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|---|--------|---------|-------|----------|-----|------|---------|---------|--------|
| * | 7.500 | 5873.04 | 7.34 | 15620.00 | .00 | .10 | 1920.03 | 2080.07 | 160.04 |
| * | 8.000 | 5882.16 | 5.96 | 15620.00 | .00 | 3.04 | 1887.25 | 2138.97 | 251.72 |
| * | 9.000 | 5902.82 | 6.62 | 15620.00 | .00 | .00 | 1906.30 | 2123.52 | 217.23 |
| * | 10.000 | 5918.44 | 4.94 | 15620.00 | .00 | .09 | 1550.34 | 1800.13 | 249.79 |
| * | 10.500 | 5918.61 | 5.11 | 15620.00 | .00 | .09 | 1550.33 | 1800.13 | 249.80 |
| * | 11.000 | 5932.77 | 5.77 | 15620.00 | .00 | .00 | 1865.34 | 2167.62 | 302.29 |
| * | 12.000 | 5953.93 | 6.93 | 15620.00 | .00 | .00 | 1830.00 | 1980.00 | 150.00 |
| * | 12.500 | 5957.93 | 10.93 | 15620.00 | .00 | .00 | 1830.00 | 1980.00 | 150.00 |

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| | SECNO | CWSEL | DEPTH | Q | QLOB | QROB | SSTA | ENDST | TOPWID |
|---|--------|---------|-------|----------|---------|--------|---------|---------|--------|
| * | 13.000 | 5962.34 | 5.74 | 15620.00 | .00 | .00 | 2343.75 | 2638.87 | 295.13 |
| * | 14.000 | 5978.05 | 6.65 | 15620.00 | .00 | .00 | 1630.88 | 1824.23 | 193.34 |
| * | 15.000 | 5995.27 | 5.57 | 15620.00 | .00 | .39 | 1900.33 | 2110.19 | 209.86 |
| * | 15.500 | 5995.92 | 6.21 | 15620.00 | .00 | .43 | 1900.31 | 2110.21 | 209.91 |
| * | 16.000 | 6008.07 | 7.47 | 15620.00 | .00 | .00 | 2417.39 | 2590.08 | 172.68 |
| * | 17.000 | 6026.14 | 5.84 | 15620.00 | 321.58 | .00 | 1849.30 | 2110.01 | 260.70 |
| * | 18.000 | 6044.69 | 8.09 | 11530.00 | 81.00 | 236.00 | 2336.38 | 2929.34 | 311.90 |
| * | 19.000 | 6060.25 | 7.75 | 11530.00 | 1446.26 | .00 | 2037.83 | 2406.00 | 368.17 |
| * | 20.000 | 6068.93 | 8.33 | 11530.00 | 530.96 | 913.58 | 1632.97 | 2316.20 | 683.23 |
| * | 21.000 | 6080.39 | 4.89 | 11530.00 | .00 | .00 | 1920.15 | 2120.00 | 199.85 |
| * | 21.500 | 6080.52 | 4.82 | 11530.00 | .00 | .00 | 1920.14 | 2120.00 | 199.86 |
| * | 22.000 | 6089.65 | 7.25 | 11530.00 | .00 | .00 | 1929.43 | 2062.09 | 132.66 |
| * | 23.000 | 6096.70 | 5.90 | 11530.00 | 125.37 | 36.86 | 1538.20 | 2136.03 | 252.98 |
| * | 24.000 | 6108.35 | 4.35 | 11530.00 | .00 | .00 | 1826.36 | 2114.92 | 288.56 |
| * | 25.000 | 6126.93 | 4.63 | 11530.00 | .78 | .00 | 1844.75 | 2139.79 | 295.04 |
| * | 26.000 | 6145.38 | 5.17 | 11530.00 | 2.79 | .00 | 1591.66 | 2231.18 | 343.74 |

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|---|--------|---------|-------|----------|---------|---------|---------|---------|--------|
| * | 27.000 | 6166.18 | 4.58 | 11530.00 | 3634.99 | 10.44 | 1314.41 | 2169.26 | 825.85 |
| * | 28.000 | 6181.47 | 4.57 | 8530.00 | .00 | .00 | 2140.32 | 2500.03 | 359.72 |
| | 28.500 | 6181.78 | 4.88 | 8530.00 | .00 | .00 | 2140.30 | 2500.05 | 359.75 |
| * | 29.000 | 6198.42 | 5.42 | 8530.00 | .00 | .00 | 1920.13 | 2136.08 | 215.95 |
| * | 30.000 | 6219.05 | 6.25 | 8530.00 | 31.51 | .00 | 2046.75 | 2226.05 | 179.30 |
| * | 31.000 | 6242.76 | 10.66 | 8530.00 | 4733.92 | 2244.32 | 1962.32 | 2516.91 | 554.58 |
| | 31.500 | 6242.92 | 10.82 | 8530.00 | 4798.67 | 2266.67 | 1956.61 | 2527.47 | 570.85 |
| * | 32.000 | 6255.51 | 8.41 | 8530.00 | 599.65 | .00 | 1956.85 | 2091.32 | 134.47 |
| * | 33.000 | 6274.96 | 7.46 | 8530.00 | 411.37 | .00 | 1634.42 | 1875.29 | 240.87 |
| * | 34.000 | 6298.89 | 7.29 | 8530.00 | 5462.03 | 1613.21 | 1307.78 | 1618.14 | 310.36 |

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| | SECNO | CWSEL | DEPTH | Q | QLOB | QROB | SSTA | ENDST | TOPWID |
|---|--------|---------|-------|---------|---------|---------|---------|---------|--------|
| * | 35.000 | 6306.18 | 4.98 | 8210.00 | .00 | .63 | 1900.27 | 2030.23 | 129.97 |
| * | 35.500 | 6307.56 | 6.36 | 8210.00 | .00 | .81 | 1900.20 | 2030.30 | 130.10 |
| * | 36.000 | 6324.87 | 6.27 | 8210.00 | 3884.90 | 4.47 | 1403.68 | 1814.32 | 410.65 |
| * | 37.000 | 6346.10 | 12.90 | 8210.00 | 5219.35 | 1225.39 | 2100.00 | 2800.00 | 700.00 |
| * | 38.000 | 6355.68 | 5.08 | 8210.00 | .00 | .00 | 1773.84 | 1974.50 | 200.65 |
| * | 39.000 | 6374.56 | 4.46 | 7590.00 | 3986.93 | 2217.20 | 1170.87 | 2923.15 | 417.77 |
| * | 42.000 | 6419.12 | 3.12 | 6962.00 | .00 | .00 | 1049.75 | 1450.25 | 400.49 |
| * | 43.000 | 6432.39 | 2.89 | 6962.00 | 3539.18 | 28.09 | 1132.46 | 1738.32 | 520.76 |
| * | 44.000 | 6447.01 | 4.01 | 6962.00 | 3.43 | 4161.49 | 1047.46 | 1327.54 | 280.07 |
| * | 45.000 | 6460.18 | 4.38 | 6962.00 | 45.05 | 82.53 | 1027.49 | 1300.00 | 270.85 |
| * | 46.000 | 6473.79 | 3.79 | 6962.00 | .00 | 1047.69 | 1071.84 | 1962.90 | 808.47 |
| * | 47.000 | 6484.17 | 3.27 | 6962.00 | 20.24 | 2486.48 | 1090.37 | 2080.01 | 818.75 |
| * | 48.000 | 6496.31 | 4.11 | 6962.00 | 29.80 | 5015.55 | 1650.52 | 2363.38 | 712.86 |

* 49.000 6513.18 4.18 6962.00 1150.32 1548.82 1105.90 1747.31 641.41

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 2.500 PROFILE= 1 HYDRAULIC JUMP D.S.
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HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-XT VERSION 1.1

* WATER SURFACE PROFILES *

* VERSION OF NOVEMBER 1976 *

* UPDATED MARCH 1982 *

* RUN DATE 31-AUG-84 TIME 09:06:28 *

* U.S. ARMY CORPS OF ENGINEERS *

* THE HYDROLOGIC ENGINEERING CENTER *

* 609 SECOND STREET, SUITE D *

* DAVIS, CALIFORNIA 95616 *

* (916) 440-2105 (FIS) 449-2105 *

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FUTURE CONDITIONS

WHICH BRANCH ?

100 PK.

U.S. ARMY CORPS OF ENGINEERS

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|----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| GR | 6554.700 | 0.000 | 6560.400 | 77.000 | 6563.300 | 158.000 | 6562.100 | 248.000 | 6554.600 | 360.000 |
| GR | 6545.200 | 467.000 | 6531.500 | 622.000 | 6523.700 | 737.000 | 6512.800 | 807.000 | 6512.400 | 242.000 |
| GR | 6520.500 | 1099.000 | 6521.400 | 1250.000 | 6522.400 | 1348.000 | 6510.400 | 1391.000 | 6508.800 | 1502.000 |
| GR | 6508.000 | 1646.000 | 6507.100 | 1717.000 | 6508.100 | 1745.000 | 6507.200 | 1810.000 | 6508.000 | 1831.000 |
| GR | 6513.100 | 1723.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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| X1 | 2.000 | 22.000 | 1401.000 | 1447.000 | 300.000 | 300.000 | 300.000 | 0.000 | 0.000 | 0.000 |
| GR | 6552.300 | 0.000 | 6562.300 | 89.000 | 6557.000 | 230.000 | 6549.400 | 363.000 | 6536.500 | 532.000 |
| GR | 6526.700 | 697.000 | 6524.900 | 784.000 | 6520.600 | 789.000 | 6525.000 | 804.000 | 6526.300 | 896.000 |
| GR | 6522.300 | 1037.000 | 6515.400 | 1082.000 | 6514.600 | 1171.000 | 6514.900 | 1342.000 | 6513.300 | 1352.000 |
| GR | 6512.600 | 1387.000 | 6511.400 | 1401.000 | 6512.000 | 1447.000 | 6512.000 | 1591.000 | 6511.400 | 1616.000 |
| GR | 6512.800 | 1624.000 | 6518.100 | 1741.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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| X1 | 2680.000 | 20.000 | 366.000 | 432.000 | 750.000 | 600.000 | 750.000 | 0.000 | 0.000 | 0.000 |
| GR | 6607.500 | 0.000 | 6605.300 | 35.900 | 6602.100 | 85.000 | 6601.200 | 166.000 | 6593.500 | 222.000 |
| GR | 6586.700 | 280.000 | 6581.000 | 302.000 | 6559.600 | 343.000 | 6554.600 | 366.000 | 6553.000 | 394.000 |
| GR | 6553.000 | 409.000 | 6566.000 | 432.000 | 6544.300 | 470.000 | 6547.200 | 576.000 | 6568.200 | 726.000 |
| GR | 6569.100 | 871.000 | 6572.000 | 935.000 | 6575.000 | 1094.000 | 6571.600 | 1217.000 | 6579.000 | 1310.000 |

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| NT | 2.000 | 5200.000 | 7790.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 3046.000 | 28.000 | 400.000 | 436.000 | 350.000 | 350.000 | 380.000 | 0.000 | 0.000 | 0.000 |
| GR | 6606.900 | 0.000 | 6601.400 | 16.000 | 6597.700 | 89.000 | 6591.400 | 156.000 | 6588.300 | 157.000 |
| GR | 6588.300 | 197.000 | 6583.500 | 258.000 | 6569.500 | 288.000 | 6563.700 | 363.000 | 6562.300 | 400.000 |
| GR | 6558.200 | 405.000 | 6559.000 | 420.000 | 6543.700 | 436.000 | 6543.700 | 453.000 | 6570.300 | 465.000 |
| GR | 6568.500 | 542.000 | 6568.000 | 562.000 | 6577.600 | 598.000 | 6577.300 | 616.000 | 6577.200 | 640.000 |
| GR | 6570.100 | 669.000 | 6570.800 | 753.000 | 6571.300 | 763.000 | 6575.700 | 770.000 | 6574.600 | 869.000 |

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| GR | 6582.600 | 964.000 | 6586.200 | 1077.000 | 6586.600 | 1199.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 3600.000 | 12.000 | 333.000 | 442.000 | 470.000 | 600.000 | 540.000 | 0.000 | 0.000 | 0.000 |
| GR | 6614.200 | 0.000 | 6602.000 | 120.000 | 6591.800 | 224.000 | 6580.100 | 333.000 | 6575.100 | 347.000 |
| GR | 6571.200 | 357.000 | 6571.500 | 414.000 | 6579.900 | 442.000 | 6586.300 | 488.000 | 6589.400 | 587.000 |
| GR | 6592.900 | 699.000 | 6594.500 | 754.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 4120.000 | 12.000 | 245.000 | 361.000 | 500.000 | 500.000 | 520.000 | 0.000 | 0.000 | 0.000 |
| GR | 6613.500 | 0.000 | 6602.400 | 107.000 | 6595.000 | 177.000 | 6584.900 | 245.000 | 6575.500 | 290.000 |
| GR | 6575.300 | 310.000 | 6585.400 | 338.000 | 6592.500 | 361.000 | 6593.500 | 465.000 | 6594.500 | 617.000 |
| GR | 6594.800 | 697.000 | 6592.900 | 718.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 4450.000 | 19.000 | 531.000 | 596.000 | 400.000 | 600.000 | 530.000 | 0.000 | 0.000 | 0.000 |
| X3 | 10.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| GR | 6624.800 | 0.000 | 6618.100 | 121.000 | 6612.900 | 216.000 | 6606.700 | 304.000 | 6603.400 | 333.000 |
| GR | 6595.300 | 387.000 | 6586.000 | 400.000 | 6586.100 | 435.000 | 6597.300 | 464.000 | 6599.000 | 481.000 |
| GR | 6591.600 | 531.000 | 6586.500 | 541.000 | 6586.900 | 553.000 | 6582.400 | 559.000 | 6582.800 | 573.000 |
| GR | 6592.500 | 596.000 | 6604.400 | 640.000 | 6608.700 | 695.000 | 6610.600 | 791.000 | 0.000 | 0.000 |
| X1 | 5150.000 | 14.000 | 160.000 | 228.000 | 600.000 | 300.000 | 500.000 | 0.000 | 0.000 | 0.000 |
| GR | 6620.400 | 0.000 | 6619.100 | 55.000 | 6613.000 | 109.000 | 6608.300 | 140.000 | 6599.200 | 160.000 |
| GR | 6595.600 | 180.000 | 6593.400 | 200.000 | 6593.300 | 214.000 | 6596.700 | 228.000 | 6603.200 | 239.000 |
| GR | 6606.500 | 321.000 | 6610.000 | 440.000 | 6612.600 | 517.000 | 6611.700 | 641.000 | 0.000 | 0.000 |
| X1 | 5700.000 | 15.000 | 250.000 | 355.000 | 550.000 | 450.000 | 550.000 | 0.000 | 0.000 | 0.000 |
| GR | 6638.700 | 0.000 | 6628.100 | 105.000 | 6621.000 | 179.000 | 6615.400 | 209.000 | 6604.900 | 250.000 |
| GR | 6600.500 | 313.000 | 6602.000 | 355.000 | 6608.700 | 371.000 | 6611.000 | 454.000 | 6615.400 | 484.000 |
| GR | 6614.200 | 606.000 | 6611.400 | 776.000 | 6609.000 | 979.000 | 6608.700 | 1130.000 | 6610.200 | 1159.000 |
| X1 | 6440.000 | 15.000 | 443.000 | 577.000 | 350.000 | 550.000 | 740.000 | 0.000 | 0.000 | 0.000 |
| GR | 6639.900 | 0.000 | 6630.600 | 117.000 | 6626.400 | 224.000 | 6622.000 | 303.000 | 6616.000 | 326.000 |
| GR | 6618.000 | 368.000 | 6617.100 | 443.000 | 6615.500 | 500.000 | 6615.200 | 567.000 | 6625.200 | 577.000 |
| GR | 6625.100 | 708.000 | 6625.800 | 830.000 | 6627.000 | 941.000 | 6628.300 | 1085.000 | 6629.500 | 1188.000 |
| X1 | 6980.000 | 17.000 | 441.000 | 558.000 | 450.000 | 450.000 | 540.000 | 0.000 | 0.000 | 0.000 |
| GR | 6648.700 | 0.000 | 6639.600 | 117.000 | 6638.100 | 190.000 | 6632.300 | 331.000 | 6632.900 | 422.000 |
| GR | 6622.200 | 441.000 | 6620.900 | 445.000 | 6620.900 | 461.000 | 6621.400 | 487.000 | 6625.100 | 558.000 |
| GR | 6636.900 | 605.000 | 6626.300 | 670.000 | 6629.900 | 738.000 | 6632.600 | 852.000 | 6636.100 | 971.000 |
| GR | 6636.000 | 1085.000 | 6636.400 | 1140.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 7400.000 | 19.000 | 461.000 | 503.000 | 450.000 | 350.000 | 420.000 | 0.000 | 0.000 | 0.000 |

| | | | | | | | | | | |
|----|----------|-------|----------|---------|----------|---------|----------|---------|----------|---------|
| X3 | 10.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| GR | 6659.200 | 0.000 | 6647.200 | 150.000 | 6636.300 | 263.000 | 6632.300 | 317.000 | 6633.900 | 405.000 |

| | | | | | | | | | | |
|----|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
| GR | 6633.300 | 440.000 | 6639.300 | 441.000 | 6625.500 | 467.000 | 6625.500 | 489.000 | 6628.500 | 503.000 |
| GR | 6629.200 | 562.000 | 6631.000 | 637.000 | 6630.000 | 702.000 | 6629.000 | 709.000 | 6636.000 | 738.000 |
| GR | 6640.200 | 789.000 | 6640.900 | 883.000 | 6642.200 | 948.000 | 6643.800 | 980.000 | 0.000 | 0.000 |

| | | | | | | | | | | |
|----|----------|--------|----------|---------|----------|---------|----------|---------|----------|---------|
| X1 | 7920.000 | 18.000 | 523.000 | 603.000 | 300.000 | 550.000 | 520.000 | 0.000 | 0.000 | 0.000 |
| GR | 6664.100 | 0.000 | 6659.600 | 81.000 | 6644.200 | 208.000 | 6643.400 | 283.000 | 6640.700 | 308.000 |

