2895.3	1965.0	2903.91	0.0	2905.05	91.90	8.57	237.34	204.97
	2.950	10.	0.0	0.0	2895.3	3020.0	2905.09	0.0	2906.87	121.70	10.76	313.90	273.75
*	2.960	50.	0.0	0.0	2899.5	930.0	2903.25	2903.25	2904.57	273.66	9.84	101.99	56.22
*	2.960	50.	0.0	0.0	2899.5	1600.0	2904.52	2904.52	2906.18	224.23	10.43	171.43	106.85
*	2.960	50.	0.0	0.0	2899.5	1965.0	2905.07	2905.07	2906.88	215.02	10.99	209.39	134.00
*	2.960	50.	0.0	0.0	2899.5	3020.0	2906.85	2906.85	2908.30	124.94	10.41	498.90	270.18
*	3.060	510.	0.0	0.0	2915.2	910.0	2919.66	2919.66	2921.34	286.02	10.39	87.57	53.81
*	3.060	510.	0.0	0.0	2915.2	1565.0	2921.19	2921.19	2923.41	269.64	11.95	130.92	95.31
*	3.060	510.	0.0	0.0	2915.2	1920.0	2921.79	2921.79	2924.36	279.03	12.89	149.14	114.94
*	3.060	510.	0.0	0.0	2915.2	2950.0	2923.91	2923.91	2926.27	181.34	12.72	275.49	219.06

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	3.070	60.	0.0	0.0	2917.2	910.0	2921.63	2921.63	2923.35	280.55	10.51	86.86	54.33
*	3.070	60.	0.0	0.0	2917.2	1565.0	2923.16	2923.16	2925.50	252.84	12.30	129.99	98.42
*	3.070	60.	0.0	0.0	2917.2	1920.0	2923.91	2923.91	2926.49	240.56	12.97	153.16	123.79
*	3.070	60.	0.0	0.0	2917.2	2950.0	2926.11	2926.11	2928.39	162.80	12.75	289.53	231.20
	3.070	12.	2925.6	2925.5	2917.2	910.0	2922.39	0.0	2923.52	148.09	8.56	107.55	74.78
*	3.070	12.	2925.6	2925.5	2917.2	1565.0	2923.75	0.0	2925.58	175.01	10.90	148.05	118.30
*	3.070	12.	2925.6	2925.5	2917.2	1920.0	2924.14	0.0	2926.49	209.84	12.39	161.54	132.54
*	3.070	12.	2925.6	2925.5	2917.2	2950.0	2926.31	0.0	2928.39	146.07	12.24	304.49	244.09
*	3.070	15.	0.0	0.0	2919.2	910.0	2923.67	2923.67	2925.33	282.92	10.35	87.90	54.10
*	3.070	15.	0.0	0.0	2919.2	1565.0	2925.19	2925.19	2927.41	269.64	11.95	130.92	95.31
*	3.070	15.	0.0	0.0	2919.2	1920.0	2925.89	2925.89	2928.36	261.73	12.63	152.46	118.68
*	3.070	15.	0.0	0.0	2919.2	2950.0	2928.06	2928.06	2930.26	167.05	12.35	286.03	228.24
	3.210	710.	0.0	0.0	2930.2	885.0	2935.70	0.0	2936.32	94.76	6.28	140.82	90.91
	3.210	710.	0.0	0.0	2930.2	1520.0	2937.39	0.0	2938.26	95.11	7.47	203.54	155.86
	3.210	710.	0.0	0.0	2930.2	1865.0	2938.12	0.0	2939.13	95.53	8.05	232.66	190.82
	3.210	710.	0.0	0.0	2930.2	2865.0	2939.21	0.0	2940.89	133.12	10.41	278.20	248.32
	3.220	60.	0.0	0.0	2932.0	885.0	2936.44	0.0	2937.55	224.07	8.44	104.80	59.12
	3.220	60.	0.0	0.0	2932.0	1520.0	2938.07	0.0	2939.45	189.63	9.43	161.16	110.38
	3.220	60.	0.0	0.0	2932.0	1865.0	2938.79	0.0	2940.32	183.24	9.92	187.92	137.77
	3.220	60.	0.0	0.0	2932.0	2865.0	2940.08	0.0	2942.33	208.25	12.05	237.75	198.53
	3.220	12.	2944.2	2943.5	2932.0	885.0	2936.53	0.0	2937.58	206.65	8.21	107.73	61.56
	3.220	12.	2944.2	2943.5	2932.0	1520.0	2938.18	0.0	2939.49	177.40	9.21	164.96	114.12
	3.220	12.	2944.2	2943.5	2932.0	1865.0	2938.90	0.0	2940.36	170.56	9.70	192.28	142.80
	3.220	12.	2944.2	2943.5	2932.0	2865.0	2940.28	0.0	2942.39	188.31	11.66	245.63	208.78
*	3.220	15.	0.0	0.0	2934.9	885.0	2938.91	2938.91	2940.38	280.20	9.72	91.09	52.87
*	3.220	15.	0.0	0.0	2934.9	1520.0	2940.23	2940.23	2942.21	262.78	11.29	134.68	93.77
*	3.220	15.	0.0	0.0	2934.9	1865.0	2940.87	2940.87	2943.05	252.82	11.85	157.32	117.29
*	3.220	15.	0.0	0.0	2934.9	2865.0	2942.36	2942.36	2945.15	240.00	13.42	213.91	184.93
*	3.250	100.	0.0	0.0	2942.5	880.0	2946.50	2946.50	2947.96	340.93	9.72	90.57	47.66
*	3.250	100.	0.0	0.0	2942.5	1510.0	2947.82	2947.82	2949.78	316.68	11.25	134.26	84.85
*	3.250	100.	0.0	0.0	2942.5	1855.0	2948.43	2948.43	2950.63	310.26	11.89	155.96	105.31
*	3.250	100.	0.0	0.0	2942.5	2845.0	2949.93	2949.93	2952.71	290.58	13.39	212.88	166.90
*	3.310	315.	0.0	0.0	2961.5	865.0	2965.08	2965.08	2966.46	408.20	9.43	91.75	42.81
*	3.310	315.	0.0	0.0	2961.5	1490.0	2966.36	2966.36	2968.18	346.63	10.87	143.77	80.03
*	3.310	315.	0.0	0.0	2961.5	1825.0	2966.97	2966.97	2968.94	322.60	11.37	174.61	101.51
*	3.310	315.	0.0	0.0	2961.5	2805.0	2968.43	2968.43	2970.77	287.22	12.57	266.11	165.51
*	3.320	60.	0.0	0.0	2963.9	865.0	2968.03	2968.03	2969.97	340.83	11.18	77.39	46.85
*	3.320	60.	0.0	0.0	2963.9	1490.0	2969.88	2969.88	2971.92	230.96	11.94	162.70	98.04
*	3.320	60.	0.0	0.0	2963.9	1825.0	2970.48	2970.48	2972.82	236.74	12.93	194.08	118.61
*	3.320	60.	0.0	0.0	2963.9	2805.0	2972.25	2972.25	2974.97	212.77	14.44	305.95	192.30
*	3.320	1.	2973.4	2973.0	2963.9	865.0	2968.79	2968.79	2970.79	229.40	11.34	76.30	57.11
*	3.320	1.	2973.4	2973.0	2963.9	1490.0	2971.01	2971.01	2973.28	197.26	12.20	133.61	106.09
*	3.320	1.	2973.4	2973.0	2963.9	1825.0	2971.98	2971.98	2974.18	254.83	12.43	178.73	114.32
*	3.320	1.	2973.4	2973.0	2963.9	2805.0	2973.95	2973.95	2975.50	387.32	11.46	302.46	142.53

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3.320	12.	2973.4	2973.0	2963.9	865.0	2969.79	0.0	2971.06	124.84	9.05	95.53	77.42
	3.320	12.	2973.4	2973.0	2963.9	1490.0	2972.40	0.0	2973.60	160.29	9.37	201.05	117.69
	3.320	12.	2973.4	2973.0	2963.9	1825.0	2973.89	0.0	2974.58	168.04	7.66	296.87	140.78
	3.320	12.	2973.4	2973.0	2963.9	2805.0	2975.08	0.0	2975.87	167.82	8.26	425.19	216.52
	3.320	1.	0.0	0.0	2963.9	865.0	2970.67	0.0	2971.14	26.57	5.88	204.11	167.80
	3.320	1.	0.0	0.0	2963.9	1490.0	2973.12	0.0	2973.67	21.81	6.60	372.57	319.03
	3.320	1.	0.0	0.0	2963.9	1825.0	2973.98	0.0	2974.59	22.33	7.10	445.26	386.24
	3.320	1.	0.0	0.0	2963.9	2805.0	2975.20	0.0	2975.88	24.93	8.11	699.49	561.74
	3.320	15.	0.0	0.0	2966.5	865.0	2970.46	0.0	2971.51	185.29	8.23	105.68	63.55
	3.320	15.	0.0	0.0	2966.5	1490.0	2973.05	0.0	2973.85	71.86	7.27	240.32	175.77
	3.320	15.	0.0	0.0	2966.5	1825.0	2973.93	0.0	2974.76	64.73	7.48	302.27	226.83
	3.320	15.	0.0	0.0	2966.5	2805.0	2974.95	0.0	2976.27	89.74	9.57	385.40	296.09
*	3.360	160.	0.0	0.0	2973.7	860.0	2977.45	2977.45	2978.66	246.29	8.92	106.48	54.80
*	3.360	160.	0.0	0.0	2973.7	1480.0	2978.58	2978.58	2980.13	207.20	10.31	177.33	102.82
*	3.360	160.	0.0	0.0	2973.7	1810.0	2979.06	2979.06	2980.77	200.11	10.96	211.70	127.95
*	3.360	160.	0.0	0.0	2973.7	2780.0	2980.25	2980.25	2982.39	189.31	12.53	307.34	202.05
	3.360	60.	0.0	0.0	2973.7	860.0	2978.90	0.0	2979.33	52.30	5.46	197.41	118.92
	3.360	60.	0.0	0.0	2973.7	1480.0	2980.18	0.0	2980.80	56.19	6.77	301.58	197.43
	3.360	60.	0.0	0.0	2973.7	1810.0	2980.74	0.0	2981.46	57.53	7.32	352.12	238.63
	3.360	60.	0.0	0.0	2973.7	2780.0	2982.15	0.0	2983.10	60.13	8.61	491.45	358.51
*	3.360	12.	2977.8	2977.4	2973.7	860.0	2980.02	0.0	2980.25	21.25	4.08	287.92	186.58
*	3.360	12.	2977.8	2977.4	2973.7	1480.0	2981.06	0.0	2981.48	31.55	5.61	381.04	263.47
*	3.360	12.	2977.8	2977.4	2973.7	1810.0	2981.48	0.0	2982.00	36.73	6.32	420.33	298.66
*	3.360	12.	2977.8	2977.4	2973.7	2780.0	2982.44	0.0	2983.28	51.62	8.19	526.08	386.93
	3.360	15.	0.0	0.0	2975.7	860.0	2979.71	2979.43	2980.70	178.38	8.07	121.77	64.39
*	3.360	15.	0.0	0.0	2975.7	1480.0	2980.59	2980.59	2982.17	209.42	10.38	177.92	102.27
*	3.360	15.	0.0	0.0	2975.7	1810.0	2981.07	2981.07	2982.83	203.06	11.06	212.57	127.02
*	3.360	15.	0.0	0.0	2975.7	2780.0	2982.31	2982.31	2984.50	188.50	12.60	312.73	202.48
*	3.480	600.	0.0	0.0	2997.4	840.0	3001.44	3001.44	3002.74	282.86	9.14	91.92	49.95
*	3.480	600.	0.0	0.0	2997.4	1445.0	3002.60	3002.60	3004.37	264.76	10.68	135.30	88.81
*	3.480	600.	0.0	0.0	2997.4	1765.0	3003.14	3003.14	3005.11	256.13	11.26	156.73	110.28
*	3.480	600.	0.0	0.0	2997.4	2710.0	3004.49	3004.49	3007.00	234.95	12.70	215.43	176.80
*	3.500	100.	0.0	0.0	3017.4	835.0	3021.42	3021.42	3022.73	286.66	9.17	91.08	49.32
*	3.500	100.	0.0	0.0	3017.4	1435.0	3022.59	3022.59	3024.35	263.02	10.63	134.97	88.48
*	3.500	100.	0.0	0.0	3017.4	1760.0	3023.16	3023.14	3025.10	255.49	11.24	156.56	110.11
*	3.500	100.	0.0	0.0	3017.4	2700.0	3024.48	3024.48	3026.98	234.61	12.68	214.99	176.27
*	3.540	275.	0.0	0.0	3028.4	830.0	3032.41	3032.41	3033.71	285.22	9.14	90.84	49.15
*	3.540	275.	0.0	0.0	3028.4	1425.0	3033.57	3033.57	3035.32	264.68	10.63	134.05	87.59
*	3.540	275.	0.0	0.0	3028.4	1745.0	3034.11	3034.11	3036.07	256.77	11.23	155.38	108.90
*	3.540	275.	0.0	0.0	3028.4	2675.0	3035.44	3035.44	3037.93	236.41	12.67	213.01	173.97

BOWLENS CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	0.080	1285.	2610.1	0.0	0.0	0.0	37.34	0.0
	0.080	2240.	2612.2	2.1	0.0	0.0	51.71	0.0
	0.080	2755.	2613.2	1.0	0.0	0.0	54.31	0.0
	0.080	4275.	2615.5	2.3	0.0	0.0	60.51	0.0
	0.080	1285.	2610.5	0.0	0.4	0.0	38.49	60.00
	0.080	2240.	2612.7	2.1	0.5	0.0	42.20	60.00
	0.080	2755.	2613.6	0.9	0.4	0.0	43.59	60.00
	0.080	4275.	2616.0	2.4	0.5	0.0	77.02	60.00
	0.080	1285.	2610.5	0.0	0.0	0.0	38.58	72.00
	0.080	2240.	2612.7	2.2	0.1	0.0	42.29	72.00
	0.080	2755.	2614.4	1.7	0.8	0.0	44.76	72.00
	0.080	4275.	2617.5	3.1	1.5	0.0	102.85	72.00
*	0.080	1285.	2610.8	0.0	0.3	0.0	32.27	15.00
*	0.080	2240.	2612.6	1.7	-0.2	0.0	36.78	15.00
	0.080	2755.	2614.3	1.7	-0.1	0.0	50.08	15.00
	0.080	4275.	2617.4	3.1	-0.1	0.0	58.49	15.00
	0.250	1270.	2618.6	0.0	7.8	0.0	55.56	815.00
	0.250	2210.	2620.9	2.3	8.3	0.0	64.03	815.00
	0.250	2715.	2621.6	0.7	7.3	0.0	66.71	815.00
	0.250	4215.	2623.8	2.2	6.4	0.0	74.95	815.00
*	0.270	1270.	2625.7	0.0	7.1	0.0	39.61	100.00
*	0.270	2210.	2627.3	1.5	6.4	0.0	47.29	100.00
*	0.270	2715.	2627.9	0.7	6.3	0.0	50.67	100.00
*	0.270	4210.	2629.5	1.6	5.7	0.0	56.56	100.00
	0.400	1255.	2641.0	0.0	15.3	0.0	43.56	650.00
	0.400	2185.	2642.6	1.6	15.3	0.0	51.25	650.00
	0.400	2685.	2643.2	0.6	15.3	0.0	53.49	650.00
	0.400	4165.	2644.7	1.5	15.1	0.0	58.89	650.00
	0.640	1235.	2654.2	0.0	13.1	0.0	82.70	1190.00
	0.640	2145.	2655.8	1.6	13.2	0.0	112.91	1190.00
	0.640	2635.	2656.5	0.7	13.3	0.0	121.95	1190.00
	0.640	4085.	2658.3	1.8	13.7	0.0	147.52	1190.00
	0.640	1235.	2654.6	0.0	0.4	0.0	88.83	60.00
	0.640	2145.	2656.3	1.7	0.5	0.0	119.08	60.00
	0.640	2635.	2657.0	0.7	0.5	0.0	128.39	60.00
	0.640	4085.	2658.9	1.9	0.6	0.0	156.26	60.00
	0.640	1235.	2656.2	0.0	1.6	0.0	117.59	12.00
*	0.640	2145.	2657.6	1.4	1.3	0.0	135.56	12.00
*	0.640	2635.	2658.1	0.5	1.1	0.0	143.51	12.00
*	0.640	4085.	2659.4	1.3	0.5	0.0	163.83	12.00
	0.640	1235.	2656.2	0.0	-0.0	0.0	117.50	15.00
	0.640	2145.	2657.6	1.4	-0.0	0.0	135.34	15.00

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0.640	2635.	2658.1	0.5	-0.0	0.0	143.19	15.00
0.640	4085.	2659.4	1.3	-0.0	0.0	163.19	15.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	0.810	1215.	2665.1	0.0	9.0	0.0	80.56	910.00
*	0.810	2115.	2666.4	1.3	8.9	0.0	86.28	910.00
*	0.810	2595.	2667.0	0.6	8.9	0.0	88.75	910.00
*	0.810	4025.	2668.5	1.5	9.1	0.0	97.00	910.00
	0.820	1215.	2666.6	0.0	1.5	0.0	87.29	60.00
	0.820	2115.	2668.2	1.6	1.8	0.0	94.18	60.00
	0.820	2595.	2668.9	0.7	1.9	0.0	101.13	60.00
	0.820	4025.	2670.7	1.8	2.2	0.0	122.14	60.00
	0.820	1215.	2667.8	0.0	1.1	0.0	92.21	12.00
	0.820	2115.	2669.1	1.3	0.9	0.0	103.05	12.00
	0.820	2595.	2669.6	0.5	0.7	0.0	108.37	12.00
*	0.820	4025.	2670.9	1.3	0.2	0.0	130.10	12.00
	0.820	1215.	2667.8	0.0	0.0	0.0	92.30	15.00
	0.820	2115.	2669.1	1.3	0.0	0.0	103.18	15.00
	0.820	2595.	2669.7	0.5	0.0	0.0	108.57	15.00
	0.820	4025.	2670.9	1.3	0.0	0.0	130.40	15.00
*	0.940	1205.	2672.2	0.0	4.4	0.0	63.91	585.00
*	0.940	2090.	2673.7	1.5	4.6	0.0	183.90	585.00
*	0.940	2570.	2674.2	0.5	4.5	0.0	198.26	585.00
	0.940	3980.	2675.6	1.4	4.7	0.0	211.01	585.00
*	0.950	1205.	2675.2	0.0	3.0	0.0	64.08	40.00
*	0.950	2090.	2676.7	1.5	3.0	0.0	183.56	40.00
*	0.950	2570.	2677.2	0.5	3.0	0.0	198.39	40.00
*	0.950	3980.	2678.2	1.0	2.7	0.0	207.89	40.00
	0.950	1205.	2676.5	0.0	1.2	0.0	168.91	12.00
	0.950	2090.	2676.8	0.4	0.1	0.0	190.47	12.00
	0.950	2570.	2677.3	0.5	0.1	0.0	199.49	12.00
	0.950	3980.	2678.5	1.1	0.2	0.0	209.81	12.00
	0.950	1205.	2676.5	0.0	0.1	0.0	174.41	10.00
	0.950	2090.	2677.3	0.8	0.5	0.0	199.20	10.00
	0.950	2570.	2677.8	0.4	0.4	0.0	203.33	10.00
	0.950	3980.	2678.8	1.0	0.3	0.0	212.70	10.00
*	1.100	1190.	2688.4	0.0	11.9	0.0	63.74	790.00
*	1.100	2065.	2689.8	1.4	12.5	0.0	180.10	790.00
*	1.100	2540.	2690.4	0.5	12.6	0.0	197.95	790.00
*	1.100	3930.	2691.4	1.1	12.7	0.0	207.73	790.00
	1.240	1175.	2696.2	0.0	7.8	0.0	125.64	740.00
	1.240	2040.	2697.3	1.0	7.4	0.0	209.57	740.00
	1.240	2510.	2697.7	0.5	7.4	0.0	247.36	740.00
	1.240	3885.	2698.9	1.2	7.5	0.0	268.30	740.00
*	1.560	1140.	2721.4	0.0	25.2	0.0	29.83	1710.00
*	1.560	1985.	2723.1	1.7	25.8	0.0	34.12	1710.00
*	1.560	2440.	2724.5	1.4	26.8	0.0	140.01	1710.00
*	1.560	3770.	2726.2	1.7	27.3	0.0	334.40	1710.00

H12

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	1.570	1140.	2723.0	0.0	1.6	0.0	31.38	60.00
	1.570	1985.	2724.9	1.9	1.8	0.0	123.69	60.00
*	1.570	2440.	2725.5	0.6	1.0	0.0	140.24	60.00
*	1.570	3770.	2727.2	1.7	1.0	0.0	334.52	60.00
	1.570	1140.	2723.1	0.0	0.1	0.0	31.71	12.00
	1.570	1985.	2724.9	1.8	0.0	0.0	124.09	12.00
	1.570	2440.	2725.6	0.7	0.1	0.0	144.76	12.00
	1.570	3770.	2727.4	1.8	0.2	0.0	336.72	12.00
	1.570	1140.	2723.5	0.0	0.4	0.0	32.77	15.00
	1.570	1985.	2725.7	2.1	0.8	0.0	145.81	15.00
	1.570	2440.	2726.4	0.7	0.8	0.0	163.31	15.00
	1.570	3770.	2727.9	1.5	0.6	0.0	344.22	15.00
	1.600	1140.	2725.0	0.0	1.5	0.0	30.90	100.00
	1.600	1980.	2726.8	1.8	1.1	0.0	121.67	100.00
*	1.600	2430.	2727.7	0.9	1.3	0.0	141.23	100.00
*	1.600	3760.	2729.4	1.7	1.4	0.0	334.00	100.00
	1.660	1135.	2730.5	0.0	5.5	0.0	138.54	235.00
	1.660	1970.	2731.8	1.4	5.0	0.0	220.87	235.00
	1.660	2420.	2732.2	0.4	4.5	0.0	236.48	235.00
	1.660	3740.	2733.2	0.9	3.8	0.0	281.97	235.00
	1.660	1135.	2731.3	0.0	0.8	0.0	196.78	40.00
	1.660	1970.	2732.5	1.2	0.7	0.0	245.47	40.00
	1.660	2420.	2733.0	0.4	0.7	0.0	269.00	40.00
	1.660	3740.	2734.0	1.1	0.9	0.0	531.75	40.00
*	1.660	1135.	2731.5	0.0	0.2	0.0	180.46	1.00
	1.660	1970.	2732.7	1.2	0.2	0.0	251.47	1.00
	1.660	2420.	2733.3	0.6	0.4	0.0	292.37	1.00
	1.660	3740.	2734.6	1.3	0.6	0.0	549.78	1.00
	1.660	1135.	2731.7	0.0	0.2	0.0	193.82	12.00
	1.660	1970.	2732.9	1.2	0.2	0.0	260.38	12.00
	1.660	2420.	2733.4	0.5	0.1	0.0	302.37	12.00
	1.660	3740.	2734.6	1.2	0.1	0.0	551.81	12.00
	1.660	1135.	2731.8	0.0	0.0	0.0	218.08	1.00
	1.660	1970.	2732.8	1.1	-0.1	0.0	261.33	1.00
	1.660	2420.	2733.3	0.5	-0.1	0.0	294.47	1.00
	1.660	3740.	2734.5	1.2	-0.2	0.0	546.71	1.00
	1.660	1135.	2731.8	0.0	0.0	0.0	220.49	10.00
	1.660	1970.	2732.9	1.1	0.0	0.0	264.32	10.00
	1.660	2420.	2733.4	0.5	0.0	0.0	298.00	10.00
	1.660	3740.	2734.5	1.2	0.0	0.0	548.00	10.00
*	1.760	1125.	2737.7	0.0	5.9	0.0	229.06	515.00
*	1.760	1950.	2738.4	0.7	5.5	0.0	278.02	515.00
*	1.760	2395.	2738.6	0.3	5.3	0.0	336.78	515.00
*	1.760	3705.	2739.3	0.7	4.8	0.0	545.50	515.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	1.770	1125.	2738.6	0.0	0.9	0.0	336.36	40.00
	1.770	1950.	2739.4	0.8	1.1	0.0	553.07	40.00
	1.770	2395.	2739.8	0.3	1.1	0.0	588.72	40.00
	1.770	3705.	2740.5	0.7	1.1	0.0	630.79	40.00
	1.770	1125.	2738.6	0.0	0.0	0.0	328.63	1.00
	1.770	1950.	2739.4	0.8	0.0	0.0	534.78	1.00
	1.770	2395.	2739.8	0.3	0.0	0.0	560.75	1.00
	1.770	3705.	2740.5	0.7	0.1	0.0	591.63	1.00
	1.770	1125.	2738.7	0.0	0.1	0.0	360.60	12.00
	1.770	1950.	2739.6	0.8	0.1	0.0	543.82	12.00
	1.770	2395.	2739.9	0.3	0.1	0.0	570.52	12.00
	1.770	3705.	2740.6	0.7	0.1	0.0	594.48	12.00
	1.770	1125.	2738.8	0.0	0.0	0.0	380.80	1.00
	1.770	1950.	2739.6	0.8	0.0	0.0	563.95	1.00
	1.770	2395.	2739.9	0.3	0.0	0.0	604.68	1.00
	1.770	3705.	2740.6	0.7	0.0	0.0	637.18	1.00
	1.770	1125.	2738.9	0.0	0.1	0.0	425.80	10.00
	1.770	1950.	2739.7	0.8	0.1	0.0	581.16	10.00
	1.770	2395.	2740.0	0.3	0.1	0.0	615.12	10.00
	1.770	3705.	2740.8	0.7	0.2	0.0	648.97	10.00
*	1.790	1120.	2740.2	0.0	1.3	0.0	289.23	85.00
*	1.790	1945.	2741.0	0.8	1.3	0.0	330.90	85.00
*	1.790	2390.	2741.2	0.3	1.2	0.0	350.76	85.00
*	1.790	3700.	2741.8	0.6	1.1	0.0	568.26	85.00
	1.790	1120.	2741.1	0.0	0.9	0.0	336.65	40.00
	1.790	1945.	2741.8	0.8	0.9	0.0	568.00	40.00
	1.790	2390.	2742.2	0.3	0.9	0.0	580.11	40.00
	1.790	3700.	2742.9	0.7	1.0	0.0	606.01	40.00
	1.790	1120.	2741.1	0.0	-0.0	0.0	278.27	1.00
	1.790	1945.	2741.9	0.8	0.1	0.0	537.25	1.00
	1.790	2390.	2742.3	0.4	0.1	0.0	557.34	1.00
	1.790	3700.	2743.0	0.7	0.1	0.0	601.06	1.00
	1.790	1120.	2741.3	0.0	0.2	0.0	310.26	12.00
	1.790	1945.	2742.1	0.8	0.2	0.0	550.94	12.00
	1.790	2390.	2742.4	0.3	0.2	0.0	562.59	12.00
	1.790	3700.	2743.1	0.7	0.1	0.0	610.10	12.00
	1.790	1120.	2741.3	0.0	0.1	0.0	384.03	1.00
	1.790	1945.	2742.1	0.8	-0.0	0.0	577.82	1.00
	1.790	2390.	2742.4	0.3	-0.0	0.0	590.19	1.00
	1.790	3700.	2743.1	0.7	-0.0	0.0	615.86	1.00
	1.790	1120.	2741.3	0.0	0.0	0.0	391.39	10.00
	1.790	1945.	2742.1	0.8	0.0	0.0	578.56	10.00
	1.790	2390.	2742.4	0.3	0.0	0.0	590.81	10.00
	1.790	3700.	2743.2	0.7	0.0	0.0	616.73	10.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.870	1105.	2745.9	0.0	4.6	0.0	47.56	395.00
*	1.870	1920.	2747.2	1.2	5.1	0.0	53.41	395.00
*	1.870	2360.	2747.7	0.6	5.3	0.0	56.08	395.00
*	1.870	3650.	2750.2	2.5	7.1	0.0	553.98	395.00
*	1.880	1105.	2748.6	0.0	2.7	0.0	48.39	80.00
*	1.880	1920.	2749.9	1.3	2.7	0.0	54.52	80.00
*	1.880	2360.	2750.5	0.6	2.8	0.0	57.34	80.00
*	1.880	3650.	2752.9	2.4	2.7	0.0	565.64	80.00
*	1.880	1105.	2750.3	0.0	1.7	0.0	56.54	12.00
	1.880	1920.	2751.7	1.4	1.8	0.0	113.73	12.00
	1.880	2360.	2751.4	-0.3	0.9	0.0	65.46	12.00
	1.880	3650.	2753.1	1.7	0.2	0.0	582.59	12.00
	1.880	1105.	2750.5	0.0	0.2	0.0	57.57	20.00
	1.880	1920.	2752.0	1.5	0.4	0.0	496.78	20.00
	1.880	2360.	2752.2	0.2	0.8	0.0	518.29	20.00
	1.880	3650.	2753.6	1.3	0.5	0.0	614.96	20.00
*	2.000	1085.	2757.8	0.0	7.3	0.0	50.50	700.00
*	2.000	1885.	2758.9	1.1	6.9	0.0	54.08	700.00
*	2.000	2315.	2759.5	0.5	7.2	0.0	57.99	700.00
*	2.000	3580.	2760.9	1.4	7.3	0.0	68.92	700.00
	2.120	1065.	2772.2	0.0	14.3	0.0	50.93	650.00
*	2.120	1845.	2773.1	0.9	14.1	0.0	53.91	650.00
*	2.120	2270.	2773.6	0.5	14.1	0.0	57.56	650.00
*	2.120	3500.	2775.0	1.4	14.1	0.0	68.23	650.00
	2.130	1065.	2773.4	0.0	1.2	0.0	50.63	60.00
*	2.130	1845.	2774.4	1.0	1.3	0.0	53.98	60.00
*	2.130	2270.	2774.9	0.5	1.3	0.0	57.68	60.00
*	2.130	3500.	2776.3	1.4	1.3	0.0	68.45	60.00
	2.130	1065.	2773.4	0.0	0.0	0.0	50.78	12.00
*	2.130	1845.	2776.9	3.5	2.5	0.0	73.28	12.00
	2.130	2270.	2777.8	0.8	2.8	0.0	79.94	12.00
	2.130	3500.	2779.4	1.7	3.1	0.0	92.91	12.00
*	2.130	1065.	2775.3	0.0	1.9	0.0	50.49	15.00
	2.130	1845.	2776.4	1.1	-0.5	0.0	54.08	15.00
	2.130	2270.	2777.4	0.9	-0.4	0.0	61.02	15.00
	2.130	3500.	2779.0	1.6	-0.5	0.0	73.66	15.00
	2.200	1055.	2784.1	0.0	8.7	0.0	34.94	370.00
*	2.200	1825.	2785.4	1.3	8.9	0.0	39.03	370.00
*	2.200	2240.	2786.1	0.7	8.7	0.0	41.10	370.00
*	2.200	3460.	2787.8	1.7	8.8	0.0	46.42	370.00
*	2.240	1045.	2790.1	0.0	6.0	0.0	34.65	230.00
*	2.240	1810.	2791.5	1.4	6.1	0.0	39.08	230.00
*	2.240	2225.	2792.2	0.7	6.1	0.0	41.16	230.00
*	2.240	3430.	2795.0	2.9	7.3	0.0	354.40	230.00

K12

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	2.250	1045.	2791.1	0.0	1.0	0.0	34.61	60.00
*	2.250	1810.	2792.5	1.4	1.0	0.0	39.1%	40.00
*	2.250	2225.	2793.2	0.7	1.0	0.0	41.24	40.00
*	2.250	3430.	2796.0	2.8	1.0	0.0	355.48	40.00
	2.250	1045.	2791.4	0.0	0.3	0.0	35.54	12.00
	2.250	1810.	2792.9	1.5	0.4	0.0	40.37	12.00
	2.250	2225.	2796.4	3.5	3.2	0.0	433.58	12.00
	2.250	3430.	2797.2	0.8	1.2	0.0	495.74	12.00
*	2.250	1045.	2792.8	0.0	1.4	0.0	34.44	10.00
*	2.250	1810.	2794.2	1.4	1.3	0.0	38.90	10.00
	2.250	2225.	2795.9	1.7	-0.5	0.0	44.10	10.00
*	2.250	3430.	2798.0	2.1	0.7	0.0	412.66	10.00
	2.440	1010.	2813.1	0.0	20.3	0.0	32.91	970.00
*	2.440	1750.	2814.4	1.3	20.2	0.0	37.12	970.00
*	2.440	2150.	2815.1	0.7	19.2	0.0	39.26	970.00
*	2.440	3315.	2816.7	1.7	18.8	0.0	44.61	970.00
	2.450	1010.	2814.5	0.0	1.4	0.0	35.08	60.00
	2.450	1750.	2816.1	1.7	1.7	0.0	40.40	60.00
	2.450	2150.	2816.8	0.7	1.8	0.0	42.69	60.00
	2.450	3315.	2818.6	1.8	1.9	0.0	48.30	60.00
	2.450	1010.	2814.6	0.0	0.1	0.0	35.38	12.00
	2.450	1750.	2816.3	1.7	0.1	0.0	40.83	12.00
	2.450	2150.	2817.0	0.7	0.2	0.0	43.19	12.00
	2.450	3315.	2819.4	2.4	0.8	0.0	51.02	12.00
*	2.450	1010.	2815.0	0.0	0.5	0.0	32.42	15.00
*	2.450	1750.	2816.5	1.5	0.2	0.0	37.11	15.00
*	2.450	2150.	2817.2	0.7	0.2	0.0	39.28	15.00
	2.450	3315.	2819.0	1.9	-0.4	0.0	45.26	15.00
*	2.580	990.	2850.4	0.0	35.4	0.0	32.27	630.00
*	2.580	1710.	2851.8	1.4	35.3	0.0	36.88	630.00
*	2.580	2100.	2852.5	0.7	35.3	0.0	38.97	630.00
*	2.580	3235.	2854.2	1.7	35.1	0.0	44.33	630.00
*	2.660	975.	2868.5	0.0	18.1	0.0	38.41	310.00
*	2.660	1685.	2870.6	2.1	18.8	0.0	151.95	310.00
*	2.660	2070.	2871.1	0.5	18.6	0.0	157.52	310.00
*	2.660	3185.	2872.0	0.9	17.9	0.0	165.92	310.00
*	2.670	975.	2870.1	0.0	1.6	0.0	18.00	60.00
*	2.670	1685.	2872.6	2.5	2.0	0.0	131.71	60.00
*	2.670	20	2872.9	0.3	1.9	0.0	133.77	60.00
*	2.670	318>.	2873.8	0.8	1.8	0.0	170.03	60.00
*	2.670	975.	2871.1	0.0	1.0	0.0	106.81	12.00
*	2.670	1685.	2872.8	1.6	0.2	0.0	132.76	12.00
*	2.670	2070.	2873.2	0.4	0.2	0.0	135.19	12.00
*	2.670	3185.	2874.0	0.8	0.2	0.0	172.25	12.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.670	975.	2872.2	0.0	1.0	0.0	155.53	15.00
	2.670	1685.	2873.6	1.4	0.8	0.0	168.18	15.00
	2.670	2070.	2874.1	0.5	0.9	0.0	172.90	15.00
	2.670	3185.	2874.4	0.3	0.4	0.0	175.42	15.00
*	2.800	955.	2883.5	0.0	11.4	0.0	40.49	680.00
*	2.800	1645.	2885.8	2.3	12.2	0.0	156.88	680.00
*	2.800	2020.	2886.2	0.4	12.1	0.0	160.11	680.00
*	2.800	3110.	2887.3	1.1	12.9	0.0	170.23	680.00
	2.940	930.	2898.1	0.0	14.6	0.0	28.75	720.00
*	2.940	1600.	2899.4	1.3	13.6	0.0	32.62	720.00
*	2.940	1965.	2900.1	0.7	13.9	0.0	34.67	720.00
*	2.940	3020.	2901.8	1.7	14.5	0.0	53.10	720.00
*	2.950	930.	2899.8	0.0	1.8	0.0	28.05	40.00
*	2.950	1600.	2901.4	1.5	2.0	0.0	32.63	40.00
*	2.950	1965.	2902.1	0.7	2.0	0.0	34.71	40.00
*	2.950	3020.	2903.8	1.7	2.0	0.0	53.16	40.00
	2.950	930.	2899.9	0.0	0.0	0.0	28.07	22.00
	2.950	1600.	2901.9	2.1	0.5	0.0	34.27	22.00
	2.950	1965.	2903.7	1.8	1.7	0.0	38.79	22.00
	2.950	3020.	2904.6	0.9	0.8	0.0	66.07	22.00
	2.950	930.	2900.8	0.0	0.9	0.0	30.81	10.00
	2.950	1600.	2902.4	1.7	0.5	0.0	35.75	10.00
	2.950	1965.	2903.9	1.5	0.2	0.0	54.84	10.00
	2.950	3020.	2905.1	1.2	0.5	0.0	74.11	10.00
*	2.960	930.	2903.3	0.0	2.5	0.0	44.20	50.00
*	2.960	1600.	2904.5	1.3	2.1	0.0	64.86	50.00
*	2.960	1965.	2905.1	0.5	1.2	0.0	73.76	50.00
*	2.960	3020.	2906.9	1.8	1.8	0.0	239.12	50.00
*	3.060	910.	2919.7	0.0	16.4	0.0	26.50	510.00
*	3.060	1565.	2921.2	1.5	16.7	0.0	29.93	510.00
*	3.060	1920.	2921.8	0.6	16.7	0.0	32.82	510.00
*	3.060	2950.	2923.9	2.1	17.1	0.0	72.25	510.00
*	3.070	910.	2921.6	0.0	2.0	0.0	26.44	60.00
*	3.070	1565.	2923.2	1.5	2.0	0.0	29.86	60.00
*	3.070	1920.	2923.9	0.7	2.1	0.0	34.11	60.00
*	3.070	2950.	2926.1	2.2	2.2	0.0	73.13	60.00
	3.070	910.	2922.4	0.0	0.8	0.0	28.13	12.00
*	3.070	1565.	2923.8	1.4	0.6	0.0	32.46	12.00
*	3.070	1920.	2924.1	0.4	0.2	0.0	36.64	12.00
*	3.070	2950.	2926.3	2.2	0.2	0.0	74.05	12.00
*	3.070	910.	2923.7	0.0	1.3	0.0	26.52	15.00
*	3.070	1565.	2925.2	1.5	1.4	0.0	29.93	15.00
*	3.070	1920.	2925.9	0.7	1.7	0.0	33.89	15.00
*	3.070	2950.	2928.1	2.2	1.8	0.0	72.91	15.00

M12

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3.210	885.	2935.7	0.0	12.0	0.0	35.13	710.00
	3.210	1520.	2937.4	1.7	12.2	0.0	39.14	710.00
	3.210	1865.	2938.1	0.7	12.2	0.0	40.76	710.00
	3.210	2865.	2939.2	1.1	11.1	0.0	43.18	710.00
	3.220	885.	2936.4	0.0	0.7	0.0	32.54	60.00
	3.220	1520.	2938.1	1.6	0.7	0.0	36.52	60.00
	3.220	1865.	2938.8	0.7	0.7	0.0	38.12	60.00
	3.220	2865.	2940.1	1.3	0.9	0.0	39.25	60.00
	3.220	885.	2936.5	0.0	0.1	0.0	32.76	12.00
	3.220	1520.	2938.2	1.6	0.1	0.0	36.77	12.00
	3.220	1865.	2938.9	0.7	0.1	0.0	38.22	12.00
	3.220	2865.	2940.3	1.4	0.2	0.0	39.43	12.00
*	3.220	885.	2938.9	0.0	2.4	0.0	31.50	15.00
*	3.220	1520.	2940.2	1.3	2.1	0.0	34.71	15.00
*	3.220	1865.	2940.9	0.6	2.0	0.0	36.26	15.00
*	3.220	2865.	2942.4	1.5	2.1	0.0	39.73	15.00
*	3.250	880.	2946.5	0.0	7.6	0.0	31.46	100.00
*	3.250	1510.	2947.8	1.3	7.6	0.0	34.68	100.00
*	3.250	1855.	2948.4	0.6	7.6	0.0	36.17	100.00
*	3.250	2845.	2949.9	1.5	7.6	0.0	39.67	100.00
*	3.310	865.	2965.1	0.0	18.6	0.0	33.77	315.00
*	3.310	1490.	2966.4	1.3	18.5	0.0	47.64	315.00
*	3.310	1825.	2967.0	0.6	18.5	0.0	54.26	315.00
*	3.310	2805.	2968.4	1.5	18.5	0.0	70.34	315.00
*	3.320	865.	2968.0	0.0	2.9	0.0	20.00	60.00
*	3.320	1490.	2969.9	1.9	3.5	0.0	49.00	60.00
*	3.320	1825.	2970.5	0.6	3.5	0.0	54.84	60.00
*	3.320	2805.	2972.2	1.8	3.8	0.0	71.89	60.00
*	3.320	865.	2968.8	0.0	0.8	0.0	19.42	1.00
*	3.320	1490.	2971.0	2.2	1.1	0.0	42.59	1.00
*	3.320	1825.	2972.0	1.0	1.5	0.0	60.90	1.00
*	3.320	2805.	2974.0	2.0	1.7	0.0	92.31	1.00
	3.320	865.	2969.8	0.0	1.0	0.0	19.53	12.00
	3.320	1490.	2972.4	2.6	1.4	0.0	68.90	12.00
	3.320	1825.	2973.9	1.5	1.9	0.0	91.23	12.00
	3.320	2805.	2975.1	1.2	1.1	0.0	150.02	12.00
	3.320	865.	2970.7	0.0	0.9	0.0	56.57	1.00
	3.320	1490.	2973.1	2.5	0.7	0.0	80.35	1.00
	3.320	1825.	2974.0	0.9	0.1	0.0	88.67	1.00
	3.320	2805.	2975.2	1.2	0.1	0.0	174.07	1.00
	3.320	865.	2970.5	0.0	-0.2	0.0	37.89	15.00
	3.320	1490.	2973.1	2.6	-0.1	0.0	66.20	15.00
	3.320	1825.	2973.9	0.9	-0.1	0.0	75.76	15.00
	3.320	2805.	2974.9	1.0	-0.3	0.0	87.04	15.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	3.360	860.	2977.5	0.0	7.0	0.0	54.00	160.00
*	3.360	1480.	2978.6	1.1	5.5	0.0	69.21	160.00
*	3.360	1810.	2979.1	0.5	5.1	0.0	74.28	160.00
*	3.360	2780.	2980.2	1.2	5.3	0.0	86.86	160.00
	3.360	860.	2978.9	0.0	1.4	0.0	69.15	60.00
	3.360	1480.	2980.2	1.3	1.6	0.0	86.15	60.00
	3.360	1810.	2980.7	0.6	1.7	0.0	91.06	60.00
	3.360	2780.	2982.2	1.4	1.9	0.0	119.61	60.00
*	3.360	860.	2980.0	0.0	1.1	0.0	84.45	12.00
*	3.360	1480.	2981.1	1.0	0.9	0.0	92.08	12.00
*	3.360	1810.	2981.5	0.4	0.7	0.0	93.44	12.00
*	3.360	2780.	2982.4	1.0	0.3	0.0	120.56	12.00
	3.360	860.	2979.7	0.0	-0.3	0.0	58.81	15.00
*	3.360	1480.	2980.6	0.9	-0.5	0.0	69.30	15.00
*	3.360	1810.	2981.1	0.5	-0.4	0.0	74.41	15.00
*	3.360	2780.	2982.3	1.2	-0.1	0.0	87.51	15.00
*	3.480	840.	3001.4	0.0	21.7	0.0	35.74	600.00
*	3.480	1445.	3002.6	1.2	22.0	0.0	39.01	600.00
*	3.480	1765.	3003.1	0.5	22.1	0.0	40.45	600.00
*	3.480	2710.	3004.5	1.4	22.2	0.0	47.25	600.00
*	3.500	835.	3021.4	0.0	20.0	0.0	35.59	100.00
*	3.500	1435.	3022.6	1.2	20.0	0.0	38.99	100.00
*	3.500	1760.	3023.1	0.5	20.0	0.0	40.43	100.00
*	3.500	2700.	3024.5	1.3	20.0	0.0	47.20	100.00
*	3.540	830.	3032.4	0.0	11.0	0.0	35.55	275.00
*	3.540	1425.	3033.6	1.2	11.0	0.0	38.93	275.00
*	3.540	1745.	3034.1	0.5	11.0	0.0	40.36	275.00
*	3.540	2675.	3035.4	1.3	11.0	0.0	46.95	275.00

SUMMARY OF ERRORS

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CAUTION SECNO= 0.080 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 0.270 PROFILE= 1 CRITICAL DEPTH ASSUMED
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PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION SECNO= 0.270 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.270 PROFILE= 2
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.270 PROFILE= 2
20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 0.270 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.270 PROFILE= 3
PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 0.270 PROFILE= 3

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 PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    2.130  PROFILE= 2  HYDRAULIC JUMP D.S.

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 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    2.660  PROFILE= 1  CRITICAL DEPTH ASSUMED
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 PROBABLE MINIMUM SPECIFIC ENERGY
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 20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION  SECNO=    2.800  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.800  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.800  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.800  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.800  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=    2.800  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.800  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.800  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    2.940  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.940  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.940  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.940  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.940  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    2.950  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.950  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.950  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.950  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.950  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.950  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.950  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.950  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.950  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.950  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.950  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.950  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    2.960  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.960  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.960  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.960  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.960  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.960  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.960  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.960  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.960  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    2.960  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    2.960  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    2.960  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.060  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.060  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.060  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.060  PROFILE= 4  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    3.060  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.060  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.070  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.070  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.070  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    3.070  PROFILE= 3  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    3.070  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO=    3.070  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.070  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.070  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.070  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.070  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.070  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.070  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.070  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.070  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.220  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.220  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.220  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.220  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.220  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.220  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.220  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.220  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.220  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.220  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.220  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.220  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION  SECNO=    3.250  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.250  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.250  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.250  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.250  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.250  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.250  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.250  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.250  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.250  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.250  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.250  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.310  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    3.310  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    3.320  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    3.320  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.320  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    3.320  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.320  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.320  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.320  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.320  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.320  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.320  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.320  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.320  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.320  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.320  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.320  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.360  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.360  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.360  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO=    3.360  PROFILE= 2
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CAUTION  SECNO=    3.360  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.360  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.360  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.360  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.360  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.360  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    3.360  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    3.360  PROFILE= 3  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    3.360  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO=    3.360  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.360  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.360  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.480  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    3.480  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.480  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    3.500  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.500  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.500  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.500  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.500  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.500  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.500  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.500  PROFILE= 3
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.500  PROFILE= 3
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    3.500  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.500  PROFILE= 4
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    3.500  PROFILE= 4
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.540  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.540  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.540  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.540  PROFILE= 4  CRITICAL DEPTH ASSUMED
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K13

BOWLENS CREEK

YANCEY CO NC FEMA STUDY

	500 YR FLOOD		100 YR FLOOD		50 YR FLOOD		10 YR FLOOD	
MILE	Q	ELEV	Q	ELEV	Q	ELEV	Q	ELEV
0.080	4275.	2615.5	2755.	2613.2	2240.	2612.2	1285.	2610.1
0.080	4275.	2617.4	2755.	2614.3	2240.	2612.6	1285.	2610.8
0.250	4215.	2623.8	2715.	2621.6	2210.	2620.9	1270.	2618.6
0.270	4210.	2629.5	2715.	2627.9	2210.	2627.3	1270.	2625.7
0.400	4165.	2644.7	2685.	2643.2	2185.	2642.6	1255.	2641.0
0.640	4085.	2658.3	2635.	2656.5	2145.	2655.8	1235.	2654.2
0.640	4085.	2659.4	2635.	2658.1	2145.	2657.6	1235.	2656.2
0.810	4025.	2668.5	2595.	2667.0	2115.	2666.4	1215.	2665.1
0.820	4025.	2670.7	2595.	2668.9	2115.	2668.2	1215.	2666.6
0.820	4025.	2670.9	2595.	2669.7	2115.	2669.1	1215.	2667.8
0.940	3980.	2675.6	2570.	2674.2	2090.	2673.7	1205.	2672.2
0.950	3980.	2678.2	2570.	2677.2	2090.	2676.7	1205.	2675.2
0.950	3980.	2678.8	2570.	2677.8	2090.	2677.3	1205.	2676.5
1.100	3930.	2691.4	2540.	2690.4	2065.	2689.8	1190.	2688.4
1.240	3885.	2698.9	2510.	2697.7	2040.	2697.3	1175.	2696.2
1.560	3770.	2726.2	2440.	2724.5	1985.	2723.1	1140.	2721.4
1.570	3770.	2727.2	2440.	2725.5	1985.	2724.9	1140.	2723.0
1.570	3770.	2727.9	2440.	2726.4	1985.	2725.7	1140.	2723.5
1.600	3760.	2729.4	2430.	2727.7	1980.	2726.8	1140.	2725.0
1.660	3740.	2733.2	2420.	2732.2	1970.	2731.8	1135.	2730.5
1.660	3740.	2734.5	2420.	2733.4	1970.	2732.9	1135.	2731.8
1.760	3705.	2739.3	2395.	2738.6	1950.	2738.4	1125.	2737.7
1.770	3705.	2740.5	2395.	2739.8	1950.	2739.4	1125.	2738.6
1.770	3705.	2740.8	2395.	2740.0	1950.	2739.7	1125.	2738.9
1.790	3700.	2741.8	2390.	2741.2	1945.	2741.0	1120.	2740.2
1.790	3700.	2743.2	2390.	2742.4	1945.	2742.1	1120.	2741.3

L13

1.870	3650.	2750.2	2360.	2747.7	1920.	2747.2	1105.	2745.9
1.880	3650.	2752.9	2360.	2750.5	1920.	2749.9	1105.	2748.6
1.880	3650.	2753.6	2360.	2752.2	1920.	2752.0	1105.	2750.5
2.000	3580.	2760.9	2315.	2759.5	1885.	2758.9	1085.	2757.8
2.120	3500.	2775.0	2270.	2773.6	1845.	2773.1	1065.	2772.2
2.130	3500.	2776.3	2270.	2774.9	1845.	2774.4	1065.	2773.4
2.130	3500.	2779.0	2270.	2777.4	1845.	2776.4	1065.	2775.3
2.200	3460.	2787.8	2240.	2786.1	1825.	2785.4	1055.	2784.1
2.240	3430.	2795.0	2225.	2792.2	1810.	2791.5	1045.	2790.1
2.250	3430.	2796.0	2225.	2793.2	1810.	2792.5	1045.	2791.1
2.250	3430.	2798.0	2225.	2795.9	1810.	2794.2	1045.	2792.8
2.440	3315.	2816.7	2150.	2815.1	1750.	2814.4	1010.	2813.1
2.450	3315.	2818.6	2150.	2816.8	1750.	2816.1	1010.	2814.5
2.450	3315.	2819.0	2150.	2817.2	1750.	2816.5	1010.	2815.0
2.580	3235.	2854.2	2100.	2852.5	1710.	2851.8	990.	2850.4
2.660	3185.	2872.0	2070.	2871.1	1685.	2870.6	975.	2868.5
2.670	3185.	2873.8	2070.	2872.9	1685.	2872.6	975.	2870.1
2.670	3185.	2874.4	2070.	2874.1	1685.	2873.6	975.	2872.2
2.800	3110.	2887.3	2020.	2886.2	1645.	2885.8	955.	2883.5
2.940	3020.	2901.8	1965.	2900.1	1600.	2899.4	930.	2898.1
2.950	3020.	2903.8	1965.	2902.1	1600.	2901.4	930.	2899.8
2.950	3020.	2905.1	1965.	2903.9	1600.	2902.4	930.	2900.8
2.960	3020.	2906.9	1965.	2905.1	1600.	2904.5	930.	2903.3
3.060	2950.	2923.9	1920.	2921.8	1565.	2921.2	910.	2919.7
3.070	2950.	2926.1	1920.	2923.9	1565.	2923.2	910.	2921.6
3.070	2950.	2928.1	1920.	2925.9	1565.	2925.2	910.	2923.7
3.210	2865.	2939.2	1865.	2938.1	1520.	2937.4	885.	2935.7
3.220	2865.	2940.1	1865.	2938.8	1520.	2938.1	885.	2936.4
3.220	2865.	2942.4	1865.	2940.9	1520.	2940.2	885.	2938.9
3.250	2845.	2949.9	1855.	2948.4	1510.	2947.8	880.	2946.5

3.310	2805.	2968.4	1825.	2967.0	1490.	2966.4	865.	2965.1
3.320	2805.	2972.2	1825.	2970.5	1490.	2969.9	865.	2968.0
3.320	2805.	2974.9	1825.	2973.9	1490.	2973.1	865.	2970.5
3.360	2780.	2980.2	1810.	2979.1	1480.	2978.6	860.	2977.5
3.360	2780.	2982.3	1810.	2981.1	1480.	2980.6	860.	2979.7
3.480	2710.	3004.5	1765.	3003.1	1445.	3002.6	840.	3001.4
3.500	2700.	3024.5	1760.	3023.1	1435.	3022.6	835.	3021.4
3.540	2675.	3035.4	1745.	3034.1	1425.	3033.6	830.	3032.4

THIS RUN EXECUTED 10/03/81 8:55:40

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**************************************************

T1      YANCEY CO NC FEMA STUDY          JLB 3-9-81 BOWLEN1                          5
T2      100 YR FLOOD                     HCDM231                                     10
T3      BOWLENS CREEK                    100 YR FLOODWAY                             15

J1  ICHECK     INQ    NINV    IDIR    STRT  METRIC   HVINS      Q      WSEL    FQ
         0.      4.      0.      0. 0.00592      0.     0.0       0.     0.0     0.0     20

J2  NPROF   IPLOT   PRFVS   XSECV   XSECH      FN   ALLDC      IBW   CHNIM ITRACE
         0.      0.     -1.      0.      0.   0.0     0.0       0.      0.      0.     25

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     110.00     0.0   200.00     0.0     0.0     0.0     0.0     0.0     0.0     0.0     30

  QT      5.   1285.   2240.   2755.   4275.   2755.      0.      0.      0.      0.     35
  NC  0.150   0.130   0.045     0.1     0.5                                             40
  ET      0.     0.0     0.0     0.0     0.0    7.11   40.00  105.00     0.0     0.0     45

  X1   0.08     15.     55.    102.      0.      0.      0.     0.0     0.0      0.     50
  GR 2624.7     20.  2621.9     33.  2611.2     46.  2611.0     55.  2604.7     62.     55
  GR 2604.3     64.  2604.0     69.  2603.0     73.  2603.0     77.  2604.4     85.     60
  GR 2615.9    102.  2615.7    113.  2617.1    134.  2616.7    140.  2627.4    156.     65
  ET      0.     0.0     0.0     0.0     0.0    7.11   40.00  105.00     0.0     0.0     70

  X1   0.08      0.      0.      0.     60.     60.     60.     0.0     0.0      0.     75
  X3     10.     0.0     0.0      0.     0.0      0.     0.0  2614.6  2615.6              80
  SB   1.25    1.60    3.00      0.  31.00    0.50  336.00     0.0  2603.0  2603.0     85
  ET      0.     0.0     0.0     0.0     0.0    7.11   40.00  105.00     0.0     0.0     90

  X1   0.08      0.      0.      0.     72.     72.     72.     0.0     0.0      0.     95
  X2      0.     0.0      1.  2614.0  2615.1     0.0      0.      0.     0.0      0.    100
  X3     10.     0.0     0.0      0.     0.0      0.     0.0  261[illegible]  2616.1              105
  BT   13.0    20.0  2624.7     0.0    33.0  2621.9     0.0      4.[illegible]  2615.1     0.0    110
  BT   49.0  2615.2     0.0    49.0  2616.1     0.0    96.0  261[illegible]     0.0    96.0    115
  BT 2616.1     0.0    98.0  2616.1     0.0   102.0  2615.9     0.0   113.0  2615.7    120
  BT      0.   134.0  2617.1     0.0   140.0  2616.7     0.0   156.0  2627.4     0.0    125
  NC  0.130   0.150   0.055     0.0     0.8                                             130
  ET      0.     0.0     0.0     0.0     0.0    7.11   40.00  105.00     0.0     0.0    135

  X1   0.08      0.      0.      0.     15.     15.     15.     0.0    2.70      0.    140
  QT      5.   1270.   2210.   2715.   4215.   2715.      0.      0.      0.      0.    145
  NC  0.160   0.160   0.055     0.0     0.5                                             150
  ET      0.     0.0     0.0     0.0     0.0    7.11   25.00  130.00     0.0     0.0    155
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B01

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X1   0.25     14.     25.    128.    815.    815.    815.     0.0     0.0      0.    160
GR 2639.7      0.  2636.5      7.  2629.7     25.  2611.7      67.  2610.7     77.   165
GR 2610.4     81.  2611.0     87.  2617.5    105.  2634.2     128.  2634.7    136.   170
GR 2635.0    155.  2633.7    160.  2640.1    164.  2648.0     175.     0.0      0.   175
QT     5.   1270.   2210.   2715.   4210.   2715.      0.       0.      0.      0.   180
ET     0.    0.0     0.0     0.0     0.0    7.11   25.00   130.00     0.0     0.0   185

X1   0.27     14.     50.    105.    100.    100.    100.     0.0   10.50      0.   190
GR 2639.7      0.  2636.5      7.  2619.3     50.  2611.7      67.  2610.7     77.   195
GR 2610.4     81.  2611.0     87.  2617.5    105.  2634.2     128.  2634.7    136.   200
GR 2635.0    155.  2633.7    160.  2640.1    164.  2648.0     175.     0.0      0.   205
QT     5.   1255.   2185.   2685.   4165.   2685.      0.       0.      0.      0.   210
ET     0.    0.0     0.0     0.0     0.0    7.11   25.00   130.00     0.0     0.0   215

X1   0.40      0.      0.      0.    650.    650.    650.     0.0   14.50      0.   220
QT     5.   1235.   2145.   2635.   4085.   2635.      0.       0.      0.      0.   225
NC 0.140   0.150   0.055     0.0     0.0                                            230
ET     0.    0.0     0.0     0.0     0.0    7.11   60.00   140.00     0.0     0.0   235

X1   0.64     14.     75.    117.   1190.   1190.   1190.     0.0     0.0      0.   240
GR 2671.1      0.  2667.2     27.  2655.6     54.  2655.0      54.  2652.0     75.   245
GR 2648.7     87.  2648.5     94.  2649.8    105.  2650.8     117.  2652.9    137.   250
GR 2657.5    184.  2660.0    217.  2667.0    282.  2671.1     335.     0.0      0.   255
NC 0.100   0.100   0.045     0.0     0.0                                            260
ET     0.    0.0     0.0     0.0     0.0    7.11   60.00   140.00     0.0     0.0   265

X1   0.64     14.     75.    117.     60.     60.     60.     0.0     0.0      0.   270
GR 2671.1      0.  2667.2     27.  2655.6     54.  2655.0      64.  2652.0     75.   275
GR 2648.7     87.  2648.5     94.  2649.8    105.  2650.8     117.  2652.9    137.   280
GR 2657.5    184.  2660.0    217.  2667.0    282.  2671.1     335.     0.0      0.   285
SB   1.25    1.60    3.00      0.   21.00    0.50  113.00      0.0  2648.5   2648.5   290
ET     0.    0.0     0.0     0.0     0.0    7.11   60.00   140.00     0.0     0.0   295

X1   0.64      0.      0.      0.     12.     12.     12.     0.0     0.0      0.   300
X2     0.    0.0      1.  2654.0  2654.0     0.0      0.     0.0     0.0      0.   305
X3    10.    0.0     0.0      0.     0.0      0.     0.0  2654.0  2655.7            310
BT  15.0     0.0  2671.1     0.0    27.0  2667.2     0.0    54.0  2655.4     0.0   315
BT  64.0  2655.0     0.0    66.0  2654.1     0.0    70.0  2654.0     0.0    90.0   320
BT 2655.2     0.0    90.0  2655.7     0.0   121.0  2656.4     0.0   121.0  2656.2   325
BT   0.0   142.0  2655.7     0.0   185.0  2657.5     0.0   217.0  2660.0     0.0   330
BT 282.0  2667.0     0.0   335.0  2671.1     0.0     0.0     0.0     0.0     0.0   335
NC 0.150   0.130   0.050     0.0     0.0                                            340
ET     0.    0.0     0.0     0.0     0.0    7.11   60.00   140.00     0.0     0.0   345

X1   0.64     14.     75.    117.     15.     15.     15.     0.0     0.0      0.   350
GR 2671.1      0.  2667.2     27.  2655.6     54.  2655.0      64.  2652.0     75.   355
GR 2649.4     94.  2650.8    103.  2650.6    112.  2650.8     117.  2652.9    137.   360
GR 2657.5    184.  2660.0    217.  2667.0    282.  2671.1     335.     0.0      0.   365
QT     5.   1215.   2115.   2595.   4025.   2595.      0.       0.      0.      0.   370
NC 0.130   0.130   0.050     0.0     0.0                                            375
ET     0.    0.0     0.0     0.0     0.0    7.11  140.00   190.00     0.0     0.0   380
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C01

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X1    0.81      18.     152.     175.     910.     910.     910.     0.0      0.0      0.     385
GR 2681.0       25.    2675.0     37.    2672.0     77.    2670.5    111.    2664.6    116.   390
GR 2664.0      121.    2663.2    122.    2663.8    126.    2664.6    152.    2660.0    162.   395
GR 2659.5      166.    2660.0    171.    2661.2    175.    2662.3    187.    2662.5    187.   400
GR 2668.2      207.    2672.5    246.    2681.6    311.      0.0       0.      0.0       0.   405
ET    0.        0.0      0.0      0.0      0.0     7.11   140.00   190.00     0.0       0.0  410

X1    0.82      0.       0.       0.      60.      60.      60.      0.0      0.0       0.   415
X3   10.        0.0      0.0      0.       0.0      0.       0.0   2665.2   2665.7           420
SB    1.25      1.60     3.00     0.      21.00    0.10    90.00     0.0    2660.0    2660.0 425
ET    0.        0.0      0.0      0.0      0.0     7.11   140.00   190.00     0.0       0.0  430

X1    0.82      0.       0.       0.      12.      12.      12.      0.0      0.0       0.   435
X2    0.        0.0      1.    2664.3    2665.7    0.0      0.       0.0      0.0       0.   440
X3   10.        0.0      0.0      0.       0.0      0.       0.0   2665.7   2666.2           445
BT   12.0      25.0    2681.0     0.0     37.0    2675.0     0.0     77.0    2672.0     0.0  450
BT  111.0    2670.5      0.0   114.0    2667.0      0.0   147.0    2665.7      0.0   147.0  455
BT 2666.0       0.0    177.0    2666.3      0.0    177.0    2666.2      0.0    195.0  2667.7 460
BT    0.0     297.0    2679.5     0.0     311.0   2681.6     0.0       0.0      0.0       0.0 465
NC  0.150     0.120    0.045     0.0       0.0                                              470
ET    0.        0.0      0.0      0.0      0.0     7.11   140.00   190.00     0.0       0.0  475