| | | | | | | | | | | |
|----|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
| GR | 6638.600 | 316.000 | 6638.600 | 415.000 | 6637.900 | 476.000 | 6636.900 | 523.000 | 6635.600 | 530.000 |
| GR | 6634.400 | 532.000 | 6634.400 | 539.000 | 6636.600 | 562.000 | 6634.900 | 577.000 | 6643.800 | 603.000 |
| GR | 6645.600 | 638.000 | 6649.100 | 694.000 | 6653.700 | 802.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| | | | | | | | | | | |
|----|-----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
| X1 | 12130.000 | 15.000 | 222.000 | 372.000 | 440.000 | 550.000 | 660.000 | 0.000 | 0.000 | 0.000 |
| GR | 6722.100 | 0.000 | 6723.200 | 72.000 | 6716.000 | 135.000 | 6709.500 | 197.000 | 6702.100 | 222.000 |
| GR | 6702.300 | 262.000 | 6701.500 | 265.000 | 6701.500 | 278.000 | 6702.300 | 284.000 | 6702.300 | 334.000 |
| GR | 6705.000 | 372.000 | 6710.300 | 401.000 | 6712.900 | 456.000 | 6715.600 | 552.000 | 6715.900 | 632.000 |
| X1 | 13000.000 | 14.000 | 587.000 | 710.000 | 600.000 | 550.000 | 870.000 | 0.000 | 0.000 | 0.000 |
| GR | 6744.900 | 0.000 | 6738.200 | 168.000 | 6727.300 | 366.000 | 6714.600 | 166.000 | 6714.600 | 597.000 |
| GR | 6712.600 | 597.000 | 6712.600 | 644.000 | 6712.800 | 687.000 | 6712.800 | 710.000 | 6714.400 | 762.000 |
| GR | 6715.100 | 805.000 | 6722.200 | 881.000 | 6723.200 | 916.000 | 6723.600 | 996.000 | 0.000 | 0.000 |

| | | | | | | | | | | |
|----|-----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| X1 | 13500.000 | 17.000 | 415.000 | 675.000 | 500.000 | 500.000 | 500.000 | 0.000 | 0.000 | 0.000 |
| X3 | 10.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| BR | 6753.400 | 0.000 | 6743.800 | 132.000 | 6733.400 | 308.000 | 6724.900 | 385.000 | 6721.500 | 115.000 |
| BR | 6719.800 | 421.000 | 6719.800 | 449.000 | 6720.600 | 460.000 | 6721.600 | 514.000 | 6720.500 | 602.000 |
| GR | 6719.400 | 603.000 | 6721.200 | 618.000 | 6721.100 | 650.000 | 6723.100 | 675.000 | 6727.400 | 712.000 |
| GR | 6730.700 | 770.000 | 6732.300 | 845.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 14000.000 | 18.000 | 617.000 | 815.000 | 600.000 | 300.000 | 500.000 | 0.000 | 0.000 | 0.000 |
| GR | 6748.300 | 0.000 | 6744.400 | 93.000 | 6744.800 | 195.000 | 6741.600 | 251.000 | 6743.400 | 312.000 |
| GR | 6741.900 | 420.000 | 6740.100 | 544.000 | 6734.100 | 593.000 | 6728.400 | 617.000 | 6727.500 | 642.000 |
| GR | 6728.000 | 722.000 | 6727.400 | 728.000 | 6727.400 | 779.000 | 6727.200 | 790.000 | 6727.900 | 815.000 |
| GR | 6732.700 | 860.000 | 6734.100 | 902.000 | 6734.200 | 951.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 14930.000 | 22.000 | 512.000 | 576.000 | 400.000 | 800.000 | 930.000 | 0.000 | 0.000 | 0.000 |
| GR | 6750.500 | 0.000 | 6754.800 | 80.000 | 6758.500 | 180.000 | 6759.200 | 238.000 | 6755.200 | 312.000 |
| GR | 6749.700 | 387.000 | 6747.500 | 433.000 | 6749.100 | 464.000 | 6746.700 | 509.000 | 6744.800 | 512.000 |
| GR | 6739.400 | 525.000 | 6739.200 | 568.000 | 6740.800 | 576.000 | 6741.700 | 623.000 | 6745.700 | 671.000 |
| GR | 6746.600 | 723.000 | 6746.400 | 749.000 | 6748.300 | 800.000 | 6750.400 | 858.000 | 6750.700 | 907.000 |
| GR | 6751.900 | 948.000 | 6750.500 | 1005.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 15500.000 | 16.000 | 543.000 | 590.000 | 700.000 | 700.000 | 970.000 | 0.000 | 0.000 | 0.000 |
| GR | 6773.300 | 0.000 | 6772.600 | 119.000 | 6767.900 | 281.000 | 6760.500 | 425.000 | 6756.100 | 491.000 |
| GR | 6753.700 | 500.000 | 6752.500 | 543.000 | 6750.200 | 551.000 | 6750.200 | 564.000 | 6751.500 | 569.000 |
| GR | 6755.900 | 590.000 | 6755.800 | 615.000 | 6761.800 | 675.000 | 6762.500 | 699.000 | 6762.000 | 745.000 |
| GR | 6761.200 | 793.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| X1 | 16480.000 | 19.000 | 548.000 | 608.000 | 530.000 | 340.000 | 580.000 | 0.000 | 0.000 | 0.000 |
| X3 | 10.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| GR | 6788.600 | 0.000 | 6786.200 | 92.000 | 6778.400 | 241.000 | 6767.400 | 383.000 | 6762.000 | 433.000 |
| GR | 6760.100 | 439.000 | 6761.000 | 483.000 | 6760.500 | 521.000 | 6760.300 | 548.000 | 6758.500 | 559.000 |
| GR | 6755.400 | 570.000 | 6755.400 | 590.000 | 6762.100 | 608.000 | 6763.400 | 616.000 | 6764.500 | 666.000 |
| GR | 6765.500 | 767.000 | 6765.000 | 930.000 | 6763.200 | 1155.000 | 6763.100 | 1344.000 | 0.000 | 0.000 |
| X1 | 17200.000 | 20.000 | 706.000 | 797.000 | 400.000 | 800.000 | 720.000 | 0.000 | 0.000 | 0.000 |
| X3 | 0.000 | 0.000 | 0.000 | 620.000 | 0.000 | 1029.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| BR | 6792.700 | 0.000 | 6784.800 | 141.000 | 6772.900 | 235.000 | 6767.500 | 304.000 | 6769.000 | 443.000 |
| BR | 6771.100 | 479.000 | 6773.300 | 562.000 | 6774.300 | 626.000 | 6773.200 | 660.000 | 6769.800 | 672.000 |
| GR | 6770.300 | 706.000 | 6767.900 | 728.000 | 6766.400 | 732.000 | 6766.400 | 740.000 | 6767.800 | 749.000 |
| GR | 6769.500 | 762.000 | 6779.400 | 797.000 | 6782.000 | 824.000 | 6783.100 | 903.000 | 6782.700 | 1029.000 |

| | | | | | | | | | | |
|----|-----------|----------|----------|---------|----------|---------|----------|---------|----------|---------|
| XI | 17770.000 | 17.000 | 401.000 | 154.000 | 450.000 | 580.000 | 570.000 | 0.000 | 0.000 | 0.000 |
| GR | 6815.700 | 0.000 | 6805.400 | 118.000 | 6798.000 | 125.000 | 6788.700 | 267.000 | 6781.800 | 362.000 |
| GR | 6783.100 | 365.000 | 6779.800 | 401.000 | 6777.300 | 406.000 | 6777.300 | 441.000 | 6779.200 | 454.000 |
| GR | 6779.100 | 481.000 | 6781.100 | 500.000 | 6781.500 | 516.000 | 6785.200 | 556.000 | 6788.300 | 625.000 |
| GR | 6789.600 | 792.000 | 6790.200 | 968.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| QT | 2.000 | 3930.000 | 5600.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| XI | 18120.000 | 12.000 | 341.000 | 110.000 | 300.000 | 300.000 | 350.000 | 0.000 | 0.000 | 0.000 |
| GR | 6819.100 | 0.000 | 6805.500 | 127.000 | 6791.200 | 259.000 | 6786.600 | 301.000 | 6783.400 | 341.000 |
| GR | 6782.000 | 363.000 | 6782.000 | 120.000 | 6787.100 | 440.000 | 6790.400 | 497.000 | 6792.400 | 620.000 |
| GR | 6793.800 | 832.000 | 6793.900 | 925.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| EJ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | UOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

#PROF 1

INLEO = 1. THEREFORE FRICTION LOSS (HL) IS CALCULATED AS A FUNCTION OF PROFILE TYPE, WHICH CAN VARY FROM REACH TO REACH. SEE DOCUMENTATION FOR DETAILS.

CCHV= 0.100 CEHV= 0.300

#SECNO 1.000

3720 CRITICAL DEPTH ASSUMED

ALL CROSS SECTIONS CODED LEFT TO RIGHT FACING

DOWNSTREAM WITH STARTING STATION 0+00

| | | | | | | | | | |
|----------|-------|---------|---------|---------|---------|-------|-------|---------|---------|
| 1.00 | 3.51 | 6510.61 | 6510.61 | 6509.00 | 6511.65 | 1.05 | 0.00 | 0.00 | 6508.00 |
| 7900. | 2479. | 2393. | 3028. | 430. | 217. | 417. | 0. | 0. | 6507.10 |
| 0.00 | 5.77 | 11.03 | 7.24 | 0.055 | 0.040 | 0.055 | 0.000 | 6507.10 | 1390.26 |
| 0.019865 | 0. | 0. | 0. | 0 | 16 | 0 | 0.00 | 500.22 | 1890.48 |

#SECNO 2.000

| | | | | | | | | | |
|----------|-------|---------|-------|-------|---------|-------|-------|---------|---------|
| 2.00 | 4.11 | 6515.51 | 0.00 | 0.00 | 6516.35 | 0.84 | 4.67 | 0.02 | 6511.40 |
| 7900. | 1332. | 1797. | 4771. | 328. | 175. | 709. | 8. | 4. | 6512.00 |
| 0.01 | 4.06 | 10.26 | 6.73 | 0.055 | 0.040 | 0.055 | 0.000 | 6511.40 | 1081.28 |
| 0.012812 | 300. | 300. | 300. | 4 | 0 | 0 | 0.00 | 602.54 | 1683.82 |

#SECNO 3.000

3280 CROSS SECTION 3.00 EXTENDED 4.11 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCRDACHMENT STATIONS= 1.0 1420.0 TYPE= 1 TARGET= 1419.000
 3.00 4.81 6519.41 6519.41 0.00 6521.18 1.77 4.24 0.08 6517.40

| | | | | | | | | | |
|----------|------|-------|------|-------|-------|-------|-------|---------|---------|
| 7900. | 115. | 7784. | 1. | 32. | 725. | 1. | 15. | 7. | 6519.20 |
| 0.02 | 3.61 | 10.74 | 1.12 | 0.055 | 0.040 | 0.055 | 0.000 | 4514.60 | 1197.26 |
| 0.014133 | 300. | 300. | 300. | 2 | 8 | 0 | 0.00 | 222.04 | 1420.00 |

*SECD 0.000
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

PC-11

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|---|-------|---------|---------|--------|---------|-------|-------|---------|------------|
| Q | QLOB | DCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLQBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |
| 3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000 | | | | | | | | | |
| 0.00 | 5.43 | 6523.93 | 6523.93 | 0.00 | 6526.00 | 2.06 | 4.99 | -0.30 | 6529.70 |
| 7900. | 0. | 4963. | 2937. | 0. | 383. | 342. | 20. | 8. | 6521.20 |
| 0.03 | 0.00 | 12.96 | 8.58 | 0.055 | 0.040 | 0.055 | 0.000 | 6518.50 | 644.88 |
| 0.016623 | 300. | 300. | 300. | 2 | 8 | 0 | 0.00 | 177.60 | 822.48 |
| *SECNO 350.000 | | | | | | | | | |
| 550.00 | 8.08 | 6531.38 | 0.00 | 0.00 | 6533.08 | 1.71 | 7.05 | 0.04 | 6525.30 |
| 7900. | 4344. | 3556. | 0. | 601. | 265. | 0. | 29. | 10. | 6539.80 |
| 0.04 | 7.23 | 13.42 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6523.30 | 338.49 |
| 0.011023 | 450. | 550. | 600. | 3 | 0 | 0 | 0.00 | 192.34 | 530.83 |
| *SECNO 1070.000 | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
| 1070.00 | 9.04 | 6537.94 | 6537.94 | 0.00 | 6539.85 | 1.91 | 6.42 | -0.69 | 6542.80 |
| 7900. | 0. | 3090. | 4810. | 0. | 214. | 585. | 38. | 12. | 6532.80 |
| 0.05 | 0.00 | 14.47 | 8.22 | 0.055 | 0.040 | 0.055 | 0.000 | 6528.90 | 281.04 |
| 0.014161 | 300. | 520. | 500. | 2 | 8 | 0 | 0.00 | 181.93 | 462.97 |
| *SECNO 1450.000 | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
| 1450.00 | 8.80 | 6543.00 | 6543.00 | 0.00 | 6545.31 | 2.31 | 3.64 | 0.65 | 6537.30 |
| 7900. | 1836. | 5625. | 439. | 243. | 409. | 100. | 43. | 13. | 6538.50 |
| 0.06 | 7.56 | 13.74 | 4.40 | 0.055 | 0.040 | 0.055 | 0.000 | 6534.20 | 233.39 |
| 0.010551 | 450. | 380. | 250. | 2 | 8 | 0 | 0.00 | 172.82 | 406.28 |
| *SECNO 1930.000 | | | | | | | | | |

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|-------|---------|-------|-------|---------|-------|-------|---------|---------|
| 1930.00 | 8.71 | 6547.91 | 0.00 | 0.00 | 6549.13 | 1.22 | 3.71 | 0.11 | 6544.50 |
| 7900. | 1936. | 4168. | 1796. | 276. | 403. | 265. | 52. | 15. | 6541.40 |
| 0.09 | 7.02 | 10.34 | 6.76 | 0.055 | 0.040 | 0.055 | 0.000 | 6539.20 | 456.69 |
| 0.006445 | 400. | 480. | 500. | 1 | 0 | 0 | 0.00 | 166.19 | 622.88 |

| SECNO | DEPTH | CUSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | OLOB | OCH | OROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 2680.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 2680.00 | 8.89 | 6561.89 | 6561.89 | 0.00 | 6565.00 | 3.11 | 8.66 | -1.40 | 6554.60 |
| 7290. | 920. | 6370. | 0. | 115. | 430. | 0. | 65. | 17. | 6566.00 |
| 0.09 | 7.99 | 14.82 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6553.00 | 338.61 |
| 0.011917 | 750. | 750. | 600. | 14 | 5 | 0 | 0.00 | 86.11 | 424.73 |

*SECNO 3060.000

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 3060.00 | 8.98 | 6567.18 | 6567.17 | 0.00 | 6569.16 | 1.98 | 4.05 | 0.11 | 6562.30 |
| 5200. | 1391. | 3403. | 407. | 233. | 257. | 70. | 69. | 18. | 6563.70 |
| 0.10 | 5.98 | 13.27 | 5.80 | 0.055 | 0.040 | 0.055 | 0.000 | 6558.20 | 318.04 |
| 0.010050 | 350. | 380. | 350. | 3 | 5 | 0 | 0.00 | 141.28 | 459.32 |

*SECNO 3600.000

3685 20 TRIALS ATTEMPTED WSEL,CUSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 3600.00 | 5.88 | 6577.08 | 6577.08 | 0.00 | 6579.42 | 2.35 | 7.75 | -1.09 | 6580.10 |
| 5200. | 0. | 5200. | 0. | 0. | 423. | 0. | 75. | 20. | 6579.90 |
| 0.11 | 0.00 | 12.30 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6571.20 | 341.47 |
| 0.014544 | 470. | 540. | 600. | 20 | 14 | 0 | 0.00 | 91.12 | 432.59 |

*SECNO 4120.000

| | | | | | | | | | |
|---------|------|---------|------|------|---------|------|------|------|---------|
| 4120.00 | 8.62 | 6583.92 | 0.00 | 0.00 | 6586.06 | 2.14 | 6.61 | 0.02 | 6584.90 |
| 5200. | 0. | 5200. | 0. | 0. | 443. | 0. | 81. | 21. | 6592.50 |

| | | | | | | | | | |
|----------|------|-------|------|-------|-------|-------|-------|---------|--------|
| 0.13 | 0.00 | 11.73 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6575.30 | 249.48 |
| 0.011303 | 500. | 520. | 500. | 2 | 0 | 0 | 0.00 | 84.22 | 333.90 |

*SECNO 4650.000

3245 DIVIDED FLOW

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | DLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALDR | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENRST |

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3495. OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 6591.60 ELREA= 6592.50

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 1650.00 | 9.39 | 6591.79 | 6591.79 | 0.00 | 6592.97 | 1.18 | 3.74 | 0.89 | 6591.60 |
| 5200. | 1776. | 3424. | 0. | 267. | 356. | 0. | 87. | 22. | 6592.50 |
| 0.14 | 6.67 | 9.62 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6582.40 | 391.90 |
| 0.007357 | 400. | 530. | 600. | 3 | 17 | 0 | 0.00 | 122.46 | 594.32 |

*SECNO 5150.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 5150.00 | 7.56 | 6600.86 | 6600.86 | 0.00 | 6603.60 | 2.74 | 6.76 | -1.02 | 6599.20 |
| 5200. | 8. | 5126. | 67. | 3. | 383. | 15. | 93. | 23. | 6596.70 |
| 0.15 | 2.56 | 13.37 | 4.56 | 0.055 | 0.040 | 0.055 | 0.000 | 6593.30 | 156.35 |
| 0.013107 | 600. | 500. | 300. | 10 | 15 | 0 | 0.00 | 78.68 | 235.04 |

*SECNO 5700.000

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|------|---------|------|-------|---------|-------|-------|---------|---------|
| 5700.00 | 6.84 | 6607.34 | 0.00 | 0.00 | 6608.61 | 1.27 | 4.87 | 0.15 | 6604.90 |
| 5200. | 29. | 5033. | 138. | 12. | 549. | 34. | 99. | 24. | 6602.00 |
| 0.17 | 2.48 | 9.17 | 4.04 | 0.055 | 0.040 | 0.055 | 0.000 | 6600.50 | 240.44 |
| 0.006723 | 550. | 550. | 450. | 2 | 0 | 0 | 0.00 | 127.34 | 367.77 |

SECTNO 6440.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 6440.00 | 3.95 | 6619.15 | 6619.15 | 0.00 | 6620.38 | 1.22 | 9.67 | -2.49 | 6617.10 |
| 3200. | 1086. | 4114. | 0. | 230. | 425. | 0. | 109. | 27. | 6625.20 |
| 0.19 | 4.72 | 9.67 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6615.20 | 313.91 |
| 0.013904 | 350. | 740. | 550. | 7 | 11 | 0 | 0.00 | 297.04 | 570.95 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | QLDSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| R | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROR | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENST |

*SECNO 5980.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 5980.00 | 5.50 | 6626.40 | 6626.40 | 0.00 | 6628.19 | 1.79 | 7.12 | 0.29 | 6622.20 |
| 5200. | 74. | 5074. | 53. | 16. | 468. | 23. | 115. | 29. | 6625.10 |
| 0.21 | 4.69 | 10.84 | 2.30 | 0.055 | 0.040 | 0.055 | 0.000 | 6620.90 | 433.53 |
| 0.013453 | 450. | 540. | 450. | 3 | 11 | 0 | 0.00 | 171.82 | 671.97 |

*SECNO 7400.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 7400.00 | 6.57 | 6632.07 | 6632.07 | 0.00 | 6633.37 | 1.30 | 3.83 | 0.72 | 6628.30 |
| 5200. | 118. | 2860. | 2223. | 30. | 247. | 478. | 121. | 31. | 6628.50 |
| 0.22 | 3.94 | 11.59 | 4.65 | 0.055 | 0.040 | 0.055 | 0.000 | 6625.50 | 445.15 |
| 0.009454 | 450. | 420. | 350. | 2 | 11 | 0 | 0.00 | 276.59 | 721.74 |

*SECNO 7920.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 7920.00 | 5.97 | 6640.37 | 6640.37 | 0.00 | 6641.44 | 1.07 | 5.06 | -0.24 | 6636.90 |
| 5200. | 2117. | 3083. | 0. | 450. | 306. | 0. | 129. | 34. | 6643.80 |
| 0.24 | 4.71 | 10.07 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6634.40 | 309.27 |
| 0.010566 | 300. | 520. | 550. | 5 | 10 | 0 | 0.00 | 283.71 | 592.97 |

*SECNO 8360.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 8360.00 | 5.27 | 6647.17 | 6647.17 | 0.00 | 6648.78 | 1.61 | 6.74 | -0.93 | 6644.00 |
| 5200. | 59. | 4972. | 169. | 13. | 479. | 36. | 135. | 36. | 6643.90 |
| 0.25 | 4.40 | 10.37 | 4.66 | 0.055 | 0.040 | 0.055 | 0.000 | 6641.90 | 469.56 |
| 0.015645 | 400. | 440. | 400. | 5 | 15 | 0 | 0.00 | 173.66 | 643.23 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK | ELEV |
|---|-------|---------|---------|--------|---------|-------|-------|---------|------------|------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPVID | ENDST | |
| *SECNO 8740.000 | | | | | | | | | | |
| 8740.00 | 4.07 | 6653.17 | 6653.09 | 0.00 | 6654.61 | 1.44 | 5.81 | 0.02 | 6650.80 | |
| 5200. | 25. | 5175. | 0. | 7. | 536. | 0. | 140. | 38. | 6653.30 | |
| 0.26 | 3.53 | 9.65 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6649.10 | 536.93 | |
| 0.014913 | 400. | 380. | 400. | 4 | 15 | 0 | 0.00 | 178.86 | 715.79 | |
| *SECNO 9100.000 | | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 3470 ENCROACHMENT STATIONS= 1.0 650.0 TYPE= 1 TARGET= 649.000 | | | | | | | | | | |
| 9100.00 | 2.94 | 6660.54 | 6660.54 | 0.00 | 6661.83 | 1.29 | 6.19 | -0.39 | 6663.80 | |
| 5200. | 0. | 5185. | 15. | 0. | 569. | 5. | 145. | 40. | 6658.90 | |
| 0.27 | 0.00 | 9.12 | 3.04 | 0.055 | 0.040 | 0.055 | 0.000 | 6657.60 | 396.15 | |
| 0.017183 | 400. | 360. | 350. | 7 | 19 | 0 | 0.00 | 228.01 | 624.16 | |
| *SECNO 9780.000 | | | | | | | | | | |
| 3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000 | | | | | | | | | | |
| 9780.00 | 3.30 | 6669.90 | 0.00 | 0.00 | 6670.83 | 0.93 | 8.96 | 0.04 | 6666.90 | |
| 5200. | 57. | 5076. | 68. | 16. | 651. | 18. | 154. | 43. | 6666.70 | |
| 0.29 | 3.58 | 7.80 | 3.73 | 0.055 | 0.040 | 0.055 | 0.000 | 6666.60 | 351.46 | |
| 0.010742 | 400. | 680. | 600. | 4 | 0 | 0 | 0.00 | 247.86 | 599.32 | |
| *SECNO 10500.000 | | | | | | | | | | |
| 3301 HV CHANGED MORE THAN HVING | | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 10500.00 | 5.75 | 6680.75 | 6680.75 | 0.00 | 6682.55 | 1.80 | 9.52 | -0.79 | 6687.80 | |
| 5200. | 0. | 4563. | 637. | 0. | 404. | 110. | 164. | 46. | 6677.60 | |

| | | | | | | | | | |
|----------|------|-------|------|-------|-------|-------|-------|---------|--------|
| 0.31 | 0.00 | 11.30 | 5.77 | 0.055 | 0.040 | 0.055 | 0.000 | 6675.00 | 560.42 |
| 0.013566 | 800. | 720. | 450. | 5 | 14 | 0 | 0.00 | 141.73 | 702.14 |

*SECND 11470.000

3265 DIVIDED FLOW

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 6705.10 ELREA= 6692.30

| | | | | | | | | | |
|----------|------|---------|-------|-------|---------|-------|-------|---------|---------|
| 11470.00 | 3.09 | 6693.49 | 0.00 | 0.00 | 6694.17 | 0.68 | 11.50 | 0.11 | 6705.10 |
| 5200. | 0. | 1312. | 3888. | 0. | 170. | 627. | 177. | 51. | 6692.30 |
| 0.35 | 0.00 | 7.73 | 6.20 | 0.055 | 0.040 | 0.055 | 0.000 | 6690.40 | 406.33 |
| 0.012186 | 600. | 970. | 800. | 7 | 0 | 0 | 0.00 | 305.55 | 766.17 |

*SECNO 12130.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 12130.00 | 4.02 | 6705.52 | 6705.52 | 0.00 | 6707.00 | 1.48 | 10.18 | -1.08 | 6702.10 |
| 4500. | 95. | 4404. | 1. | 20. | 447. | 1. | 186. | 54. | 6705.00 |
| 0.37 | 4.81 | 9.85 | 1.39 | 0.055 | 0.040 | 0.055 | 0.000 | 6701.50 | 210.46 |
| 0.016454 | 640. | 660. | 550. | 9 | 11 | 0 | 0.00 | 164.36 | 374.82 |

*SECNO 13000.000

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|------|---------|------|-------|---------|-------|-------|---------|---------|
| 13000.00 | 3.46 | 6716.06 | 0.00 | 0.00 | 6716.80 | 0.75 | 9.73 | 0.07 | 6714.80 |
| 4500. | 534. | 3185. | 780. | 172. | 404. | 188. | 197. | 58. | 6712.80 |
| 0.10 | 3.12 | 7.88 | 4.15 | 0.055 | 0.040 | 0.055 | 0.000 | 6712.60 | 454.59 |
| 0.009221 | 600. | 870. | 550. | 5 | 0 | 0 | 0.00 | 360.57 | 815.16 |

*SECNO 13500.000

17770.00
18120.00

570.00
350.00

6783.87
6787.51

17770.00
18120.00

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| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTM | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IPC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 14000.000

| | | | | | | | | | |
|----------|------|---------|------|-------|---------|-------|-------|---------|---------|
| 14000.00 | 3.20 | 6730.40 | 0.00 | 0.00 | 6731.37 | 0.97 | 7.28 | 0.01 | 6728.40 |
| 4500. | 18. | 4382. | 100. | 6. | 547. | 29. | 211. | 65. | 6727.90 |
| 0.44 | 2.86 | 8.01 | 3.42 | 0.055 | 0.040 | 0.055 | 0.000 | 6727.20 | 610.77 |
| 0.011973 | 600. | 500. | 300. | 5 | 0 | 0 | 0.00 | 227.65 | 838.42 |

4SECNO 14930.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 14930.00 | 5.25 | 6744.45 | 6744.45 | 0.00 | 6746.12 | 1.67 | 11.93 | -0.30 | 6744.80 |
| 4500. | 0. | 3319. | 1181. | 0. | 288. | 196. | 222. | 69. | 6740.80 |
| 0.46 | 0.00 | 11.54 | 6.04 | 0.055 | 0.040 | 0.055 | 0.000 | 6739.20 | 512.85 |
| 0.013102 | 400. | 930. | 800. | 6 | 14 | 0 | 0.00 | 143.12 | 655.96 |

*SECNO 15900.000

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 15900.00 | 6.97 | 6757.17 | 6757.17 | 0.00 | 6758.89 | 1.71 | 10.77 | 0.42 | 6752.50 |
| 4500. | 1449. | 2911. | 140. | 204. | 242. | 42. | 231. | 71. | 6755.90 |
| 0.49 | 7.10 | 12.04 | 3.30 | 0.055 | 0.040 | 0.055 | 0.000 | 6750.20 | 474.92 |
| 0.012147 | 700. | 970. | 700. | 4 | 11 | 0 | 0.00 | 153.81 | 628.73 |

*SECNO 16480.000

| | | | | | | | | | |
|----------|-------|---------|------|-------|---------|-------|-------|---------|---------|
| 16480.00 | 7.58 | 6762.98 | 0.00 | 0.00 | 6764.21 | 1.22 | 5.27 | 0.05 | 6760.30 |
| 4500. | 1159. | 3338. | 3. | 278. | 334. | 2. | 238. | 73. | 6762.10 |
| 0.50 | 4.17 | 10.00 | 1.36 | 0.055 | 0.040 | 0.055 | 0.000 | 6755.40 | 423.89 |
| 0.007647 | 530. | 580. | 340. | 2 | 0 | 0 | 0.00 | 189.56 | 613.44 |

*SECNO 17200.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 620.0 1029.0 TYPE= 1 TARGET= 409.000

| SECNO | DEPTH | CWSEL | CRINS | WSELK | EG | HV | HL | OLSSS | BANK | ELEV |
|------------------------------|-------|---------|---------|--------|---------|-------|-------|---------|------------|------|
| Q | QLOB | QCH | QROB | ALOR | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | ULOB | VCH | UROB | XNL | XNCH | XNR | WTH | ELMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENRST | |
| 17200.00 | 6.71 | 6773.11 | 6773.11 | 0.00 | 6774.99 | 1.88 | 9.02 | -1.82 | 6770.30 | |
| 4500. | 780. | 3720. | 0. | 123. | 316. | 0. | 246. | 75. | 6779.40 | |
| 0.52 | 6.33 | 11.75 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6766.40 | 660.32 | |
| 0.013851 | 400. | 720. | 800. | 5 | 15 | 0 | 0.00 | 116.29 | 776.61 | |
| *SECNO 17770.000 | | | | | | | | | | |
| 3265 DIVIDED FLOW | | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 17770.00 | 5.58 | 6782.88 | 6782.88 | 0.00 | 6784.48 | 1.60 | 6.03 | 0.77 | 6779.80 | |
| 4500. | 211. | 3197. | 1092. | 61. | 277. | 189. | 252. | 77. | 6779.20 | |
| 0.54 | 3.45 | 11.53 | 5.77 | 0.055 | 0.040 | 0.055 | 0.000 | 6777.30 | 347.10 | |
| 0.010803 | 450. | 570. | 580. | 3 | 15 | 0 | 0.00 | 180.95 | 530.94 | |
| *SECNO 18120.000 | | | | | | | | | | |
| 18120.00 | 4.71 | 6786.71 | 0.00 | 0.00 | 6787.95 | 1.24 | 3.43 | 0.04 | 6783.40 | |
| 3930. | 255. | 3675. | 0. | 68. | 400. | 0. | 255. | 78. | 6787.10 | |
| 0.55 | 3.73 | 9.19 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6782.00 | 300.04 | |
| 0.009408 | 300. | 350. | 300. | 2 | 0 | 0 | 0.00 | 138.42 | 438.45 | |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | GLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | GCH | QROR | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TINE | VLOB | VCH | VROR | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IBC | ICONT | COBAR | ICFWID | ENDST |

*PROF 2

INLEQ = 1, THEREFORE FRICTION LOSS (HL) IS CALCULATED AS A FUNCTION OF PROFILE TYPE, WHICH CAN VARY FROM REACH TO REACH. SEE DOCUMENTATION FOR DETAILS.

CCHV= 0.100 CEHV= 0.300

*SECNO 1.000

3720 CRITICAL DEPTH ASSUMED

ALL CROSS SECTIONS CODED LEFT TO RIGHT FACING

DOWNSTREAM WITH STARTING STATION 0+00

| | | | | | | | | | |
|----------|-------|---------|---------|---------|---------|-------|-------|---------|---------|
| 1.00 | 4.13 | 6511.23 | 6511.23 | 6509.70 | 6512.54 | 1.31 | 0.00 | 0.00 | 6508.00 |
| 11600. | 4056. | 3255. | 4289. | 590. | 261. | 530. | 0. | 0. | 6507.10 |
| 0.00 | 6.88 | 12.46 | 8.10 | 0.055 | 0.040 | 0.055 | 0.000 | 6507.10 | 1388.02 |
| 0.019782 | 0. | 0. | 0. | 0 | 13 | 0 | 0.00 | 516.70 | 1904.72 |

*SECNO 2.000

| | | | | | | | | | |
|----------|-------|---------|-------|-------|---------|-------|-------|---------|---------|
| 2.00 | 4.81 | 6516.21 | 0.00 | 0.00 | 6517.19 | 0.98 | 4.62 | 0.03 | 6511.40 |
| 11600. | 2688. | 2365. | 6547. | 555. | 208. | 881. | 10. | 4. | 6512.00 |
| 0.01 | 4.84 | 11.39 | 7.43 | 0.055 | 0.040 | 0.055 | 0.000 | 6511.40 | 1076.69 |
| 0.012602 | 300. | 300. | 300. | 3 | 0 | 0 | 0.00 | 622.67 | 1699.36 |

*SECNO 3.000

3280 CROSS SECTION 3.00 EXTENDED 5.14 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | |
|-----------------------------|------|---------|---------|------|---------|------------------------|
| 3470 ENCROACHMENT STATIONS= | 1.0 | 1420.0 | TYPE= | 1 | TARGET= | 1419.000 |
| 3.00 | 5.84 | 6520.44 | 6520.44 | 0.00 | 6522.71 | 2.26 3.99 0.28 6517.40 |

| | | | | | | | | | |
|----------|------|--------|------|-------|-------|-------|-------|---------|---------|
| 11600. | 323. | 11266. | 11. | 63. | 922. | 4. | 19. | 7. | 6519.20 |
| 0.02 | 5.10 | 12.22 | 2.86 | 0.055 | 0.040 | 0.055 | 0.000 | 4514.60 | 1192.86 |
| 0.013301 | 300. | 300. | 300. | 3 | 11 | 0 | 0.00 | 227.14 | 1420.00 |

YSECO 0.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|------------------------------|-------|---------|---------|--------|---------|-------|-------|---------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XML | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLQBL | XLCH | XLOBR | ITRIAL | IBC | ICONT | CORAR | TOPUID | ENDST |
| 3470 ENCROACHMENT STATIONS= | | | | | | | | | |
| 0.00 | 4.73 | 6525.23 | 6525.23 | 0.00 | 6527.76 | 2.52 | 4.53 | -0.20 | 6529.70 |
| 11600. | 0. | 7103. | 4497. | 0. | 493. | 469. | 26. | 8. | 6521.20 |
| 0.02 | 0.00 | 14.40 | 9.58 | 0.055 | 0.040 | 0.055 | 0.000 | 6518.50 | 643.33 |
| 0.015115 | 300. | 300. | 300. | 2 | 8 | 0 | 0.00 | 186.67 | 830.00 |
| *SECNO 550.000 | | | | | | | | | |
| 550.00 | 7.32 | 6532.62 | 0.00 | 0.00 | 6534.70 | 2.08 | 6.90 | 0.04 | 6525.30 |
| 11600. | 4950. | 4650. | 0. | 800. | 313. | 0. | 39. | 11. | 6539.80 |
| 0.04 | 8.69 | 14.86 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6523.30 | 327.87 |
| 0.011443 | 450. | 550. | 600. | 2 | 0 | 0 | 0.00 | 204.17 | 532.04 |
| *SECNO 1670.000 | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
| 1070.00 | 10.15 | 6539.05 | 6539.05 | 0.00 | 6541.49 | 2.44 | 6.98 | -0.89 | 6542.80 |
| 11600. | 0. | 4057. | 7543. | 0. | 250. | 753. | 49. | 12. | 6532.80 |
| 0.05 | 0.00 | 16.23 | 10.01 | 0.055 | 0.040 | 0.055 | 0.000 | 6528.90 | 279.21 |
| 0.015601 | 300. | 520. | 500. | 2 | 8 | 0 | 0.00 | 188.19 | 467.39 |
| *SECNO 1450.000 | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
| 1450.00 | 10.35 | 6544.55 | 6544.55 | 0.00 | 6547.23 | 2.68 | 3.37 | 0.83 | 6537.30 |
| 11600. | 2909. | 7578. | 1113. | 331. | 499. | 214. | 57. | 14. | 6538.50 |
| 0.06 | 8.79 | 15.19 | 5.20 | 0.055 | 0.040 | 0.055 | 0.000 | 6534.20 | 229.39 |
| 0.009898 | 450. | 380. | 250. | 3 | 5 | 0 | 0.00 | 206.13 | 435.52 |
| *SECNO 1930.000 | | | | | | | | | |