X1    0.82      0.       0.       0.      15.      15.      15.      0.0      0.0       0.   480
QT    5.     1205.    2090.    2570.    3980.    2570.       0.       0.       0.        0.  485
NC  0.150     0.150    0.050     0.0       0.0                                              490
ET    0.        0.0      0.0      0.0      0.0     7.11   460.00   550.00     0.0       0.0  495

X1    0.94     15.     493.     536.     585.     585.     585.     0.0     -3.00      0.   500
GR 2691.9       0.    2679.4    357.    2676.9    369.    2675.8    430.    2675.3    493.   505
GR 2671.7     506.    2672.0    507.    2671.8    512.    2670.8    518.    2670.8    522.   510
GR 2671.7     529.    2674.7    536.    2674.5    554.    2680.9    582.    2692.5    626.   515
ET    0.        0.0      0.0      0.0      0.0     7.11   460.00   550.00     0.0       0.0  520

X1    0.95      0.       0.       0.      40.      40.      40.      0.0      3.00      0.   525
X3   10.        0.0      0.0      0.       0.0      0.       0.0   2675.1   2675.2           530
SB    1.25      1.60     3.00     0.      25.00    0.01    75.00     0.0    2671.7    2671.7 535
ET    0.        0.0      0.0      0.0      0.0     7.11   460.00   550.00     0.0       0.0  540

X1    0.95      0.       0.       0.      12.      12.      12.      0.0      0.0       0.   545
X2    0.        0.0      1.    2674.7    2675.2    0.0      0.       0.0      0.0       0.   550
X3   10.        0.0      0.0      0.       0.0      0.       0.0   2675.6   2675.7           555
BT   12.0       0.0   2691.9      0.0     357.0   2679.4     0.0     369.0   2676.9     0.0  560
BT  430.0    2675.8      0.0   463.0    2675.6      0.0   505.0    2675.9      0.0   505.0  565
BT 2676.2       0.0    539.0    2676.2      0.0    539.0    2676.0      0.0    559.0  2675.7 570
BT    0.0     582.0    2680.9     0.0     626.0   2692.5     0.0       0.0      0.0       0.0 575
NC  0.150     0.130    0.045     0.0       0.0                                              580
ET    0.        0.0      0.0      0.0      0.0     7.11   460.00   550.00     0.0       0.0  585

X1    0.95      0.       0.       0.      10.      10.      10.      0.0      0.0       0.   590
QT    5.     1190.    2065.    2540.    3930.    2540.       0.       0.       0.        0.  595
ET    0.        0.0      0.0      0.0      0.0     7.11   460.00   550.00     0.0       0.0  600
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D01

D01

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X1   1.10     0.     0.     0.    790.    790.    790.    0.0    13.20     0.   605
QT      5.  1175.  2040.  2510.  3885.  2510.      0.     0.      0.     0.   610
NC  0.110  0.120  0.045    0.0    0.0                                          615
ET      0.   0.0    0.0    0.0    0.0    7.11  375.00  435.00   0.0    0.0    620

X1   1.24    16.   381.   430.   740.   740.    740.    0.0     0.0     0.   625
GR 2720.1     0.  2704.0    65.  2701.6   125.  2700.1   225.  2699.5   325.  630
GR 2700.5   354.  2695.2   372.  2695.3   381.  2691.7   384.  2691.6   395.  635
GR 2691.0   407.  2691.2   412.  2695.4   430.  2697.9   625.  2710.9   659.  640
GR 2715.0   725.     0.0     0.     0.0     0.     0.0     0.     0.0     0.  645
QT      5.  1140.  1985.  2440.  3770.  2440.      0.     0.      0.     0.  650
NC  0.130  0.130  0.045    0.0    0.0                                          655
ET      0.   0.0    0.0    0.0    0.0    7.11  305.00  365.00   0.0    0.0    660

X1   1.56    16.   306.   345.  1710.  1710.   1710.    0.0   -1.00     0.   665
GR 2738.9     5.  2726.6   143.  2726.6   306.  2718.6   320.  2718.5   325.  670
GR 2717.5   333.  2717.5   335.  2717.7   338.  2718.5   340.  2724.6   345.  675
GR 2724.3   429.  2726.2   442.  2725.0   468.  2727.5   471.  2730.3   479.  680
GR 2739.0   516.     0.0     0.     0.0     0.     0.0     0.     0.0     0.  685
ET      0.   0.0    0.0    0.0    0.0    7.11  305.00  365.00   0.0    0.0    690

X1   1.57     0.     0.     0.    60.    60.     60.    0.0    1.00     0.   695
X3     10.   0.0    0.0    0.     0.0     0.      0.0 2726.1 2724.0          700
SB   1.25   1.60   3.00     0.  30.00   0.40  160.00    0.0 2717.7 2717.7   705
ET      0.   0.0    0.0    0.0    0.0    7.11  305.00  365.00   0.0    0.0    710

X1   1.57     0.     0.     0.    12.    12.     12.    0.0     0.0     0.   715
X2      0.   0.0     1.  2723.1 2724.5    0.0     0.     0.0     0.0     0.  720
X3     10.   0.0    0.0     0.     0.0     0.      0.0 2726.6 2724.5          725
BT   16.0    5.0 2738.9    0.0   77.0 2732.6     0.0   238.0 2726.6     0.0  730
BT  306.0 2726.6    0.0  309.0 2725.4    0.0   314.0 2725.4     0.0   314.0  735
BT 2726.0    0.0  348.0 2725.7    0.0  348.0  2725.2    0.0   362.0 2724.5  740
BT    0.0  429.0 2724.5    0.0  442.0 2726.2     0.0   468.0 2725.0     0.0  745
BT  471.0 2727.5    0.0  479.0 2730.3    0.0   516.0 2739.0     0.0     0.0  750
ET      0.   0.0    0.0    0.0    0.0    7.11  305.00  365.00   0.0    0.0    755

X1   1.57     0.     0.     0.    15.    15.     15.    0.0     0.0     0.   760
QT      5.  1140.  1980.  2430.  3760.  2430.      0.     0.      0.     0.  765
NC  0.160  0.160  0.060    0.0    0.8                                          770
ET      0.   0.0    0.0    0.0    0.0    7.11  305.00  365.00   0.0    0.0    775

X1   1.60     0.     0.     0.   100.   100.    100.    0.0    2.20     0.   780
QT      5.  1135.  1970.  2420.  3740.  2420.      0.     0.      0.     0.  785
NC  0.150  0.150  0.050    0.0    0.0                                          790
ET      0.   0.0    0.0    0.0    0.0    7.11  575.00  680.00   0.0    0.0    795

X1   1.66    21.   629.   680.   235.   235.    235.    0.0     0.0     0.   800
GR 2747.8     0.  2738.5   103.  2733.8   203.  2734.0   280.  2733.5   404.  805
GR 2732.0   450.  2730.9   500.  2730.1   570.  2730.2   595.  2730.2   629.  810
GR 2728.2   640.  2725.7   654.  2726.4   668.  2726.5   670.  2732.6   680.  815
GR 2733.5   705.  2733.6   720.  2733.1   725.  2734.1   730.  2737.4   772.  820
GR 2748.5   808.     0.0     0.     0.0     0.     0.0     0.     0.0     0.  825
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F01

E01

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NC  0.130   0.130   0.045     0.0     0.5                                                   830
ET     0.     0.0     0.0     0.0     0.0    7.11  575.00  680.00     0.0     0.0        835

X1    1.66     21.    629.    680.     40.     40.     40.     0.0     0.0      0.        840
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.       845
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.2    629.       850
GR 2728.2    640.  2725.7    654.  2726.4    668.  2726.5    670.  2732.6    680.       855
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.       860
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.        865
NC  0.070   0.070   0.040     0.0     0.0                                                   870
ET     0.     0.0     0.0     0.0     0.0    7.11  575.00  680.00     0.0     0.0        875

X1    1.66     31.    640.    668.      1.      1.      1.     0.0     0.0      0.        880
BT     4.0   640.0  2733.2     0.0   640.0  2733.2  2731.5    668.0  2733.3  2731.4       885
BT   668.0  2733.3     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0        890
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.       895
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.3    611.       900
GR 2732.5    637.  2733.1    637.  2733.1    640.  2729.0    640.  2727.9    645.       905
GR 2725.6    650.  2725.7    654.  2725.7    661.  2726.4    665.  2728.5    668.       910
GR 2733.2    668.  2733.2    670.  2732.5    670.  2732.2    680.  2732.6    680.       915
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.       920
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.        925
ET     0.     0.0     0.0     0.0     0.0    7.11  575.00  680.00     0.0     0.0        930

X1    1.66      0.      0.      0.     12.     12.     12.     0.0     0.0      0.        935
X2      0.     0.0     0.      0.0     0.0    0.0      1.     0.0     0.0      0.        940
NC  0.130   0.080   0.045     0.0     0.0                                                   945
ET     0.     0.0     0.0     0.0     0.0    7.11  575.00  680.00     0.0     0.0        950

X1    1.66     21.    629.    680.      1.      1.      1.     0.0     0.0      0.        955
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.       960
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.2    629.       965
GR 2728.2    640.  2725.7    654.  2726.4    668.  2726.5    670.  2732.6    680.       970
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.       975
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.        980
NC  0.150   0.120   0.050     0.0     0.0                                                   985
ET     0.     0.0     0.0     0.0     0.0    7.11  575.00  680.00     0.0     0.0        990

X1    1.66     21.    629.    680.     10.     10.     10.     0.0     0.0      0.        995
GR 2747.8      0.  2738.5    103.  2733.8    203.  2734.0    280.  2733.5    404.      1000
GR 2732.0    450.  2730.9    500.  2730.1    570.  2730.2    595.  2730.2    629.      1005
GR 2728.2    640.  2725.7    654.  2726.4    668.  2726.5    670.  2732.6    680.      1010
GR 2733.5    705.  2733.6    720.  2733.1    725.  2734.1    730.  2737.4    772.      1015
GR 2748.5    808.     0.0      0.     0.0      0.     0.0      0.     0.0      0.       1020
QT     5.   1125.   1950.   2395.   3705.   2395.      0.      0.      0.      0.       1025
NC  0.150   0.120   0.055     0.0     0.8                                                  1030
ET     0.     0.0     0.0     0.0     0.0    7.11  555.00  805.00     0.0     0.0       1035

X1    1.76     24.    745.    804.    515.    515.    515.     0.0     0.0      0.       1040
GR 2754.7      0.  2747.5     70.  2740.0    135.  2738.5    230.  2739.3    335.      1045
GR 2738.3    435.  2736.6    519.  2737.9    534.  2736.2    545.  2735.8    595.      1050
GR 2737.0    655.  2739.6    680.  2739.8    695.  2742.0    745.  2736.7    765.      1055
GR 2734.0    777.  2734.3    782.  2734.3    786.  2734.7    791.  2741.1    804.      1060
GR 2740.7    817.  2741.0    832.  2741.4    837.  2755.0    853.     0.0      0.       1065
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F01

F01

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NC  0.130   0.120   0.045     0.0     0.0                                          1070
ET     0.     0.0     0.0     0.0     0.0    7.11  555.00  805.00    0.0    0.0  1075

X1   1.77      0.      0.      0.     40.    40.    40.     0.0     0.0     0.   1080
ET      0.     0.0     0.0     0.0     0.0    7.11  555.00  805.00    0.0    0.0  1085

X1   1.77     25.    765.    791.     1.     1.     1.     0.0     0.0     0.   1090
BT    4.0   765.0  2744.1     0.0   765.0  2744.1 2741.5   791.0  2744.2 2741.8  1095
BT  791.0  2744.2     0.0     0.0     0.0    0.0    0.0     0.0     0.0    0.0  1100
GR 2754.7     0.  2747.5    70.  2740.0   135.  2738.5   230.  2739.2   335.  1105
GR 2738.3   435.  2736.6   519.  2737.9   534.  2736.2   535.  2735.8   595.  1110
GR 2737.0   655.  2739.1   675.  2742.3   725.  2743.7   756.  2744.1   756.  1115
GR 2744.1   765.  2741.5   765.  2735.1   770.  2734.6   775.  2734.1   781.  1120
GR 2735.0   791.  2744.2   791.  2741.5   811.  2741.8   838.  2755.0   853.  1125
ET     0.     0.0     0.0     0.0     0.0    7.11  555.00  805.00    0.0    0.0  1130

X1   1.77      0.      0.      0.     12.    12.    12.     0.0     0.0     0.   1135
X2      0.     0.0     0.      0.0     0.0   0.0     1.     0.0     0.0     0.   1140
ET      0.     0.0     0.0     0.0     0.0    7.11  555.00  805.00    0.0    0.0  1145

X1   1.77     24.    745.    804.     1.     1.     1.     0.0     0.0     0.   1150
GR 2754.7     0.  2747.5    70.  2740.0   135.  2738.5   230.  2739.2   335.  1155
GR 2738.3   435.  2736.6   519.  2737.9   534.  2736.2   545.  2735.8   595.  1160
GR 2737.0   655.  2739.6   680.  2739.8   695.  2742.0   745.  2736.7   765.  1165
GR 2734.0   777.  2734.3   782.  2734.3   786.  2734.7   791.  2741.1   804.  1170
GR 2740.7   817.  2741.0   832.  2741.4   837.  2755.0   853.     0.0     0.  1175
NC  0.090 0.080   0.045     0.0     0.5                                          1180
ET     0.     0.0     0.0     0.0     0.0    7.11  555.00  805.00    0.0    0.0  1185

X1   1.77      0.      0.      0.     10.    10.    10.     0.0     0.0     0.   1190
QT      5.  1120.   1945.   2390.   3700.  2390.     0.      0.      0.     0.   1195
NC  0.120 0.100   0.050     0.0     0.8                                          1200
ET     0.     0.0     0.0     0.0     0.0    7.11  475.00  715.00    0.0    0.0  1205

X1   1.79     19.    668.    713.    85.    85.    85.     0.0     0.0     0.   1210
GR 2757.5     0.  2750.0    25.  2745.3    38.  2741.3   137.  2741.7   235.  1215
GR 2741.6   250.  2741.2   340.  2738.9   440.  2739.4   540.  2740.2   641.  1220
GR 2743.6   668.  2735.1   690.  2734.5   691.  2734.5   700.  2736.2   703.  1225
GR 2743.5   713.  2744.4   737.  2744.0   742.  2757.8   757.     0.0     0.  1230
ET     0.     0.0     0.0     0.0     0.0    7.11  475.00  715.00    0.0    0.0  1235

X1   1.79      0.      0.      0.     40.    40.    40.     0.0     0.0     0.   1240
ET      0.     0.0     0.0     0.0     0.0    7.11  475.00  715.00    0.0    0.0  1245

X1   1.79     26.    689.    703.     1.     1.     1.     0.0     0.0     0.   1250
BT    4.0   689.0  2743.8     0.0   689.0  2743.8 2742.4   703.0  2743.2 2741.5  1255
BT  703.0  2742.9     0.0     0.0     0.0    0.0    0.0     0.0     0.0    0.0  1260
GR 2757.5     0.  2750.0    25.  2745.3    38.  2741.3   137.  2741.7   235.  1265
GR 2741.6   250.  2741.2   340.  2738.9   440.  2739.4   540.  2742.1   655.  1270
GR 2743.6   668.  2742.6   670.  2743.3   687.  2743.8   687.  2743.8   689.  1275
GR 2733.5   690.  2735.9   693.  2735.6   697.  2734.5   700.  2735.6   703.  1280
GR 2742.9   703.  2742.9   712.  2743.5   713.  2744.4   737.  2744.0   742.  1285
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G01

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GR 2757.8    757.     0.0      0.     0.0      0.     0.0      0.     0.0      0.  1290
ET     0.    0.0      0.0      0.0    0.0      7.11   475.00   715.00 0.0      0.0 1295

X1   1.79      0.      0.       0.    12.      12.     12.     0.0    0.0       0.  1300
X2      0.     0.0      0.     0.0     0.0     0.0      1.     0.0    0.0       0.  1305
ET      0.     0.0     0.0     0.0     0.0     7.11   475.00 715.00  0.0      0.0 1310

X1   1.79     19.    668.     713.     1.      1.      1.     0.0    0.0       0.  1315
GR 2757.5      0.   2750.0     25.  2745.3     38.  2741.3    137.  2741.7   235. 1320
GR 2741.6    250.   2741.2    340.  2738.9    440.  2739.4    540.  2740.2   641. 1325
GR 2743.6    668.   2735.1    690.  2734.5    691.  2734.5    700.  2736.2   703. 1330
GR 2743.5    713.   2744.4    737.  2744.0    742.  2757.8    757.     0.0     0. 1335
NC   0.0      0.0    0.040     0.0     0.5                                        1340
ET      0.     0.0     0.0     0.0     0.0     7.11   475.00 715.00  0.0      0.0 1345

X1   1.79     19.    668.     713.    10.      10.     10.     0.0    0.0       0.  1350
GR 2757.5      0.   2750.0     25.  2745.3     38.  2741.3    137.  2741.7   235. 1355
GR 2741.6    250.   2741.2    340.  2738.9    440.  2739.4    540.  2740.2   641. 1360
GR 2743.6    668.   2738.7    680.  2737.5    685.  2736.8    698.  2737.3   705. 1365
GR 2743.5    713.   2744.4    737.  2744.0    742.  2757.8    757.     0.0     0. 1370
QT      5.   1105.   1920.    2360.  3650.   2360.     0.      0.       0.      0. 1375
NC  0.120   0.080  0.045      0.0     0.0                                        1380
ET      0.     0.0     0.0     0.0     0.0     7.11   500.00 630.00  0.0      0.0 1385

X1   1.87     19.    532.     595.   395.     395.    395.     0.0   -2.50      0.  1390
GR 2765.6      0.   2757.1     21.  2755.2     33.  2753.4    132.  2752.0   232. 1395
GR 2752.0    532.   2744.8    547.  2744.7    550.  2744.5    556.  2744.7   561. 1400
GR 2746.5    571.   2746.6    582.  2751.4    595.  2751.8    615.  2751.8   632. 1405
GR 2751.0    637.   2752.1    641.  2751.5    732.  2763.0    766.     0.0     0. 1410
ET      0.     0.0     0.0     0.0     0.0     7.11   500.00 630.00  0.0      0.0 1415

X1   1.88     19.    532.     571.    80.      80.     80.     0.0    0.0       0.  1420
GR 2765.6      0.   2757.1     21.  2755.2     33.  2753.4    132.  2752.0   232. 1425
GR 2752.0    532.   2744.8    547.  2744.7    550.  2744.5    556.  2744.7   561. 1430
GR 2746.5    571.   2746.6    582.  2751.4    595.  2751.8    615.  2751.8   632. 1435
GR 2751.0    637.   2752.1    641.  2751.5    732.  2763.0    766.     0.0     0. 1440
SB   1.25     1.60    3.00      0.    24.00    0.40   118.00   0.0   2744.9  2744.9 1445
ET      0.     0.0     0.0     0.0     0.0     7.11   500.00 630.00  0.0      0.0 1450

X1   1.83      0.      0.       0.    12.      12.     12.     0.0    0.0       0.  1455
X2      0.     0.0      1.  2749.9  2751.0     0.0      0.     0.0    0.0       0.  1460
BT   19.0      0.0   2765.6     0.0    21.0  2757.1      0.0   33.0  2755.2     0.0 1465
BT  132.0   2753.4      0.0   232.0  2752.0     0.0    532.0  2752.0     0.0   533.0 1470
BT 2751.7      0.0    536.0  2751.8     0.0   541.0   2751.9     0.0   574.0  2751.5 1475
BT    0.0    577.0   2751.1     0.0   594.0  2751.0      0.0   595.0  2751.4     0.0 1480
BT  615.0   2751.8      0.0   632.0  2751.8     0.0    637.0  2751.0     0.0   641.0 1485
BT 2752.1      0.0    732.0  2751.5     0.0   766.0   2763.0     0.0     0.0     0.0 1490
ET      0.     0.0     0.0     0.0     0.0     7.11   500.00 630.00  0.0      0.0 1495

X1   1.88     19.    532.     595.    20.      20.     20.     0.0    0.0       0.  1500
GR 2765.6      0.   2757.1     21.  2755.2     33.  2753.4    132.  2752.0   232. 1505
GR 2752.0    532.   2744.8    547.  2744.7    550.  2744.5    556.  2744.7   561. 1510
GR 2746.5    571.   2746.6    582.  2751.4    595.  2751.8    615.  2751.8   632. 1515
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HO1

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GR 2751.0    637.  2752.1    641.  2751.5    732.  2763.0    766.     0.0      0.  1520
QT      5.  1085.  1885.   2315.  3580.   2315.     0.     0.     0.      0.  1525
ET      0.   0.0     0.0     0.0     0.0    7.11   85.00  145.00    0.0     0.0  1530

X1   2.00     12.    87.    138.   700.    700.    700.     0.0   -15.50     0.  1535
GR 2790.0     50.  2784.0    60.  2773.2    87.  2770.5    114.  2769.7   121.  1540
GR 2769.4    121.  2768.8   126.  2770.5   135.  2774.5    138.  2780.3   169.  1545
GR 2780.3    525.  2795.0   677.     0.0    -0.     0.0      0.     0.0     0.  1550
QT      5.  1065.  1845.   2270.  3500.   2270.     0.     0.     0.      0.  1555
NC  0.120  0.080  0.045     0.0    0.0                                          1560
ET      0.   0.0     0.0     0.0     0.0    7.11   85.00  145.00    0.0     0.0  1565

X1   2.12     12.    87.    138.   650.    650.    650.     0.0    -1.30     0.  1570
GR 2790.0     50.  2784.0    60.  2773.2    87.  2770.5    114.  2769.7   121.  1575
GR 2769.4    121.  2768.8   126.  2770.5   135.  2774.5    138.  2780.3   169.  1580
GR 2780.3    525.  2795.0   677.     0.0     0.     0.0     -0.     0.0     0.  1585
ET      0.   0.0     0.0     0.0     0.0    7.11   85.00  145.00    0.0     0.0  1590

X1   2.13     12.    87.    138.    60.    -60.    -60.     0.0      0.     0.  1595
GR 2790.0     50.  2784.0    60.  2773.2    87.  2770.5    114.  2769.7   121.  1600
GR 2769.4    121.  2768.8   126.  2770.5   135.  2774.5    138.  2780.3   169.  1605
GR 2780.3    525.  2795.0   677.     0.0     0.     0.0      0.     0.0     0.  1610
SB   1.25   1.60    3.00      0.   24.00    0.10  160.00     0.0  2768.8  2768.8  1615
ET      0.   0.0     0.0     0.0     0.0    7.11   85.00  145.00    0.0     0.0  1620

X1   2.13      0.     0.      0.    12.     12.     12.     0.0      0.     0.  1625
X2      0.   0.0      1.  2775.5  2776.4    0.0      0.     0.0      0.     0.  1630
BT   11.0   50.0  2790.0     0.0   60.0  2784.0     0.0    76.0  2777.4     0.0  1635
BT  110.0 2776.4     0.0   110.0 2777.0     0.0   137.0  2777.2     0.0   137.0  1640
BT 2776.9     0.0   154.0  2777.4     0.0   169.0  2780.3     0.0   525.0  2780.3  1645
BT    0.0   677.0  2795.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0  1650
NC  0.150  0.100  0.045     0.0     0.0                                          1655
ET      0.   0.0     0.0     0.0     0.0    7.11   85.00  145.00    0.0     0.0  1660

X1   2.13     12.    87.    138.    15.     15.     15.     0.0     2.00     0.  1665
GR 2790.0     50.  2784.0    60.  2773.2    87.  2770.5    114.  2769.7   121.  1670
GR 2769.4    121.  2768.8   126.  2770.5   135.  2774.5    138.  2780.3   169.  1675
GR 2780.3    525.  2795.0   677.     0.0     0.     0.0      0.     0.0     0.  1680
QT      5.  1055.  1825.   2240.  3460.   2240.     0.     0.     0.      0.  1685
NC  0.150  0.150  0.050     0.0     0.8                                          1690
ET      0.   0.0     0.0     0.0     0.0    7.11  315.00  365.00    0.0     0.0  1695

X1   2.20     23.   318.    365.   370.    370.    370.     0.0    -8.90     0.  1700
GR 2809.2     10.  2808.2    13.  2802.2    82.  2797.0    125.  2797.0   190.  1705
GR 2797.0    255.  2797.0   288.  2797.0   318.  2790.5    328.  2789.3   330.  1710
GR 2789.5    332.  2788.8   335.  2788.6   340.  2789.1    347.  2789.5   350.  1715
GR 2791.0    356.  2796.7   365.  2797.0   372.  2797.0    420.  2797.7   480.  1720
GR 2798.3    590.  2802.3   680.  2809.4   750.     0.0      0.     0.0     0.  1725
QT      5.  1045.  1810.   2225.  3430.   2225.     0.     0.     0.      0.  1730
NC  0.110  0.080  0.045     0.0     0.0                                          1735
ET      0.   0.0     0.0     0.0     0.0    7.11  315.00  365.00    0.0     0.0  1740

X1   2.24     23.   318.    365.   230.    230.    230.     0.0    -1.00     0.  1745
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I01

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GR 2807.5     10.  2806.5     13.  2800.5     82.  2794.4    132.  2795.3    185.  1750
GR 2795.0    253.  2794.5    290.  2795.0    318.  2788.8    328.  2787.6    330.  1755
GR 2787.7    332.  2787.1    335.  2786.9    340.  2787.5    347.  2787.6    350.  1760
GR 2789.2    356.  2795.0    365.  2795.3    372.  2795.0    390.  2796.1    480.  1765
GR 2796.6    590.  2800.6    680.  2807.7    750.     0.0      0.     0.0      0.  1770
NC   0.0     0.0     0.0      0.0     0.5                                          1775
ET     0.    0.0     0.0      0.0     0.0    7.11  315.00   365.00    0.0      0.0 1780

X1    2.25     0.      0.      0.     40.     40.     40.     0.0     1.00     0.   1785
X3     10.    0.0     0.0      0.     0.0      0.     0.0  2795.0  2795.0          1790
SB    1.25    1.60    3.00     0.   17.00    0.30  135.00     0.0  2786.9  2786.9  1795
ET     0.     0.0     0.0     0.0     0.0    7.11  315.00   425.00    0.0      0.0 1800

X1    2.25     0.      0.      0.     12.     12.     12.     0.0     0.0      0.   1805
X2      0.    0.0      1.  2795.0  2795.3    0.0      0.     0.0     0.0      0.   1810
X3     10.    0.0     0.0      0.     0.0      0.     0.0  2796.3  2795.3          1815
BT    17.0   10.0  2807.5     0.0    13.0  2806.5     0.0    82.0  2800.5     0.0  1820
BT   112.0 2796.8     0.0   190.0  2796.6     0.0   243.0  2796.5     0.0   275.0  1825
BT  2796.3    0.0   305.0  2797.0     0.0   325.0  2797.7     0.0   351.0  2798.1  1830
BT     0.0  365.0  2796.8     0.0   380.0  2795.6     0.0   410.0  2795.3     0.0  1835
BT   480.0 2796.1     0.0   590.0  2796.6     0.0   680.0  2800.6     0.0   750.0  1840
BT  2807.7    0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0  1845
NC   0.130  0.080   0.045     0.0     0.0                                          1850
ET     0.    0.0     0.0      0.0     0.0    7.11  315.00   365.00    0.0      0.0 1855

X1    2.25    23.   318.    365.    10.     10.     10.     0.0     0.0      0.   1860
GR 2809.2    10.  2808.2     13.  2802.2     82.  2797.0    125.  2797.0    190.  1865
GR 2797.0   255.  2797.0    288.  2797.0    318.  2790.5    328.  2789.3    330.  1870
GR 2789.5   332.  2788.8    335.  2788.6    340.  2789.1    347.  2789.5    350.  1875
GR 2791.0   356.  2796.7    365.  2797.0    372.  2797.0    420.  2797.7    480.  1880
GR 2798.3   590.  2802.3    680.  2809.4    750.     0.0      0.     0.0      0.  1885
QT     5.  1010.  1750.    2150.  3315.   2150.      0.      0.      0.      0.  1890
NC  0.100 0.080   0.045     0.0     0.0                                          1895
ET     0.    0.0     0.0      0.0     0.0    7.11  155.00   225.00    0.0      0.0 1900

X1    2.44    19.   158.    222.   970.    970.    970.     0.0    -0.70     0.   1905
GR 2830.1    25.  2827.4     27.  2827.3     97.  2825.9    124.  2824.7    158.  1910
GR 2813.0   180.  2809.3    191.  2809.2    195.  2809.5    200.  2810.2    207.  1915
GR 2812.7   210.  2821.8    222.  2822.1    230.  2821.8    247.  2823.1    275.  1920
GR 2828.1   292.  2828.1    370.  2829.0    377.  2830.2    402.     0.0      0.  1925
ET     0.    0.0     0.0      0.0     0.0    7.11  155.00   225.00    0.0      0.0 1930

X1    2.45     0.      0.      0.     60.     60.     60.     0.0     0.70     0.   1935
X3     10.    0.0     0.0      0.     0.0      0.     0.0  2822.0  2821.7          1940
SB    1.25    1.60    3.00     0.   31.00    0.50  345.00     0.0  2809.2  2809.2  1945
ET     0.     0.0     0.0     0.0     0.0    7.11  155.00   225.00    0.0      0.0 1950

X1    2.45     0.      0.      0.     12.     12.     12.     0.0     0.0      0.   1955
X2      0.    0.0      1.  2820.5  2822.2    0.0      0.     0.0     0.0      0.   1960
X3     10.    0.0     0.0      0.     0.0      0.     0.0  2822.5  2822.2          1965
BT    18.0   25.0  2830.1     0.0    27.0  2827.4     0.0    97.0  2827.3     0.0  1970
BT   124.0 2825.9     0.0   158.0  2824.7     0.0   163.0  2822.5     0.0   175.0  1975
BT  2822.5    0.0   177.0  2823.7     0.0   213.0  2824.2     0.0   213.0  2822.7  1980
BT     0.0  222.0  2821.8     0.0   230.0  2822.1     0.0   247.0  2821.8     0.0  1985
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J01

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BT  275.0  2823.1     0.0   292.0  2828.1     0.0   370.0  2828.1     0.0   377.0   1990
BT 2829.0     0.0   402.0  2830.2     0.0     0.0     0.0     0.0     0.0     0.0   1995
NC  0.130   0.100   0.050     0.0     0.0                                             2000
ET     0.     0.0     0.0     0.0     0.0    7.11  155.00  225.00     0.0     0.0   2005

X1   2.45      0.      0.      0.     15.     15.     15.     0.0    1.40      0.   2010
QT      5.    990.   1710.   2100.   3235.   2100.      0.      0.      0.      0.   2015
NC  0.150   0.150   0.050     0.0     0.0                                             2020
ET     0.     0.0     0.0     0.0     0.0    7.11  155.00  225.00     0.0     0.0   2025

X1   2.58      0.      0.      0.    630.    630.    630.     0.0   35.40      0.   2030
QT      5.    975.   1685.   2070.   3185.   2070.      0.      0.      0.      0.   2035
NC  0.130   0.080   0.045     0.0     0.0                                             2040
ET     0.     0.0     0.0     0.0     0.0    7.11   90.00  160.00     0.0     0.0   2045

X1   2.66     17.    106.    134.    310.    310.    310.     0.0   -1.30      0.   2050
GR 2886.2      0.  2882.7     12.  2876.2     73.  2870.5     89.  2868.5    106.   2055
GR 2866.2    111.  2865.6    115.  2865.5    125.  2866.1    129.  2870.3    134.   2060
GR 2871.1    144.  2871.1    162.  2871.1    167.  2871.1    169.  2871.1    217.   2065
GR 2872.0    239.  2886.0    325.     0.0      0.     0.0      0.     0.0      0.   2070
ET     0.     0.0     0.0     0.0     0.0    7.11   90.00  160.00     0.0     0.0   2075