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|-------|---------|-------|-------|---------|-------|-------|---------|---------|
| 1930.00 | 10.19 | 6549.39 | 0.00 | 0.00 | 6551.05 | 1.65 | 3.71 | 0.10 | 6544.50 |
| 11600. | 2858. | 6015. | 2727. | 358. | 496. | 348. | 69. | 16. | 6541.40 |
| 0.67 | 7.98 | 12.13 | 7.84 | 0.055 | 0.040 | 0.055 | 0.000 | 6539.20 | 451.34 |
| 0.606732 | 400. | 480. | 500. | 2 | 0 | 0 | 0.00 | 180.60 | 631.94 |

| SECHD | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROR | ALOR | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLORL | XLCH | XLORR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECHD 2680.000

3301 HV CHANGED MORE THAN HVINS

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

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 2680.00 | 10.87 | 6563.87 | 6563.87 | 0.00 | 6567.76 | 3.89 | 8.61 | -1.17 | 6554.60 |
| 10865. | 1687. | 9178. | 0. | 173. | 550. | 0. | 85. | 18. | 6566.00 |
| 0.08 | 9.74 | 16.70 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6553.00 | 334.82 |
| 0.011761 | 750. | 750. | 600. | 20 | 8 | 0 | 0.00 | 93.42 | 428.23 |

*SECHD 3060.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|-------|---------|------|-------|---------|-------|-------|---------|---------|
| 3060.00 | 11.25 | 6569.45 | 0.00 | 0.00 | 6571.01 | 1.56 | 3.02 | 0.23 | 6562.30 |
| 7790. | 2674. | 4243. | 873. | 451. | 338. | 174. | 92. | 20. | 6563.70 |
| 0.09 | 5.92 | 12.55 | 5.01 | 0.055 | 0.040 | 0.055 | 0.000 | 6558.20 | 288.77 |
| 0.006229 | 350. | 380. | 350. | 3 | 0 | 0 | 0.00 | 240.30 | 567.40 |

*SECHD 3600.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|---------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 3600.00 | 7.44 | 6578.64 | 6578.64 | 0.00 | 6581.51 | 2.87 | 7.24 | -1.57 | 6580.10 |
| 7790. | 0. | 7790. | 0. | 0. | 573. | 0. | 101. | 22. | 6579.90 |
| 0.10 | 0.00 | 13.60 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6571.20 | 337.09 |

0.013625 470. 540. 600. 2 14 0 0.00 100.70 437.79

*SECND 4120.000

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 4120.00 | 10.07 | 6585.37 | 6585.18 | 0.00 | 6588.24 | 2.87 | 6.73 | 0.00 | 6584.90 |
| 7790. | 1. | 7789. | 0. | 1. | 573. | 0. | 108. | 23. | 6592.50 |
| 0.11 | 1.13 | 13.60 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6575.30 | 241.84 |
| 0.012336 | 500. | 520. | 500. | 4 | 11 | 0 | 0.00 | 96.08 | 337.92 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 4650.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3495 OVBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 6591.60 ELREA= 6592.50

| | | | | | | | | | |
|----------|-------|---------|------|-------|---------|-------|-------|---------|---------|
| 4650.00 | 9.97 | 6592.37 | 0.00 | 0.00 | 6594.50 | 2.13 | 6.18 | 0.07 | 6591.60 |
| 7790. | 2708. | 5082. | 0. | 302. | 393. | 0. | 115. | 24. | 6592.50 |
| 0.13 | 8.96 | 12.94 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6582.40 | 391.10 |
| 0.012025 | 100. | 530. | 600. | 2 | 0 | 0 | 0.00 | 129.99 | 595.68 |

*SECNO 5150.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 5150.00 | 9.26 | 6602.56 | 6602.56 | 0.00 | 6606.06 | 3.49 | 4.13 | 0.44 | 6599.20 |
| 7790. | 49. | 7582. | 159. | 12. | 499. | 29. | 123. | 25. | 6596.70 |
| 0.14 | 3.91 | 15.18 | 5.46 | 0.055 | 0.040 | 0.055 | 0.000 | 6593.30 | 152.61 |
| 0.011889 | 600. | 500. | 300. | 3 | 11 | 0 | 0.00 | 85.32 | 237.92 |

*SECNO 5700.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 5700.00 | 8.49 | 6608.99 | 6607.59 | 0.00 | 6610.55 | 1.56 | 4.30 | 0.19 | 6604.90 |
| 7790. | 106. | 7401. | 283. | 33. | 721. | 81. | 131. | 28. | 6602.00 |
| 0.15 | 3.26 | 10.27 | 3.49 | 0.055 | 0.040 | 0.055 | 0.000 | 6600.50 | 234.05 |
| 0.005865 | 550. | 550. | 450. | 4 | 11 | 0 | 0.00 | 296.65 | 1135.52 |

*SECNO 6440.000
 7185 MINIMUM SPECIFIC ENERGY

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV | |
|------------------------------|-------|---------|---------|--------|---------|-------|-------|---------|------------|--|
| Q | QLOB | QCH | QRQB | ALOB | ACH | ARQB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 6440.00 | 4.71 | 6619.91 | 6619.91 | 0.00 | 6621.50 | 1.58 | 9.71 | -2.84 | 6617.10 | |
| 7790. | 1960. | 5830. | 0. | 329. | 523. | 0. | 144. | 31. | 6625.20 | |
| 0.17 | 5.96 | 11.15 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6615.20 | 310.99 | |
| 0.014176 | 350. | 740. | 550. | 7 | 11 | 0 | 0.00 | 260.72 | 571.71 | |
| *SECNO 6980.000 | | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 6980.00 | 8.85 | 6627.75 | 6627.75 | 0.00 | 6629.57 | 1.82 | 5.22 | 0.99 | 6622.20 | |
| 7790. | 133. | 7072. | 585. | 27. | 625. | 177. | 153. | 34. | 6625.10 | |
| 0.18 | 4.85 | 11.31 | 3.31 | 0.055 | 0.040 | 0.055 | 0.000 | 6620.90 | 431.15 | |
| 0.009948 | 450. | 540. | 450. | 3 | 11 | 0 | 0.00 | 266.23 | 697.37 | |
| *SECNO 7400.000 | | | | | | | | | | |
| 3265 DIVIDED FLOW | | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 7400.00 | 7.44 | 6632.94 | 6632.94 | 0.00 | 6634.46 | 1.51 | 3.98 | 0.03 | 6628.30 | |
| 7790. | 228. | 3689. | 3873. | 59. | 283. | 670. | 162. | 37. | 6628.50 | |
| 0.20 | 3.83 | 13.03 | 5.78 | 0.055 | 0.040 | 0.055 | 0.000 | 6625.50 | 308.32 | |
| 0.009939 | 450. | 420. | 350. | 2 | 8 | 0 | 0.00 | 327.88 | 725.33 | |
| *SECNO 7920.000 | | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | | |
| 7920.00 | 8.74 | 6641.14 | 6641.14 | 0.00 | 6642.48 | 1.33 | 5.40 | -0.33 | 6636.90 | |
| 7790. | 3658. | 4132. | 0. | 617. | 361. | 0. | 172. | 40. | 6643.80 | |
| 0.21 | 5.93 | 11.44 | 0.00 | 0.055 | 0.040 | 0.055 | 0.000 | 6634.40 | 303.90 | |
| 0.011424 | 300. | 520. | 550. | 6 | 10 | 0 | 0.00 | 291.33 | 595.24 | |

*SECNO B360.000

3301 HV CHANGED. MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| SECD | DEPTH | CWSEL | CRIS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|------------------------------|-------|---------|---------|--------|---------|-------|-------|---------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |
| 8360.00 | 6.28 | 6648.18 | 6648.18 | 0.00 | 6650.24 | 2.06 | 6.12 | -0.39 | 6644.00 |
| 7790. | 117. | 7343. | 330. | 23. | 623. | 62. | 180. | 42. | 6643.90 |
| 0.22 | 5.04 | 11.79 | 5.32 | 0.055 | 0.040 | 0.055 | 0.000 | 6641.90 | 466.90 |
| 0.014260 | 400. | 440. | 400. | 8 | 11 | 0 | 0.00 | 183.14 | 650.04 |
| *SECD 8740.000 | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
| 8740.00 | 4.93 | 6654.03 | 6654.03 | 0.00 | 6655.99 | 1.96 | 5.63 | -0.09 | 6650.80 |
| 7790. | 58. | 7730. | 2. | 13. | 686. | 1. | 186. | 44. | 6653.30 |
| 0.23 | 4.32 | 11.27 | 1.66 | 0.055 | 0.040 | 0.055 | 0.000 | 6649.10 | 534.73 |
| 0.014787 | 400. | 380. | 400. | 3 | 15 | 0 | 0.00 | 186.02 | 720.75 |
| *SECD 9100.000 | | | | | | | | | |
| 7185 MINIMUM SPECIFIC ENERGY | | | | | | | | | |
| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
| 3470 ENCROACHMENT STATIONS= | | | | | | | | | |
| 9100.00 | 3.75 | 6661.35 | 6661.35 | 1.0 | 650.0 | TYPE= | 1 | TARGET= | 649.000 |
| 7790. | 0. | 7747. | 43. | 0. | 6663.00 | 1.65 | 5.66 | -0.14 | 6663.80 |
| 0.24 | 0.00 | 10.34 | 3.79 | 0.055 | 0.040 | 0.055 | 0.000 | 6657.60 | 391.66 |
| 0.015713 | 400. | 360. | 350. | 6 | 15 | 0 | 0.00 | 235.53 | 627.19 |
| *SECD 9780.000 | | | | | | | | | |
| 3470 ENCROACHMENT STATIONS= | | | | | | | | | |
| 9780.00 | 4.03 | 6670.63 | 0.00 | 0.00 | 830.0 | TYPE= | 1 | TARGET= | 829.000 |
| 7790. | 103. | 7567. | 120. | 24. | 6671.93 | 1.31 | 8.90 | 0.03 | 6666.90 |
| 0.26 | 4.24 | 9.28 | 4.39 | 0.055 | 0.040 | 0.055 | 0.000 | 6666.60 | 348.91 |
| 0.011291 | 400. | 680. | 600. | 4 | 0 | 0 | 0.00 | 252.98 | 601.89 |

*SECNO 10500.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 10500.00 | 5.92 | 6681.92 | 6681.92 | 0.00 | 6684.18 | 2.27 | 9.14 | -0.37 | 6687.80 |
| 7790. | 0. | 6596. | 1194. | 0. | 516. | 168. | 217. | 52. | 6677.60 |
| 0.28 | 0.00 | 12.78 | 7.09 | 0.055 | 0.040 | 0.055 | 0.000 | 6675.00 | 557.23 |
| 0.013095 | 800. | 720. | 450. | 5 | 14 | 0 | 0.00 | 149.89 | 707.12 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| R | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPMID | ENDST |

*SECNO 11470.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3495 OVBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 6705.10 ELREA= 6692.30

| | | | | | | | | | |
|----------|------|---------|-------|-------|---------|-------|-------|---------|---------|
| 11470.00 | 3.95 | 6694.35 | 0.00 | 0.00 | 6495.20 | 0.85 | 10.87 | 0.14 | 6705.10 |
| 7790. | 0. | 2006. | 5784. | 0. | 226. | 847. | 235. | 57. | 6692.30 |
| 0.31 | 0.00 | 8.88 | 6.83 | 0.055 | 0.040 | 0.055 | 0.000 | 6690.40 | 404.75 |
| 0.011360 | 600. | 970. | 800. | 6 | 0 | 0 | 0.00 | 335.56 | 771.41 |

*SECNO 12130.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL, CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 12130.00 | 4.82 | 6706.32 | 6706.32 | 0.00 | 6708.18 | 1.86 | 9.32 | -0.84 | 6702.10 |
| 6450. | 160. | 6278. | 12. | 30. | 568. | 5. | 247. | 41. | 6705.00 |
| 0.33 | 5.30 | 11.06 | 2.49 | 0.055 | 0.040 | 0.055 | 0.000 | 6701.50 | 207.74 |
| 0.015040 | 640. | 660. | 550. | 20 | 11 | 0 | 0.00 | 171.49 | 379.23 |

*SECNO 13000.000

3301 HV CHANGED MORE THAN HVINS

| | | | | | | | | | |
|----------|-------|---------|-------|------|---------|------|------|------|---------|
| 13000.00 | 4.06 | 6716.66 | 0.00 | 0.00 | 6717.56 | 0.89 | 9.28 | 0.10 | 6714.80 |
| 6450. | 1006. | 4220. | 1224. | 254. | 480. | 255. | 261. | 65. | 6712.80 |

| | | | | | | | | | |
|----------|------|------|------|-------|-------|-------|-------|---------|--------|
| 0.36 | 3.96 | 8.80 | 4.81 | 0.055 | 0.040 | 0.055 | 0.000 | 6712.60 | 449.76 |
| 0.009152 | 600. | 970. | 550. | 4 | 0 | 0 | 0.00 | 371.97 | 821.73 |

*SECNO 13500.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 13500.00 | 4.19 | 6723.59 | 6723.59 | 0.00 | 6724.91 | 1.32 | 8.54 | -1.85 | 6721.50 |
| 6450. | 72. | 6376. | 1. | 20. | 688. | 1. | 270. | 49. | 6723.10 |
| 0.37 | 3.62 | 9.27 | 1.38 | 0.055 | 0.040 | 0.055 | 0.000 | 6719.40 | 395.97 |
| 0.017074 | 500. | 500. | 500. | 5 | 8 | 0 | 0.00 | 283.27 | 679.24 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV | |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|--|
| R | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA | |
| SLOPE | XLQBL | XLCH | XLQBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST | |

*SECNO 14000.000

| | | | | | | | | | | |
|----------|------|---------|------|-------|---------|-------|-------|---------|---------|--|
| 14000.00 | 3.76 | 6730.96 | 0.00 | 0.00 | 6732.32 | 1.36 | 7.39 | 0.01 | 6728.40 | |
| 6450. | 36. | 6235. | 179. | 10. | 658. | 44. | 278. | 72. | 6727.90 | |
| 0.39 | 3.53 | 9.48 | 4.09 | 0.055 | 0.040 | 0.055 | 0.000 | 6727.20 | 609.03 | |
| 0.013123 | 600. | 500. | 300. | 4 | 0 | 0 | 0.00 | 234.62 | 843.65 | |

*SECNO 14930.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 14930.00 | 6.13 | 6745.33 | 6745.33 | 0.00 | 6747.45 | 2.12 | 12.40 | -0.02 | 6744.80 | |
| 6450. | 0. | 4529. | 1920. | 0. | 344. | 271. | 292. | 76. | 6740.80 | |
| 0.41 | 1.17 | 13.16 | 7.08 | 0.055 | 0.040 | 0.055 | 0.000 | 6739.20 | 511.16 | |
| 0.013663 | 400. | 930. | 800. | 6 | 14 | 0 | 0.00 | 155.45 | 666.61 | |

*SECNO 15900.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 15900.00 | 8.02 | 6758.22 | 6758.22 | 0.00 | 6760.19 | 1.97 | 10.09 | 0.87 | 6752.50 | |
| 6450. | 2187. | 3862. | 402. | 284. | 291. | 89. | 304. | 79. | 6755.90 | |
| 0.43 | 7.71 | 13.27 | 4.54 | 0.055 | 0.040 | 0.055 | 0.000 | 6750.20 | 459.19 | |
| 0.011521 | 700. | 970. | 700. | 5 | 11 | 0 | 0.00 | 180.02 | 639.21 | |

*SECNO 16480.000

3265 DIVIDED FLOW

3280 CROSS SECTION 16480.00 EXTENDED 0.82 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 16480.00 | 8.52 | 6763.92 | 6763.92 | 0.00 | 6765.17 | 1.25 | 3.87 | 1.01 | 6760.30 |
| 6450. | 1958. | 4149. | 344. | 398. | 390. | 194. | 314. | 82. | 6762.10 |
| 0.45 | 4.91 | 10.64 | 1.77 | 0.055 | 0.040 | 0.055 | 0.000 | 6755.40 | 415.20 |
| 0.007030 | 530. | 580. | 340. | 2 | 8 | 0 | 0.00 | 503.74 | 1344.00 |

| SECNO | DEPTH | CWSEL | CRISW | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| 0 | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTH | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 17200.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| 3470 ENCROACHMENT STATIONS= | 420.0 | 1029.0 | TYPE= | 1 | TARGET= | 409.000 |
|-----------------------------|-------|---------|---------|-------|---------|---------|
| 17200.00 | 7.94 | 6774.34 | 6774.34 | 0.00 | 6776.40 | 2.04 |
| 6450. | 1383. | 5067. | 0. | 200. | 406. | 0. |
| 0.47 | 6.91 | 12.49 | 0.00 | 0.055 | 0.040 | 0.055 |
| 0.012115 | 400. | 720. | 800. | 11 | 11 | 0 |
| | | | | | | 0.00 |
| | | | | | | 7.74 |
| | | | | | | -1.38 |
| | | | | | | 6770.30 |
| | | | | | | 325. |
| | | | | | | 87. |
| | | | | | | 6779.40 |
| | | | | | | 0.000 |
| | | | | | | 6766.40 |
| | | | | | | 620.00 |
| | | | | | | 160.59 |
| | | | | | | 780.59 |