X1   2.67     17.    111.    129.     60.     60.     60.     0.0     0.0      0.   2080
X3     10.     0.0     0.0      0.     0.0      0.     0.0  2873.6  2870.6           2085
GR 2886.2      0.  2882.7     12.  2876.2     73.  2870.5     89.  2868.5    106.   2090
GR 2866.2    111.  2865.6    115.  2865.5    125.  2866.1    129.  2870.3    134.   2095
GR 2871.1    144.  2871.1    162.  2871.1    167.  2871.1    169.  2871.1    217.   2100
GR 2872.0    239.  2886.0    325.     0.0      0.     0.0      0.     0.0      0.   2105
SB   1.25    1.60    3.00      0.    16.00   0.60  100.00     0.0  2865.5  2865.5   2110
ET     0.     0.0     0.0     0.0     0.0    7.11   90.00  160.00     0.0     0.0   2115

X1   2.67      0.      0.      0.     12.     12.     12.     0.0     0.0      0.   2120
X2     0.     0.0      1.  2872.0  2871.1     0.0      0.     0.0     0.0      0.   2125
X3     10.     0.0     0.0      0.     0.0      0.     0.0  2874.0  2871.1           2130
BT   15.0     0.0  2886.2     0.0    12.0  2882.7     0.0    73.0  2876.2     0.0   2135
BT   77.0  2874.7     0.0   110.0  2874.0     0.0   110.0  2874.5     0.0   128.0   2140
BT 2873.8     0.0   128.0  2873.3     0.0   155.0  2871.1     0.0   162.0  2871.1   2145
BT    0.0   167.0  2871.1     0.0   169.0  2871.1     0.0   217.0  2871.1     0.0   2150
BT  239.0  2872.0     0.0   325.0  2886.0     0.0     0.0     0.0     0.0     0.0   2155
ET     0.     0.0     0.0     0.0     0.0    7.11   90.00  160.00     0.0     0.0   2160

X1   2.67      0.      0.      0.     15.     15.     15.     0.0     0.0      0.   2165
NC  0.150   0.080   0.045     0.0     0.0                                             2170
QT      5.    955.   1645.   2020.   3110.   2020.      0.      0.      0.      0.   2175
ET     0.     0.0     0.0     0.0     0.0    7.11   90.00  160.00     0.0     0.0   2180

X1   2.80      0.      0.      0.    680.    680.    680.     0.0   13.50      0.   2185
QT      5.    930.   1600.   1965.   3020.   1965.      0.      0.      0.      0.   2190
NC  0.150   0.130   0.050     0.0     0.0                                             2195
ET     0.     0.0     0.0     0.0     0.0    7.11  370.00  420.00     0.0     0.0   2200

X1   2.94     17.    374.    417.    720.    720.    720.     0.0   -2.00      0.   2205
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GR 2920.7    28.  2911.2    50.  2908.4    60.  2908.4   165.  2905.9   188.  2210
GR 2905.9   263.  2905.9   302.  2905.9   311.  2905.9   330.  2902.8   374.  2215
GR 2896.4   380.  2895.6   385.  2895.3   393.  2896.2   397.  2900.4   406.  2220
GR 2905.8   417.  2920.4   436.     0.0     0.     0.0     0.     0.0     0.  2225
ET     0.   0.0     0.0     0.0     0.0    7.11 370.00  420.00   0.0     0.0  2230

X1   2.95     0.     0.     0.    40.    40.    40.    0.0   2.00     0.  2235
X3     10.    0.0    0.0    0.     0.0    0.    0.0 2902.0 2902.0        2240
SB   1.25    1.60   3.00    0.    27.00  0.01 170.00   0.0 2895.3 2895.3  2245
ET     0.   0.0     0.0     0.0     0.0    7.11 370.00  420.00   0.0     0.0  2250

X1   2.95     0.     0.     0.    22.    22.    22.    0.0   0.0      0.  2255
X2     0.    0.0    1.  2901.6  2903.3  0.0     0.    0.0   0.0      0.  2260
X3     10.   0.0    0.0    0.     0.0    0.    0.0 2904.2 2903.3        2265
BT    8.0   28.0  2916.5   0.0   45.0  2909.1   0.0  367.0 2904.2   0.0  2270
BT  367.0 2905.6    0.0   400.0 2905.1    0.0 400.0 2903.8   0.0   419.0  2275
BT 2903.3    0.0  436.0  2916.2    0.0    0.0   0.0    0.0   0.0     0.0  2280
ET     0.   0.0     0.0     0.0     0.0    7.11 370.00  420.00   0.0     0.0  2285

X1   2.95     0.     0.     0.    10.    10.    10.    0.0   0.0      0.  2290
NC  0.130  0.150  0.050    0.0     0.0                                    2295
ET     0.   0.0     0.0     0.0     0.0    7.11 370.00  420.00   0.0     0.0  2300

X1   2.96    17.   374.   417.    50.    50.    50.    0.0   0.0      0.  2305
GR 2920.7    28.  2911.2    50.  2908.4    60.  2908.4   165.  2905.9   188.  2310
GR 2905.9   263.  2905.9   302.  2905.9   311.  2905.9   330.  2902.8   374.  2315
GR 2900.6   380.  2899.8   385.  2899.5   393.  2900.4   397.  2900.4   406.  2320
GR 2905.8   417.  2920.4   436.     0.0     0.     0.0     0.     0.0     0.  2325
QT     5.   910.  1565.  1920.  2950.  1920.      0.      0.      0.      0.  2330
NC  0.080  0.130  0.050    0.0     0.0                                    2335
ET     0.   0.0     0.0     0.0     0.0    7.11 305.00  345.00   0.0     0.0  2340

X1   3.06    14.   307.   340.   510.   510.   510.    0.0  -2.00     0.  2345
GR 2939.2     0.  2934.0   210.  2930.4   250.  2924.4   273.  2924.4   299.  2350
GR 2923.6   307.  2921.0   311.  2918.5   315.  2917.2   320.  2918.1   334.  2355
GR 2926.7   340.  2926.7   342.  2926.7   537.  2938.2   565.     0.0     0.  2360
ET     0.   0.0     0.0     0.0     0.0    7.11 305.00  345.00   0.0     0.0  2365

X1   3.07    14.   311.   342.    60.    60.    60.    0.0   0.0      0.  2370
GR 2939.2     0.  2934.0   210.  2930.4   250.  2924.4   273.  2924.4   299.  2375
GR 2923.6   307.  2921.0   311.  2918.5   315.  2917.2   320.  2918.1   334.  2380
GR 2926.7   340.  2926.7   342.  2926.7   537.  2938.2   565.     0.0     0.  2385
SB   1.25   1.60   3.00     0.    23.00  0.90 183.00   0.0  2917.2 2917.2  2390
ET     0.   0.0     0.0     0.0     0.0    7.11 305.00  345.00   0.0     0.0  2395

X1   3.07     0.     0.     0.    12.    12.    12.    0.0   0.0      0.  2400
X2     0.    0.0    1.  2925.5  2925.6  0.0     0.    0.0   0.0      0.  2405
BT    10.0   0.0  2939.2   0.0   210.0 2934.0   0.0  250.0 2930.4   0.0  2410
BT  270.0 2925.6    0.0   309.0 2926.4    0.0 309.0 2927.0   0.0   345.0  2415
BT 2927.0    0.0  345.0  2926.7    0.0  537.0 2926.7   0.0   565.0 2938.2  2420
BT     0.0   0.0    0.0     0.0     0.0    0.0   0.0    0.0   0.0     0.0  2425
ET     0.   0.0     0.0     0.0     0.0    7.11 305.00  345.00   0.0     0.0  2430
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X1   3.07     14.    307.    340.     15.     15.     15.    0.0    2.00     0.   2435
GR 2939.2      0.   2934.0   210.   2930.4   250.   2924.4   273.  2924.4   299.  2440
GR 2923.6    307.   2921.0   311.   2918.5   315.   2917.2   320.  2918.1   334.  2445
GR 2926.7    340.   2926.7   342.   2926.7   537.   2938.2   565.    0.0      0.  2450
QT     5.    885.   1520.   1865.   2865.   1865.      0.     0.     0.      0.  2455
NC 0.100  0.160  0.055     0.0     0.8                                            2460
ET     0.    0.0    0.0     0.0     0.0    7.11   200.00  245.00   0.0     0.0  2465

X1   3.21     16.    200.    242.    710.    710.    710.    0.0   -1.80     0.  2470
GR 2954.8     25.   2951.7   124.   2949.5   144.   2943.4   160.  2943.5   168.  2475
GR 2944.0    185.   2943.9   193.   2938.7   200.   2934.2   207.  2932.5   212.  2480
GR 2932.0    216.   2932.1   222.   2933.3   229.   2934.1   234.  2943.2   242.  2485
GR 2954.5    259.     0.0      0.     0.0      0.     0.0     0.    0.0      0.  2490
ET     0.    0.0    0.0     0.0     0.0    7.11   200.00  245.00   0.0     0.0  2495

X1   3.22      0.     0.      0.     60.     60.     60.    0.0    1.80     0.  2500
X3     10.    0.0    0.0     0.     0.0     0.     0.0   2943.7 2945.0          2505
SB   1.25    1.60   3.00     0.    29.00   0.30   330.00   0.0   2932.0  2932.0 2510
NC  0.0      0.0    0.0     0.0     0.5                                            2515
ET     0.    0.0    0.0     0.0     0.0    7.11   200.00  245.00   0.0     0.0  2520

X1   3.22      0.     0.      0.     12.     12.     12.    0.0    0.0      0.  2525
X2     0.    0.0      1.   2943.5  2944.2   0.0      0.    0.0    0.0      0.  2530
X3     10.    0.0    0.0     0.     0.0     0.     0.0   2944.2 2945.5          2535
BT   10.0    25.0  2954.8    0.0   124.0  2951.7    0.0   144.0 2949.5    0.0  2540
BT  157.0  2944.2    0.0   200.0  2945.0    0.0   200.0  2945.2   0.0    239.0  2545
BT 2945.0     0.0   239.0  2945.2    0.0   245.0  2945.7    0.0   259.0 2954.5  2550
BT    0.0     0.0    0.0     0.0     0.0     0.0    0.0     0.0    0.0    0.0  2555
NC  0.100   0.150  0.050     0.0     0.0                                            2560
ET     0.    0.0    0.0     0.0     0.0    7.11   200.00  245.00   0.0     0.0  2565

X1   3.22      0.     0.      0.     15.     15.     15.    0.0    2.90     0.  2570
QT     5.    880.   1510.   1855.   2845.   1855.      0.     0.     0.      0.  2575
NC  0.150  0.150  0.055     0.0     0.0                                            2580
ET     0.    0.0    0.0     0.0     0.0    7.11   200.00  245.00   0.0     0.0  2585

X1   3.25      0.     0.      0.    100.    100.    100.    0.0    7.60     0.  2590
QT     5.    865.   1490.   1825.   2805.   1825.      0.     0.     0.      0.  2595
NC  0.130  0.140  0.060     0.0     0.8                                            2600
ET     0.    0.0    0.0     0.0     0.0    7.11   305.00  355.00   0.0     0.0  2605

X1   3.31     17.    310.    350.    315.    315.    315.    0.0   -2.40     0.  2610
GR 2984.8     0.   2980.8     9.   2975.6    44.   2975.6   176.  2974.7   260.  2615
GR 2976.5   270.   2976.1   297.   2972.3   310.   2964.5   320.  2963.9   324.  2620
GR 2964.2   335.   2963.9   340.   2965.3   344.   2967.5   350.  2979.4   465.  2625
GR 2980.4   488.   2984.9   500.     0.0      0.     0.0     0.    0.0      0.  2630
ET     0.    0.0    0.0     0.0     0.0    7.11   305.00  355.00   0.0     0.0  2635

X1   3.32     17.    324.    344.     60.     60.     60.    0.0    0.0      0.  2640
X3     10.    0.0    0.0     0.     0.0     0.     0.0   2974.2 2969.7          2645
GR 2984.8     0.   2980.8     9.   2975.6    44.   2975.6   176.  2974.7   260.  2650
GR 2976.5   270.   2976.1   297.   2972.3   310.   2964.5   320.  2963.9   324.  2655
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GR 2964.2    235.  2963.9    340.  2965.3    344.  2967.5    350.  2979.4    465.  2660
GR 2980.4    488.  2984.9    500.     0.0      0.     0.0      0.     0.0      0.  2665
NC  0.070   0.070   0.040     0.0     0.5                                          2670
ET     0.     0.0     0.0     0.0     0.0    7.11  305.00   355.00     0.0     0.0  2675

X1    3.32     21.   324.    344.      1.     1.      1.     0.0      0.0      0.  2680
BT     4.0   324.0  2974.0    0.0   324.0  2974.0  2973.0   344.0  2973.4  2971.0  2685
BT   344.0  2973.4     0.0    0.0     0.0    0.0     0.0     0.0     0.0     0.0  2690
GR 2984.8      0.  2980.8      9.  2975.6     44.  2975.6    176.  2974.7    260.  2695
GR 2976.5    270.  2976.2    302.  2973.5    323.  2974.1    323.  2974.0    324.  2700
GR 2965.1    325.  2963.9    334.  2964.0    337.  2967.2    344.  2973.5    344.  2705
GR 2973.4    346.  2972.7    346.  2969.8    373.  2979.4    465.  2980.4    488.  2710
GR 2984.9    500.     0.0      0.     0.0      0.     0.0      0.     0.0      0.  2715
ET     0.     0.0     0.0     0.0     0.0    7.11  305.00   355.00     0.0     0.0  2720

X1    3.32      0.     0.      0.     12.     12.     12.     0.0      0.0      0.  2725
X2      0.     0.0     0.     0.0     0.0    0.0      1.     0.0      0.0      0.  2730
NC  0.100   0.100   0.045     0.0     0.0                                          2735
ET     0.     0.0     0.0     0.0     0.0    7.11  305.00   355.00     0.0     0.0  2740

X1    3.32     17.   324.    344.      1.     1.      1.     0.0      0.0      0.  2745
X3     10.     0.0     0.      0.     0.0     0.     0.0   2974.7   2970.2          2750
GR 2984.8      0.  2980.8      9.  2975.6     44.  2975.6    176.  2974.7    260.  2755
GR 2976.5    270.  2976.1    297.  2972.3    310.  2964.5    320.  2963.9    324.  2760
GR 2964.2    335.  2963.9    340.  2965.3    344.  2967.5    350.  2979.4    465.  2765
GR 2980.4    488.  2984.9    500.     0.0      0.     0.0      0.     0.0      0.  2770
NC  0.120   0.140   0.050     0.0     0.0                                          2775
ET     0.     0.0     0.0     0.0     0.0    7.11  305.00   355.00     0.0     0.0  2780

X1    3.32     17.   310.    350.     15.     15.     15.     0.0     2.60      0.  2785
GR 2984.8      0.  2980.8      9.  2975.6     44.  2975.6    176.  2974.7    260.  2790
GR 2976.5    270.  2976.1    297.  2972.3    310.  2964.5    320.  2963.9    324.  2795
GR 2964.2    335.  2963.9    340.  2965.3    344.  2967.5    350.  2979.4    465.  2800
GR 2980.4    488.  2984.9    500.     0.0      0.     0.0      0.     0.0      0.  2805
QT     5.    860.  1480.    1810.  2780.   1810.      0.      0.      0.      0.  2810
NC  0.120   0.120   0.050     0.0     0.0                                          2815
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00   140.00     0.0     0.0  2820

X1    3.36     15.    85.    120.    160.    160.    160.     0.0      0.0      0.  2825
GR 2995.6      0.  2987.5      7.  2988.4      9.  2988.7     33.  2981.6     51.  2830
GR 2982.0     74.  2977.5     85.  2974.4     93.  2973.7     97.  2973.8    107.  2835
GR 2976.2    120.  2977.9    146.  2980.6    168.  2988.3    174.  2994.6    200.  2840
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00   140.00     0.0     0.0  2845

X1    3.36      0.     0.      0.     60.     60.     60.     0.0      0.0      0.  2850
X3     10.     0.0     0.      0.     0.0     0.     0.0   2979.0   2977.3          2855
SB    1.25    1.60    3.00     0.   17.00    0.80   60.00     0.0   2973.7   2973.7  2860
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00   140.00     0.0     0.0  2865

X1    3.36      0.     0.      0.     12.     12.     12.     0.0      0.0      0.  2870
X2      0.     0.0     1.  2977.4  2977.8    0.0      0.     0.0      0.0      0.  2875
X3     10.     0.0     0.      0.     0.0     0.     0.0   2979.5   2977.8          2880
BT    14.0     0.0  2995.6     0.0     7.0  2987.5     0.0     9.0  2988.4     0.0  2885
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BT   33.0  2988.7     0.0    51.0  2981.6     0.0    74.0  2982.0     0.0    80.0  2890
BT 2979.5     0.0   112.0  2979.6     0.0   112.0  2978.8     0.0   144.0  2977.8  2895
BT    0.0   147.0  2977.9     0.0   168.0  2980.6     0.0   174.0  2988.3     0.0  2900
BT  200.0  2994.6     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0  2905
NC  0.130   0.140   0.050     0.0     0.0                                          2910
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00  140.00     0.0     0.0  2915

X1   3.36      0.      0.      0.     15.     15.     15.     0.0    2.00      0.  2920
QT      5.    840.   1445.   1765.   2710.   1765.      0.      0.      0.      0.  2925
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00  130.00     0.0     0.0  2930

X1   3.48     13.     82.    128.    600.    600.    600.     0.0  -31.00      0.  2935
GR 3049.5      0.  3041.4     14.  3041.3     50.  3034.5     82.  3029.7     89.  2940
GR 3028.4     93.  3028.5    101.  3029.5    107.  3032.5    121.  3035.0    124.  2945
GR 3038.4    128.  3040.2    186.  3055.0    220.     0.0      0.     0.0      0.  2950
QT      5.    835.   1435.   1760.   2700.   1760.      0.      0.      0.      0.  2955
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00  130.00     0.0     0.0  2960

X1   3.50      0.      0.      0.    100.    100.    100.     0.0   20.00      0.  2965
QT      5.    830.   1425.   1745.   2675.   1745.      0.      0.      0.      0.  2970
NC  0.130   0.150   0.050     0.0     0.0                                          2975
ET     0.     0.0     0.0     0.0     0.0    7.11   80.00  130.00     0.0     0.0  2980

X1   3.54      0.      0.      0.    275.    275.    275.     0.0   11.00      0.  2985
EJ                                                                               2990
```

*PROF 1

CCHV= 0.100 CEHV= 0.500
*SECNO .080
2096 WSEL NOT GIVEN,AVG OF MAX,MIN USED
BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CONAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.08	2755.	24.	2731.	0.	1.19	0	54.	
2613.15	0.0	21.	311.	0.	0.50	0	2611.00	
10.15	0.0	1.16	8.78	0.0	0.0	2614.34	2615.90	
0.005912	0.0	0.150	0.045	0.130	0.0	-0.00	43.63	
	2603.00	0.	0.	0.	35.	19.	97.94	0.

*SECNO .080

*** GR CARDS REPEATED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2614.60 ELREA= 2615.60

0.08	2755.	0.	2755.	0.	1.08	2	44.	
2613.60	0.0	0.	330.	0.	-0.11	0	2611.00	
10.60	0.0	0.0	8.35	0.0	0.33	2614.68	2615.90	
0.005036	0.044	0.150	0.045	0.130	0.01	-0.00	55.00	
	2603.00	60.	60.	60.	24.	20.	98.59	0.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	31.00	0.50	336.00	0.0
ELCHU	ELCHD							
2603.00	2603.00							

*SECNO .080

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2615.27	2614.73	0.07	1.	2760.	336.	336.	2614.00

ELTRD
2615.10

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2615.10 ELREA= 2616.10

0.08	2755.	0.	2755.	0.	0.88	3	45.	
2614.39	0.0	0.	365.	0.	-0.20	0	2611.00	

```
   11.39      0.0      0.0      7.55      0.0      0.59   2615.27    2615.90
0.003742    0.044    0.150    0.045    0.130       0.0     -0.00      55.00
         2603.00      72.      72.      72.       24.       21.      99.76        1.

CCHV=   0.100 CEHV=   0.800
*SECNO .080

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    0.08     2755.       4.     2751.       0.      1.95         2       50.
 2614.28      0.0       4.      245.       0.      1.07         0     2613.70
    8.58      0.0      0.93    11.22      0.0      0.11   2616.23    2618.60
0.018245    0.045    0.130    0.055    0.150      0.85     -0.00      45.54
         2605.70      15.      15.      15.       33.       17.      95.61        1.


CCHV=   0.100 CEHV=   0.500
*SECNO .250

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                100 YR FLOOD          10/03/81
  MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

    0.25     2715.       0.     2715.       0.      0.52         3       67.
 2621.59      0.0       0.      471.       0.     -1.43         0     2629.70
   11.19      0.0      0.0      5.76      0.0      5.73   2622.11    2634.20
0.003668    0.053    0.160    0.055    0.160      0.14     -0.00      43.92
         2610.40      815.     815.     815.       33.       34.     110.63        8.

*SECNO .270

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                100 YR FLOOD          10/03/81
  MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    0.27     2715.       0.     2715.       0.      2.27        20       51.
 2627.94  2627.94        0.      225.       0.      1.75        14     2629.80
    7.04      0.0      0.0      12.08      0.0      0.80   2630.21    2628.00
0.029227    0.054    0.160    0.055    0.160      0.88     -0.00      54.16
         2620.90      100.     100.     100.       23.       27.     104.83        9.

*SECNO .400
```

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

0.40	2685.	0.	2685.	0.	1.61	5	53.	
2643.19	0.0	0.	264.	0.	-0.66	0	2644.30	
7.79	0.0	0.0	10.18	0.53	14.53	2644.80	2642.50	
0.017601	0.054	0.160	0.055	0.160	0.07	-0.00	52.47	
	2635.40	650.	650.	650.	25.	28.	105.96	12.

*SECNO .640

3301 HV CHANGED MORE THAN HVINS

0.64	2635.	72.	2269.	294.	0.86	6	122.	
2656.50	0.0	46.	285.	160.	-0.75	0	2652.00	
8.00	0.0	1.56	7.97	1.84	12.49	2657.36	2650.80	
0.006910	0.054	0.140	0.055	0.150	0.08	-0.00	51.89	
	2648.50	1190.	1190.	1190.	44.	78.	173.84	23.

*SECNO .640

0.64	2635.	97.	2157.	381.	0.64	2	128.	
2657.02	0.0	58.	306.	190.	-0.22	0	2652.00	
8.52	0.0	1.66	7.05	2.00	0.28	2657.66	2650.80	
0.003277	0.054	0.100	0.045	0.100	0.02	-0.00	50.70	
	2648.50	60.	60.	60.	45.	83.	179.09	23.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2655.46 ,NOT 2657.02
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	21.00	0.50	113.00	0.0

ELCHU	ELCHD
2648.50	2648.50

*SECNO .640

*** GR CARDS REPEATED

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2670.53	2658.54	0.0	1761.	875.	113.	113.	2654.00

ELTRD
2654.00

```
      0.64      2635.       129.      2057.       450.      0.43         2      144.
   2658.08       0.0        85.       351.       263.     -0.22         0   2652.00
      9.58       0.0       1.50       5.86       1.71      0.85   2658.51   2650.80
  0.001890     0.054      0.100      0.045      0.100       0.0     -0.00     48.22
               2648.50        12.        12.        12.       48.       96.    191.73        24.

*SECNO .640
      0.64      2635.       113.      2065.       457.      0.53         2      143.
   2658.06       0.0        85.       315.       261.      0.11         0   2652.00
      8.67       0.0       1.33       6.56       1.75      0.04   2658.60   2650.80
  0.003353     0.054      0.150      0.050      0.130      0.05     -0.00     48.26
               2649.40        15.        15.        15.       40.       95.    191.46        24.


*SECNO .810

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      0.81      2595.       341.      1853.       400.      2.08        20       89.
   2666.98   2666.98        105.       137.        98.      1.54        15   2664.60
      7.48       0.0       3.23      13.48       4.08      6.14   2669.06   2661.20
  0.020353     0.053      0.130      0.050      0.130      0.77     -0.00    113.98
               2659.50       910.       910.       910.       50.       39.    202.73        34.


*SECNO .820

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

      0.82      2595.       463.      1686.       445.      0.91         3      101.
   2668.92       0.0       181.       182.       160.     -1.17         0   2664.60
      9.42       0.0       2.57       9.27       2.79      0.64   2669.82   2661.20
  0.006625     0.053      0.130      0.050      0.130      0.12     -0.00    112.34
               2659.50        60.        60.        60.       51.       50.    213.48        35.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
       1.25       1.60       3.00        0.0      21.00       0.10       90.00      0.0
    ELCHU      ELCHD
   2660.00    2660.00

*SECNO .820
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*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	EI.C
2689.57	2669.84	0.02	1915.	681.	90.	90.	2664.30

ELTRD
2665.70

0.82	2595.	493.	1635.	467.	0.70	3	108.	
2669.64	0.0	210.	199.	190.	-0.21	0	2664.60	
10.14	0.0	2.35	8.23	2.45	0.52	2670.34	2661.20	
0.004642	0.053	0.130	0.050	0.130	0.0	-0.00	111.73	
	2659.50	12.	12.	12.	52.	57.	220.09	35.

*SECNO .820

*** GR CARDS REPEATED

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
0.82	2595.	404.	1714.	478.	0.79	2	109.	
2669.66	0.0	210.	199.	191.	0.09	0	2664.60	
10.16	0.0	1.92	8.61	2.50	0.07	2670.45	2661.20	
0.004096	0.053	0.150	0.045	0.120	0.04	-0.00	111.71	
	2659.50	15.	15.	15.	52.	57.	220.27	35.

*SECNO .940

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

0.94	2570.	236.	2201.	133.	1.46	5	198.	
2674.20	2674.20	156.	211.	63.	0.67	14	2672.30	
6.40	0.0	1.51	10.45	2.11	4.16	2675.66	2671.70	
0.015452	0.053	0.150	0.050	0.150	0.34	-0.00	367.56	
	2667.80	585.	585.	585.	147.	57.	565.81	42.

*SECNO .950

*** GR CARDS REPEATED

BOWLENS CREEK			100 YR FLOOD		10/03/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV

DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
0.95	2570.	239.	2198.	133.	1.44	20	198.	
2677.22	2677.22	158.	211.	63.	-0.02	5	2675.30	
6.42	0.0	1.51	10.40	2.11	0.61	2678.66	2674.70	
0.015254	0.053	0.150	0.050	0.150	0.00	-0.00	367.49	
	2670.80	40.	40.	40.	147.	51.	565.88	42.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	25.00	0.01	75.00	0.0

ELCHU	ELCHD
2671.70	2671.70

*SECNO .950

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2678.66 HIGHER THAN COMPUTED ENERGY OF 2678.37
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2706.39	2678.66	0.00	2060.	512.	75.	75.	2674.70

ELTRD
2675.20

0.95	2570.	262.	2171.	137.	1.33	5	199.	
2677.33	0.0	173.	216.	67.	-0.12	0	2675.30	
6.53	0.0	1.51	10.03	2.05	0.0	2678.66	2674.70	
0.013740	0.053	0.150	0.050	0.150	0.0	-0.00	366.91	
	2670.80	12.	12.	12.	148.	52.	566.40	43.

*SECNO .950

*** GR CARDS REPEATED

0.95	2570.	305.	2107.	157.	1.04	4	203.	
2677.75	0.0	226.	234.	80.	-0.29	0	2675.30	
6.95	0.0	1.35	8.99	1.97	0.10	2678.79	2674.70	
0.008035	0.053	0.150	0.045	0.130	0.03	-0.00	364.90	
	2670.80	10.	10.	10.	150.	54.	568.23	43.

*SECNO 1.100

*** GR CARDS REPEATED
BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA

	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.10	2540.	206.	2198.	136.	1.49	9	198.	
2690.37	2690.37	152.	209.	62.	0.45	11	2688.50	
6.37	0.0	1.36	10.51	2.20	7.89	2691.86	2687.90	
0.012769	0.051	0.150	0.045	0.130	0.23	-0.00	367.72	
	2684.00	790.	790.	790.	147.	51.	565.67	51.

*SECNO 1.240

3301 HV CHANGED MORE THAN HVINS

1.24	2510.	59.	2215.	236.	0.93	4	247.	
2697.72	0.0	33.	269.	210.	-0.56	0	2695.30	
6.72	0.0	1.78	8.23	1.13	6.74	2698.65	2695.40	
0.006798	0.051	0.110	0.045	0.120	0.06	-0.00	363.45	
	2691.00	740.	740.	740.	42.	205.	610.81	59.

*SECNO 1.560

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
1.56	2440.	0.	2319.	121.	1.80	14	140.	
2724.48	2724.48	0.	210.	94.	0.67	12	2725.60	
7.98	0.0	0.0	11.05	1.29	15.64	2726.28	2723.60	
0.013101	0.049	0.130	0.045	0.130	0.44	-0.00	307.96	
	2716.50	1710.	1710.	1710.	18.	143.	468.57	75.

*SECNO 1.570

*** GR CARDS REPEATED

3265 DIVIDED FLOW

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.10 ELREA= 2724.00

1.57	2440.	0.	2318.	122.	1.80	2	140.	
2725.48	2725.48	0.	210.	95.	-0.01	5	2726.60	
7.98	0.0	0.0	11.03	1.29	0.78	2727.28	2724.60	
0.013036	0.049	0.130	0.045	0.130	0.00	-0.00	307.95	
	2717.50	60.	60.	60.	18.	143.	468.58	76.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	30.00	0.40	160.00	0.0

ELCHU	ELCHD
2717.70	2717.70

*SECNO 1.570

*** GR CARDS REPEATED

6870 D.S. ENERGY OF 2727.28 HIGHER THAN COMPUTED ENERGY OF 2726.90

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2731.26	2727.46	0.18	1236.	1209.	160.	160.	2723.10

ELTRD
2724.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2726.60 ELREA= 2724.50

1.57	2440.	0.	2294.	146.	1.66	5	145.	
2725.62	0.0	0.	215.	110.	-0.14	0	2726.60	
8.12	0.0	0.0	10.65	1.33	0.0	2727.28	2724.60	
0.011852	0.049	0.130	0.045	0.130	0.0	-0.00	307.70	
	2717.50	12.	12.	12.	18.	143.	468.75	76.

*SECNO 1.570

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.57	2440.	0.	2159.	281.	1.07	4	163.	
2726.40	0.0	0.	245.	200.	-0.58	0	2726.60	
8.90	0.0	0.0	8.83	1.40	0.14	2727.48	2724.60	

```
 0.007224     0.049     0.130     0.045     0.130      0.06     -0.00    306.36
              2717.50     15.       15.       15.       19.      144.    469.67       76.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.600

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH       QROB       HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH       AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH       VROB       HL        EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH      XNR        OLOSS     CORAR      SSTA
              ELMIN      XLOBL      XLCH      XLOBR      WSDL      WSDR       ENDST       VC

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.60     2430.        0.      2293.      137.      1.73         2       141.
  2727.72  2727.72         0.       211.       98.      0.65        12    2728.80
     8.02      0.0       0.0      10.85      1.40      1.17   2729.44      2726.80
 0.022321     0.049     0.160      0.060     0.160      0.52     -0.00    307.90
              2719.70     100.       100.      100.       18.      143.    468.62       77.


*SECNO 1.660

3301 HV CHANGED MORE THAN HVINS

     1.66     2420.      428.      1992.        0.      0.95         2       236.
  2732.23      0.0       282.       232.        0.     -0.78         0    2730.20
     6.53      0.0       1.52       8.57       0.0      3.65   2733.18      2732.60
 0.011434     0.049     0.150      0.050     0.150      0.08     -0.00    442.91
              2725.70     235.       235.      235.       212.     25.     679.40       79.


CCHV=   0.100 CEHV=   0.500
*SECNO 1.660
     1.66     2420.      592.      1827.        0.      0.55         2       269.
  2732.95      0.0       425.       269.        2.     -0.40         0    2730.20
     7.25      0.0       1.39       6.79       0.25     0.29   2733.50      2732.60
 0.004866     0.049     0.130      0.045     0.130      0.04     -0.00    420.79
              2725.70      40.        40.       40.       234.     35.     689.79       80.


*SECNO 1.660

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

     1.66     2420.     1789.       607.       24.      0.23         2       292.
  2733.31      0.0       492.       137.       17.     -0.32         0    2733.10
     7.71      0.0       3.63       4.43      1.43      0.01   2733.54      2733.20
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0.008858      0.049      0.070      0.040      0.070       0.03     -50.40     410.11
           2725.60         1.         1.         1.        244.        72.     726.00        80.

*SECNO 1.660

*** GR CARDS REPEATED

3265 DIVIDED FLOW

   BOWLENS CREEK                  100 YR FLOOD          10/03/81
  MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

      1.66       2420.      1805.       585.        31.       0.20          2       302.
   2733.44        0.0        524.       141.        22.      -0.03          0    2733.10
      7.84        0.0        3.44       4.15        1.39      0.10    2733.64    2733.20
 0.007514       0.049       0.070      0.040       0.070      0.00     -50.40     405.93
            2725.60          12.        12.         12.       248.        73.     726.68        80.

*SECNO 1.660

3265 DIVIDED FLOW

      1.66       2420.       657.      1759.         4.       0.43          2       294.
   2733.33        0.0        505.       288.         8.       0.22          0    2730.20
      7.63        0.0        1.30       6.10       0.55       0.01    2733.76    2732.60
 0.003582       0.049       0.130      0.045      0.080       0.11     -0.00     409.23
            2725.70          1.         1.         1.        245.        72.     726.15        80.

*SECNO 1.660

3265 DIVIDED FLOW

      1.66       2420.       647.      1770.         4.       0.43          1       298.
   2733.37        0.0        516.       291.         9.      -0.00          0    2730.20
      7.67        0.0        1.25       6.09       0.42       0.04    2733.80    2732.60
 0.004351       0.049       0.150      0.050      0.120       0.00     -0.00     407.76
            2725.70          10.        10.         10.       247.        72.     726.39        80.


CCHV=  0.100 CEHV=  0.800
*SECNO 1.760

3265 DIVIDED FLOW

   BOWLENS CREEK                  100 YR FLOOD          10/03/81
  MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL
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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     1.76      2395.      1179.      1216.        0.      0.83        11       337.
  2738.64   2738.64        424.       123.        0.      0.41        14   2742.00
     4.64       0.0        2.78       9.91       0.0      4.80   2739.47   2741.10
 0.033025     0.050       0.150      0.055     0.120      0.32     -0.00    221.45
              2734.00        515.       515.       515.       553.        24.   798.99        88.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

     1.77      2395.      1406.       989.        0.      0.23         2       589.
  2739.75       0.0        922.       173.        0.     -0.60         0   2742.00
     5.75       0.0        1.52       5.73       0.0      0.46   2739.99   2741.10
 0.005729     0.050       0.130      0.045     0.120      0.06     -0.00    150.60
              2734.00         40.        40.        40.       624.        27.   801.27        89.

*SECNO 1.770

3265 DIVIDED FLOW

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV          ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV         IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL          EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS       CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL        WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

     1.77      2395.      1667.       728.        0.      0.21         0       561.
  2739.78       0.0        953.       118.        0.     -0.02         0   2744.10
     5.68       0.0        1.75       6.17       0.0      0.01   2739.99   2744.20
 0.007326     0.050       0.130      0.045     0.120      0.00     -0.00    149.41
              2734.10          1.         1.         1.       629.        13.   791.00        89.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

     1.77      2395.      1693.       702.        0.      0.18         2       571.
  2739.89       0.0       1019.       121.        0.     -0.03         0   2744.10
     5.79       0.0        1.66       5.80       0.0      0.08   2740.08   2744.20
 0.006351     0.050       0.130      0.045     0.120      0.00     -0.00    141.65
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M^2

2734.10	12.	12.	12.	636.	13.	791.00	89.

*SECNO 1.770

3265 DIVIDED FLOW

1.77	2395.	1442.	953.	0.	0.19	0	605.
2739.90	0.0	1013.	180.	0.	0.01	0	2742.00
5.90	0.0	1.42	5.31	0.0	0.01	2740.09	2741.10
0.004767	0.050	0.130	0.045	0.120	0.01	-0.00	141.26
	2734.00	1.	1.	1.	633.	27.	801.56

89.

CCHV= 0.100 CEHV= 0.500
*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

1.77	2395.	1666.	729.	0.	0.10	2	615.
2740.04	0.0	1089.	186.	0.	-0.10	0	2742.00
6.04	0.0	1.53	3.91	0.0	0.03	2740.13	2741.10
0.002524	0.050	0.090	0.045	0.080	0.01	-0.00	134.68
	2734.00	10.	10.	10.	640.	27.	801.84

90.

CCHV= 0.100 CEHV= 0.800
*SECNO 1.790

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81		
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST

VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.79	2390.	1016.	1374.	0.	0.78	20	351.
2741.23	2741.23	474.	150.	0.	0.68	8	2743.60
6.73	0.0	2.14	9.13	0.0	0.44	2742.00	2743.50
0.015680	0.050	0.120	0.050	0.100	0.54	-0.00	334.12
	2734.50	85.	85.	85.	356.	19.	709.89

91.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
1.79	2390.	1350.	1040.	0.	0.23	3	580.	
2742.16	0.0	914.	185.	0.	-0.54	0	2743.60	
7.66	0.0	1.48	5.61	0.0	0.33	2742.39	2743.50	
0.005120	0.050	0.120	0.050	0.100	0.05	-0.00	115.83	
	2734.50	40.	40.	40.	575.	21.	711.16	92.

*SECNO 1.790

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

1.79	2390.	1928.	462.	0.	0.14	2	557.	
2742.27	0.0	884.	91.	0.	-0.10	0	2743.80	
8.77	0.0	2.18	5.06	0.0	0.01	2742.40	2742.90	
0.011936	0.050	0.120	0.050	0.100	0.01	-4.62	112.99	
	2733.50	1.	1.	1.	583.	7.	703.00	92.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

1.79	2390.	1979.	411.	0.	0.11	2	563.	
2742.43	0.0	970.	91.	0.	-0.03	0	2743.80	
8.93	0.0	2.04	4.50	0.0	0.13	2742.54	2742.90	
0.009721	0.050	0.120	0.050	0.100	0.00	-6.63	109.11	
	2733.50	12.	12.	12.	587.	7.	703.00	92.

*SECNO 1.790

3265 DIVIDED FLOW

1.79	2390.	1427.	963.	0.	0.17	1	590.	
2742.42	0.0	1064.	196.	0.	0.06	0	2743.60	
7.92	0.0	1.34	4.90	0.0	0.01	2742.59	2743.50	
0.003759	0.050	0.120	0.050	0.100	0.05	-0.00	109.02	
	2734.50	1.	1.	1.	581.	21.	711.53	93.

CCHV= 0.100 CEHV= 0.500
*SECNO 1.790

3265 DIVIDED FLOW

1.79	2390.	1475.	915.	0.	0.21	2	591.	
2742.44	0.0	1069.	162.	0.	0.04	0	2743.60	
5.64	0.0	1.38	5.63	0.0	0.04	2742.65	2743.50	
0.003959	0.050	0.120	0.040	0.100	0.02	-0.00	108.78	
	2736.80	10.	10.	10.	582.	21.	711.63	93.

*SECNO 1.870

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.87	2360.	0.	2360.	0.	1.91	20	56.	
2747.72	2747.72	0.	213.	0.	1.70	5	2749.50	
5.72	0.0	0.0	11.08	0.0	2.98	2749.62	2748.90	
0.019919	0.049	0.120	0.045	0.080	0.85	-0.00	535.71	
	2742.00	395.	395.	395.	28.	28.	591.80	99.

*SECNO 1.880

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

1.88	2360.	0.	2007.	353.	2.04	20	57.	
2750.48	2750.48	0.	164.	64.	0.14	8	2752.00	
5.98	0.0	0.0	12.22	5.55	1.55	2752.52	2746.50	
0.018955	0.049	0.120	0.045	0.080	0.07	-0.00	535.17	
	2744.50	80.	80.	80.	16.	41.	592.51	100.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.40	118.00	0.0
ELCHU		ELCHD						
2744.90		2744.90						

*SECNO 1.880

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC	
2760.42	2752.56	0.37	1258.	1123.	118.	118.	2749.90	
ELTRD								
2751.00								
1.88	2360.	0.	1967.	393.	1.34	3	65.	
2751.39	0.0	0.	198.	85.	-0.70	0	2752.00	
6.89	0.0	0.0	9.96	4.63	0.21	2752.73	2746.50	
0.010595	0.049	0.120	0.045	0.080	0.0	-0.00	533.28	
	2744.50	12.	12.	12.	18.	87.	638.39	100.

*SECNO 1.880

3301 HV CHANGED MORE THAN HVINS

1.88	2360.	22.	2284.	54.	0.70	6	518.	
2752.23	2750.22	70.	334.	66.	-0.64	12	2752.00	
7.73	0.0	0.32	6.83	0.81	0.14	2752.93	2751.40	
0.004884	0.049	0.120	0.045	0.080	0.06	-0.00	215.86	
	2744.50	20.	20.	20.	348.	171.	734.15	100.

*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
2.00	2315.	6.	2308.	1.	2.00	4	58.	
2759.48	2759.48	4.	203.	1.	1.29	15	2757.70	
6.18	0.0	1.54	11.35	1.00	6.09	2761.47	2759.00	
0.020011	0.049	0.120	0.045	0.080	0.65	-0.00	82.56	
	2753.30	700.	700.	700.	30.	28.	140.55	105.

*SECNO 2.120

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.12	2270.	6.	2264.	0.	1.97	5	58.	
2773.62	2773.62	4.	201.	0.	-0.02	5	2771.90	
6.12	0.0	1.52	11.29	0.93	13.05	2775.59	2773.20	
0.020149	0.049	0.120	0.045	0.080	0.00	-0.00	82.70	
	2767.50	650.	650.	650.	30.	28.	140.25	109.

*SECNO 2.130

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.13	2270.	6.	2264.	0.	1.96	0	58.	
2774.94	2774.94	4.	201.	1.	-0.02	5	2773.20	
6.14	0.0	1.51	11.24	0.94	1.20	2776.90	2774.50	
0.019885	0.049	0.120	0.045	0.080	0.00	-0.00	82.66	
	2768.80	60.	60.	60.	30.	28.	140.34	109.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	24.00	0.10	160.00	0.0

ELCHU	ELCHD
2768.80	2768.80

*SECNO 2.130

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2779.94	2776.90	0.08	377.	1882.	160.	160.	2775.50

ELTRD
2776.40

2.13	2270.	30.	2200.	41.	0.61	2	80.	
2777.77	0.0	26.	346.	29.	-1.35	0	2773.20	
8.97	0.0	1.14	6.36	1.42	1.48	2778.38	2774.50	
0.003088	0.049	0.120	0.045	0.080	0.0	-0.00	75.56	
	2768.80	12.	12.	12.	37.	43.	155.50	109.

*SECNO 2.130

3301 HV CHANGED MORE THAN HVINS

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   2.13      2270.        7.      2261.        2.      1.59         3       61.
2777.36       0.0         6.       223.        2.      0.98         0  2775.20
   6.56       0.0        1.18     10.14       1.00     0.09   2778.95   2776.50
0.014107      0.049      0.150     0.045      0.100     0.49     -0.00     81.59
              2770.80      15.      15.        15.      31.        30.    142.61    109.


CCHV=   0.100 CEHV=   0.800
*SECNO 2.200

3301 HV CHANGED MORE THAN HVINS

  BOWLENS CREEK                 100 YR FLOOD          10/03/81
  MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   2.20      2240.        0.      2240.        0.      2.26        12       41.
2786.06   2786.06          0.       186.        0.      0.67         8  2788.10
   6.36       0.0         0.0     12.07        0.0     6.72   2788.32   2787.50
0.024384      0.049      0.150     0.050      0.150     0.54     -0.00    321.14
              2779.70      370.     370.       370.      20.        21.    362.25    111.


*SECNO 2.240
  BOWLENS CREEK                 100 YR FLOOD          10/03/81
  MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   2.24      2225.        0.      2225.        0.      2.28         2       41.
2792.15   2792.15          0.       183.        0.      0.02         5  2794.00
   6.25       0.0         0.0     12.13        0.0     5.10   2794.44   2794.00
0.020225      0.049      0.110     0.045      0.080     0.02     -0.00    320.98
              2785.90      230.     230.       230.      21.        21.    362.14    112.


CCHV=   0.100 CEHV=   0.500
*SECNO 2.250

*** GR CARDS REPEATED
  BOWLENS CREEK                 100 YR FLOOD          10/03/81
  MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
  ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
  SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2795.00 ELREA=     2795.00
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2.25	2225.	0.	2225.	0.	2.26	2	41.	
2793.18	2793.18	0.	185.	0.	-0.03	5	2795.00	
6.28	0.0	0.0	12.06	0.0	0.80	2795.44	2795.00	
0.019884	0.049	0.110	0.045	0.080	0.00	-0.00	320.93	
	2786.90	40.	40.	40.	21.	21.	362.18	112.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.30	135.00	0.0

ELCHU	ELCHD
2786.90	2786.90

*SECNO 2.250

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2799.93	2795.48	0.42	605.	1636.	135.	135.	2795.00

ELTRD
2795.30

2.25	2225.	253.	1871.	101.	0.42	3	434.	
2796.41	0.0	294.	331.	120.	-1.84	0	2795.00	
9.51	0.0	0.86	5.65	0.84	1.39	2796.83	2795.00	
0.002419	0.049	0.110	0.045	0.080	0.0	-0.00	115.49	
	2786.90	12.	12.	12.	226.	208.	549.07	112.

*SECNO 2.250

3301 HV CHANGED MORE THAN HVINS

2.25	2225.	0.	2225.	0.	1.50	3	44.	
2795.92	0.0	0.	227.	0.	1.08	0	2797.00	
7.22	0.0	0.0	9.82	0.0	0.04	2797.42	2796.70	
0.011105	0.049	0.130	0.045	0.080	0.54	-0.00	319.66	
	2788.60	10.	10.	10.	22.	22.	363.77	112.

*SECNO 2.440

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

```
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.44      2150.         0.      2150.         0.      2.29        13       39.
  2815.07   2815.07          0.       177.         0.      0.80        11  2824.00
     6.57       0.0        0.0      12.15        0.0     14.15   2817.36  2821.10
 0.020245     0.048      0.100      0.045      0.080      0.40     -0.00   174.79
            2808.50       970.       970.       970.       15.       24.   214.05      117.


*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV      CRIWS        ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH     WSELK        VLOB       VCH        VROB       HL        EG       LEFT/RIGHT
   SLOPE     WTN          XNL        XNCH       XNR        OLOSS     CORAR      SSTA
             ELMIN        XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.00 ELREA=     2821.70

     2.45      2150.         0.      2150.         0.      1.47         3       43.
  2816.85       0.0          0.       221.         0.     -0.82         0  2824.70
     7.65       0.0        0.0       9.74        0.0      0.87   2818.32  2821.80
 0.010926     0.048      0.100      0.045      0.080      0.08     -0.00   172.78
            2809.20        60.        60.        60.       17.       25.   215.46      117.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN       BWC        BWP      BAREA       SS
      1.25        1.60       3.00         0.0      31.00       0.50     345.00      0.0
    ELCHU      ELCHD
  2809.20    2809.20

*SECNO 2.450

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2816.78 BRIDGE VELOCITY=,       9.30
     CALCULATED CHANNEL AREA=,      231.
     EGPRS      EGLWC        H3       QWEIR        QPR       BAREA      TAREA       ELLC
       0.0   2818.38        0.15         0.      2150.       345.       345.    2820.50

     ELTRD
   2822.20


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.50 ELREA=     2822.20

     2.45      2150.         0.      2150.         0.      1.39         0       43.
  2817.00       0.0          0.       227.         0.     -0.09         0  2824.70
     7.80       0.0        0.0       9.45        0.0      0.07   2818.38  2821.80
```

0.010056	0.048	0.100	0.045	0.080	0.0	-0.00	172.48	
	2809.20	12.	12.	12.	18.	26.	215.67	117.

*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.45	2150.	0.	2150.	0.	2.29	20	39.	
2817.18	2817.18	0.	177.	0.	0.90	15	2826.10	
6.58	0.0	0.0	12.14	0.0	0.23	2819.46	2823.20	
0.024922	0.048	0.130	0.050	0.100	0.45	-0.00	174.78	
	2810.60	15.	15.	15.	15.	24.	214.06	117.

*SECNO 2.580

*** GR CARDS REPEATED

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.58	2100.	0.	2100.	0.	2.28	14	39.	
2852.48	2852.48	0.	173.	0.	-0.01	5	2861.50	
6.48	0.0	0.0	12.12	0.0	15.81	2854.76	2858.60	
0.025267	0.048	0.150	0.050	0.150	0.00	-0.00	174.96	
	2846.00	630.	630.	630.	15.	24.	213.93	120.

*SECNO 2.650

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.66	2070.	115.	1684.	270.	1.31	20	158.
2871.07	2871.07	54.	166.	128.	-0.97	8	2867.20
6.87	0.0	2.14	10.13	2.11	4.58	2872.38	2869.00
0.009636	0.048	0.130	0.045	0.080	0.10	-0.00	83.75
	2864.20	310.	310.	310.	36.	121.	241.27

121.

*SECNO 2.670

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST

VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2873.60 ELREA= 2870.60

2.67	2070.	0.	1493.	577.	1.49	20	134.
2872.94	2872.94	0.	131.	214.	0.19	11	2866.20
7.44	0.0	0.0	11.43	2.70	0.55	2874.43	2866.10
0.008581	0.048	0.130	0.045	0.080	0.09	-0.00	111.00
	2865.50	60.	60.	60.	9.	125.	244.77

122.

SPECIAL BRIDGE

S227 DOWNSTREAM ELEV IS 2872.40 ,NOT 2872.94
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	16.00	0.60	100.00	0.0

ELCHU	ELCHD
2865.50	2865.50

*SECNO 2.670

*** GR CARDS REPEATED
PRESS FLOW BECAUSE EGLWC OF 2877.00 EXCEEDS 1.5 DEPTH
6870 D.S. ENERGY OF 2874.43 HIGHER THAN COMPUTED ENERGY OF 2874.07
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2883.58	2877.00	0.0	1398.	674.	100.	100.	2872.00

ELTRD
2871.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2874.00 ELREA= 2871.10

2.67	2070.	0.	1436.	634.	1.26	6	135.
2873.18	0.0	0.	135.	241.	-0.24	0	2866.20
7.68	0.0	0.0	10.65	2.63	0.0	2874.43	2866.10
0.007150	0.048	0.130	0.045	0.080	0.0	-0.00	111.00

2865.50	12.	12.	12.	9.	126.	246.19	122.

*SECNO 2.670

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

2.67	2070.	219.	1118.	733.	0.49	4	173.	
2874.09	0.0	130.	151.	351.	-0.77	0	2866.20	
8.59	0.0	1.69	7.39	2.09	0.07	2874.58	2866.10	
0.002948	0.048	0.130	0.045	0.080	0.08	-0.00	78.93	
	2865.50	15.	15.	15.	41.	132.	251.83	122.

*SECNO 2.800

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.80	2020.	180.	1392.	447.	1.34	20	160.	
2886.16	2886.16	87.	126.	182.	0.86	9	2879.70	
7.16	0.0	2.08	11.08	2.46	3.16	2887.50	2879.60	
0.008507	0.048	0.150	0.045	0.080	0.43	-0.00	82.94	
	2879.00	680.	680.	680.	37.	123.	243.05	130.

*SECNO 2.940

3301 HV CHANGED HORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.94	1965.	0.	1965.	0.	2.34	15	35.	
2900.05	2900.05	0.	160.	0.	1.00	11	2900.80	
6.75	0.0	0.0	12.29	0.0	9.80	2902.40	2903.80	
0.025691	0.048	0.150	0.050	0.130	0.50	0.0	374.70	
	2893.30	720.	720.	720.	21.	14.	409.37	135.

*SECNO 2.950

```
*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOOD          10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     2.95     1965.        0.     1965.        0.      2.33         20       35.
  2902.07  2902.07         0.      160.        0.     -0.01          5  2902.80
     6.77      0.0        0.0     12.25        0.0     1.02    2904.40  2905.80
 0.025503    0.048      0.150     0.050      0.130     0.00      -0.00   374.69
             2895.30       40.       40.        40.      21.        14.  409.40       135.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN      DWC        BWP      BAREA       SS
      1.25       1.60       3.00        0.0      27.00       0.01     170.00       0.0
    ELCHU      ELCHD
  2895.30    2895.30

*SECNO 2.950

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC         H3      QWEIR       QPR      BAREA      TAREA       ELLC
  2905.39    2904.40       0.01       133.      1830.      170.       170.    2901.60

    ELTRD
  2903.30


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2904.20 ELREA=     2903.30

     2.95     1965.        0.     1965.        0.      1.22          3       39.
  2903.73      0.0         0.      222.        0.     -1.11          0  2902.80
     8.43      0.0        0.0      8.86        0.0     0.55    2904.95  2905.80
 0.010094    0.048      0.150     0.050      0.130     0.0       -0.00   374.00
             2895.30       22.       22.        22.      22.        17.  412.79       135.


*SECNO 2.950

*** GR CARDS REPEATED
     2.95     1965.        6.     1959.        0.      1.14          0       55.
  2903.91      0.0         9.      229.        0.     -0.08          0  2902.80
     8.61      0.0        0.64     8.57        0.0     0.10    2905.05  2905.80
 0.009190    0.048      0.150     0.050      0.130     0.01      -0.00   358.30
             2895.30       10.       10.        10.      37.        18.  413.14       135.
```

*SECNO 2.960

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2.96	1965.	67.	1898.	0.	1.81	20	74.	
2905.07	2905.07	37.	173.	0.	0.68	14	2902.80	
5.57	0.0	1.82	10.99	0.0	0.67	2906.88	2905.80	
0.021502	0.048	0.130	0.050	0.150	0.34	-0.00	341.76	
	2899.50	50.	50.	50.	54.	20.	415.52	135.

*SECNO 3.060

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.06	1920.	0.	1920.	0.	2.58	15	33.	
2921.79	2921.79	0.	149.	0.	0.77	11	2921.60	
6.59	0.0	0.64	12.89	0.0	12.42	2924.36	2924.70	
0.027903	0.048	0.080	0.050	0.130	0.38	-0.00	305.15	
	2915.20	510.	510.	510.	18.	14.	337.97	137.

*SECNO 3.070

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.07	1920.	23.	1897.	0.	2.58	2	34.	
2923.91	2923.91	7.	146.	0.	0.00	9	2921.00	
6.71	0.0	3.33	12.97	0.0	1.55	2926.49	2926.70	
0.024056	0.048	0.080	0.050	0.130	0.00	-0.00	303.94	
	2917.20	60.	60.	60.	23.	12.	338.05	138.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2922.34 ,NOT 2923.91
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	23.00	0.90	183.00	0.0

ELCHU	ELCHD
2917.20	2917.20

*SECNO 3.070

*** GR CARDS REPEATED
6870 D.S. ENERGY OF 2926.49 HIGHER THAN COMPUTED ENERGY OF 2926.47
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2926.64	2926.57	0.0	41.	1860.	183.	183.	2925.50

ELTRD
2925.60

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3.07	1920.	28.	1892.	0.	2.35	5	37.	
2924.14	0.0	9.	153.	0.	-0.23	0	2921.00	
6.94	0.0	3.19	12.39	0.0	0.0	2926.49	2926.70	
0.020984	0.048	0.080	0.050	0.130	0.0	-0.00	301.57	
	2917.20	12.	12.	12.	25.	12.	338.22	138.

*SECNO 3.070

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.07	1920.	0.	1920.	0.	2.47	20	34.	
2925.89	2925.89	0.	152.	0.	0.12	11	2925.60	
6.69	0.0	0.82	12.63	0.0	0.35	2928.36	2928.70	
0.026173	0.048	0.080	0.050	0.130	0.06	-0.00	304.15	
	2919.20	15.	15.	15.	19.	15.	338.04	138.

CCHV= 0.100 CEHV= 0.800
*SECNO 3.210

3301 HV CHANGED MORE THAN HVINS

3.21	1865.	1.	1864.	0.	1.01	5	41.	
2938.12	0.0	1.	232.	0.	1.47	0	2936.90	
7.92	0.0	0.90	8.05	0.0	10.62	2939.13	2941.40	
0.009553	0.049	0.100	0.055	0.160	0.15	-0.00	198.36	
	2930.20	710.	710.	710.	23.	18.	239.12	141.

```
*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2943.70 ELREA=     2945.00

     3.22      1865.        0.      1865.        0.       1.53         2       38.
  2938.79       0.0         0.       188.        0.       0.52         0  2938.70
     6.79       0.0        0.0       9.92       0.0       0.77   2940.32   2943.20
 0.018324     0.049       0.100     0.055      0.160      0.42     -0.00    200.00
             2932.00        60.       60.        60.       21.        17.   238.12      141.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN      BWC        BWP      BAREA      SS
     1.25       1.60       3.00       0.0       29.00      0.30     330.00     0.0
   ELCHU      ELCHD
  2932.00    2932.00

CCHV=   0.100 CEHV=   0.500
*SECNO 3.220

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.=   2938.73 BRIDGE VELOCITY=,       9.65
     CALCULATED CHANNEL AREA=,       193.
    EGPRS      EGLWC         H3       QWEIR       QPR       BAREA      TAREA      ELLC
      0.0   2940.36       0.11          0.      1865.       330.       330.   2943.50

    ELTRD
  2944.20


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2944.20 ELREA=     2945.50

     3.22      1865.        0.      1865.        0.       1.46         0       38.
  2938.90       0.0         0.       192.        0.      -0.07         0  2938.70
     6.90       0.0        0.0       9.70       0.0       0.05   2940.36   2943.20
 0.017056     0.049       0.100     0.055      0.160      0.0      -0.00    200.00
             2932.00        12.       12.        12.       21.        17.   238.22      141.


*SECNO 3.220

*** GR CARDS REPEATED
```

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.22	1865.	0.	1865.	0.	2.18	20	36.	
2940.87	2940.87	0.	157.	0.	0.72	11	2941.60	
5.97	0.0	0.0	11.85	0.0	0.31	2943.05	2946.10	
0.025282	0.049	0.100	0.050	0.150	0.36	-0.00	201.14	
	2934.90	15.	15.	15.	20.	16.	237.40	141.

*SECNO 3.250

*** GR CARDS REPEATED

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
3685 20 TRIALS ATTEMPTED WSEL,CWSEL								
3693 PROBABLE MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.25	1855.	0.	1855.	0.	2.20	20	36.	
2948.43	2948.43	0.	156.	0.	0.01	5	2949.20	
5.93	0.0	0.0	11.89	0.0	2.79	2950.63	2953.70	
0.031026	0.049	0.150	0.055	0.150	0.01	-0.00	201.20	
	2942.50	100.	100.	100.	20.	16.	237.37	142.

CCHV= 0.100 CEHV= 0.800

*SECNO 3.310

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3.31	1825.	0.	1794.	31.	1.98	9	54.	
2966.97	2966.97	0.	158.	17.	-0.22	11	2969.90	
5.47	0.0	0.0	11.37	1.81	9.96	2968.94	2965.10	
0.032260	0.049	0.130	0.060	0.140	0.02	-0.00	313.76	
	2961.50	315.	315.	315.	16.	38.	368.03	143.

*SECNO 3.320

BOWLENS CREEK			100 YR FLOOD		10/03/81			

C04

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 2974.20 ELREA= 2969.70

3.32	1825.	0.	1635.	190.	2.34	2	55.	
2970.48	2970.48	0.	127.	68.	0.36	18	2963.90	
6.58	0.0	0.0	12.93	2.81	1.65	2972.82	2965.30	
0.023674	0.049	0.130	0.060	0.140	0.29	-0.00	324.00	
	2963.90	60.	60.	60.	10.	45.	378.84	143.

CCHV= 0.100 CEHV= 0.500
*SECNO 3.320

3265 DIVIDED FLOW

BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.32	1825.	0.	1665.	160.	2.21	20	61.	
2971.98	2971.98	0.	134.	45.	-0.13	6	2974.00	
8.08	0.0	0.0	12.43	3.58	0.02	2974.18	2973.50	
0.025483	0.049	0.070	0.040	0.070	0.01	-4.77	324.23	
	2963.90	1.	1.	1.	10.	60.	393.86	143.

*SECNO 3.320

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD= 4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3.32	1825.	1.	1101.	723.	0.69	8	91.	
2973.89	0.0	1.	144.	152.	-1.52	0	2974.00	
9.99	0.0	0.86	7.66	4.74	0.25	2974.58	2973.50	
0.016804	0.049	0.070	0.040	0.070	0.15	-32.86	319.96	
	2963.90	12.	12.	12.	14.	78.	412.20	143.

```
*SECNO 3.320

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.70 ELREA=     2970.20

     3.32      1825.         0.      1395.       430.       0.61          2        89.
  2973.98         0.         0.       197.       249.      -0.08          0   2963.90
    10.08         0.         0.       7.10       1.73       0.00    2974.59   2965.30
 0.002233       0.049      0.100      0.045      0.100      0.01      -0.00    324.00
             2963.90          1.         1.         1.        10.        79.    412.67      143.


*SECNO 3.320
     3.32      1825.         0.      1732.        93.       0.83          2        76.
  2973.93         0.         0.       231.        71.       0.22          0   2974.90
     7.43         0.         0.       7.48       1.31       0.05    2974.76   2970.10
 0.006473       0.049      0.120      0.050      0.140      0.11      -0.00    311.24
             2966.50         15.        15.        15.        19.        57.    387.00      143.

*SECNO 3.360

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   MILE        Q          QLOB       QCH         QROB       HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB       DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB       HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR        OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR      WSDL        WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
     3.36      1810.         4.      1653.       153.       1.71         20        74.
  2979.06   2979.06          3.       151.        58.       0.89         19   2977.50
     5.36         0.       1.41      10.96       2.64       1.68    2980.77   2976.20
 0.020011       0.049      0.120      0.050      0.120      0.44      -0.00     81.18
             2973.70        160.       160.       160.        21.        53.    155.47      144.