*SECNO 17770.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| 17770.00 | 6.57 | 6783.87 | 6783.87 | 0.00 | 6785.67 | 1.80 |
|----------|------|---------|---------|-------|---------|---------|
| 6450. | 526. | 4163. | 1761. | 121. | 330. | 271. |
| 0.48 | 4.35 | 12.63 | 6.51 | 0.055 | 0.040 | 0.055 |
| 0.010284 | 150. | 570. | 580. | 6 | 15 | 0 |
| | | | | | | 0.00 |
| | | | | | | 5.69 |
| | | | | | | 0.49 |
| | | | | | | 6779.80 |
| | | | | | | 90. |
| | | | | | | 6779.20 |
| | | | | | | 6777.30 |
| | | | | | | 333.48 |
| | | | | | | 208.15 |
| | | | | | | 541.63 |

*SECNO 18120.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| 18120.00 | 5.51 | 6787.51 | 0.00 | 0.00 | 6789.14 | 1.63 |
|----------|------|---------|------|-------|---------|---------|
| 5600. | 508. | 5090. | 1. | 104. | 479. | 1. |
| 0.49 | 4.88 | 10.62 | 0.94 | 0.055 | 0.040 | 0.055 |
| 0.010069 | 300. | 350. | 300. | 3 | 0 | 0 |
| | | | | | | 0.00 |
| | | | | | | 3.45 |
| | | | | | | 0.02 |
| | | | | | | 6783.40 |
| | | | | | | 91. |
| | | | | | | 6787.10 |
| | | | | | | 6782.00 |
| | | | | | | 292.67 |
| | | | | | | 154.45 |
| | | | | | | 447.12 |

THIS RUN EXECUTED 31-AUG-84 09:17:43

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982
 ERROR CORR - 01,02,03,04,05
 MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SAND CREEK 100 YR FLOO *HR*

SUMMARY PRINTOUT

| SECNO | CWSEL | DEPTH | Q | QLOK | QRQB | SSTA | ENDST | TOPWID |
|------------|---------|-------|----------|---------|---------|---------|---------|--------|
| * 1.000 | 6510.61 | 3.51 | 7900.00 | 2479.02 | 3027.71 | 1390.26 | 1890.48 | 500.22 |
| * 1.000 | 6511.23 | 4.13 | 11600.00 | 4056.00 | 4288.92 | 1388.02 | 1904.72 | 516.70 |
| 2.000 | 6515.51 | 4.11 | 7900.00 | 1331.93 | 4770.63 | 1081.28 | 1683.82 | 602.54 |
| 2.000 | 6516.21 | 4.81 | 11600.00 | 2687.94 | 6547.10 | 1076.69 | 1699.36 | 622.67 |
| * 3.000 | 6519.41 | 4.81 | 7900.00 | 115.36 | 0.75 | 1197.96 | 1420.00 | 222.04 |
| * 3.000 | 6520.44 | 5.84 | 11600.00 | 323.41 | 10.76 | 1192.86 | 1420.00 | 227.14 |
| * 0.000 | 6523.93 | 5.43 | 7900.00 | 0.00 | 2936.79 | 644.88 | 822.48 | 177.60 |
| * 0.000 | 6525.23 | 6.73 | 11600.00 | 0.00 | 4497.03 | 643.33 | 830.00 | 186.67 |
| 550.000 | 6531.38 | 8.08 | 7900.00 | 4344.33 | 0.00 | 338.49 | 530.83 | 192.34 |
| 550.000 | 6532.62 | 9.32 | 11600.00 | 6950.36 | 0.00 | 327.87 | 532.04 | 204.17 |
| * 1070.000 | 6537.94 | 9.04 | 7900.00 | 0.00 | 4809.72 | 281.04 | 462.97 | 181.93 |
| * 1070.000 | 6539.05 | 10.15 | 11600.00 | 0.00 | 7543.31 | 279.21 | 467.39 | 188.19 |
| * 1450.000 | 6543.00 | 8.80 | 7900.00 | 1835.78 | 438.99 | 233.39 | 406.28 | 172.89 |
| * 1450.000 | 6544.55 | 10.35 | 11600.00 | 2909.27 | 1112.59 | 229.39 | 435.52 | 206.13 |

| SECNO | CWSEL | DEPTH | Q | QLOB | QROB | SSTA | ENDST | TOPWID |
|-------------|---------|-------|---------|---------|---------|--------|---------|--------|
| 4120.000 | 6583.92 | 8.62 | 5200.00 | 0.00 | 0.00 | 249.68 | 333.90 | 84.22 |
| 4120.000 | 6585.37 | 10.07 | 7790.00 | 0.84 | 0.00 | 241.84 | 337.92 | 96.08 |
| * 4650.000 | 6591.79 | 9.39 | 5200.00 | 1776.31 | 0.00 | 391.90 | 594.32 | 122.46 |
| 4650.000 | 6592.37 | 9.97 | 7790.00 | 2707.58 | 0.00 | 391.10 | 595.68 | 129.99 |
| * 5150.000 | 6600.86 | 7.56 | 5200.00 | 7.75 | 66.73 | 156.35 | 235.04 | 78.68 |
| 5150.000 | 6602.56 | 9.26 | 7790.00 | 48.68 | 158.93 | 152.61 | 237.92 | 85.32 |
| 5700.000 | 6607.34 | 6.84 | 5200.00 | 29.07 | 138.16 | 240.44 | 367.77 | 127.34 |
| 5700.000 | 6608.99 | 8.49 | 7790.00 | 106.32 | 282.55 | 234.05 | 1135.52 | 296.65 |
| * 6440.000 | 6619.15 | 3.95 | 5200.00 | 1085.67 | 0.00 | 313.91 | 570.95 | 257.04 |
| * 6440.000 | 6619.91 | 4.71 | 7790.00 | 1959.79 | 0.00 | 310.99 | 571.71 | 260.72 |
| * 6980.000 | 6626.40 | 5.50 | 5200.00 | 73.62 | 52.58 | 433.53 | 671.97 | 171.82 |
| * 6980.000 | 6627.75 | 6.85 | 7790.00 | 132.70 | 585.25 | 431.15 | 697.37 | 266.23 |
| * 7400.000 | 6632.07 | 6.57 | 5200.00 | 117.86 | 2222.64 | 445.15 | 721.74 | 276.59 |
| * 7400.000 | 6632.94 | 7.44 | 7790.00 | 227.75 | 3873.13 | 308.32 | 725.33 | 327.88 |
| * 7920.000 | 6640.37 | 5.97 | 5200.00 | 2116.90 | 0.00 | 309.27 | 592.97 | 283.71 |
| * 7920.000 | 6641.14 | 6.74 | 7790.00 | 3657.91 | 0.00 | 303.90 | 595.24 | 291.33 |
| * 8360.000 | 6647.17 | 5.27 | 5200.00 | 58.85 | 169.45 | 469.56 | 643.23 | 173.66 |
| * 8360.000 | 6648.18 | 6.28 | 7790.00 | 116.89 | 330.00 | 466.90 | 650.04 | 183.14 |
| * 8740.000 | 6653.17 | 4.07 | 5200.00 | 25.37 | 0.00 | 536.93 | 715.79 | 178.86 |
| * 8740.000 | 6654.03 | 4.93 | 7790.00 | 57.68 | 2.28 | 534.73 | 720.75 | 186.02 |
| * 9100.000 | 6660.54 | 2.94 | 5200.00 | 0.00 | 15.36 | 396.15 | 624.16 | 228.01 |
| * 9100.000 | 6661.35 | 3.75 | 7790.00 | 0.00 | 42.62 | 391.66 | 627.19 | 235.53 |
| 9780.000 | 6669.90 | 3.30 | 5200.00 | 56.58 | 67.63 | 351.46 | 599.32 | 247.86 |
| 9780.000 | 6670.63 | 4.03 | 7790.00 | 103.34 | 119.58 | 348.91 | 601.89 | 252.98 |
| * 10500.000 | 6680.75 | 5.75 | 5200.00 | 0.00 | 637.36 | 560.42 | 702.14 | 141.73 |
| * 10500.000 | 6681.92 | 6.92 | 7790.00 | 0.00 | 1194.18 | 557.23 | 707.12 | 149.89 |

CURVES =

STA 65+00^E Q = 7790
d =
V =

STA 87+00^E Q = 7790
d =
V =

STA 116+00 Q = 7790
d =
V =

SUMMARY OF ERRORS AND SPECIAL NOTES

| | | | | | |
|---------|--------|----------|----------|---|-------------------------------------|
| CAUTION | SECNO= | 1.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 1.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 3.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 3.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 3.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 3.000 | PROFILE= | 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 0.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 0.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 0.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 0.000 | PROFILE= | 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 1070.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 1070.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 1070.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 1070.000 | PROFILE= | 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 1450.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 1450.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 1450.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 1450.000 | PROFILE= | 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 2680.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 2680.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 2680.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 2680.000 | PROFILE= | 2 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 2680.000 | PROFILE= | 2 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 3600.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 3600.000 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 3600.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 3600.000 | PROFILE= | 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 3600.000 | PROFILE= | 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 4650.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |

CAUTION SECNO= 4450.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 5150.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 5150.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 5150.000 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 5150.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6440.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 6440.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6440.000 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 6440.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6980.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 6980.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 6980.000 PROFILE= 2 CRITICAL DEPTH ASSUMED

PCW 1 1

| | | | |
|---------|-----------------|------------|-------------------------------------|
| CAUTION | SECNO= 6980.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 7400.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 7400.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 7400.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 7400.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 7920.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 7920.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 7920.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 7920.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 8360.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 8360.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 8360.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 8360.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 8740.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 8740.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 9100.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 9100.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= 9100.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= 9100.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=10500.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=10500.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=10500.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=10500.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=12130.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=12130.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=12130.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=12130.000 | PROFILE= 2 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=12130.000 | PROFILE= 2 | 20 TRIALS ATTEMPTED TO BALANCE USEL |
| CAUTION | SECNO=13500.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=13500.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=13500.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=13500.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |

| | | | |
|---------|-----------------|------------|-------------------------|
| CAUTION | SFCNO=14930.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=14930.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=14930.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=14930.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |

| | | | |
|---------|-----------------|------------|-------------------------|
| CAUTION | SECNO=15900.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=15900.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=15900.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=15900.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |

| | | | |
|---------|-----------------|------------|-------------------------|
| CAUTION | SECNO=16480.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=16480.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |

| | | | |
|---------|-----------------|------------|-------------------------|
| CAUTION | SECNO=17200.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=17200.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=17200.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=17200.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=17770.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=17770.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO=17770.000 | PROFILE= 2 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO=17770.000 | PROFILE= 2 | MINIMUM SPECIFIC ENERGY |

1 DATA ELEMENTS PER ROW

COMPUTED WATER SURFACE ELEVATIONS
SAND CREEK 100 YR FLOOD *Am*
PROFILE # 1

| SECTION NO. | REACH LENGTH | CWSEL | STATION |
|-------------|--------------|---------|----------|
| 1.00 | 0.00 | 6510.61 | -900.00 |
| 2.00 | 300.00 | 6515.51 | -600.00 |
| 3.00 | 300.00 | 6519.41 | -300.00 |
| 0.00 | 300.00 | 6523.93 | 0.00 |
| 550.00 | 550.00 | 6531.38 | 550.00 |
| 1070.00 | 520.00 | 6537.94 | 1070.00 |
| 1450.00 | 380.00 | 6543.00 | 1450.00 |
| 1930.00 | 480.00 | 6547.91 | 1930.00 |
| 2680.00 | 750.00 | 6561.89 | 2680.00 |
| 3060.00 | 380.00 | 6567.18 | 3060.00 |
| 3600.00 | 540.00 | 6577.08 | 3600.00 |
| 4120.00 | 520.00 | 6583.92 | 4120.00 |
| 4650.00 | 530.00 | 6591.79 | 4650.00 |
| 5150.00 | 500.00 | 6600.86 | 5150.00 |
| 5700.00 | 550.00 | 6607.34 | 5700.00 |
| 6440.00 | 740.00 | 6619.15 | 6440.00 |
| 6980.00 | 540.00 | 6626.40 | 6980.00 |
| 7400.00 | 420.00 | 6632.07 | 7400.00 |
| 7920.00 | 520.00 | 6640.37 | 7920.00 |
| 8360.00 | 440.00 | 6647.17 | 8360.00 |
| 8740.00 | 380.00 | 6653.17 | 8740.00 |
| 9100.00 | 360.00 | 6660.54 | 9100.00 |
| 9780.00 | 680.00 | 6669.90 | 9780.00 |
| 10500.00 | 720.00 | 6680.75 | 10500.00 |
| 11470.00 | 970.00 | 6693.49 | 11470.00 |
| 12130.00 | 660.00 | 6705.52 | 12130.00 |
| 13000.00 | 870.00 | 6716.06 | 13000.00 |
| 13500.00 | 500.00 | 6723.02 | 13500.00 |
| 14000.00 | 500.00 | 6730.40 | 14000.00 |
| 14930.00 | 930.00 | 6744.45 | 14930.00 |
| 15900.00 | 970.00 | 6757.17 | 15900.00 |
| 16480.00 | 580.00 | 6762.98 | 16480.00 |
| 17200.00 | 720.00 | 6773.11 | 17200.00 |

17770.00
18126.00

570.00
350.00

6782.88
6786.71

17770.00
18130.00

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOO
PROFILE # 1

STATION CWSEL

| | |
|-------|------|
| -976. | 6511 |
| -815. | 6512 |
| -754. | 6513 |
| -692. | 6514 |
| -631. | 6515 |
| -562. | 6516 |
| -485. | 6517 |
| -409. | 6518 |
| -332. | 6519 |
| -261. | 6520 |
| -195. | 6521 |
| -128. | 6522 |
| -62. | 6523 |
| 5. | 6524 |
| 79. | 6525 |
| 153. | 6526 |
| 227. | 6527 |
| 301. | 6528 |
| 374. | 6529 |
| 448. | 6530 |
| 522. | 6531 |
| 599. | 6532 |
| 679. | 6533 |
| 758. | 6534 |
| 837. | 6535 |
| 916. | 6536 |
| 995. | 6537 |
| 1074. | 6538 |
| 1149. | 6539 |
| 1224. | 6540 |
| 1300. | 6541 |
| 1375. | 6542 |
| 1450. | 6543 |

| | |
|-------|------|
| 1548. | 6544 |
| 1645. | 6545 |
| 1743. | 6546 |
| 1841. | 6547 |
| 1935. | 6548 |
| 1989. | 6549 |
| 2042. | 6550 |
| 2094. | 6551 |
| 2149. | 6552 |
| 2203. | 6553 |
| 2257. | 6554 |
| 2310. | 6555 |
| 2364. | 6556 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD
PROFILE # 1

STATION CWSEL

| | |
|-------|------|
| 2418. | 6557 |
| 2471. | 6558 |
| 2525. | 6559 |
| 2579. | 6560 |
| 2632. | 6561 |
| 2688. | 6562 |
| 2740. | 6563 |
| 2832. | 6564 |
| 2903. | 6565 |
| 2975. | 6566 |
| 3047. | 6567 |
| 3105. | 6568 |
| 3159. | 6569 |
| 3214. | 6570 |
| 3268. | 6571 |
| 3323. | 6572 |
| 3378. | 6573 |
| 3432. | 6574 |
| 3487. | 6575 |
| 3541. | 6576 |
| 3596. | 6577 |
| 3670. | 6578 |
| 3746. | 6579 |
| 3822. | 6580 |
| 3898. | 6581 |
| 3974. | 6582 |
| 4050. | 6583 |
| 4125. | 6584 |
| 4193. | 6585 |
| 4260. | 6586 |
| 4327. | 6587 |
| 4395. | 6588 |
| 4462. | 6589 |

| | |
|-------|------|
| 4529. | 6590 |
| 4597. | 6591 |
| 4861. | 6592 |
| 4717. | 6593 |
| 4772. | 6594 |
| 4827. | 6595 |
| 4882. | 6596 |
| 4937. | 6597 |
| 4992. | 6598 |
| 5047. | 6599 |
| 5103. | 6600 |
| 5162. | 6601 |
| 5247. | 6602 |

SAVALLENTS, INC. POM 1-4

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOO
PROFILE # 1

STATION CHSEL

| | |
|-------|------|
| 5332. | 6603 |
| 5416. | 6604 |
| 5501. | 6605 |
| 5586. | 6606 |
| 5671. | 6607 |
| 5741. | 6608 |
| 5804. | 6609 |
| 5866. | 6610 |
| 5929. | 6611 |
| 5992. | 6612 |
| 6054. | 6613 |
| 6117. | 6614 |
| 6180. | 6615 |
| 6242. | 6616 |
| 6305. | 6617 |
| 6368. | 6618 |
| 6430. | 6619 |
| 6503. | 6620 |
| 6578. | 6621 |
| 6652. | 6622 |
| 6726. | 6623 |
| 6801. | 6624 |
| 6875. | 6625 |
| 6950. | 6626 |
| 7024. | 6627 |
| 7098. | 6628 |
| 7172. | 6629 |
| 7246. | 6630 |
| 7320. | 6631 |
| 7394. | 6632 |
| 7458. | 6633 |
| 7521. | 6634 |
| 7583. | 6635 |

| | |
|-------|------|
| 7616. | 6636 |
| 7707. | 6637 |
| 7772. | 6638 |
| 7834. | 6639 |
| 7897. | 6640 |
| 7931. | 6641 |
| 8024. | 6642 |
| 8090. | 6643 |
| 8155. | 6644 |
| 8220. | 6645 |
| 8284. | 6646 |
| 8349. | 6647 |
| 8412. | 6648 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD
PROFILE # 1