*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOOD          10/03/81
   !!ILE       Q          QLOB       QCH         QROB       HV          ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH         AROB       DHV         IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH         VROB       HL          EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH        XNR        OLOSS       CORAR       SSTA
               ELMIN      XLOBL      XLCH        XLOBR      WSDL        WSDR        ENDST       VOL

     3.36      1810.        16.      1538.       256.       0.72          2        91.
  2980.74         0.        13.       210.       129.      -1.00          0   2977.50
     7.04         0.      1.23       7.32       1.98       0.59    2981.46   2976.20
 0.005753       0.049      0.120      0.050      0.120      0.10      -0.00     77.06
             2973.70         60.        60.        60.        25.        66.    168.12      145.
```

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 2979.65 ,NOT 2980.74
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	17.00	0.80	60.00	0.0
ELCHU	ELCHD							
2973.70	2973.70							

*SECNO 3.360

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
3003.35	2983.44	0.0	1383.	427.	60.	60.	2977.40

ELTRD
2977.80

3.36	1810.	22.	1491.	297.	0.52	2	93.	
2981.48	0.0	19.	236.	165.	-0.20	0	2977.50	
7.78	0.0	1.13	6.32	1.80	0.54	2982.00	2976.20	
0.003673	0.049	0.120	0.050	0.120	0.0	-0.00	75.25	
	2973.70	12.	12.	12.	27.	66.	168.69	145.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3.36	1810.	4.	1673.	133.	1.76	3	74.	
2981.07	2981.07	3.	151.	58.	1.24	19	2979.50	
5.37	0.0	1.32	11.06	2.29	0.11	2982.83	2978.20	
0.020306	0.049	0.130	0.050	0.140	0.62	-0.00	81.15	
	2975.70	15.	15.	15.	21.	53.	155.56	145.

*SECNO 3.480

BOWLENS CREEK			100 YR FLOOD		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	3.48	1765.	0.	1765.	0.	1.97	12	40.
	3003.14	3003.14	0.	157.	0.	0.21	8	3003.50
	5.74	0.0	0.0	11.26	0.0	13.62	3005.11	3007.40
	0.025613	0.049	0.130	0.050	0.140	0.10	-0.00	82.52
		2997.40	600.	600.	600.	22.	18.	122.97

147.

*SECNO 3.500

*** GR CARDS REPEATED
BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST

VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	3.50	1760.	0.	1760.	0.	1.96	20	40.
	3023.14	3023.14	0.	157.	0.	-0.01	5	3023.50
	5.74	0.0	0.0	11.24	0.0	2.56	3025.10	3027.40
	0.025549	0.049	0.130	0.050	0.140	0.00	-0.00	82.53
		3017.40	100.	100.	100.	22.	18.	122.96

148.

*SECNO 3.540

*** GR CARDS REPEATED
BOWLENS CREEK 100 YR FLOOD 10/03/81

MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST

VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	3.54	1745.	0.	1745.	0.	1.96	10	40.
	3034.11	3034.11	0.	155.	0.	-0.00	5	3034.50
	5.71	0.0	0.0	11.23	0.0	7.04	3036.07	3038.40
	0.025677	0.049	0.130	0.050	0.150	0.00	-0.00	82.57
		3028.40	275.	275.	275.	22.	18.	122.93

149.

THIS RUN EXECUTED 10/03/81 8:55:44

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
**************************************************

T1      YANCEY CO NC FEMA STUDY                                          2995
T2      100 YR FLOODWAY                                                  3000
T3      BOWLENS CREEK                    100 YR FLOODWAY                 3005

J1  ICHECK     INQ    NINV    IDIR    STRT  METRIC   HVINS     Q      WSEL    FQ

         0.      6.      0.      0. 0.0         0.     0.0      0. 2614.16   0.0    3010

J2  NPROF   IPLOT   PRFVS   XSECV   XSECH      FN   ALLDC     IBW   CHNIM ITRACE

        15.     0.     -1.      0.      0.    0.0     0.0      0.      0.      0.    3015
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```
*PROF 2

CCHV=   0.100 CEHV=   0.500
*SECNO .080
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE      Q          QLOB      QCH       QROB       HV        ITRIAL     TOPWID
   ELEV      CRIWS      ALOB      ACH       AROB       DHV       IDC       BANK ELEV
   DEPTH     WSELK      VLOB      VCH       VROB       HL        EG      LEFT/RIGHT
   SLOPE     WTN        XNL       XNCH      XNR        OLOSS     CORAR     SSTA
             ELMIN      XLOBL     XLCH      XLOBR      WSDL      WSDR      ENDST      VOL

3470 ENCROACHMENT STATIONS=      40.0     105.0  TYPE=     1  TARGET=      65.000
     0.08      2755.        40.      2715.        0.      0.90         0       57.
  2614.16       0.0        33.       355.        0.      0.50         0  2611.00
    11.16   2613.15        1.21      7.65       0.0       0.0   2615.06   2615.90
 0.003947       0.0       0.150     0.045      0.130       0.0     -0.00     42.40
             2603.00          0.        0.         0.        36.       21.     99.43        0.

*SECNO .080

*** GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=      40.0     105.0  TYPE=     1  TARGET=      65.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2614.60 ELREA=     2615.60

     0.08      2755.         0.      2755.        0.      0.88         0       45.
  2614.40       0.0          0.       365.        0.     -0.01         0  2611.00
    11.40   2613.60         0.0       7.54       0.0       0.23   2615.29   2615.90
 0.003726      0.044       0.150     0.045      0.130       0.00       0.0     55.00
             2603.00          60.       60.        60.        24.       21.     99.78        1.


SPECIAL BRIDGE

SB     HK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS
      1.25       1.60      3.00        0.0     31.00      0.50     336.00     0.0
    ELCHU     ELCHD
  2603.00   2603.00

*SECNO .080
     3700.   BRIDGE STENCL=      40.00    STENCR=    105.00

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

    EGPRS      EGLWC        H3      QWEIR       QPR      BAREA      TAREA      ELLC
  2616.07   2615.32         0.05       21.      2755.       336.       336.   2614.00

    ELTRD
  2615.10


3470 ENCROACHMENT STATIONS=      40.0     105.0  TYPE=     1  TARGET=      65.000
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2615.10 ELREA=     2616.10

    0.08     2755.       59.     2696.        0.     0.65         2       60.
 2615.42      0.0        50.      413.        0.    -0.23         0  2611.00
   12.42  2614.39       1.18      6.54       0.0     0.79   2616.07  2615.90
0.002500     0.044      0.150    0.045      0.130     0.0     -0.00    40.86
         2603.00         72.      72.        72.      38.       23.   101.31          1.

CCHV=   0.100 CEHV=   0.800
*SECNO .080

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      40.0     105.0  TYPE=     1  TARGET=      65.000
    0.08     2755.       23.     2732.        0.     1.37         2       53.
 2615.35      0.0        15.      290.        0.     0.72         0  2613.70
    9.65  2614.28       1.53      9.43       0.0     0.07   2616.72  2618.60
0.010930     0.045      0.130    0.055      0.150     0.58     -0.00    44.24
         2605.70         15.      15.        15.      34.       19.    97.19          1.

CCHV=   0.100 CEHV=   0.500
*SECNO .250

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3470 ENCROACHMENT STATIONS=      25.0     130.0  TYPE=     1  TARGET=     105.000
    0.25     2715.        0.     2715.        0.     0.55         2       66.
 2621.35      0.0         0.      456.        0.    -0.82         0  2629.70
   10.95  2621.59        0.0      5.96       0.0     5.10   2621.90  2634.20
0.004026     0.053      0.160    0.055      0.160     0.08     -0.00    44.47
         2610.40         815.     815.       815.      32.       34.   110.31          8.

*SECNO .270

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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3470 ENCROACHMENT STATIONS=      25.0      130.0  TYPE=     1  TARGET=     105.000
     0.27      2715.         0.      2715.         0.      2.26          20        51.
  2627.94      2627.94       0.       225.         0.      1.71          14     2629.80
     7.04      2627.94       0.0     12.08         0.0     0.86     2630.21     2628.00
 0.029181        0.054      0.160     0.055       0.160     0.86       -0.00       54.16
                2620.90       100.      100.        100.      23.          27.     104.84          9.

*SECNO .400

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      25.0      130.0  TYPE=     1  TARGET=     105.000
     0.40      2685.         0.      2685.         0.      1.61           5        53.
  2643.19         0.0        0.       264.         0.     -0.65           0     2644.30
     7.79      2643.19       0.0     10.18         0.53    14.53     2644.80     2642.50
 0.017623        0.054      0.160     0.055       0.160     0.07       -0.00       52.47
                2635.40       650.      650.        650.      25.          28.     105.96         13.

*SECNO .640

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      60.0      140.0  TYPE=     1  TARGET=      80.000
     0.64      2635.        68.      2334.       233.      0.91           6        80.
  2656.58         0.0       40.       288.       105.     -0.70           0     2652.00
     8.08      2656.50       1.71      8.10        2.22    12.63     2657.50     2650.80
 0.007032        0.054      0.140     0.055       0.150     0.07       -0.00       60.00
                2648.50      1190.     1190.       1190.      36.          44.     140.00         22.

*SECNO .640

3470 ENCROACHMENT STATIONS=      60.0      140.0  TYPE=     1  TARGET=      80.000
     0.64      2635.        87.      2257.       291.      0.72           2        80.
  2657.08         0.0       47.       309.       117.     -0.19           0     2652.00
     8.58      2657.02       1.85      7.31        2.49     0.29     2657.80     2650.80
 0.003487        0.054      0.100     0.045       0.100     0.02       -0.00       60.00
                2648.50        60.       60.         60.      36.          44.     140.00         23.

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    2655.46 ,NOT    2657.08
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK        XKOR       COFQ      RDLEN       BWC       BWP      BAREA       SS
     1.25         1.60       3.00        0.0      21.00      0.50     113.00      0.0
   ELCHU      ELCHD
  2648.50    2648.50

*SECNO .640
     3700.   BRIDGE STENCL=      60.00     STENCR=     140.00
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*** GR CARDS REPEATED
    BOWLENS CREEK                  100 YR FLOODWAY     10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC         H3      QWEIR       QPR       BAREA      TAREA       ELLC
  2670.59    2658.62        0.0       1620.     1016.       113.       113.    2654.00

    ELTRD
  2654.00


3470 ENCROACHMENT STATIONS=       60.0     140.0  TYPE=      1  TARGET=       80.000
     0.64       2635.       115.      2202.       318.      0.46          2       80.
  2658.63        0.0        70.       374.       152.     -0.26          0    2652.00
    10.13    2658.08       1.64       5.89       2.09      1.28    2659.09    2650.80
 0.001756       0.054      0.100      0.045      0.100       0.0      -0.00      60.00
              2648.50         12.        12.        12.        36.        44.     140.00       23.

*SECNO .640

3470 ENCROACHMENT STATIONS=       60.0     140.0  TYPE=      1  TARGET=       80.000
     0.64       2635.       101.      2214.       321.      0.57          2       80.
  2658.61        0.0        70.       337.       152.      0.11          0    2652.00
     9.21    2658.06       1.44       6.56       2.11      0.03    2659.18    2650.80
 0.003055       0.054      0.150      0.050      0.130      0.06      -0.00      60.00
              2649.40         15.        15.        15.        36.        44.     140.00       23.


*SECNO .810

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  100 YR FLOODWAY     10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      140.0     190.0  TYPE=      1  TARGET=       50.000
     0.81       2595.       101.      2110.       384.      2.79         20       50.
  2667.25    2667.25         34.       144.        79.      2.22         15    2664.60
     7.75    2666.98       2.98      14.70       4.86      5.92    2670.03    2661.20
 0.022848       0.053      0.130      0.050      0.130      1.11      -0.00     140.00
              2659.50        910.       910.       910.        24.        26.     190.00       32.
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*SECNO .820

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     140.0     190.0  TYPE=      1  TARGET=      50.000
      0.82      2595.       143.      2057.       395.      1.39           3          50.
   2669.52       0.0         61.       196.       113.     -1.40           0     2664.60
     10.02    2668.92        2.33      10.50       3.49      0.74     2670.91     2661.20
  0.007702      0.053       0.130      0.050      0.130      0.14       -0.00      140.00
              2659.50        60.        60.        60.        24.         26.      190.00        32.


SPECIAL BRIDGE

SB      HK        XKOR       COFQ      RDLEN       BWC       BWP      BAREA       SS
        1.25      1.60       3.00        0.0     21.00       0.10     90.00       0.0
    ELCHU     ELCHD
  2660.00   2660.00

*SECNO .820
     3700.   BRIDGE STENCL=    140.00    STENCR=    190.00

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

    EGPRS     EGLWC         H3      QWEIR       QPR      BAREA      TAREA      ELLC
  2690.18   2670.95       0.03      1769.      826.       90.        90.     2664.30

    ELTRD
  2665.70


3470 ENCROACHMENT STATIONS=     140.0     190.0  TYPE=      1  TARGET=      50.000
      0.82      2595.       153.      2044.       398.      1.09           3          50.
   2670.52       0.0         73.       219.       128.     -0.30           0     2664.60
     11.02    2669.64        2.09       9.34       3.11      0.70     2671.62     2661.20
  0.005245      0.053       0.130      0.050      0.130      0.0        -0.00      140.00
              2659.50        12.        12.        12.        24.         26.      190.00        32.


*SECNO .820

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL


3470 ENCROACHMENT STATIONS=     140.0     190.0  TYPE=      1  TARGET=      50.000
      0.82      2595.       122.      2078.       395.      1.13           2          50.
   2670.58       0.0         74.       220.       129.      0.04           0     2664.60
     11.08    2669.66        1.65       9.44       3.06      0.07     2671.71     2661.20
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 0.004317     0.053     0.150     0.045     0.120      0.02     -0.00    140.00
             2659.50      15.       15.       15.       24.       26.    190.00       33.


*SECNO .940

3470 ENCROACHMENT STATIONS=     460.0     550.0  TYPE=     1  TARGET=      90.000
      0.94     2570.      130.      2354.       86.      1.56         3       90.
   2674.54      0.0       70.       225.       41.      0.42         0  2672.30
      6.74  2674.20      1.86      10.45      2.11      4.18   2676.10  2671.70
 0.014127     0.053     0.150     0.050     0.150      0.21     -0.00    460.00
             2667.80      585.      585.      585.       55.       35.    550.00       38.


*SECNO .950

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        J'NL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     460.0     550.0  TYPE=     1  TARGET=      90.000
      0.95     2570.      102.      2390.       78.      1.97        20       90.
   2677.07  2677.07       54.       205.       34.      0.41        11  2675.30
      6.27  2677.22      1.89      11.67      2.28      0.67   2679.04  2674.70
 0.019989     0.053     0.150     0.050     0.150      0.21     -0.00    460.00
             2670.80       40.       40.       40.       55.       35.    550.00       38.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP       BAREA      SS
      1.25       1.60       3.00        0.0      25.00       0.01       75.00      0.0
    ELCHU      ELCHD
  2671.70    2671.70

*SECNO .950
     3700.   BRIDGE STENCL=     460.00     STENCR=     550.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC         H3       QWEIR        QPR       BAREA      TAREA      ELLC
  2706.24    2679.04       0.01        1824.       748.        75.        75.   2674.70

    ELTRD
  2675.20
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3470 ENCROACHMENT STATIONS=      460.0      550.0  TYPE=      1  TARGET=      90.000
     0.95      2570.       176.      2296.       99.      1.03         3        90.
  2678.50       0.0        102.       267.       54.     -0.94         0   2675.30
     7.70   2677.33        1.73       8.60       1.81     0.50   2679.54   2674.70
 0.007637      0.053      0.150      0.050      0.150      0.0     -0.00    460.00
           2670.80         12.        12.        12.       55.       35.    550.00       38.

*SECNO .950

*** GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=      460.0      550.0  TYPE=      1  TARGET=      90.000
     0.95      2570.       162.      2304.       104.     1.02         2        90.
  2678.59       0.0        104.       270.       56.     -0.02         0   2675.30
     7.79   2677.75        1.55       8.52       1.87     0.07   2679.60   2674.70
 0.005973      0.053      0.150      0.045      0.130      0.00     -0.00    460.00
           2670.80         10.        10.        10.       55.       35.    550.00       38.

*SECNO 1.100

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOODWAY       10/03/81
   MILE       Q          QLOB      QCH        QROB       HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS     CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      460.0      550.0  TYPE=      1  TARGET=      90.000
     1.10      2540.        89.      2372.       79.      1.98        20        90.
  2690.23   2690.23        53.       203.       34.      0.96        15   2688.50
     6.23   2690.37        1.68      11.67       2.36     7.31   2692.21   2687.90
 0.016361      0.051      0.150      0.045      0.130      0.48     -0.00    460.00
           2684.00        790.       790.       790.       55.       35.    550.00       45.

*SECNO 1.240

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      375.0      435.0  TYPE=      1  TARGET=      60.000
     1.24      2510.        30.      2460.       20.      1.06         3        60.
  2698.25       0.0         18.       295.       14.     -0.92         0   2695.30
     7.25   2697.72        1.67       8.33       1.44     7.01   2699.31   2695.40
 0.006142      0.051      0.110      0.045      0.120      0.09     -0.00    375.00
           2691.00        740.       740.       740.       31.       29.    435.00       50.

*SECNO 1.560
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3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOODWAY		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL
7185 MINIMUM SPECIFIC ENERGY								
3720 CRITICAL DEPTH ASSUMED								
3470 ENCROACHMENT STATIONS=			305.0	365.0	TYPE= 1	TARGET=	60.000	
1.56	2440.	0.	2432.	8.	2.47	15	56.	
2724.01	2724.01	0.	193.	9.	1.41	8	2725.60	
7.51	2724.48	0.0	12.62	0.89	16.81	2726.47	2723.60	
0.018581	0.049	0.130	0.045	0.130	0.71	-0.00	308.79	
	2716.50	1710.	1710.	1710.	17.	39.	365.00	60.
*SECNO 1.570								
*** GR CARDS REPEATED								
3470 ENCROACHMENT STATIONS=			305.0	365.0	TYPE= 1	TARGET=	60.000	
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=			2726.10	ELREA=	2724.00			
1.57	2440.	0.	2420.	20.	2.11	6	57.	
2725.39	2725.01	0.	207.	17.	-0.35	5	2726.60	
7.39	2725.48	0.0	11.71	1.20	1.00	2727.51	2724.60	
0.014926	0.049	0.130	0.045	0.130	0.04	-0.00	308.11	
	2717.50	60.	60.	60.	17.	39.	365.00	61.

SPECIAL BRIDGE

SB	HK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS
	1.25	1.60	3.00	0.0	30.00	0.40	160.00	0.0
ELCHU	ELCHD							
2717.70	2717.70							

*SECNO 1.570
3700. BRIDGE STENCL= 305.00 STENCR= 365.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TAREA	ELLC
2731.17	2727.74	0.24	764.	1679.	160.	160.	2723.10

ELTRD
2724.50

```
3470 ENCROACHMENT STATIONS=     305.0     365.0  TYPE=     1  TARGET=     60.000
     1.57     2440.        0.     2367.       73.      1.20         3       60.
  2726.93      0.0         0.      266.       48.     -0.92         0  2726.60
     9.43  2725.62        0.37     8.91       1.54     0.62   2728.13  2724.60
 0.006660     0.049       0.130    0.045      0.130    0.0      -0.00   305.00
             2717.50        12.      12.        12.      21.      39.  365.00       61.

*SECNO 1.570

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3470 ENCROACHMENT STATIONS=     305.0     365.0  TYPE=     1  TARGET=     60.000
     1.57     2440.        0.     2362.       78.      1.14         0       60.
  2727.10      0.0         0.      272.       51.     -0.06         0  2726.60
     9.60  2726.40        0.43     8.69       1.54     0.10   2728.23  2724.60
 0.006148     0.049       0.130    0.045      0.130    0.01     -0.00   305.00
             2717.50        15.      15.        15.      21.      39.  365.00       61.


CCHV=  0.100 CEHV=  0.800
*SECNO 1.600

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     305.0     365.0  TYPE=     1  TARGET=     60.000
     1.60     2430.        0.     2393.       37.      1.78         2       58.
  2728.00      0.0         0.      222.       25.      0.64         0  2728.80
     8.30  2727.72        0.0     10.78       1.49     1.03   2729.78  2726.80
 0.020995     0.049       0.160    0.060      0.160    0.51     -0.00   307.40
             2719.70       100.     100.       100.      18.      39.  365.00       61.

*SECNO 1.660

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     575.0     680.0  TYPE=     1  TARGET=    105.000
     1.66     2420.      219.     2201.        0.      1.18         3      105.
  2732.40      0.0       120.      241.        0.     -0.59         0  2730.20
     6.70  2732.23        1.83     9.14        0.0     3.74   2733.58  100000.00
 0.012493     0.049       0.150    0.050      0.150    0.06     -0.00   575.00
             2725.70       235.     235.       235.      80.      25.  679.67       63.


CCHV=  0.100 CEHV=  0.500
*SECNO 1.660
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3470 ENCROACHMENT STATIONS=     575.0     680.0  TYPE=      1  TARGET=     105.000
     1.66      2420.      282.      2138.        0.      0.81         2      105.
  2733.14       0.0       160.       279.        0.     -0.37         0   2730.20
     7.44   2732.95       1.76       7.67       0.0      0.33   2733.96  100000.00
 0.006002      0.049      0.130      0.045      0.130      0.04     -0.00    575.00
             2725.70         40.        40.        40.        80.        25.   680.00        63.

*SECNO 1.660
     3700.   BRIDGE STENCL=    575.00    STENCR=    680.00

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     575.0     680.0  TYPE=      1  TARGET=     105.000
     1.66      2420.      933.      1472.       15.      1.38         3      100.
  2732.95   2732.95       139.       136.        6.      0.57        12   2733.10
     7.35   2733.31       6.71      10.86       2.58      0.01   2734.33   2733.20
 0.034142      0.049      0.070      0.040      0.070      0.28    -41.93    575.00
             2725.60         1.         1.         1.        79.        26.   680.00        63.

*SECNO 1.660

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2733.20 MAX ELLC= 2731.50

3470 ENCROACHMENT STATIONS=     575.0     680.0  TYPE=      1  TARGET=     105.000
     1.66      2420.     1272.      1085.       63.      0.63         3      105.
  2734.06       0.0       210.       158.       19.     -0.75         0   2733.10
     8.46   2733.44       6.05       6.87       3.37      0.29   2734.69   2733.20
 0.017629      0.049      0.070      0.040      0.070      0.08    -50.40    575.00
             2725.60        12.        12.        12.        79.        26.   680.00        64.
```

```
*SECNO 1.660

3470 ENCROACHMENT STATIONS=      575.0     680.0  TYPE=      1  TARGET=      105.000
     1.66      2420.       339.      2081.        0.      0.53         2       105.
  2734.18       0.0       216.       331.        0.     -0.10         0   2730.20
     8.48   2733.33       1.57       6.28       0.0      0.01   2734.71 100000.00
 0.003274     0.049      0.130      0.045     0.080      0.01     -0.00    575.00
             2725.70         1.         1.        1.       80.       25.    680.00       64.

*SECNO 1.660

3470 ENCROACHMENT STATIONS=      575.0     680.0  TYPE=      1  TARGET=      105.000
     1.66      2420.       330.      2090.        0.      0.53         2       105.
  2734.21       0.0       217.       333.        0.      0.00         0   2730.20
     8.51   2733.37       1.52       6.27       0.0      0.04   2734.74 100000.00
 0.004009     0.049      0.150      0.050     0.120      0.00     -0.00    575.00
             2725.70        10.        10.       10.       80.       25.    680.00       64.

CCHV=   0.100 CEHV=   0.800
*SECNO 1.760

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE      Q          QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV      CRIWS      ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH     WSELK      VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE     WTN        XNL       XNCH      XNR       OLOSS     CORAR      SSTA
             ELMIN      XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      555.0     805.0  TYPE=      1  TARGET=      250.000
     1.76      2395.       971.      1424.        0.      1.15         9       160.
  2738.85   2738.85       279.       132.        0.      0.62        11   2742.00
     4.85   2738.64       3.48      10.81       0.0      4.66   2740.01   2741.10
 0.037215     0.050      0.150      0.055     0.120      0.50     -0.00    555.00
             2734.00        515.      515.      515.      220.       25.    799.43       69.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      555.0     805.0  TYPE=      1  TARGET=      250.000
     1.77      2395.      1050.      1345.        0.      0.45         2       200.
  2740.20       0.0       455.       195.        0.     -0.70         0   2742.00
```

```
    6.20    2739.75      2.31      6.91      0.0       0.58   2740.65    2741.10
0.007636      0.050    -0.130     0.045    0.120       0.07     -0.00     555.00
            2734.00       40.       40.       40.       220.       28.    802.18       70.

*SECNO 1.770
    3700.   BRIDGE STENCL=    555.00    STENCR=    805.00

3265 DIVIDED FLOW

   BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
   MILE        Q          QLOB        QCH        QROB        HV         ITRIAL     TOPWID
   ELEV        CRIWS      ALOB        ACH        AROB        DHV        IDC        BANK ELEV
   DEPTH       WSELK      VLOB        VCH        VROB        HL         EG      LEFT/RIGHT
   SLOPE       WTN        XNL         XNCH       XNR         OLOSS      CORAR      SSTA
               ELMIN      XLOBL       XLCH       XLOBR       WSDL       WSDR       ENDST       VOL

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

3470 ENCROACHMENT STATIONS=     555.0     805.0  TYPE=      1  TARGET=     250.000
    1.77      2395.     1334.     1061.       0.       0.55         2        162.
 2740.19       0.0       450.      128.       0.       0.09         0    2744.10
    6.09    2739.78      2.96      8.27      0.0       0.01   2740.74    2744.20
0.012338      0.050    0.130     0.045    0.120       0.07     -0.00     555.00
            2734.10        1.        1.        1.       223.       13.    791.00       70.

*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2744.10 MAX ELLC= 2741.80

3470 ENCROACHMENT STATIONS=     555.0     805.0  TYPE=      1  TARGET=     250.000
    1.77      2395.     1356.     1039.       0.       0.48         2        166.
 2740.41       0.0       480.      134.       0.      -0.07         0    2744.10
    6.31    2739.89      2.83      7.77      0.0       0.14   2740.88    2744.20
0.010571      0.050    0.130     0.045    0.120       0.01     -0.00     555.00
            2734.10       12.       12.       12.       223.       13.    791.00       70.

*SECNO 1.770

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     555.0     805.0  TYPE=      1  TARGET=     250.000
    1.77      2395.     1070.     1325.       0.       0.37         2        209.
 2740.53       0.0       506.      212.       0.      -0.11         0    2742.00
    6.53    2739.90      2.12      6.26      0.0       0.01   2740.90    2741.10
0.005897      0.050    0.130     0.045    0.120       0.01     -0.00     555.00
            2734.00        1.        1.        1.       220.       28.    802.85       70.
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CCHV=   0.100 CEHV=   0.500
*SECNO 1.770

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     555.0     805.0  TYPE=     1  TARGET=     250.000
     1.77     2395.     1301.     1094.       0.     0.22          2      215.
  2740.74      0.0       538.      222.       0.    -0.15          0   2742.00
     6.74  2740.04      2.42      4.92      0.0      0.04    2740.96   2741.10
 0.003508    0.050     0.090     0.045    0.080      0.01      -0.00    555.00
           2734.00        10.       10.       10.      220.       29.    803.27       70.


CCHV=   0.100 CEHV=   0.800
*SECNO 1.790

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                100 YR FLOODWAY      10/03/81
  MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     475.0     715.0  TYPE=     1  TARGET=     240.000
     1.79     2390.      792.     1598.       0.     1.10          2      212.
  2741.43  2741.43      314.      158.       0.     0.87          8   2743.60
     6.93  2741.23      2.52     10.12      0.0      0.58    2742.53   2743.50
 0.018598    0.050     0.120     0.050    0.100      0.70      -0.00    475.00
           2734.50        85.       85.       85.      216.       20.    710.17       71.


*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                100 YR FLOODWAY      10/03/81
  MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
  ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
  DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
  SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
             ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3470 ENCROACHMENT STATIONS=     475.0     715.0  TYPE=     1  TARGET=     240.000
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     1.79      2390.      1064.      1326.         0.      0.39         3      226.
  2742.61       0.0        527.       204.         0.     -0.70         0   2743.60
     8.11   2742.16         2.02       6.50       0.0      0.41   2743.01   2743.50
 0.006448     0.050        0.120      0.050      0.100      0.07     -0.00    475.00
              2734.50         40.        40.        40.       216.       21.    711.79       72.

*SECNO 1.790
     3700.   BRIDGE STENCL=     475.00    STENCR=     715.00

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

3470 ENCROACHMENT STATIONS=      475.0     715.0  TYPE=      1  TARGET=      240.000
     1.79      2390.      1687.       703.         0.      0.43         0      199.
  2742.62       0.0        437.        92.         0.      0.04         0   2743.80
     9.12   2742.27         3.86       7.67       0.0      0.01   2743.05   2742.90
 0.028366     0.050        0.120      0.050      0.100      0.03     -9.23    475.00
              2733.50           1.         1.         1.       221.        7.    703.00       72.

*SECNO 1.790

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2742.90 MAX ELLC= 2742.40

3470 ENCROACHMENT STATIONS=      475.0     715.0  TYPE=      1  TARGET=      240.000
     1.79      2390.      1808.       582.         1.      0.29         2      223.
  2743.05       0.0        520.        92.         1.     -0.14         0   2743.80
     9.55   2742.43         3.48       6.32       0.59      0.28   2743.34   2742.90
 0.019379     0.050        0.120      0.050      0.100      0.01    -14.79    475.00
              2733.50          12.        12.        12.       221.       16.    712.26       72.

*SECNO 1.790

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      475.0     715.0  TYPE=      1  TARGET=      240.000
     1.79      2390.      1134.      1256.         0.      0.28         0      232.
  2743.07       0.0        613.       223.         0.     -0.01         0   2743.60
     8.57   2742.42         1.85       5.63       0.0      0.01   2743.35   2743.50
 0.004541     0.050        0.120      0.050      0.100      0.00     -0.00    475.00
              2734.50           1.         1.         1.       216.       22.    712.42       72.

CCHV=   0.100 CEHV=   0.500
*SECNO 1.790

3265 DIVIDED FLOW
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3470 ENCROACHMENT STATIONS=     475.0     715.0  TYPE=     1  TARGET=     240.000
     1.79     2390.     1155.     1235.       0.      0.37         2      232.
  2743.07      0.0      613.      189.       0.      0.09         0  2743.60
     6.27  2742.44      1.89      6.53      0.0      0.05   2743.44  2743.50
 0.004724     0.050     0.120     0.040     0.100     0.04     -0.00   475.00
             2736.80      10.       10.       10.      216.      22.   712.45       72.


*SECNO 1.870

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH       VROB      HL        EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH      XNR       OLOSS     CORAR      SSTA
              ELMIN      XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     500.0     630.0  TYPE=     1  TARGET=     130.000
     1.87     2360.        0.     2360.       0.      1.92         20       56.
  2747.70  2747.70        0.      212.       0.      1.56         11  2749.50
     5.70  2747.72       0.0     11.13      0.0      3.38   2749.62  2748.90
 0.020199     0.049     0.120     0.045     0.080     0.78     -0.00   535.75
             2742.00      395.      395.      395.      28.      28.   591.75       77.


*SECNO 1.880
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH       QROB      HV        ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH       AROB      DHV       IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH       VROB      HL        EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH      XNR       OLOSS     CORAR      SSTA
              ELMIN      XLOBL     XLCH      XLOBR     WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     500.0     630.0  TYPE=     1  TARGET=     130.000
     1.88     2360.        0.     2007.     353.      2.04         20       57.
  2750.48  2750.48        0.      164.      64.      0.12          8  2752.00
     5.98  2750.48       0.0     12.21     5.55      1.56   2752.52  2746.50
 0.018932     0.049     0.120     0.045     0.080     0.06     -0.00   535.17
             2744.50       80.       80.       80.      16.      41.   592.51       77.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ      RDLEN      BWC       BWP       BAREA      SS
     1.25       1.60       3.00        0.0      24.00      0.40      118.00      0.0
   ELCHU      ELCHD
  2744.90    2744.90
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*SECNO 1.880
     3700.   BRIDGE STENCL=    500.00    STENCR=    630.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

     EGPRS      EGLWC         H3      QWEIR       QPR      BAREA      TAREA      ELLC
   2760.42    2752.56       0.37     1041.     1321.      118.       118.    2749.90

     ELTRD
   2751.00


3470 ENCROACHMENT STATIONS=     500.0     630.0  TYPE=     1  TARGET=     130.000
      1.88       2360.          22.      1848.       490.      0.65          3       130.
   2752.94        0.0           30.       258.       165.     -1.39          0    2752.00
      8.44    2751.39          0.74       7.17       2.96      1.07    2753.59    2746.50
 0.004033      0.049         0.120      0.045      0.080       0.0      -0.00     500.00
             2744.50            12.        12.        12.        52.        78.     630.00        77.


*SECNO 1.880

3470 ENCROACHMENT STATIONS=     500.0     630.0  TYPE=     1  TARGET=     130.000
      1.88       2360.          27.      2268.        65.      0.50          0       130.
   2753.18        0.0           37.       394.        52.     -0.16          0    2752.00
      8.68    2752.23          0.71       5.76       1.25      0.07    2753.67    2751.40
 0.002793      0.049         0.120      0.045      0.080      0.02      -0.00     500.00
             2744.50            20.        20.        20.        64.        66.     630.00        78.


*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

     BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
    MILE        Q          QLOB        QCH         QROB        HV          ITRIAL      TOPWID
    ELEV      CRIWS        ALOB        ACH         AROB        DHV         IDC         BANK ELEV
    DEPTH     WSELK        VLOB        VCH         VROB        HL          EG       LEFT/RIGHT
    SLOPE     WTN          XNL         XNCH        XNR         OLOSS       CORAR       SSTA
              ELMIN        XLOBL       XLCH        XLOBR       WSDL        WSDR        ENDST        VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      85.0     145.0  TYPE=     1  TARGET=      60.000
      2.00       2315.           4.      2310.         1.      2.01         20        55.
   2759.46    2759.46            3.       203.         1.      1.52         19    2757.70
      6.16    2759.48          1.61      11.39        0.99      4.12    2761.48    2759.00
 0.020242      0.049         0.120      0.045      0.080      0.76      -0.00      85.00
             2753.30           700.       700.       700.        28.        28.     140.48        83.


*SECNO 2.120
     BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
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   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=       85.0     145.0  TYPE=      1  TARGET=       60.000
     2.12       2270.          4.        2265.          0.       1.99           5          55.
  2773.61    2773.61           3.         200.          0.      -0.02           5     2771.90
     6.11    2773.62        1.59        11.34        0.91      13.21     2775.60     2773.20
 0.020420      0.049       0.120        0.045       0.080       0.00       -0.00       85.00
              2767.50         650.         650.         650.        28.         28.      140.18        86.

*SECNO 2.130
    BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=       85.0     145.0  TYPE=      1  TARGET=       60.000
     2.13       2270.          4.        2265.          0.       1.97           0          55.
  2774.93    2774.93           3.         201.          0.      -0.02           5     2773.20
     6.13    2774.94        1.59        11.28        0.93       1.22     2776.90     2774.50
 0.020085      0.049       0.120        0.045       0.080       0.00       -0.00       85.00
              2768.80          60.          60.          60.        28.         28.      140.28        87.


SPECIAL BRIDGE

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
       1.25       1.60       3.00         0.0      24.00       0.10      160.00      0.0
    ELCHU      ELCHD
  2768.80    2768.80

*SECNO 2.130
     3700.   BRIDGE STENCL=      85.00    STENCR=     145.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

     EGPRS      EGLWC          H3       QWEIR        QPR        BAREA      TAREA      ELLC
  2779.93    2776.90        0.08         346.      1916.         160.       160.   2775.50

     ELTRD
  2776.40
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3470 ENCROACHMENT STATIONS=      85.0     145.0  TYPE=     1  TARGET=      60.000
     2.13      2270.        7.     2231.       32.      0.62         2       60.
  2777.88       0.0         9.      352.       19.     -1.36         0  2773.20
     9.08   2777.77      0.86     6.35       1.66      1.59   2778.49  2774.50
 0.003012     0.049     0.120    0.045      0.080       0.0     -0.00    85.00
             2768.80        12.      12.        12.       28.       32.   145.00       87.


*SECNO 2.130

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      85.0     145.0  TYPE=     1  TARGET=      60.000
     2.13      2270.        4.     2263.        3.      1.48         3       58.
  2777.52       0.0         4.      231.        3.      0.87         0  2775.20
     6.72   2777.36      1.14     9.78       1.05      0.08   2779.01  2776.50
 0.012512     0.049     0.150    0.045      0.100      0.43     -0.00    85.00
             2770.80        15.      15.        15.       28.       31.   143.48       87.


CCHV=   0.100 CEHV=   0.800
*SECNO 2.200

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     315.0     365.0  TYPE=     1  TARGET=      50.000
     2.20      2240.        0.     2240.        0.      2.29        14       41.
  2786.03   2786.03         0.      184.        0.      0.81        11  2788.10
     6.33   2786.06      0.0      12.15       0.0       6.32   2788.32  99991.06
 0.024827     0.049     0.150    0.050      0.150      0.65       0.0     321.19
             2779.70       370.     370.       370.       20.       21.   362.20       89.


*SECNO 2.240
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     315.0     365.0  TYPE=     1  TARGET=      50.000
     2.24      2225.        0.     2225.        0.      2.27         2       41.
  2792.17   2792.17         0.      184.        0.     -0.02         5  2794.00
     6.27   2792.15      0.0      12.10       0.0       5.12   2794.44  99999.00
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 0.020071     0.049     0.110     0.045     0.080      0.00     -0.00    320.96
              2785.90     230.      230.      230.       21.       21.    362.15        89.


CCHV=   0.100 CEHV=   0.500
*SECNO 2.250

*** GR CARDS REPEATED
    BOWLENS CREEK                 100 YR FLOODWAY      10/03/81
   MILE      Q          QLOB       QCH        QROB       HV         ITRIAL    TOPWID
   ELEV      CRIWS      ALOB       ACH        AROB       DHV        IDC      BANK ELEV
   DEPTH     WSELK      VLOB       VCH        VROB       HL         EG     LEFT/RIGHT
   SLOPE     WTN        XNL        XNCH       XNR        OLOSS      CORAR     SSTA
             ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR      ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     315.0     365.0  TYPE=      1  TARGET=      50.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2795.00 ELREA=     2795.00

     2.25     2225.       0.     2225.       0.      2.26         2       41.
  2793.18  2793.18        0.      184.       0.     -0.01         5     2795.00
     6.28  2793.18       0.0     12.07      0.0      0.80   2795.44   100000.00
 0.019965     0.049     0.110     0.045     0.080      0.00     -0.00    320.94
              2786.90     40.       40.       40.       21.       21.    362.17        90.


SPECIAL BRIDGE

SB     HK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS
      1.25       1.60      3.00       0.0      17.00      0.30     135.00     0.0
    ELCHU     ELCHD
  2786.90   2786.90

*SECNO 2.250
     3700.   BRIDGE STENCL=    315.00    STENCR=    425.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC        H3      QWEIR       QPR      BAREA      TAREA      ELLC
  2799.92    2795.48      0.43       467.      1777.       135.       135.   2795.00

    ELTRD
  2795.30


3470 ENCROACHMENT STATIONS=     315.0     425.0  TYPE=      1  TARGET=      110.000
     2.25     2225.       4.     2079.      141.      0.49         2      110.
  2796.99      0.0        6.      359.      109.     -1.77         0     2795.00
    10.09  2796.41       0.73      5.80      1.30      2.04   2797.48   2795.00
 0.002295     0.049     0.110     0.045     0.080      0.0       -0.00    315.00
              2786.90     12.       12.       12.       27.       83.    425.00        90.
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*SECNO 2.250

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     315.0     365.0  TYPE=      1  TARGET=      50.000
      2.25      2225.        0.     2225.        0.      1.11         2         47.
   2796.72       0.0         0.      263.        0.      0.62         0    2797.00
      8.12   2795.92         0.0     8.46        0.0     0.04   2797.83  100000.00
 0.007329     0.049       0.130     0.045     0.080      0.31     -0.00     318.43
             2788.60        10.       10.       10.       23.       23.     365.00        90.

*SECNO 2.440

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     155.0     225.0  TYPE=      1  TARGET=      70.000
      2.44      2150.        0.     2150.        0.      2.30        20         39.
   2815.07   2815.07         0.      177.        0.      1.18        15    2824.00
      6.57   2815.07         0.0    12.16        0.0    11.00   2817.36    2821.10
 0.020297     0.048       0.100     0.045     0.080      0.59     -0.00     174.80
             2808.50        970.      970.      970.       15.       24.     214.05        95.


*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL


3470 ENCROACHMENT STATIONS=     155.0     225.0  TYPE=      1  TARGET=      70.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.00 ELREA=     2821.70

      2.45      2150.        0.     2150.        0.      1.47         3         43.
   2816.85       0.0         0.      221.        0.     -0.83         0    2824.70
      7.65   2816.84         0.0     9.73        0.0     0.87   2818.32    2821.80
 0.010913     0.048       0.100     0.045     0.080      0.08     -0.00     172.77
             2809.20        60.       60.       60.       17.       25.     215.46        95.
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SPECIAL BRIDGE

SB      HK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS
      1.25        1.60      3.00        0.0     31.00      0.50     345.00       0.0
    ELCHU      ELCHD
  2809.20    2809.20

*SECNO 2.450
     3700.   BRIDGE STENCL=    155.00    STENCR=    225.00

*** GR CARDS REPEATED
CLASS A LOW FLOW

3420 BRIDGE W.S.=   2816.78 BRIDGE VELOCITY=,      9.30
     CALCULATED CHANNEL AREA=,      231.
     EGPRS      EGLWC         H3      QWEIR       QPR      BAREA      TAREA       ELLC
       0.0    2818.39       0.15         0.     2150.       345.       345.    2820.50

    ELTRD
  2822.20


3470 ENCROACHMENT STATIONS=     155.0     225.0  TYPE=      1  TARGET=      70.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2822.50 ELREA=     2822.20

      2.45      2150.         0.      2150.         0.       1.39          0       43.
   2817.00       0.0          0.       228.         0.      -0.09          0  2824.70
      7.80   2817.00         0.0       9.45        0.0       0.07    2818.39  2821.80
 0.010044      0.048        0.100      0.045       0.080      0.0       -0.00   172.48
               2809.20         12.        12.         12.       18.        26.   215.67        95.


*SECNO 2.450

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                  100 YR FLOODWAY       10/03/81
   MILE        Q          QLOB       QCH        QROB       HV         ITRIAL      TOPWID
   ELEV        CRIWS      ALOB       ACH        AROB       DHV        IDC         BANK ELEV
   DEPTH       WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE       WTN        XNL        XNCH       XNR        OLOSS      CORAR       SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR        ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     155.0     225.0  TYPE=      1  TARGET=      70.000
      2.45      2150.         0.      2150.         0.       2.29         20       39.
   2817.17   2817.17          0.       177.         0.       0.91         15  2826.10
      6.57   2817.18         0.0       12.16       0.0       0.23    2819.46  2823.20
 0.025013      0.048        0.130      0.050       0.100      0.45      -0.00   174.79
               2810.60         15.        15.         15.       15.        24.   214.05        95.
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*SECNO 2.580

*** GR CARDS REPEATED
    BOWLENS CREEK                 100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     155.0     225.0  TYPE=     1  TARGET=      70.000
     2.58     2100.        0.     2100.        0.      2.28        14        39.
  2852.48  2852.48        0.      173.        0.     -0.01         5   2861.50
     6.48  2852.48       0.0     12.12       0.0     15.83   2854.76   2858.60
 0.025258    0.048     0.150     0.050     0.150      0.00     -0.00    174.96
             2846.00      630.      630.      630.       15.       24.    213.93       98.


*SECNO 2.660
    BOWLENS CREEK                 100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      90.0     160.0  TYPE=     1  TARGET=      70.000
     2.66     2070.      104.     1892.       74.      2.01        20        70.
  2870.82  2870.82       43.      159.       30.     -0.27         8   2867.20
     6.62  2871.07       2.43    11.88       2.43     5.73   2872.83   2869.00
 0.014050    0.048     0.130     0.045     0.080      0.03     -0.00     90.00
             2864.20      310.      310.      310.       30.       40.    160.00       99.


*SECNO 2.670

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                 100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      90.0     160.0  TYPE=     1  TARGET=      70.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2873.60 ELREA=     2870.60
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     2.67      2070.         0.      1796.       274.      2.61        20       49.
  2872.88   2872.88          0.       130.        74.      0.60        11  2866.20
     7.38   2872.94        0.0      13.85      3.71       0.80  2875.50   2866.10
 0.012739     0.048      0.130      0.045     0.080       0.30     -0.00    111.00
              2865.50       60.        60.        60.        9.        40.    160.00        99.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2872.40 ,NOT   2872.88
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK        XKOR       COFQ       RDLEN       BWC        BWP      BAREA       SS
      1.25       1.60       3.00         0.0     16.00       0.60     100.00      0.0
    ELCHU     ELCHD
  2865.50   2865.50

*SECNO 2.670
     3700.   BRIDGE STENCL=      90.00    STENCR=     160.00

*** GR CARDS REPEATED
 PRESS FLOW BECAUSE EGLWC OF   2878.12  EXCEEDS 1.5 DEPTH

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS      EGLWC         H3      QWEIR       QPR      BAREA      TAREA       ELLC
  2883.53   2878.12          0.0       973.      1097.       100.       100.  2872.00

    ELTRD
  2871.10


3470 ENCROACHMENT STATIONS=       90.0     160.0  TYPE=       1  TARGET=       70.000
     2.67      2070.         252.      1433.       385.      0.80         3       70.
  2875.07       0.0          129.       169.       142.     -1.81         0  2866.20
     9.57   2873.18         1.96       8.48       2.72      0.38   2875.87   2866.10
 0.003348     0.048        0.130      0.045      0.080       0.0     -0.00     90.00
              2865.50         12.        12.        12.        30.       40.    160.00        99.

*SECNO 2.670

*** GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=       90.0     160.0  TYPE=       1  TARGET=       70.000
     2.67      2070.         253.      1429.       388.      0.78         2       70.
  2875.14       0.0          130.       170.       144.     -0.02         0  2866.20
     9.64   2874.09         1.94       8.39       2.70      0.05   2875.92   2866.10
 0.003252     0.048        0.130      0.045      0.080       0.00     -0.00     90.00
              2865.50         15.        15.        15.        30.       40.    160.00        100.

*SECNO 2.800

*** GR CARDS REPEATED
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3301 HV CHANGED MORE THAN HVINS

BOWLENS CREEK			100 YR FLOODWAY		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			90.0	160.0	TYPE= 1	TARGET=	70.000	
2.80	2020.	187.	1616.	217.	2.13	20	70.	
2886.09	2886.09	77.	124.	65.	1.35	19	2879.70	
7.09	2886.16	2.44	13.01	3.36	3.78	2888.22	2879.60	
0.011882	0.048	0.150	0.045	0.080	0.67	-0.00	90.00	
	2879.00	680.	680.	680.	30.	40.	160.00	105.

*SECNO 2.940

BOWLENS CREEK			100 YR FLOODWAY		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			370.0	420.0	TYPE= 1	TARGET=	50.000	
2.94	1965.	0.	1965.	0.	2.31	11	35.	
2900.08	2900.08	0.	161.	0.	0.18	8	2900.80	
6.78	2900.05	0.0	12.21	0.0	11.98	2902.40	2903.80	
0.025246	0.048	0.150	0.050	0.130	0.09	-0.00	374.67	
	2893.30	720.	720.	720.	21.	14.	409.43	109.

*SECNO 2.950

*** GR CARDS REPEATED

BOWLENS CREEK			100 YR FLOODWAY		10/03/81			
MILE	Q	QLOB	QCH	QROB	HV	ITRIAL	TOPWID	
ELEV	CRIWS	ALOB	ACH	AROB	DHV	IDC	BANK ELEV	
DEPTH	WSELK	VLOB	VCH	VROB	HL	EG	LEFT/RIGHT	
SLOPE	WTN	XNL	XNCH	XNR	OLOSS	CORAR	SSTA	
	ELMIN	XLOBL	XLCH	XLOBR	WSDL	WSDR	ENDST	VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			370.0	420.0	TYPE= 1	TARGET=	50.000	
2.95	1965.	0.	1965.	0.	2.34	20	35.	
2902.06	2902.06	0.	160.	0.	0.03	5	2902.80	
6.76	2902.07	0.0	12.28	0.0	1.02	2904.40	2905.80	
0.025678	0.048	0.150	0.050	0.130	0.01	-0.00	374.70	

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         2895.30      40.       40.       40.       21.       14.    409.37      109.


SPECIAL BRIDGE

SB     HK        XKOR      COFQ      RDLEN     BWC       BWP     BAREA     SS
     1.25      1.60      3.00      0.0       27.00     0.01    170.00    0.0
   ELCHU     ELCHD
  2895.30   2895.30

*SECNO 2.950
     3700.   BRIDGE STENCL=    370.00    STENCR=    420.00

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS     EGLWC       !!3     QWEIR       QPR     BAREA     TAREA      ELLC
 .2905.37  2904.40      0.01       107.     1859.      170.      170.  2901.60

    ELTRD
  2903.30


3470 ENCROACHMENT STATIONS=     370.0     420.0  TYPE=     1  TARGET=      50.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2904.20 ELREA=     2903.30

     2.95      1965.        0.      1965.        0.      1.16         3       39.
  2903.86       0.0         0.       227.        0.     -1.18         0  2902.80
     8.56   2903.73        0.0       8.65       0.0      0.63   2905.03  2905.80
0.009428      0.048       0.150     0.050      0.130     0.0      -0.00    374.00
              2895.30       22.       22.        22.      22.       18.    413.06      109.


*SECNO 2.950

*** GR CARDS REPEATED

3470 ENCROACHMENT STATIONS=     370.0     420.0  TYPE=     1  TARGET=      50.000
     2.95      1965.        4.      1961.        0.      1.09         0       43.
  2904.03       0.0         4.       234.        0.     -0.07         0  2902.80
     8.73   2903.91       0.85      8.39       0.0      0.09   2905.12  2905.80
0.008625      0.048       0.150     0.050      0.130     0.01     -0.00    370.00
              2895.30       10.       10.        10.      26.       18.    413.41      109.


*SECNO 2.960

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                 100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
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            ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      370.0      420.0  TYPE=      1  TARGET=       50.000
      2.96      1965.        18.       1947.         0.      2.05         20         45.
   2904.98    2904.98         8.        169.         0.      0.96         14    2902.80
      5.48    2905.07       2.21       11.53        0.0      0.68    2907.02    2905.80
  0.024261      0.048      0.130       0.050       0.150      0.48      -0.00     370.00
              2899.50         50.         50.         50.       26.         20.    415.32      109.


*SECNO 3.060
    BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
    MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
    ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
    DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
    SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      305.0      345.0  TYPE=      1  TARGET=       40.000
      3.06      1920.         0.       1920.         0.      2.47          6         33.
   2921.89    2921.89         0.        152.         0.      0.42         11    2921.60
      6.69    2921.79       0.97       12.61        0.0     12.81    2924.36    2924.70
  0.026051      0.048      0.080       0.050       0.130      0.21      -0.00     305.00
              2915.20        510.        510.        510.       19.         15.    338.04      111.


*SECNO 3.070
    BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
    MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
    ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
    DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
    SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
               ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      305.0      345.0  TYPE=      1  TARGET=       40.000
      3.07      1920.        24.       1896.         0.      2.53          2         33.
   2923.96    2923.96         7.        148.         0.      0.06          5    2921.00
      6.76    2923.91       3.36       12.83        0.0      1.48    2926.49    2926.70
  0.023287      0.048      0.080       0.050       0.130      0.03      -0.00     305.00
              2917.20         60.         60.         60.       22.         12.    338.09      111.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2922.34 ,NOT   2923.96
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS
      1.25       1.60       3.00        0.0       23.00      0.90       183.00      0.0
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   ELCHU     ELCHD
  2917.20   2917.20

*SECNO 3.070
     3700.   BRIDGE STENCL=    305.00    STENCR=    345.00

*** GR CARDS REPEATED
**ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

    EGPRS     EGLWC        H3     QWEIR       QPR     BAREA     TAREA      ELLC
  2926.70   2926.61       0.0        2.      1914.      183.      183.   2925.50

    ELTRD
  2926.32

*** NOTE: QWEIR IS GREATER THAN 0 AND ELEV IS LESS THAN ELTRD ***

3470 ENCROACHMENT STATIONS=     305.0     345.0  TYPE=     1  TARGET=      40.000
     3.07     1920.       43.     1877.        0.     1.78         4        34.
  2924.90      0.0       13.      174.        0.    -0.75         0   2921.00
     7.70   2924.14      3.35     10.81       0.0     0.19   2926.68   2926.70
 0.013995     0.048     0.080     0.050     0.130      0.0     -0.00    305.00
             2917.20       12.       12.       12.       22.       12.   338.75      111.


*SECNO 3.070

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q         QLOB       QCH        QROB       HV        ITRIAL     TOPWID
   ELEV       CRIWS     ALOB       ACH        AROB       DHV       IDC        BANK ELEV
   DEPTH      WSELK     VLOB       VCH        VROB       HL        EG      LEFT/RIGHT
   SLOPE      WTN       XNL        XNCH       XNR        OLOSS     CORAR      SSTA
              ELMIN     XLOBL      XLCH       XLOBR      WSDL      WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     305.0     345.0  TYPE=     1  TARGET=      40.000
     3.07     1920.        0.     1920.        0.     2.45        20        33.
  2925.91   2925.91        0.      153.        0.     0.67        11   2925.60
     6.71   2925.89      1.02     12.56       0.0     0.28   2928.36   2928.70
 0.025742     0.046     0.080     0.050     0.130     0.34     -0.00    305.00
             2919.20       15.       15.       15.       19.       15.   338.05      111.


CCHV=   0.100 CEHV=   0.800
*SECNO 3.210

3301 HV CHANGED MORE THAN HVINS
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```
3470 ENCROACHMENT STATIONS=     200.0     245.0  TYPE=     1  TARGET=      45.000
      3.21     1865.        0.     1865.        0.     0.99          5        39.
   2938.17        0.        0.      233.        0.    -1.46          0   2936.90
      7.97   2938.12       0.0       7.99       0.0    10.65    2939.16   2941.40
 0.009703        0.049     0.100     0.055     0.160     0.15      -0.00    200.00
                2930.20      710.      710.      710.      21.        18.    239.16      115.

*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     200.0     245.0  TYPE=     1  TARGET=      45.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2943.70 ELREA=     2945.00

      3.22     1865.        0.     1865.        0.     1.50          2        38.
   2938.83        0.        0.      190.        0.     0.51          0   2938.70
      6.83   2938.79       0.0       9.83       0.0    0.77    2940.34   2943.20
 0.017802        0.049     0.100     0.055     0.160     0.41      -0.00    200.00
                2932.00       60.       60.       60.      21.        17.    238.16      115.


SPECIAL BRIDGE

SB      HK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS
      1.25        1.60      3.00        0.0     29.00      0.30     330.00     0.0
    ELCHU     ELCHD
  2932.00   2932.00

CCHV=   0.100 CEHV=   0.500
*SECNO 3.220
     3700.   BRIDGE STENCL=     200.00    STENCR=     245.00

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

CLASS A LOW FLOW

3420 BRIDGE W.S.=   2938.78 BRIDGE VELOCITY=,      9.59
     CALCULATED CHANNEL AREA=,      195.
    EGPRS      EGLWC         H3      QWEIR        QPR      BAREA      TAREA      ELLC
      0.0   2940.38       0.11         0.     1865.       330.       330.   2943.50

    ELTRD
  2944.20


3470 ENCROACHMENT STATIONS=     200.0     245.0  TYPE=     1  TARGET=      45.000
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2944.20 ELREA=     2945.50

     3.22     1865.        0.     1865.        0.     1.44         0     38.
  2938.94      0.0         0.      194.        0.    -0.06         0   2938.70
     6.95   2938.90       0.0      9.62       0.0     0.05   2940.38   2943.20
 0.016623     0.049      0.100    0.055      0.160    0.0      -0.00    200.00
             2932.00       12.      12.        12.     21.        17.   238.26      115.


*SECNO 3.220

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      200.0      245.0  TYPE=      1  TARGET=       45.000
     3.22     1865.        0.     1865.        0.     2.20         20        36.
  2940.85   2940.85        0.      157.        0.     0.76         15     2941.60
     5.95   2940.87       0.0     11.90       0.0     0.31    2943.05     2946.10
 0.025531     0.049      0.100    0.050      0.150    0.38      -0.00     201.16
             2934.90       15.      15.        15.     20.        16.    237.39      115.


*SECNO 3.250

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      200.0      245.0  TYPE=      1  TARGET=       45.000
     3.25     1855.        0.     1855.        0.     2.19         20        36.
  2948.43   2948.43        0.      156.        0.    -0.01          5     2949.20
     5.94   2948.43       0.0     11.88       0.0     2.80    2950.63     2953.70
 0.030917     0.049      0.150    0.055      0.150    0.00      -0.00     201.19
             2942.50       100.     100.       100.     20.        16.    237.37      115.


CCHV=   0.100 CEHV=   0.800
*SECNO 3.310
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
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   ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC       BANK ELEV
   DEPTH     WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR     SSTA
             ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR      ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     305.0     355.0  TYPE=     1  TARGET=      50.000
     3.31      1825.        0.      1808.      17.      2.10         9       41.
  2966.88   2966.88         0.       155.       8.     -0.09        11  2969.90
     5.38   2966.97       0.0      11.68      2.25     10.32   2968.98  2965.10
 0.034784     0.049     0.130      0.060     0.140      0.01       0.0   313.87
             2961.50       315.       315.      315.       16.       25.  355.00      117.


*SECNO 3.320

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE      Q         QLOB      QCH       QROB      HV        ITRIAL    TOPWID
   ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC       BANK ELEV
   DEPTH     WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR     SSTA
             ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR      ENDST      VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     305.0     355.0  TYPE=     1  TARGET=      50.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.20 ELREA=     2969.70

     3.32      1825.        0.      1694.      131.     2.77         2       31.
  2970.28   2970.28         0.       122.       36.     0.67        18  2963.90
     6.38   2970.48       0.0      13.83      3.65     1.88   2973.05  2965.30
 0.028315     0.049     0.130      0.060     0.140     0.54     -0.00   324.00
             2963.90        60.        60.       60.      10.       21.  355.00      117.


CCHV=   0.100 CEHV=   0.500
*SECNO 3.320
     3700.   BRIDGE STENCL=    305.00    STENCR=    355.00

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE      Q         QLOB      QCH       QROB      HV        ITRIAL    TOPWID
   ELEV      CRIWS     ALOB      ACH       AROB      DHV       IDC       BANK ELEV
   DEPTH     WSELK     VLOB      VCH       VROB      HL        EG      LEFT/RIGHT
   SLOPE     WTN       XNL       XNCH      XNR       OLOSS     CORAR     SSTA
             ELMIN     XLOBL     XLCH      XLOBR     WSDL      WSDR      ENDST      VOL


3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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3470 ENCROACHMENT STATIONS=     305.0     355.0  TYPE=     1  TARGET=      50.000
     3.32     1825.        0.     1825.        0.      3.49        20        20.
  2971.12  2971.12         0.      122.        0.      0.72        10   2974.00
     7.22  2971.98       0.0     15.00       0.0      0.03   2974.61   2973.50
0.030510     0.049     0.070     0.040     0.070      0.36     -0.07    324.32
             2963.90        1.        1.        1.       10.       10.    344.00      117.

*SECNO 3.320

*** GR CARDS REPEATED

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD= 2973.40 MAX ELLC= 2973.00

3470 ENCROACHMENT STATIONS=     305.0     355.0  TYPE=     1  TARGET=      50.000
     3.32     1825.        0.     1823.        2.      2.77         8        25.
  2972.29  2971.12         0.      137.        1.     -0.73        10   2974.00
     8.39  2973.89       0.0     13.35      1.50      0.37   2975.06   2973.50
0.031641     0.049     0.070     0.040     0.070      0.07     -8.27    324.19
             2963.90       12.       12.       12.       10.       21.    355.00      117.

*SECNO 3.320

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     305.0     355.0  TYPE=     1  TARGET=      50.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     2974.70 ELREA=     2970.20

     3.32     1825.        0.     1632.      193.      0.90         4        31.
  2974.35      0.0         0.      204.       81.     -1.87         0   2963.90
    10.45  2973.98       0.0     8.01       2.39      0.01   2975.25   2965.30
0.002706     0.049     0.100     0.045     0.100      0.19     -0.00    324.00
             2963.90        1.        1.        1.       10.       21.    355.00      117.

*SECNO 3.320

3470 ENCROACHMENT STATIONS=     305.0     355.0  TYPE=     1  TARGET=      50.000
     3.32     1825.        0.     1797.       28.      0.75         2        45.
  2974.57      0.0         0.      256.       21.     -0.15         0   2974.90
     8.07  2973.93       0.0      7.01       1.34      0.05   2975.32   2970.10
0.005109     0.049     0.120     0.050     0.140      0.01     -0.00    310.42
             2966.50       15.       15.       15.       20.       25.    355.00      117.

*SECNO 3.360

3301 HV CHANGED MORE THAN HVINS
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   BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=       80.0      140.0  TYPE=      1  TARGET=      60.000
      3.36     1810.          4.      1682.       124.      1.85         20        59.
   2979.00  2979.00          3.       149.        43.      1.10         14   2977.50
      5.30  2979.06       1.43     11.30       2.89      1.48    2980.85    2976.20
  0.021655     0.049      0.120     0.050      0.120      0.55      -0.00      81.32
              2973.70        60.       160.       160.       21.         37.   140.00       118.


*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

   BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL


3470 ENCROACHMENT STATIONS=       80.0      140.0  TYPE=      1  TARGET=      60.000
      3.36     1810.         16.      1621.       173.     0.83          2        60.
   2980.76      0.0          11.       211.        78.    -1.02          0   2977.50
      7.07  2980.74       1.40       7.69       2.21      0.64    2981.60    2976.20
  0.006317     0.049      0.120     0.050      0.120      0.10      -0.00      80.00
              2973.70        60.        60.        60.       23.         37.   140.00       118.


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS   2979.65 ,NOT   2980.76
HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB     HK         XKOR       COFQ       RDLEN      BWC        BWP      BAREA      SS
      1.25       1.60       3.00         0.0      17.00       0.80      60.00     0.0
    ELCHU      ELCHD
  2973.70    2973.70

*SECNO 3.360
     3700.   BRIDGE STENCL=      80.00     STENCR=    140.00

*** GR CARDS REPEATED
PRESSURE AND WEIR FLOW

     EGPRS      EGLWC         H3      QWEIR       QPR      BAREA      TAREA      ELLC
   3003.37    2983.56       0.0       1285.      537.        60.        60.   2977.40
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   ELTRD
 2977.80


3470 ENCROACHMENT STATIONS=      80.0     140.0  TYPE=     1  TARGET=      60.000
     3.36     1810.      22.     1595.      193.      0.51         2        60.
  2982.24        0.      19.      262.      108.     -0.32         0   2977.50
     8.54   2981.48     1.17      6.08      1.79      1.16   2982.75   2976.20
 0.002946      0.049    0.120     0.050     0.120       0.0     -0.00     80.00
             2973.70      12.       12.       12.       23.       37.    140.00       118.

*SECNO 3.360

*** GR CARDS REPEATED

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      80.0     140.0  TYPE=     1  TARGET=      60.000
     3.36     1810.      10.     1664.      136.      1.18         2        60.
  2981.98        0.       7.      183.       63.      0.67         0   2979.50
     6.28   2981.07     1.37      9.08      2.16      0.08   2983.17   2978.20
 0.010613      0.049    0.130     0.050     0.140      0.34     -0.00     80.00
             2975.70      15.       15.       15.       23.       37.    140.00       118.

*SECNO 3.480

3301 HV CHANGED MORE THAN HVINS

    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB      HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB      DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB      HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR       OLOSS      CORAR      SSTA
              ELMIN      XLOBL     XLCH       XLOBR     WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      80.0     130.0  TYPE=     1  TARGET=      50.000
     3.48     1765.       0.     1765.       0.      1.97        20        40.
  3003.14  3003.14        0.      157.       0.      0.79        11   3003.50
     5.74  3003.14       0.0     11.27      0.0      9.39   3005.11   3007.40
 0.025684      0.049    0.130     0.050     0.140      0.39     -0.00     82.53
             2997.40      600.      600.      600.       22.       18.    122.96       121.