STATION CWSEL

| | |
|--------|------|
| 8476. | 6649 |
| 8539. | 6650 |
| 8402. | 6651 |
| 8666. | 6652 |
| 8729. | 6653 |
| 8780. | 6654 |
| 8829. | 6655 |
| 8878. | 6656 |
| 8927. | 6657 |
| 8976. | 6658 |
| 9025. | 6659 |
| 9073. | 6660 |
| 9133. | 6661 |
| 9206. | 6662 |
| 9279. | 6663 |
| 9351. | 6664 |
| 9424. | 6665 |
| 9497. | 6666 |
| 9569. | 6667 |
| 9642. | 6668 |
| 9715. | 6669 |
| 9787. | 6670 |
| 9853. | 6671 |
| 9919. | 6672 |
| 9986. | 6673 |
| 10052. | 6674 |
| 10119. | 6675 |
| 10185. | 6676 |
| 10251. | 6677 |
| 10318. | 6678 |
| 10384. | 6679 |
| 10450. | 6680 |
| 10519. | 6681 |

| | |
|--------|------|
| 10595. | 6682 |
| 10672. | 6683 |
| 10748. | 6684 |
| 10824. | 6685 |
| 10900. | 6686 |
| 10976. | 6687 |
| 11052. | 6688 |
| 11128. | 6689 |
| 11205. | 6690 |
| 11281. | 6691 |
| 11357. | 6692 |
| 11433. | 6693 |
| 11498. | 6694 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD
PROFILE # 1

STATION CWSL

| | |
|--------|------|
| 11553. | 6695 |
| 11608. | 6696 |
| 11663. | 6697 |
| 11718. | 6698 |
| 11772. | 6699 |
| 11827. | 6700 |
| 11882. | 6701 |
| 11937. | 6702 |
| 11992. | 6703 |
| 12047. | 6704 |
| 12102. | 6705 |
| 12170. | 6706 |
| 12253. | 6707 |
| 12335. | 6708 |
| 12418. | 6709 |
| 12500. | 6710 |
| 12583. | 6711 |
| 12665. | 6712 |
| 12748. | 6713 |
| 12830. | 6714 |
| 12913. | 6715 |
| 12995. | 6716 |
| 13068. | 6717 |
| 13139. | 6718 |
| 13211. | 6719 |
| 13283. | 6720 |
| 13355. | 6721 |
| 13427. | 6722 |
| 13498. | 6723 |
| 13566. | 6724 |
| 13634. | 6725 |
| 13702. | 6726 |
| 13770. | 6727 |

| | |
|--------|------|
| 13837. | 6728 |
| 13905. | 6729 |
| 13973. | 6730 |
| 14040. | 6731 |
| 14106. | 6732 |
| 14172. | 6733 |
| 14238. | 6734 |
| 14305. | 6735 |
| 14371. | 6736 |
| 14437. | 6737 |
| 14503. | 6738 |
| 14569. | 6739 |
| 14636. | 6740 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD

PROFILE # 1

STATION CWSL

| | |
|--------|------|
| 14702. | 6741 |
| 14768. | 6742 |
| 14834. | 6743 |
| 14900. | 6744 |
| 14972. | 6745 |
| 15048. | 6746 |
| 15125. | 6747 |
| 15201. | 6748 |
| 15277. | 6749 |
| 15353. | 6750 |
| 15429. | 6751 |
| 15506. | 6752 |
| 15582. | 6753 |
| 15658. | 6754 |
| 15734. | 6755 |
| 15811. | 6756 |
| 15887. | 6757 |
| 15963. | 6758 |
| 16082. | 6759 |
| 16182. | 6760 |
| 16282. | 6761 |
| 16382. | 6762 |
| 16481. | 6763 |
| 16552. | 6764 |
| 16623. | 6765 |
| 16694. | 6766 |
| 16766. | 6767 |
| 16837. | 6768 |
| 16908. | 6769 |
| 16979. | 6770 |
| 17050. | 6771 |
| 17121. | 6772 |
| 17192. | 6773 |

| | |
|--------|------|
| 17252. | 6774 |
| 17310. | 6775 |
| 17369. | 6776 |
| 17427. | 6777 |
| 17485. | 6778 |
| 17544. | 6779 |
| 17602. | 6780 |
| 17660. | 6781 |
| 17719. | 6782 |
| 17781. | 6783 |
| 17872. | 6784 |
| 17964. | 6785 |
| 18055. | 6786 |

COMPUTED WATER SURFACE ELEVATIONS
SAND CREEK 100 YR FLOOD
PROFILE # 2

| SECTION NO. | REACH LENGTH | CWSEL | STATION |
|-------------|--------------|---------|----------|
| 1.00 | 0.00 | 6511.23 | -900.00 |
| 2.00 | 300.00 | 6516.21 | -600.00 |
| 3.00 | 300.00 | 6520.44 | -300.00 |
| 0.00 | 300.00 | 6525.23 | 0.00 |
| 550.00 | 550.00 | 6532.62 | 550.00 |
| 1070.00 | 520.00 | 6539.05 | 1070.00 |
| 1450.00 | 380.00 | 6544.55 | 1450.00 |
| 1930.00 | 480.00 | 6549.39 | 1930.00 |
| 2680.00 | 750.00 | 6563.87 | 2680.00 |
| 3060.00 | 380.00 | 6569.45 | 3060.00 |
| 3600.00 | 540.00 | 6578.64 | 3600.00 |
| 4120.00 | 520.00 | 6585.37 | 4120.00 |
| 4650.00 | 530.00 | 6592.37 | 4650.00 |
| 5150.00 | 500.00 | 6602.56 | 5150.00 |
| 5700.00 | 550.00 | 6608.99 | 5700.00 |
| 6440.00 | 740.00 | 6619.91 | 6440.00 |
| 6980.00 | 540.00 | 6627.75 | 6980.00 |
| 7400.00 | 420.00 | 6632.94 | 7400.00 |
| 7920.00 | 520.00 | 6641.14 | 7920.00 |
| 8360.00 | 440.00 | 6648.18 | 8360.00 |
| 8740.00 | 380.00 | 6654.03 | 8740.00 |
| 9100.00 | 360.00 | 6661.35 | 9100.00 |
| 9780.00 | 680.00 | 6670.63 | 9780.00 |
| 10500.00 | 720.00 | 6681.92 | 10500.00 |
| 11470.00 | 970.00 | 6694.35 | 11470.00 |
| 12130.00 | 660.00 | 6706.32 | 12130.00 |
| 13000.00 | 870.00 | 6716.66 | 13000.00 |
| 13500.00 | 500.00 | 6723.59 | 13500.00 |
| 14000.00 | 500.00 | 6730.96 | 14000.00 |
| 14930.00 | 930.00 | 6745.33 | 14930.00 |
| 15900.00 | 970.00 | 6758.22 | 15900.00 |
| 16480.00 | 580.00 | 6763.92 | 16480.00 |
| 17200.00 | 720.00 | 6774.34 | 17200.00 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD
PROFILE # 2

STATION CUSEL

| | |
|-------|------|
| -854. | 6512 |
| -793. | 6513 |
| -733. | 6514 |
| -673. | 6515 |
| -613. | 6516 |
| -544. | 6517 |
| -473. | 6518 |
| -402. | 6519 |
| -331. | 6520 |
| -265. | 6521 |
| -202. | 6522 |
| -140. | 6523 |
| -77. | 6524 |
| -14. | 6525 |
| 57. | 6526 |
| 132. | 6527 |
| 206. | 6528 |
| 280. | 6529 |
| 355. | 6530 |
| 429. | 6531 |
| 504. | 6532 |
| 581. | 6533 |
| 661. | 6534 |
| 742. | 6535 |
| 823. | 6536 |
| 904. | 6537 |
| 985. | 6538 |
| 1066. | 6539 |
| 1136. | 6540 |
| 1205. | 6541 |
| 1274. | 6542 |
| 1343. | 6543 |
| 1412. | 6544 |

| | |
|-------|------|
| 1495. | 6545 |
| 1594. | 6546 |
| 1693. | 6547 |
| 1792. | 6548 |
| 1891. | 6549 |
| 1961. | 6550 |
| 2013. | 6551 |
| 2065. | 6552 |
| 2117. | 6553 |
| 2169. | 6554 |
| 2220. | 6555 |
| 2272. | 6556 |
| 2324. | 6557 |

-STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD
PROFILE # 2

STATION CUSEL

| | |
|-------|------|
| 2376. | 6558 |
| 2428. | 6559 |
| 2479. | 6560 |
| 2531. | 6561 |
| 2583. | 6562 |
| 2635. | 6563 |
| 2689. | 6564 |
| 2757. | 6565 |
| 2825. | 6566 |
| 2893. | 6567 |
| 2961. | 6568 |
| 3030. | 6569 |
| 3092. | 6570 |
| 3151. | 6571 |
| 3210. | 6572 |
| 3269. | 6573 |
| 3328. | 6574 |
| 3386. | 6575 |
| 3445. | 6576 |
| 3504. | 6577 |
| 3563. | 6578 |
| 3628. | 6579 |
| 3705. | 6580 |
| 3782. | 6581 |
| 3840. | 6582 |
| 3937. | 6583 |
| 4014. | 6584 |
| 4091. | 6585 |
| 4168. | 6586 |
| 4243. | 6587 |
| 4319. | 6588 |
| 4395. | 6589 |
| 4471. | 6590 |

| | |
|-------|------|
| 4546. | 6591 |
| 4622. | 6592 |
| 4681. | 6593 |
| 4730. | 6594 |
| 4779. | 6595 |
| 4828. | 6596 |
| 4877. | 6597 |
| 4926. | 6598 |
| 4975. | 6599 |
| 5024. | 6600 |
| 5073. | 6601 |
| 5122. | 6602 |
| 5187. | 6603 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD

PROFILE # 2

STATION CWSEL

| | |
|-------|------|
| 5273. | 6604 |
| 5359. | 6605 |
| 5444. | 6606 |
| 5530. | 6607 |
| 5616. | 6608 |
| 5701. | 6609 |
| 5769. | 6610 |
| 5836. | 6611 |
| 5904. | 6612 |
| 5972. | 6613 |
| 6040. | 6614 |
| 6107. | 6615 |
| 6175. | 6616 |
| 6243. | 6617 |
| 6310. | 6618 |
| 6378. | 6619 |
| 6446. | 6620 |
| 6515. | 6621 |
| 6584. | 6622 |
| 6653. | 6623 |
| 6722. | 6624 |
| 6791. | 6625 |
| 6859. | 6626 |
| 6928. | 6627 |
| 7000. | 6628 |
| 7081. | 6629 |
| 7162. | 6630 |
| 7243. | 6631 |
| 7324. | 6632 |
| 7404. | 6633 |
| 7467. | 6634 |
| 7530. | 6635 |
| 7594. | 6636 |

| | |
|-------|------|
| 7657. | 6637 |
| 7721. | 6638 |
| 7784. | 6639 |
| 7848. | 6640 |
| 7911. | 6641 |
| 7974. | 6642 |
| 8036. | 6643 |
| 8099. | 6644 |
| 8161. | 6645 |
| 8224. | 6646 |
| 8286. | 6647 |
| 8349. | 6648 |
| 8414. | 6649 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD

PROFILE # 2

STATION CWSEL

| | |
|--------|------|
| 8478. | 6650 |
| 8543. | 6651 |
| 8608. | 6652 |
| 8673. | 6653 |
| 8738. | 6654 |
| 8788. | 6655 |
| 8837. | 6656 |
| 8886. | 6657 |
| 8935. | 6658 |
| 8984. | 6659 |
| 9034. | 6660 |
| 9083. | 6661 |
| 9148. | 6662 |
| 9221. | 6663 |
| 9294. | 6664 |
| 9368. | 6665 |
| 9441. | 6666 |
| 9514. | 6667 |
| 9587. | 6668 |
| 9661. | 6669 |
| 9734. | 6670 |
| 9804. | 6671 |
| 9868. | 6672 |
| 9931. | 6673 |
| 9995. | 6674 |
| 10059. | 6675 |
| 10123. | 6676 |
| 10186. | 6677 |
| 10250. | 6678 |
| 10314. | 6679 |
| 10378. | 6680 |
| 10442. | 6681 |
| 10507. | 6682 |

| | |
|--------|------|
| 10585. | 6683 |
| 10668. | 6684 |
| 10741. | 6685 |
| 10819. | 6686 |
| 10897. | 6687 |
| 10975. | 6688 |
| 11053. | 6689 |
| 11131. | 6690 |
| 11209. | 6691 |
| 11287. | 6692 |
| 11365. | 6693 |
| 11443. | 6694 |
| 11506. | 6695 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD

PROFILE # 2

STATION CWSEL

| | |
|--------|------|
| 11541. | 6696 |
| 11616. | 6697 |
| 11671. | 6698 |
| 11727. | 6699 |
| 11782. | 6700 |
| 11837. | 6701 |
| 11892. | 6702 |
| 11947. | 6703 |
| 12002. | 6704 |
| 12057. | 6705 |
| 12112. | 6706 |
| 12167. | 6707 |
| 12271. | 6708 |
| 12355. | 6709 |
| 12439. | 6710 |
| 12524. | 6711 |
| 12608. | 6712 |
| 12692. | 6713 |
| 12776. | 6714 |
| 12860. | 6715 |
| 12944. | 6716 |
| 13024. | 6717 |
| 13096. | 6718 |
| 13169. | 6719 |
| 13241. | 6720 |
| 13313. | 6721 |
| 13385. | 6722 |
| 13457. | 6723 |
| 13528. | 6724 |
| 13595. | 6725 |
| 13663. | 6726 |
| 13731. | 6727 |
| 13799. | 6728 |

| | |
|--------|------|
| 13867. | 6729 |
| 13935. | 6730 |
| 14003. | 6731 |
| 14067. | 6732 |
| 14132. | 6733 |
| 14197. | 6734 |
| 14261. | 6735 |
| 14326. | 6736 |
| 14391. | 6737 |
| 14456. | 6738 |
| 14520. | 6739 |
| 14585. | 6740 |
| 14650. | 6741 |

STREAM STATION - FLOOD ELEVATION CONTOUR TABLE
SAND CREEK 100 YR FLOOD
PROFILE # 2

| STATION | CGSEL |
|---------|-------|
| 14714. | 6742 |
| 14779. | 6743 |
| 14844. | 6744 |
| 14908. | 6745 |
| 14980. | 6746 |
| 15055. | 6747 |
| 15131. | 6748 |
| 15206. | 6749 |
| 15281. | 6750 |
| 15356. | 6751 |
| 15432. | 6752 |
| 15507. | 6753 |
| 15582. | 6754 |
| 15658. | 6755 |
| 15733. | 6756 |
| 15808. | 6757 |
| 15883. | 6758 |
| 15979. | 6759 |
| 16081. | 6760 |
| 16183. | 6761 |
| 16284. | 6762 |
| 16386. | 6763 |
| 16485. | 6764 |
| 16555. | 6765 |
| 16624. | 6766 |
| 16693. | 6767 |
| 16762. | 6768 |
| 16831. | 6769 |
| 16900. | 6770 |
| 16969. | 6771 |
| 17038. | 6772 |
| 17108. | 6773 |
| 17177. | 6774 |

| | |
|--------|------|
| 17240. | 6775 |
| 17299. | 6776 |
| 17359. | 6777 |
| 17419. | 6778 |
| 17479. | 6779 |
| 17539. | 6780 |
| 17598. | 6781 |
| 17658. | 6782 |
| 17718. | 6783 |
| 17782. | 6784 |
| 17879. | 6785 |
| 17975. | 6786 |
| 18071. | 6787 |

31-AUG-84 09:24:01

-PAGE 1

THIS RUN EXECUTED 31-AUG-84 09:24:03

HEC2 RELEASE DATED NOV 76 UPDATED MARCH 1982

ERROR CORR - 01,02,03,04,05

MODIFICATION - 50,51,52,53,54,55

FORTRAN STOP

PCN 14

 * WATER SURFACE PROFILES *
 * VERSION OF NOVEMBER 1976 *
 * UPDATED MAY 1984 *
 * *
 * RUN DATE 16-OCT-84 TIME 13:09:59 *

 * U.S. ARMY CORPS OF ENGINEERS *
 * THE HYDROLOGIC ENGINEERING CENTER *
 * 609 SECOND STREET, SUITE D *
 * DAVIS, CALIFORNIA 95616 *
 * (916) 440-2105 (FTS) 448-2105 *

```

X   X   XXXXXXX   XXXXX           XXXXX
X   X   X         X   X           X   X
X   X   X         X   X           X   X
XXXXXXX XXXX     X   X           XXXXX
X   X   X         X   X           X
X   X   X         X   X           X
X   X   XXXXXXX   XXXXX           XXXXXXX
  
```

16-OCT-84 13:10:00

PAGE 1

 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54,55

THIS RUN EXECUTED 16-OCT-84 13:10:01

T1 COLORADO SPRINGS, COLORADO
 T2 SAND CREEK EAST FORK
 T3 100 YEAR DEVELOPED FLOOD

3 Hr

| J1 | ICHECK | INQ | NINV | IDIR | STRT | METRIC | HVINS | Q | WSEI | FQ |
|----|-------------------------------------|-------|--------|--------|----------|--------|--------|--------|----------|--------|
| | -10. | 2. | 0. | 0. | 0.000000 | 0.00 | 0.0 | 0. | 6025.090 | 0.000 |
| J2 | NPROF | IPLT | PRFVS | XSECV | XSECH | FN | ALI DC | IBW | CHNIN | ITRACE |
| | -1.000 | 0.000 | -1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| J3 | VARIABLE CODES FOR SUMMARY PRINTOUT | | | | | | | | | |
| | 38.000 | 1.000 | 8.000 | 43.000 | 13.000 | 15.000 | 53.000 | 54.000 | 4.000 | 0.000 |

| SECNO | DEPTH | CMSEL | CRIMS | WSELK | FR | HV | HL | OLOSS | RANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | UROB | XNL | XNCH | XNR | WTN | ELHIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 17.000

| 3720 CRITICAL DEPTH ASSUMED | | | | | | | | | |
|-----------------------------|------|---------|---------|---------|---------|-------|-------|---------|---------|
| 17.00 | 5.80 | 6026.10 | 6026.10 | 6025.09 | 6028.53 | 2.43 | 0.00 | 0.00 | 6082.90 |
| 15620. | 0. | 15620. | 0. | 0. | 1249. | 0. | 0. | 0. | 6027.30 |
| 0.00 | 0.00 | 12.51 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6020.30 | 1849.67 |
| 0.005553 | 0. | 0. | 0. | 0 | 10 | 0 | 0.00 | 260.28 | 2109.95 |