*SECNO 3.500

*** GR CARDS REPEATED
    BOWLENS CREEK                100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB      QCH        QROB      HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB      ACH        AROB      DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB      VCH        VROB      HL         EG      LEFT/RIGHT
   SLOPE      WTN        XNL       XNCH       XNR       OLOSS      CORAR      SSTA
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            ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=       80.0      130.0  TYPE=      1  TARGET=       50.000
      3.50     1760.         0.     1760.         0.      1.96         20         40.
   3023.14  3023.14          0.      157.         0.     -0.01          5    3023.50
      5.74  3023.14        0.0     11.24        0.0      2.56    3025.10    3027.40
 0.025512    0.049       0.130     0.050      0.140      0.00      -0.00      82.53
             3017.40       100.      100.       100.       22.        18.     122.97       122.

*SECNO 3.540

*** GR CARDS REPEATED
    BOWLENS CREEK                  100 YR FLOODWAY      10/03/81
   MILE       Q          QLOB       QCH        QROB       HV         ITRIAL     TOPWID
   ELEV       CRIWS      ALOB       ACH        AROB       DHV        IDC        BANK ELEV
   DEPTH      WSELK      VLOB       VCH        VROB       HL         EG       LEFT/RIGHT
   SLOPE      WTN        XNL        XNCH       XNR        OLOSS      CORAR      SSTA
              ELMIN      XLOBL      XLCH       XLOBR      WSDL       WSDR       ENDST       VOL

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=       80.0      130.0  TYPE=      1  TARGET=       50.000
      3.54     1745.         0.     1745.         0.      1.96         10         40.
   3034.10  3034.10          0.      155.         0.      0.00          5    3034.50
      5.70  3034.11        0.0     11.24        0.0      7.05    3036.07    3038.40
 0.025769    0.049       0.130     0.050      0.150      0.00      -0.00      82.58
             3028.40       275.      275.       275.       22.        18.     122.92       122.
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THIS RUN EXECUTED 10/03/81 8:55:47

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER
INDICATES MESSAGE IN SUMMARY OF ERRORS LIST/

BOWLENS CREEK

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	0.080	2613.15	0.0	2614.34	54.	0.	0.	0.	55.	102.	24.	2731.	0.
	0.080	2614.16	1.01	2615.06	57.	65.	40.	105.	55.	102.	40.	2715.	0.
	0.080	2613.60	0.0	2614.68	44.	0.	0.	0.	55.	102.	0.	2755.	0.
	0.080	2614.40	0.81	2615.29	45.	65.	40.	105.	55.	102.	0.	2755.	0.
	0.080	2614.39	0.0	2615.27	45.	0.	0.	0.	55.	102.	0.	2755.	0.
	0.080	2615.42	1.04	2616.07	60.	65.	40.	105.	55.	102.	59.	2696.	0.
	0.080	2614.28	0.0	2616.23	50.	0.	0.	0.	55.	102.	4.	2751.	0.
	0.080	2615.35	1.07	2616.72	53.	65.	40.	105.	55.	102.	23.	2732.	0.
	0.250	2621.59	0.0	2622.11	67.	0.	0.	0.	25.	128.	0.	2715.	0.
	0.250	2621.35	-0.24	2621.90	66.	105.	25.	130.	25.	128.	0.	2715.	0.
*	0.270	2627.94	0.0	2630.21	51.	0.	0.	0.	50.	105.	0.	2715.	0.
*	0.270	2627.94	0.00	2630.21	51.	105.	25.	130.	50.	105.	0.	2715.	0.
	0.400	2643.19	0.0	2644.80	53.	0.	0.	0.	50.	105.	0.	2685.	0.
	0.400	2643.19	-0.00	2644.80	53.	105.	25.	130.	50.	105.	0.	2685.	0.
	0.640	2656.50	0.0	2657.36	122.	0.	0.	0.	75.	117.	72.	2269.	294.
	0.640	2656.58	0.08	2657.50	80.	80.	60.	140.	75.	117.	68.	2334.	233.
	0.640	2657.02	0.0	2657.66	128.	0.	0.	0.	75.	117.	97.	2157.	381.
	0.640	2657.08	0.06	2657.80	80.	80.	60.	140.	75.	117.	87.	2257.	291.
*	0.640	2658.08	0.0	2658.51	144.	0.	0.	0.	75.	117.	129.	2057.	450.
*	0.640	2658.63	0.55	2659.09	80.	80.	60.	140.	75.	117.	115.	2202.	318.
	0.640	2658.06	0.0	2658.60	143.	0.	0.	0.	75.	117.	113.	2065.	457.
	0.640	2658.61	0.54	2659.18	80.	80.	60.	140.	75.	117.	101.	2214.	321.
*	0.810	2666.98	0.0	2669.06	89.	0.	0.	0.	152.	175.	341.	1853.	400.
*	0.810	2667.25	0.26	2670.03	50.	50.	140.	190.	152.	175.	101.	2110.	384.
	0.820	2668.92	0.0	2669.82	101.	0.	0.	0.	152.	175.	463.	1686.	445.
	0.820	2669.52	0.61	2670.91	50.	50.	140.	190.	152.	175.	143.	2057.	395.

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	0.820	2669.64	0.0	2670.34	108.	0.	0.	0.	152.	175.	493.	1635.	467.
	0.820	2670.52	0.88	2671.62	50.	50.	140.	190.	152.	175.	153.	2044.	398.
	0.820	2669.66	0.0	2670.45	109.	0.	0.	0.	152.	175.	404.	1714.	478.
	0.820	2670.57	0.91	2671.71	50.	50.	140.	190.	152.	175.	122.	2078.	395.
*	0.940	2674.20	0.0	2675.66	198.	0.	0.	0.	493.	536.	236.	2201.	133.
	0.940	2674.54	0.34	2676.10	90.	90.	460.	550.	493.	536.	130.	2354.	86.
*	0.950	2677.22	0.0	2678.66	198.	0.	0.	0.	493.	536.	239.	2198.	133.
*	0.950	2677.07	-0.15	2679.04	90.	90.	460.	550.	493.	536.	102.	2390.	78.
	0.950	2677.33	0.0	2678.66	199.	0.	0.	0.	493.	536.	262.	2171.	137.
	0.950	2678.50	1.17	2679.54	90.	90.	460.	550.	493.	536.	176.	2296.	99.
	0.950	2677.75	0.0	2678.79	203.	0.	0.	0.	493.	536.	305.	2107.	157.
	0.950	2678.59	0.83	2679.60	90.	90.	460.	550.	493.	536.	162.	2304.	104.
*	1.100	2690.37	0.0	2691.86	198.	0.	0.	0.	493.	536.	206.	2198.	136.
*	1.100	2690.23	-0.14	2692.21	90.	90.	460.	550.	493.	536.	89.	2372.	79.
	1.240	2697.72	0.0	2698.65	247.	0.	0.	0.	381.	430.	59.	2215.	236.
	1.240	2698.25	0.54	2699.31	60.	60.	375.	435.	381.	430.	30.	2460.	20.
*	1.560	2724.48	0.0	2726.28	140.	0.	0.	0.	306.	345.	0.	2319.	121.
*	1.560	2724.01	-0.47	2726.47	56.	60.	305.	365.	306.	345.	0.	2432.	8.
*	1.570	2725.48	0.0	2727.28	140.	0.	0.	0.	306.	345.	0.	2318.	122.
	1.570	2725.39	-0.09	2727.51	57.	60.	305.	365.	306.	345.	0.	2420.	20.
	1.570	2725.62	0.0	2727.28	145.	0.	0.	0.	306.	345.	0.	2294.	146.
	1.570	2726.93	1.31	2728.13	60.	60.	305.	365.	306.	345.	0.	2367.	73.
	1.570	2726.40	0.0	2727.48	163.	0.	0.	0.	306.	345.	0.	2159.	281.
	1.570	2727.10	0.70	2728.23	60.	60.	305.	365.	306.	345.	0.	2362.	78.
*	1.600	2727.72	0.0	2729.44	141.	0.	0.	0.	306.	345.	0.	2293.	137.
	1.600	2728.00	0.29	2729.78	58.	60.	305.	365.	306.	345.	0.	2393.	37.
	1.660	2732.23	0.0	2733.18	236.	0.	0.	0.	629.	680.	428.	1992.	0.
	1.660	2732.40	0.17	2733.58	105.	105.	575.	680.	629.	680.	219.	2201.	0.
	1.660	2732.95	0.0	2733.50	269.	0.	0.	0.	629.	680.	592.	1827.	0.
	1.660	2733.14	0.19	2733.96	105.	105.	575.	680.	629.	680.	282.	2138.	0.
	1.660	2733.31	0.0	2733.54	292.	0.	0.	0.	640.	668.	1789.	607.	24.
*	1.660	2732.95	-0.36	2734.33	100.	105.	575.	680.	640.	668.	933.	1472.	15.
	1.660	2733.44	0.0	2733.64	302.	0.	0.	0.	640.	668.	1805.	585.	31.
	1.660	2734.06	0.62	2734.69	105.	105.	575.	680.	640.	668.	1272.	1085.	63.
	1.660	2733.33	0.0	2733.76	294.	0.	0.	0.	629.	680.	657.	1759.	4.
	1.660	2734.17	0.85	2734.71	105.	105.	575.	680.	629.	680.	339.	2081.	0.
	1.660	2733.37	0.0	2733.80	298.	0.	0.	0.	629.	680.	647.	1770.	4.
	1.660	2734.21	0.84	2734.74	105.	105.	575.	680.	629.	680.	330.	2090.	0.

E07

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
*	1.760	2738.64	0.0	2739.47	337.	0.	0.	0.	745.	804.	1179.	1216.	0.
*	1.760	2738.85	0.22	2740.01	160.	250.	555.	805.	745.	804.	971.	1424.	0.
	1.770	2739.75	0.0	2739.99	589.	0.	0.	0.	745.	804.	1406.	989.	0.
	1.770	2740.20	0.45	2740.65	200.	250.	555.	805.	745.	804.	1050.	1345.	0.
	1.770	2739.78	0.0	2739.99	561.	0.	0.	0.	765.	791.	1667.	728.	0.
	1.770	2740.19	0.41	2740.74	162.	250.	555.	805.	765.	791.	1334.	1061.	0.
	1.770	2739.39	0.0	2740.08	571.	0.	0.	0.	765.	791.	1693.	702.	0.
	1.770	2740.41	0.51	2740.88	166.	250.	555.	805.	765.	791.	1356.	1039.	0.
	1.770	2739.90	0.0	2740.09	605.	0.	0.	0.	745.	804.	1442.	953.	0.
	1.770	2740.53	0.63	2740.90	209.	250.	555.	805.	745.	804.	1070.	1325.	0.
	1.770	2740.04	0.0	2740.13	615.	0.	0.	0.	745.	804.	1666.	729.	0.
	1.770	2740.74	0.70	2740.96	215.	250.	555.	805.	745.	804.	1301.	1094.	0.
*	1.790	2741.23	0.0	2742.00	351.	0.	0.	0.	668.	713.	1016.	1374.	0.
*	1.790	2741.43	0.21	2742.53	212.	240.	475.	715.	668.	713.	792.	1598.	0.
	1.790	2742.16	0.0	2742.39	580.	0.	0.	0.	668.	713.	1350.	1040.	0.
	1.790	2742.61	0.46	2743.01	226.	240.	475.	715.	668.	713.	1064.	1326.	0.
	1.790	2742.27	0.0	2742.40	557.	0.	0.	0.	689.	703.	1928.	462.	0.
	1.790	2742.62	0.35	2743.05	199.	240.	475.	715.	689.	703.	1687.	703.	0.
	1.790	2742.43	0.0	2742.54	563.	0.	0.	0.	689.	703.	1979.	411.	0.
	1.790	2743.05	0.62	2743.34	223.	240.	475.	715.	689.	703.	1808.	582.	1.
	1.790	2742.42	0.0	2742.59	590.	0.	0.	0.	668.	713.	1427.	963.	0.
	1.790	2743.07	0.65	2743.35	232.	240.	475.	715.	668.	713.	1134.	1256.	0.
	1.790	2742.44	0.0	2742.65	591.	0.	0.	0.	668.	713.	1475.	915.	0.
	1.790	2743.07	0.63	2743.44	232.	240.	475.	715.	668.	713.	1155.	1235.	0.
*	1.870	2747.72	0.0	2749.62	56.	0.	0.	0.	532.	595.	0.	2360.	0.
*	1.870	2747.70	-0.02	2749.62	56.	130.	500.	630.	532.	595.	0.	2360.	0.
*	1.880	2750.48	0.0	2752.52	57.	0.	0.	0.	532.	571.	0.	2007.	353.
*	1.880	2750.48	0.00	2752.52	57.	130.	500.	630.	532.	571.	0.	2007.	353.
	1.880	2751.39	0.0	2752.73	65.	0.	0.	0.	532.	571.	0.	1967.	393.
	1.880	2752.94	1.55	2753.59	130.	130.	500.	630.	532.	571.	22.	1848.	490.
	1.880	2752.23	0.0	2752.93	518.	0.	0.	0.	532.	595.	22.	2284.	54.
	1.880	2753.18	0.95	2753.67	130.	130.	500.	630.	532.	595.	27.	2268.	65.
*	2.000	2759.48	0.0	2761.47	58.	0.	0.	0.	87.	138.	6.	2308.	1.
*	2.000	2759.46	-0.01	2761.48	55.	60.	85.	145.	87.	138.	4.	2310.	1.
*	2.120	2773.62	0.0	2775.59	58.	0.	0.	0.	87.	138.	6.	2264.	0.
*	2.120	2773.61	-0.01	2775.60	55.	60.	85.	145.	87.	138.	4.	2265.	0.
*	2.130	2774.94	0.0	2776.90	58.	0.	0.	0.	87.	138.	6.	2264.	0.
*	2.130	2774.93	-0.01	2776.90	55.	60.	85.	145.	87.	138.	4.	2265.	0.

F07

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	2.130	2777.77	0.0	2778.38	80.	0.	0.	0.	87.	138.	30.	2200.	41.
	2.130	2777.88	0.11	2778.49	60.	60.	85.	145.	87.	138.	7.	2231.	32.
	2.130	2777.36	0.0	2778.95	61.	0.	0.	0.	87.	138.	7.	2261.	2.
	2.130	2777.52	0.16	2779.01	58.	60.	85.	145.	87.	138.	4.	2263.	3.
*	2.200	2786.06	0.0	2788.32	41.	0.	0.	0.	318.	365.	0.	2240.	0.
*	2.200	2786.03	-0.03	2788.32	41.	50.	315.	365.	318.	365.	0.	2240.	0.
*	2.240	2792.15	0.0	2794.44	41.	0.	0.	0.	318.	365.	0.	2225.	0.
*	2.240	2792.17	0.01	2794.44	41.	50.	315.	365.	318.	365.	0.	2225.	0.
*	2.250	2793.18	0.0	2795.44	41.	0.	0.	0.	318.	365.	0.	2225.	0.
*	2.250	2793.18	-0.01	2795.44	41.	50.	315.	365.	318.	365.	0.	2225.	0.
	2.250	2796.41	0.0	2796.83	434.	0.	0.	0.	318.	365.	253.	1871.	101.
	2.250	2796.99	0.58	2797.48	110.	110.	315.	425.	318.	365.	4.	2079.	141.
	2.250	2795.92	0.0	2797.42	44.	0.	0.	0.	318.	365.	0.	2225.	0.
	2.250	2796.72	0.80	2797.83	47.	50.	315.	365.	318.	365.	0.	2225.	0.
*	2.440	2815.07	0.0	2817.36	39.	0.	0.	0.	158.	222.	0.	2150.	0.
*	2.440	2815.07	-0.00	2817.36	39.	70.	155.	225.	158.	222.	0.	2150.	0.
	2.450	2816.84	0.0	2818.32	43.	0.	0.	0.	158.	222.	0.	2150.	0.
	2.450	2816.85	0.00	2818.32	43.	70.	155.	225.	158.	222.	0.	2150.	0.
	2.450	2817.00	0.0	2818.38	43.	0.	0.	0.	158.	222.	0.	2150.	0.
	2.450	2817.00	0.00	2818.39	43.	70.	155.	225.	158.	222.	0.	2150.	0.
*	2.450	2817.18	0.0	2819.46	39.	0.	0.	0.	158.	222.	0.	2150.	0.
*	2.450	2817.17	-0.01	2819.46	39.	70.	155.	225.	158.	222.	0.	2150.	0.
*	2.580	2852.48	0.0	2854.76	39.	0.	0.	0.	158.	222.	0.	2100.	0.
*	2.580	2852.48	0.00	2854.76	39.	70.	155.	225.	158.	222.	0.	2100.	0.
*	2.660	2871.07	0.0	2872.38	158.	0.	0.	0.	106.	134.	115.	1684.	270.
*	2.660	2870.82	-0.25	2872.83	70.	70.	90.	160.	106.	134.	104.	1892.	74.
*	2.670	2872.94	0.0	2874.43	134.	0.	0.	0.	111.	129.	0.	1493.	577.
*	2.670	2872.88	-0.05	2875.50	49.	70.	90.	160.	111.	129.	0.	1796.	274.
*	2.670	2873.18	0.0	2874.43	135.	0.	0.	0.	111.	129.	0.	1436.	634.
*	2.670	2875.07	1.89	2875.87	70.	70.	90.	160.	111.	129.	252.	1433.	385.
	2.670	2874.09	0.0	2874.58	173.	0.	0.	0.	111.	129.	219.	1118.	733.
	2.670	2875.14	1.05	2875.92	70.	70.	90.	160.	111.	129.	253.	1429.	388.
*	2.800	2886.16	0.0	2887.50	160.	0.	0.	0.	111.	129.	180.	1392.	447.
*	2.800	2886.09	-0.07	2888.22	70.	70.	90.	160.	111.	129.	187.	1616.	217.
*	2.940	2900.05	0.0	2902.40	35.	0.	0.	0.	374.	417.	0.	1965.	0.
*	2.940	2900.08	0.03	2902.40	35.	50.	370.	420.	374.	417.	0.	1965.	0.
*	2.950	2902.07	0.0	2904.40	35.	0.	0.	0.	374.	417.	0.	1965.	0.
*	2.950	2902.06	-0.01	2904.40	35.	50.	370.	420.	374.	417.	0.	1965.	0.

GO7

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	2.950	2903.73	0.0	2904.95	39.	0.	0.	0.	374.	417.	0.	1965.	0.
	2.950	2903.86	0.13	2905.03	39.	50.	370.	420.	374.	417.	0.	1965.	0.
	2.950	2903.91	0.0	2905.05	55.	0.	0.	0.	374.	417.	6.	1959.	0.
	2.950	2904.03	0.12	2905.12	43.	50.	370.	420.	374.	417.	4.	1961.	0.
*	2.960	2905.07	0.0	2906.88	74.	0.	0.	0.	374.	417.	67.	1898.	0.
*	2.960	2904.98	-0.09	2907.02	45.	50.	370.	420.	374.	417.	18.	1947.	0.
*	3.060	2921.79	0.0	2924.36	33.	0.	0.	0.	307.	340.	0.	1920.	0.
*	3.060	2921.89	0.11	2924.36	33.	40.	305.	345.	307.	340.	0.	1920.	0.
*	3.070	2923.91	0.0	2926.49	34.	0.	0.	0.	311.	342.	23.	1897.	0.
*	3.070	2923.96	0.06	2926.49	33.	40.	305.	345.	311.	342.	24.	1896.	0.
*	3.070	2924.14	0.0	2926.49	37.	0.	0.	0.	311.	342.	28.	1892.	0.
*	3.070	2924.90	0.76	2926.68	34.	40.	305.	345.	311.	342.	43.	1877.	0.
*	3.070	2925.89	0.0	2928.36	34.	0.	0.	0.	307.	340.	0.	1920.	0.
*	3.070	2925.91	0.03	2928.36	33.	40.	305.	345.	307.	340.	0.	1920.	0.
	3.210	2938.12	0.0	2939.13	41.	0.	0.	0.	200.	242.	1.	1864.	0.
	3.210	2938.17	0.05	2939.16	39.	45.	200.	245.	200.	242.	0.	1865.	0.
	3.220	2938.79	0.0	2940.32	38.	0.	0.	0.	200.	242.	0.	1865.	0.
	3.220	2938.83	0.05	2940.34	38.	45.	200.	245.	200.	242.	0.	1865.	0.
	3.220	2938.90	0.0	2940.36	38.	0.	0.	0.	200.	242.	0.	1865.	0.
	3.220	2938.94	0.04	2940.38	38.	45.	200.	245.	200.	242.	0.	1865.	0.
*	3.220	2940.87	0.0	2943.05	36.	0.	0.	0.	200.	242.	0.	1865.	0.
*	3.220	2940.85	-0.01	2943.05	36.	45.	200.	245.	200.	242.	0.	1865.	0.
*	3.250	2948.43	0.0	2950.63	36.	0.	0.	0.	200.	242.	0.	1855.	0.
*	3.250	2948.43	0.01	2950.63	36.	45.	200.	245.	200.	242.	0.	1855.	0.
*	3.310	2966.97	0.0	2968.94	54.	0.	0.	0.	310.	350.	0.	1794.	31.
*	3.310	2966.88	-0.08	2968.98	41.	50.	305.	355.	310.	350.	0.	1808.	17.
*	3.320	2970.48	0.0	2972.82	55.	0.	0.	0.	324.	344.	0.	1635.	190.
*	3.320	2970.28	-0.20	2973.05	31.	50.	305.	355.	324.	344.	0.	1694.	131.
*	3.320	2971.98	0.0	2974.18	61.	0.	0.	0.	324.	344.	0.	1665.	160.
*	3.320	2971.12	-0.86	2974.61	20.	50.	305.	355.	324.	344.	0.	1825.	0.
	3.320	2973.89	0.0	2974.58	91.	0.	0.	0.	324.	344.	1.	1101.	723.
	3.320	2972.29	-1.60	2975.06	25.	50.	305.	355.	324.	344.	0.	1823.	2.
	3.320	2973.98	0.0	2974.59	89.	0.	0.	0.	324.	344.	0.	1395.	430.
	3.320	2974.35	0.37	2975.25	31.	50.	305.	355.	324.	344.	0.	1632.	193.
	3.320	2973.93	0.0	2974.76	76.	0.	0.	0.	310.	350.	0.	1732.	93.
	3.320	2974.57	0.64	2975.32	45.	50.	305.	355.	310.	350.	0.	1797.	28.
*	3.360	2979.06	0.0	2980.77	74.	0.	0.	0.	85.	120.	4.	1653.	153.
*	3.360	2979.00	-0.06	2980.85	59.	60.	80.	140.	85.	120.	4.	1682.	124.

	SECNO	CWSEL	DIFKWS	EG	TOPWID	PERENC	STENCL	STENCR	STCHL	STCHR	QLOB	QCH	QROB
	3.360	2980.74	0.0	2981.46	91.	0.	0.	0.	85.	120.	16.	1538.	256.
	3.360	2980.76	0.02	2981.60	60.	60.	80.	140.	85.	120.	16.	1621.	173.
*	3.360	2981.48	0.0	2982.00	93.	0.	0.	0.	85.	120.	22.	1491.	297.
*	3.360	2982.24	0.76	2982.75	60.	60.	80.	140.	85.	120.	22.	1595.	193.
*	3.360	2981.07	0.0	2982.83	74.	0.	0.	0.	85.	120.	4.	1673.	133.
	3.360	2981.98	0.91	2983.17	60.	60.	80.	140.	85.	120.	10.	1664.	136.
*	3.480	3003.14	0.0	3005.11	40.	0.	0.	0.	82.	128.	0.	1765.	0.
*	3.480	3003.14	-0.00	3005.11	40.	50.	80.	130.	82.	128.	0.	1765.	0.
*	3.500	3023.14	0.0	3025.10	40.	0.	0.	0.	82.	128.	0.	1760.	0.
*	3.500	3023.14	0.00	3025.10	40.	50.	80.	130.	82.	128.	0.	1760.	0.
*	3.540	3034.11	0.0	3036.07	40.	0.	0.	0.	82.	128.	0.	1745.	0.
*	3.540	3034.10	-0.00	3036.07	40.	50.	80.	130.	82.	128.	0.	1745.	0.

SUMMARY OF ERRORS

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CAUTION  SECNO=    0.270  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.270  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.270  PROFILE= 1
 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    0.270  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.270  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.270  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    0.640  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO=    0.640  PROFILE= 2  HYDRAULIC JUMP D.S.

CAUTION  SECNO=    0.810  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.810  PROFILE= 1
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.810  PROFILE= 1
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CAUTION  SECNO=    0.810  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.810  PROFILE= 2
 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    0.810  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    0.940  PROFILE= 1  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=    0.950  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    0.950  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    0.950  PROFILE= 2
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CAUTION  SECNO=    2.120  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=    2.670  PROFILE= 1  HYDRAULIC JUMP D.S.
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CAUTION  SECNO=    3.360  PROFILE= 2  HYDRAULIC JUMP D.S.

CAUTION  SECNO=    3.360  PROFILE= 1  CRITICAL DEPTH ASSUMED

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CAUTION  SECNO=    3.500  PROFILE= 2
 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=    3.540  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    3.540  PROFILE= 2  CRITICAL DEPTH ASSUMED
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FLOODWAY DATA, BOWLENS CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.080	65.	388.	7.1	2614.2	2613.2	1.0
0.080	65.	365.	7.5	2614.4	2613.6	0.8
0.080	65.	462.	6.0	2615.4	2614.4	1.0
0.080	65.	305.	9.0	2615.3	2614.3	1.0
0.250	105.	456.	6.0	2621.6	2621.6	0.0
0.270	105.	225.	12.1	2627.9	2627.9	0.0
0.400	105.	264.	10.2	2643.2	2643.2	0.0
0.640	80.	433.	6.1	2656.6	2656.5	0.1
0.640	80.	473.	5.6	2657.1	2657.0	0.1
0.640	80.	597.	4.4	2658.6	2658.1	0.5
0.640	80.	559.	4.7	2658.6	2658.1	0.5
0.810	50.	256.	10.1	2667.2	2667.0	0.2
0.820	50.	370.	7.0	2669.5	2668.9	0.6
0.820	50.	420.	6.2	2670.5	2669.6	0.9
0.820	50.	423.	6.1	2670.6	2669.7	0.9
0.940	90.	336.	7.7	2674.5	2674.2	0.3
0.950	90.	293.	8.8	2677.2	2677.2	0.0
0.950	90.	423.	6.1	2678.5	2677.3	1.2
0.950	90.	430.	6.0	2678.6	2677.8	0.8
1.100	90.	290.	8.8	2690.4	2690.4	0.0
1.240	60.	327.	7.7	2698.3	2697.7	0.6
1.560	60.	202.	12.1	2724.5	2724.5	0.0
1.570	60.	223.	10.9	2725.5	2725.5	0.0
1.570	60.	314.	7.8	2726.9	2725.6	1.3
1.570	60.	323.	7.6	2727.1	2726.4	0.7
1.600	60.	247.	9.8	2728.0	2727.7	0.3
1.660	105.	360.	6.7	2732.4	2732.2	0.2
1.660	105.	438.	5.5	2733.1	2733.0	0.1
1.660	105.	281.	8.6	2733.3	2733.3	0.0
1.660	105.	387.	6.3	2734.1	2733.4	0.7
1.660	105.	547.	4.4	2734.2	2733.3	0.9
1.660	105.	551.	4.4	2734.2	2733.4	0.8
1.760	250.	411.	5.8	2738.9	2738.6	0.3
1.770	250.	649.	3.7	2740.2	2739.8	0.4
1.770	250.	579.	4.1	2740.2	2739.8	0.4
1.770	250.	614.	3.9	2740.4	2739.9	0.5
1.770	250.	717.	3.3	2740.5	2739.9	0.6
1.770	250.	761.	3.1	2740.7	2740.0	0.7
1.790	240.	472.	5.1	2741.4	2741.2	0.2
1.790	240.	731.	3.3	2742.6	2742.2	0.4
1.790	240.	529.	4.5	2742.6	2742.3	0.3
1.790	240.	613.	3.9	2743.0	2742.4	0.6
1.790	240.	836.	2.9	2743.1	2742.4	0.7
1.790	240.	802.	3.0	2743.1	2742.4	0.7
1.870	130.	212.	11.1	2747.7	2747.7	0.0
1.880	130.	228.	10.4	2750.5	2750.5	0.0
1.880	130.	453.	5.2	2752.9	2751.4	1.5
1.880	130.	483.	4.9	2753.2	2752.2	1.0
2.000	60.	206.	11.2	2759.5	2759.5	0.0
2.120	60.	203.	11.2	2773.6	2773.6	0.0

FLOODWAY DATA, BOWLENS CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
2.130	60.	204.	11.1	2774.9	2774.9	0.0
2.130	60.	379.	6.0	2777.9	2777.8	0.1
2.130	60.	238.	9.5	2777.5	2777.4	0.1
2.200	50.	184.	12.1	2786.1	2786.1	0.0
2.240	50.	184.	12.1	2792.2	2792.2	0.0
2.250	50.	184.	12.1	2793.2	2793.2	0.0
2.250	110.	473.	4.7	2797.0	2796.4	0.6
2.250	50.	263.	8.5	2796.7	2795.9	0.8
2.440	70.	177.	12.2	2815.1	2815.1	0.0
2.450	70.	221.	9.7	2816.8	2816.8	0.0
2.450	70.	228.	9.4	2817.0	2817.0	0.0
2.450	70.	177.	12.2	2817.2	2817.2	0.0
2.580	70.	173.	12.1	2852.5	2852.5	0.0
2.660	70.	233.	8.9	2871.1	2871.1	0.0
2.670	70.	203.	10.2	2872.9	2872.9	0.0
2.670	70.	439.	4.7	2875.1	2873.2	1.9
2.670	70.	444.	4.7	2875.1	2874.1	1.0
2.800	70.	265.	7.6	2886.2	2886.2	0.0
2.940	50.	161.	12.2	2900.1	2900.1	0.0
2.950	50.	160.	12.3	2902.1	2902.1	0.0
2.950	50.	227.	8.7	2903.9	2903.7	0.2
2.950	50.	238.	8.2	2904.0	2903.9	0.1
2.960	50.	177.	11.1	2905.1	2905.1	0.0
3.060	40.	153.	12.6	2921.9	2921.8	0.1
3.070	40.	155.	12.4	2924.0	2923.9	0.1
3.070	40.	186.	10.3	2924.9	2924.1	0.8
3.070	40.	153.	12.5	2925.9	2925.9	0.0
3.210	45.	233.	8.0	2938.2	2938.1	0.1
3.220	45.	190.	9.8	2938.8	2938.8	0.0
3.220	45.	194.	9.6	2938.9	2938.9	0.0
3.220	45.	157.	11.9	2940.9	2940.9	0.0
3.250	45.	156.	11.9	2948.4	2948.4	0.0
3.310	50.	162.	11.2	2967.0	2967.0	0.0
3.320	50.	158.	11.5	2970.5	2970.5	0.0
3.320	50.	122.	15.0	2972.0	2972.0	0.0
3.320	50.	138.	13.2	2973.9	2973.9	0.0
3.320	50.	284.	6.4	2974.3	2974.0	0.3
3.320	50.	278.	6.6	2974.6	2973.9	0.7
3.360	60.	195.	9.3	2979.1	2979.1	0.0
3.360	60.	300.	6.0	2980.8	2980.7	0.1
3.360	60.	389.	4.7	2982.2	2981.5	0.7
3.360	60.	253.	7.1	2982.0	2981.1	0.9
3.480	50.	157.	11.3	3003.1	3003.1	0.0
3.500	50.	157.	11.2	3023.1	3023.1	0.0
3.540	50.	155.	11.2	3034.1	3034.1	0.0

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