*SECNO 18.000

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

| 3470 ENCRDACHMENT STATIONS= | 1654.0 | 1864.0 | TYPE= | 1 | TARGET= | 210.000 | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 18.00 | 6.45 | 6040.05 | 6040.05 | 0.00 | 6042.77 | 2.72 | 6.05 | 0.09 | 6040.50 |
| 7895. | 0. | 7895. | 0. | 0. | 597. | 0. | 23. | 5. | 6040.00 |
| 0.02 | 0.00 | 13.23 | 0.04 | 0.000 | 0.025 | 0.030 | 0.000 | 6033.60 | 1740.23 |
| 0.005386 | 1110. | 1100. | 1070. | 20 | 8 | 0 | 0.00 | 111.34 | 1851.57 |

CCHV= 0.100 CEHV= 0.300

*SECNO 101.000

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

| 3470 ENCRDACHMENT STATIONS= | 1909.0 | 2062.0 | TYPE= | 1 | TARGET= | 153.000 | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 102.00 | 6.76 | 6071.26 | 6071.26 | 0.00 | 6073.96 | 2.70 | 5.65 | 0.01 | 6072.10 |
| 7895. | 0. | 7895. | 0. | 0. | 598. | 0. | 54. | 10. | 9999.90 |
| 0.07 | 0.00 | 13.20 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6064.50 | 1938.06 |
| 0.005370 | 920. | 930. | 930. | 20 | 5 | 0 | 0.00 | 111.25 | 2049.31 |

*SECNO 102.000

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

| 3470 ENCRDACHMENT STATIONS= | 1909.0 | 2062.0 | TYPE= | 1 | TARGET= | 153.000 | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 102.00 | 6.76 | 6071.26 | 6071.26 | 0.00 | 6073.96 | 2.70 | 5.65 | 0.01 | 6072.10 |
| 7895. | 0. | 7895. | 0. | 0. | 598. | 0. | 54. | 10. | 9999.90 |
| 0.07 | 0.00 | 13.20 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6064.50 | 1938.06 |
| 0.005370 | 920. | 930. | 930. | 20 | 5 | 0 | 0.00 | 111.25 | 2049.31 |

16-OCT-84 13:10:00

PAGE 3

| SECNO | DEPTH | CWSEL | CR148 | WSELK | EG | HV | HL | QLOSS | BANK | ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|------|
| Q | QLOB | OCH | OROB | AI OB | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST | |

*SECNO 103.000

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

| | | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 103.00 | 6.32 | 6086.32 | 6086.32 | 0.00 | 6089.11 | 2.79 | 4.90 | 0.02 | 6087.90 | |
| 7660. | 0. | 7660. | 0. | 0. | 572. | 0. | 66. | 13. | 6090.20 | |
| 0.09 | 0.00 | 13.40 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6080.00 | 1947.85 | |
| 0.005407 | 900. | 910. | 920. | 20 | 11 | 0 | 0.00 | 103.79 | 2051.63 | |

*SECNO 104.000

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

| | | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 104.00 | 6.60 | 6096.40 | 6096.40 | 0.00 | 6099.11 | 2.70 | 3.41 | 0.01 | 6098.50 | |
| 7660. | 0. | 7660. | 0. | 0. | 580. | 0. | 74. | 14. | 6103.10 | |
| 0.10 | 0.00 | 13.20 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6089.80 | 1948.30 | |
| 0.005435 | 640. | 630. | 630. | 20 | 8 | 0 | 0.00 | 108.81 | 2057.12 | |

CCHV= 0.100 CEHV= 0.300

*SECNO 105.000

3301 HV CHANGED MORE THAN HVINS

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

| | | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 105.00 | 2.86 | 6118.86 | 6118.86 | 0.00 | 6119.76 | 0.90 | 6.23 | 0.18 | 6116.40 | |
| 7590. | 5580. | 1755. | 255. | 751. | 204. | 69. | 91. | 21. | 6117.40 | |
| 0.14 | 7.43 | 8.62 | 3.72 | 0.030 | 0.025 | 0.030 | 0.000 | 6116.00 | 1647.01 | |
| 0.008577 | 880. | 950. | 1000. | 20 | 14 | 0 | 0.00 | 593.00 | 2240.01 | |

*SECNO 106.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1769.0 2115.0 TYPE= 1 TARGET= 346.000
 ELENCL= 9999.90 ELENCR= 9999.90

| SECNO | DEPTH | CWSEL | CRIMS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|----------|-------|---------|---------|--------|---------|-------|-------|---------|------------|
| Q | OLOB | OCH | OROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |
| 106.00 | 4.21 | 6129.01 | 6129.01 | 0.00 | 6130.59 | 1.58 | 7.01 | 0.20 | 6126.00 |
| 7590. | 371. | 7143. | 76. | 54. | 696. | 24. | 112. | 31. | 6127.50 |
| 0.16 | 6.90 | 10.26 | 3.14 | 0.030 | 0.025 | 0.030 | 0.000 | 6124.80 | 1779.14 |
| 0.005851 | 960. | 1030. | 870. | 3 | 14 | 0 | 0.00 | 259.80 | 2038.94 |

*SECNO 107.000

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 6150.00 ELREA= 6156.10

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 107.00 | 3.92 | 6152.12 | 6152.12 | 0.00 | 6153.40 | 1.28 | 8.33 | 0.03 | 6150.00 |
| 7590. | 48. | 7542. | 0. | 11. | 827. | 0. | 136. | 40. | 6156.10 |
| 0.20 | 4.29 | 9.12 | 0.00 | 0.030 | 0.025 | 0.000 | 0.000 | 6148.20 | 1458.83 |
| 0.006719 | 1020. | 1340. | 1150. | 20 | 11 | 0 | 0.00 | 334.20 | 1793.03 |

*SECNO 108.000

3301 HV CHANGED MORE THAN HVINS

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

| | | | | | | | | | |
|-----------------------------|-----------------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCROACHMENT STATIONS= | 1615.0 | 1914.0 | TYPE= | 1 | TARGET= | 299.000 | | | |
| ELENCL= 9999.90 | ELENCR= 9999.90 | | | | | | | | |
| 108.00 | 5.17 | 6169.77 | 6169.77 | 0.00 | 6171.88 | 2.11 | 6.54 | 0.25 | 6175.50 |
| 7590. | 0. | 7590. | 0. | 0. | 851. | 0. | 154. | 46. | 6169.50 |
| 0.23 | 0.00 | 11.66 | 0.98 | 0.000 | 0.025 | 0.030 | 0.000 | 6164.60 | 1693.88 |
| 0.005783 | 1220. | 1050. | 890. | 20 | 11 | 0 | 0.00 | 157.87 | 1851.75 |

*SECNO 109.000

3280 CROSS SECTION 109.00 EXTENDED 3.48 FEET

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

3470 ENCROACHMENT STATIONS= 1968.0 2260.0 TYPE= 1 TARGET= 292.000

| SECNO | DEPTH | CWSEL | CRWS | WSEIK | EG | HV | HL | OLOSS | BANK | EIEU |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | UROB | XNL | XNCH | XNR | WTN | EIMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICDNT | CORAR | TOPWID | ENDST | |

| | | | | | | | | | | |
|----------|---------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| ELENCL= | 9999.90 | ELENCR= | 9999.90 | | | | | | | |
| 109.00 | 8.28 | 6190.28 | 6190.28 | 0.00 | 6191.98 | 1.70 | 6.17 | 0.04 | 6193.10 | |
| 7590. | 0. | 7590. | 0. | 0. | 726. | 0. | 170. | 50. | 9999.90 | |
| 0.26 | 0.00 | 10.46 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6182.00 | 2019.90 | |
| 0.006469 | 1000. | 1010. | 1000. | 20 | 15 | 0 | 0.00 | 221.42 | 2241.31 | |

*SECNO 110.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 6201.40 ELREA= 6199.80

| | | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 110.00 | 6.39 | 6197.29 | 6197.29 | 0.00 | 6199.78 | 2.49 | 5.34 | 0.24 | 6201.40 | |
| 7590. | 0. | 7590. | 0. | 0. | 599. | 0. | 184. | 54. | 6199.80 | |
| 0.28 | 0.00 | 12.67 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6190.90 | 1564.26 | |
| 0.005586 | 900. | 890. | 890. | 1 | 15 | 0 | 0.00 | 122.01 | 1686.28 | |

CCHV= 0.300 CEHV= 0.500

*SECNO 111.000

3280 CROSS SECTION 111.00 EXTENDED 1.69 FEET

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL, CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1870.0 2085.0 TYPE= 1 TARGET= 215.000

| | | | | | | | | | | |
|----------|---------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| ELENCL= | 9999.90 | ELENCR= | 9999.90 | | | | | | | |
| 111.00 | 4.89 | 6208.19 | 6208.19 | 0.00 | 6210.14 | 1.95 | 4.37 | 0.16 | 6216.60 | |
| 7590. | 0. | 7590. | 0. | 0. | 677. | 0. | 195. | 56. | 9999.90 | |
| 0.29 | 0.00 | 11.21 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6203.30 | 1891.00 | |
| 0.005934 | 780. | 760. | 740. | 20 | 15 | 0 | 0.00 | 175.94 | 2066.94 | |

| SECNO | DEPTH | CNSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK | ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|------|
| Q | QLOB | DCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST | |

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SR NOT SPECIFIED

| SB | XK | XKOR | COFR | RDIEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|----|------|------|------|-------|--------|-------|---------|-------|---------|---------|
| | 1.05 | 1.50 | 2.50 | 0.00 | 133.00 | 12.00 | 1864.00 | 38.00 | 6203.30 | 6203.30 |

*SECNO 111.500

3280 CROSS SECTION 111.50 EXTENDED 2.38 FEET

3301 HV CHANGED MORE THAN HVINS

CLASS A LOW FLOW

3420 BRIDGE W.S.= 6208.15 BRIDGE VELOCITY=, 5.12 CALCULATED CHANNEL AREA=, 1481.

| EGPRS | EGLWC | H3 | QWEIR | QLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD |
|-------|---------|------|-------|-------|-------|-------------------|---------|---------|
| 0.00 | 6210.28 | 0.69 | 0. | 7590. | 1864. | 6318. | 6214.70 | 6212.60 |

3470 ENCROACHMENT STATIONS= 1870.0 2085.0 TYPE= 1 TARGET= 215.000

| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | | |
|----------|---------|---------|---------|-------|---------|-------|-------|---------|---------|--|
| 111.50 | 5.58 | 6208.88 | 0.00 | 0.00 | 6210.28 | 1.40 | 0.13 | 0.00 | 6216.60 | |
| 7590. | 0. | 7590. | 0. | 0. | 800. | 0. | 196. | 57. | 9999.90 | |
| 0.30 | 0.00 | 9.49 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6203.30 | 1887.81 | |
| 0.003596 | 50. | 50. | 50. | 0 | 0 | 0 | 0.00 | 183.39 | 2071.20 | |

CCHV= 0.100 CEHV= 0.300

*SECNO 112.000

3301 HV CHANGED MORE THAN HVINS

3485 20 TRIALS ATTEMPTED WSEL, CNSEL

3493 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | 112.00 | 3.33 | 6226.53 | 6226.53 | 0.00 | 6227.43 | 0.89 | 5.94 | 0.05 | 6226.70 |
|--|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| | 7590. | 0. | 7590. | 0. | 0. | 1000. | 0. | 220. | 67. | 6252.00 |
| | 0.34 | 0.00 | 7.59 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6223.20 | 1566.12 |
| | 0.007535 | 1150. | 1180. | 1190. | 20 | 11 | 0 | 0.00 | 559.55 | 2125.67 |

| SECNO | DEPTH | CWSEL | CR148 | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | DCH | OROB | AI OB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPF | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 113.000

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELREA= 6243.80 ELREA= 6253.60

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 113.00 | 2.68 | 6238.98 | 6238.98 | 0.00 | 6240.10 | 1.12 | 7.57 | 0.07 | 6243.80 |
| 7590. | 0. | 7590. | 0. | 0. | 894. | 0. | 243. | 78. | 6253.60 |
| 0.37 | 0.00 | 8.49 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6236.30 | 1155.45 |
| 0.007044 | 970. | 1040. | 900. | 4 | 15 | 0 | 0.00 | 401.13 | 1565.61 |

CCHV= 0.300 CEHV= 0.500

*SECNO 114.000

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 114.00 | 2.76 | 6254.26 | 6254.26 | 0.00 | 6255.66 | 1.40 | 6.89 | 0.14 | 6266.30 |
| 7590. | 0. | 7590. | 0. | 0. | 801. | 0. | 262. | 86. | 6266.30 |
| 0.40 | 0.00 | 9.48 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6251.50 | 1905.00 |
| 0.006734 | 1030. | 1000. | 1010. | 4 | 8 | 0 | 0.00 | 290.00 | 2195.00 |

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

5227 DOWNSTREAM ELEV IS 6254.04 ,NOT 6254.26 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

| SB | XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|----|------|------|------|-------|--------|------|---------|------|---------|---------|
| | 1.05 | 1.50 | 2.50 | 0.00 | 290.00 | 3.00 | 2583.00 | 0.00 | 6251.50 | 6251.50 |

*SECNO 114.500

CLASS B LOW FLOW

3420 BRIDGE W.S.= 6254.29 BRIDGE VELOCITY=, 9.47 CALCULATED CHANNEL AREA=, 801.

| EGFRS | EGLWC | H3 | OWEIR | QLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD | |
|----------|---------|---------|-------|-------|---------|----------------|---------|---------|---------|
| 0.00 | 6255.71 | 0.00 | 0. | 7590. | 2583. | 2583. | 6260.50 | 6266.30 | |
| 114.50 | 3.12 | 6254.62 | 0.00 | 0.00 | 6255.71 | 1.09 | 0.06 | 0.00 | 6266.30 |
| 7590. | 0. | 7590. | 0. | 0. | 905. | 0. | 264. | 87. | 6266.30 |
| 0.41 | 0.00 | 8.38 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6251.50 | 1905.00 |
| 0.004486 | 100. | 100. | 100. | 0 | 0 | 0 | 0.00 | 290.00 | 2195.00 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EB | HV | HL | QLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | AI DB | ACH | AROB | VOL | TNA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | COBAR | TOPWID | ENDST |

CCHV= 0.100 CEHV= 0.300

*SECNO 115.000

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| 3470 ENCRDACHMENT STATIONS= | 1881.0 | 2314.0 | TYPE= | 1 | TARGET= | 433.000 |
|-----------------------------|---------|---------|---------|-------|---------|-----------------------------|
| ELENC= | 9999.90 | ELENC= | 9999.90 | | | |
| 115.00 | 5.16 | 6269.46 | 6269.46 | 0.00 | 6271.03 | 1.58 4.93 0.15 6272.90 |
| 7590. | 0. | 7590. | 0. | 0. | 754. | 0. 282. 92. 6273.00 |
| 0.43 | 0.00 | 10.07 | 0.00 | 0.000 | 0.025 | 0.000 0.000 6264.30 1906.67 |
| 0.006368 | 860. | 930. | 960. | 20 | 14 | 0 0.00 242.82 2149.50 |

*SECNO 116.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| 3470 ENCRDACHMENT STATIONS= | 1215.0 | 1991.0 | TYPE= | 1 | TARGET= | 776.000 |
|-----------------------------|---------|---------|---------|-------|---------|-----------------------------|
| ELENC= | 9999.90 | ELENC= | 9999.90 | | | |
| 116.00 | 3.89 | 6277.69 | 6277.69 | 0.00 | 6278.67 | 0.98 4.44 0.06 6281.10 |
| 7590. | 0. | 2568. | 5022. | 0. | 245. | 801. 296. 98. 6280.60 |
| 0.46 | 0.00 | 10.49 | 6.27 | 0.000 | 0.025 | 0.030 0.000 6273.80 1450.14 |
| 0.006316 | 700. | 700. | 700. | 20 | 19 | 0 0.00 494.44 1957.92 |

CCHV= 0.300 CEHV= 0.500

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

| SB | XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|----|------|------|------|-------|-------|------|-------|------|---------|---------|
| | 1.25 | 1.50 | 2.50 | 0.00 | 11.00 | 0.00 | 30.00 | 0.00 | 6273.80 | 6273.80 |

*SECNO 117.000

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | OLOB | OCH | OROB | AI OB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELHIN | SSTA |
| SLOFF | XLOBL | XLCH | XLOBR | ITRIAL | IRC | ICONT | CORAR | TOPWID | ENDST |

PRESS FLOW BECAUSE EGLWC OF 23778.11 EXCEEDS 1.5 DEPTH PRESSURE AND WEIR FLOW

| EGPRS | EGLWC | H3 | QWEIR | QPR | BAREA | TRAPEZOID AREA | ELIC | ELTRD |
|---------|----------|------|-------|------|-------|----------------|---------|---------|
| 7748.58 | 23778.11 | 0.00 | 7324. | 288. | 30. | 117. | 6284.40 | 6291.00 |

3485 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

| 3470 ENCROACHMENT STATIONS= | 1607.0 | 2151.0 | TYPE= | 1 | TARGET= | 544.000 |
|-----------------------------|-----------------|---------|---------|-------|---------|-----------------------------|
| ELENCL= 9999.90 | ELENCR= 9999.90 | | | | | |
| 117.00 | 10.84 | 6291.84 | 6291.84 | 0.00 | 6292.90 | 1.06 3.93 -3.93 6291.00 |
| 7590. | 99. | 1224. | 6267. | 32. | 115. | 806. 312. 106. 6291.00 |
| 0.48 | 3.06 | 10.61 | 7.77 | 0.020 | 0.025 | 0.025 0.000 6281.00 1694.21 |
| 0.005357 | 650. | 670. | 680. | 20 | 15 | 0 0.00 445.23 2139.44 |

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

| SB | XK | XKOR | COFO | RLEN | BNC | BNP | BAREA | SS | ELCHU | ELCHD |
|------|------|------|------|-------|------|-------|-------|---------|---------|-------|
| 1.25 | 1.50 | 2.50 | 0.00 | 11.00 | 0.00 | 30.00 | 0.00 | 6281.00 | 6281.00 | |

*SECNO 117.500

6870 D.S. ENERGY OF 6292.90 HIGHER THAN COMPUTED ENERGY OF 6291.93 PRESSURE AND WEIR FLOW

| EGPRS | EGLWC | H3 | QWEIR | QPR | BAREA | TRAPEZOID AREA | ELIC | ELTRD |
|---------|---------|------|-------|-----|-------|----------------|---------|---------|
| 7782.74 | 6292.90 | 0.00 | 7545. | 56. | 30. | 68. | 6287.20 | 6291.00 |

3485 20 TRIALS ATTEMPTED WSEL,CWSEL
3493 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| 3470 ENCROACHMENT STATIONS= | 1607.0 | 2151.0 | TYPE= | 1 | TARGET= | 544.000 |
|-----------------------------|-----------------|---------|---------|-------|---------|-----------------------------|
| ELENCL= 9999.90 | ELENCR= 9999.90 | | | | | |
| 117.50 | 6.98 | 6291.98 | 6291.98 | 0.00 | 6292.96 | 0.99 0.37 -0.37 6291.00 |
| 7590. | 144. | 729. | 6717. | 44. | 77. | 855. 313. 106. 6291.00 |
| 0.48 | 3.30 | 9.49 | 7.85 | 0.020 | 0.025 | 0.025 0.000 6285.00 1681.75 |
| 0.005109 | 70. | 70. | 70. | 20 | 18 | 0 0.00 459.18 2140.93 |

| SECNO | DEPTH | CWSEL | CRWS | WSELK | EG | HV | HL | GLOSS | BANK | ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT | |
| TIME | VLOB | VCH | UROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPNID | ENDST | |

CCHV= 0.100 CEHV= 0.300
 *SECNO 118.000

3301 HV CHANGED MORE THAN HVINS

| | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|-----------------------------|
| 3470 ENCROACHMENT STATIONS= | 2457.0 | 3200.0 | TYPE= | 1 | TARGET= | 743.000 |
| ELENC= | 9999.90 | ELENCR= | 9999.90 | | | |
| 118.00 | 5.18 | 6294.08 | 0.00 | 0.00 | 6294.40 | 0.32 1.37 0.07 6296.40 |
| 7590. | 0. | 7516. | 74. | 0. | 1648. | 50. 338. 114. 6292.00 |
| 0.53 | 0.00 | 4.56 | 1.49 | 0.000 | 0.025 | 0.030 0.000 6288.90 2464.11 |
| 0.000861 | 850. | 850. | 720. | 4 | 0 | 0 0.00 436.71 2900.82 |

*SECNO 119.000

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

| | | | | | | | | | |
|---|---------|---------|---------|-------|---------|-------|-------|---------|---------|
| 3495 OVERRANK AREA ASSUMED NON-EFFECTIVE,ELLEA= | 6308.30 | ELREA= | 6308.90 | | | | | | |
| 119.00 | 4.00 | 6308.30 | 6308.30 | 0.00 | 6308.78 | 0.47 | 1.55 | 0.05 | 6308.30 |
| 7590. | 2047. | 5543. | 0. | 450. | 950. | 0. | 376. | 127. | 6308.90 |
| 0.59 | 4.54 | 5.83 | 0.00 | 0.030 | 0.025 | 0.000 | 0.000 | 6304.30 | 2111.32 |
| 0.002866 | 1050. | 1080. | 1020. | 20 | 23 | 0 | 0.00 | 588.88 | 2700.20 |

*SECNO 120.000

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

| | | | | | | | | | |
|---|---------|---------|---------|-------|---------|-------|-------|---------|---------|
| 3495 OVERRANK AREA ASSUMED NON-EFFECTIVE,ELLEA= | 6328.90 | ELREA= | 6328.70 | | | | | | |
| 120.00 | 4.41 | 6326.81 | 6326.81 | 0.00 | 6327.60 | 0.80 | 4.97 | 0.10 | 6328.90 |
| 7590. | 0. | 7590. | 0. | 0. | 1059. | 0. | 420. | 150. | 6328.70 |
| 0.64 | 0.00 | 7.17 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6322.40 | 1955.68 |
| 0.008203 | 1600. | 1530. | 1430. | 20 | 8 | 0 | 0.00 | 687.54 | 2643.21 |

*SECNO 121.000

3280 CROSS SECTION 121.00 EXTENDED 1.15 FEET

| SECNO | DEPTH | CMSEL | CRIMS | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | OCH | OROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCRDACHMENT STATIONS= | 1830.0 | 2105.0 | TYPE= | 1 | TARGET= | 275.000 | | | |
| ELENC= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 121.00 | 3.95 | 6349.35 | 6349.35 | 0.00 | 6350.86 | 1.51 | 11.61 | 0.21 | 6352.40 |
| 7590. | 0. | 7590. | 0. | 0. | 769. | 0. | 453. | 167. | 9999.90 |
| 0.69 | 0.00 | 9.87 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6345.40 | 1840.36 |
| 0.006467 | 1620. | 1600. | 1570. | 12 | 11 | 0 | 0.00 | 258.52 | 2098.87 |

*SECNO 122.000

3265 DIVIDED FLOW

3280 CROSS SECTION 122.00 EXTENDED 1.05 FEET

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCRDACHMENT STATIONS= | 1474.0 | 2193.0 | TYPE= | 1 | TARGET= | 719.000 | | | |
| ELENC= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 122.00 | 2.95 | 6360.55 | 6360.55 | 0.00 | 6361.79 | 1.24 | 6.56 | 0.03 | 6362.90 |
| 7590. | 0. | 7590. | 0. | 0. | 849. | 0. | 472. | 174. | 6361.20 |
| 0.72 | 0.00 | 8.94 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6357.60 | 1515.62 |
| 0.006923 | 1000. | 980. | 980. | 9 | 20 | 0 | 0.00 | 343.92 | 1918.53 |

*SECNO 123.000

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCRDACHMENT STATIONS= | 1804.0 | 2801.0 | TYPE= | 1 | TARGET= | 997.000 | | | |
| ELENC= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 123.00 | 3.39 | 6384.19 | 6384.19 | 0.00 | 6385.19 | 1.00 | 12.31 | 0.02 | 6380.80 |
| 7590. | 0. | 7590. | 0. | 0. | 946. | 0. | 507. | 190. | 6386.00 |
| 0.78 | 0.00 | 8.02 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6380.80 | 1804.00 |
| 0.007318 | 1320. | 1730. | 1950. | 11 | 8 | 0 | 0.00 | 473.68 | 2277.68 |

| SECNO | DEPTH | CMSEL | CRIMS | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | DLOB | QCH | QROB | ALDB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | UROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 124.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 124.00 | 3.32 | 6401.32 | 6401.32 | 0.00 | 6402.18 | 0.86 | 13.03 | 0.01 | 6405.10 |
| 7590. | 0. | 7590. | 0. | 0. | 1020. | 0. | 545. | 211. | 6402.60 |
| 0.84 | 0.00 | 7.44 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6398.00 | 1595.39 |
| 0.008343 | 1870. | 1670. | 1400. | 13 | 5 | 0 | 0.00 | 635.51 | 2230.90 |

*SECNO 125.000

3685 20 TRIALS ATTEMPTED WREL,CMSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCRDACHMENT STATIONS= | 1975.0 | 2830.0 | TYPE= | 1 | TARGET= | 855.000 | | | |
| ELENCL= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 125.00 | 2.27 | 6423.57 | 6423.57 | 0.00 | 6424.44 | 0.86 | 16.75 | 0.00 | 6425.60 |
| 1870. | 0. | 1870. | 0. | 0. | 251. | 0. | 575. | 230. | 6425.70 |
| 0.92 | 0.00 | 7.44 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6421.30 | 2076.20 |
| 0.007704 | 2220. | 2040. | 1900. | 20 | 14 | 0 | 0.00 | 146.32 | 2222.52 |

*SECNO 126.000

3265 DIVIDED FLOW

3280 CROSS SECTION 126.00 EXTENDED 0.26 FEET

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCRDACHMENT STATIONS= | 2135.0 | 2911.0 | TYPE= | 1 | TARGET= | 776.000 | | | |
| ELENCL= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 126.00 | 3.16 | 6448.26 | 6448.26 | 0.00 | 6449.03 | 0.78 | 11.56 | 0.01 | 6447.10 |
| 1870. | 34. | 1836. | 0. | 12. | 258. | 0. | 584. | 235. | 6450.00 |
| 0.98 | 2.96 | 7.13 | 0.00 | 0.030 | 0.025 | 0.000 | 0.000 | 6445.10 | 2146.06 |
| 0.007411 | 1530. | 1530. | 1400. | 10 | 11 | 0 | 0.00 | 174.36 | 2480.87 |

*SECNO 126.200

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLQSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3495 OVBANK AREA ASSUMED NON-EFFECTIVE, ELIEA= 6468.60 ELREA= 6467.40

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 126.20 | 1.84 | 6465.54 | 6465.54 | 0.00 | 6466.27 | 0.68 | 10.28 | 0.01 | 6468.60 |
| 1870. | 0. | 1870. | 0. | 0. | 283. | 0. | 592. | 241. | 6467.40 |
| 1.03 | 0.00 | 6.61 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6463.70 | 1519.97 |
| 0.008461 | 1250. | 1300. | 1300. | 3 | 14 | 0 | 0.00 | 212.89 | 1732.87 |

*SECNO 126.400

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 FNCRDACHMENT STATIONS= 1335.0 3000.0 TYPF= 1 TARGET= 1665.000
 ELENCL= 9999.90 FIFNCR= 9999.90

| | | | | | | | | | |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 126.40 | 1.99 | 6484.79 | 6484.79 | 0.00 | 6485.20 | 0.42 | 14.99 | 0.03 | 6489.10 |
| 1870. | 0. | 1870. | 0. | 0. | 361. | 0. | 604. | 253. | 6488.50 |
| 1.12 | 0.00 | 5.18 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6482.80 | 2025.53 |
| 0.010424 | 1320. | 1600. | 1300. | 5 | 8 | 0 | 0.00 | 457.18 | 2482.71 |

CCHV= 0.300 CEHV= 0.500

*SECNO 127.000

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

| | | | | | | | | | |
|----------|------|---------|---------|-------|---------|-------|-------|---------|---------|
| 127.00 | 6.69 | 6501.39 | 6501.39 | 0.00 | 6501.80 | 0.41 | 5.68 | 0.00 | 6500.20 |
| 1870. | 773. | 351. | 746. | 174. | 47. | 171. | 612. | 263. | 6500.20 |
| 1.17 | 4.44 | 7.49 | 4.38 | 0.020 | 0.025 | 0.020 | 0.000 | 6494.70 | 2002.17 |
| 0.004430 | 850. | 850. | 970. | 20 | 25 | 0 | 0.00 | 473.12 | 2475.29 |

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

| SB | XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|----|------|------|------|-------|------|------|-------|------|---------|---------|
| | 1.25 | 1.50 | 2.50 | 0.00 | 7.00 | 0.00 | 21.00 | 0.00 | 6494.70 | 6494.70 |

*SECNO 127.500

| SECNO | DEPTH | CWSEL | CRIMS | WSELK | EG | HV | HL | OLOSS | BANK ELEV | | |
|---------------------------------|---------|---------|---------|----------|---------|---------|---------|---------|-----------|---------|---------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT | RIGHT | |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELHIN | SSTA | | |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST | | |
| 1857 BT CARD, STA DONT INCREASE | | | | | | | | | | | |
| 1134.00 | 6515.30 | 6515.30 | 1429.00 | 6510.80 | 6510.80 | 1754.00 | 6504.40 | 6504.40 | 2018.00 | 6501.20 | 6501.20 |
| 2127.00 | 6500.50 | 6500.20 | 2236.00 | 6500.20 | 6500.20 | 2236.00 | 6500.20 | 6497.70 | 2243.30 | 6500.20 | 6497.70 |
| 2243.00 | 6500.20 | 6500.20 | 2336.00 | 6500.40 | 6500.40 | 2659.00 | 6502.70 | 6502.70 | 2839.00 | 6508.30 | 6508.30 |
| 3000.00 | 6512.60 | 6512.60 | | | | | | | | | |
| 1134.00 | 6515.30 | 6515.30 | 1429.00 | 6510.80 | 6510.80 | 1754.00 | 6504.40 | 6504.40 | 2018.00 | 6501.20 | 6501.20 |
| 2127.00 | 6500.50 | 6500.20 | 2236.00 | 6500.20 | 6500.20 | 2236.00 | 6500.20 | 6497.70 | 2243.30 | 6500.20 | 6497.70 |
| 2243.00 | 6500.20 | 6500.20 | 2336.00 | 6500.40 | 6500.40 | 2659.00 | 6502.70 | 6502.70 | 2839.00 | 6508.30 | 6508.30 |
| 3000.00 | 6512.60 | 6512.60 | 3000.00 | 16512.60 | 6512.60 | | | | | | |

PRESSURE AND WEIR FLOW

| EGFRS | EGLWC | H3 | QWEIR | QPR | BAREA | TRAPEZOID | ELLC | ELTRD |
|----------|---------|---------|-------|-------|---------|-----------|---------|---------|
| | | | | | | AREA | | |
| 6686.08 | 6501.80 | 0.00 | 1771. | 105. | 21. | 21. | 6497.70 | 6500.20 |
| 127.50 | 7.12 | 6501.82 | 0.00 | 0.00 | 6501.97 | 0.15 | 0.17 | 0.00 |
| 1870. | 855. | 211. | 805. | 283. | 50. | 284. | 612. | 263. |
| 1.17 | 3.02 | 4.22 | 2.84 | 0.020 | 0.025 | 0.020 | 0.000 | 6494.70 |
| 0.001297 | 30. | 30. | 30. | 2 | 0 | 11 | 0.00 | 569.26 |
| | | | | | | | | 2535.85 |

CCHV= 0.100 CEHV= 0.300
 *SECNO 128.000

3265 DIVIDED FLOW

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

| 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, EILFA= 6513.90 ELREA= 6510.60 | | | | | | | | | | | |
|---|-------|---------|---------|-------|---------|-------|-------|---------|---------|--|--|
| 128.00 | 2.18 | 6507.38 | 6507.38 | 0.00 | 6507.95 | 0.57 | 2.84 | 0.13 | 6513.90 | | |
| 1870. | 0. | 1870. | 0. | 0. | 310. | 0. | 623. | 273. | 6510.60 | | |
| 1.22 | 0.00 | 6.04 | 0.00 | 0.000 | 0.025 | 0.000 | 0.000 | 6505.20 | 1890.46 | | |
| 0.009075 | 1050. | 1030. | 1050. | 20 | 17 | 0 | 0.00 | 280.75 | 2201.23 | | |

*SECNO 129.000

| SECNO | DEPTH | CMSEL | CRIMS | WSELK | EG | HV | HL | QLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|-----------------------------|
| 3470 ENCROACHMENT STATIONS= | 2236.7 | 2331.7 | TYPE= | 1 | TARGET= | 95.000 |
| ELENCL= | 9999.90 | ELENCR= | 9999.90 | | | |
| 129.00 | 3.09 | 6529.19 | 6529.19 | 0.00 | 6530.34 | 1.15 14.38 0.17 9999.90 |
| 1870. | 0. | 0. | 1870. | 0. | 0. | 217. 632. 280. 9999.90 |
| 1.27 | 0.00 | 0.00 | 8.60 | 0.000 | 0.000 | 0.030 0.000 6526.10 2236.70 |
| 0.009190 | 1160. | 1600. | 1550. | 9 | 11 | 0 0.00 95.00 2331.70 |

CCHV= 0.300 CEHV= 0.500

*SECNO 130.000

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|-----------------------------|
| 3470 ENCROACHMENT STATIONS= | 1460.0 | 1560.0 | TYPE= | 1 | TARGET= | 100.000 |
| ELENCL= | 9999.90 | ELENCR= | 9999.90 | | | |
| 130.00 | 1.99 | 6544.09 | 6544.09 | 0.00 | 6545.09 | 1.01 12.61 0.04 6562.10 |
| 1600. | 0. | 1600. | 0. | 0. | 199. | 0. 640. 284. 9999.90 |
| 1.32 | 0.00 | 8.05 | 0.00 | 0.000 | 0.025 | 0.000 0.000 6542.10 1460.00 |
| 0.007717 | 1350. | 1530. | 1450. | 6 | 14 | 0 0.00 100.00 1560.00 |

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

| SB | XK | XKOR | COFO | RDIEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|----|------|------|------|-------|---------|------|---------|------|---------|---------|
| | 1.20 | 1.50 | 2.50 | 0.00 | 1000.00 | 5.00 | 1273.00 | 0.00 | 6542.10 | 6542.10 |

*SECNO 130.500

1860 XLCEL OF 6562.40 EXCEEDS RDEL OF 6262.40

1860 XLCEL OF 6562.10 EXCEEDS RDEL OF 6542.10

CLASS A LOW FLOW

3420 BRIDGE W.S.= 6544.09 BRIDGE VELOCITY=, 0.81 CALCULATED CHANNEL AREA=, 1979.

16-OCT-84 13:10:00

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| SECNO | DEPTH | CWSEL | CRIMS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | EL MIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

| EGFRS | EGLWC | H3 | OWEIR | OLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD |
|-------|---------|------|-------|-------|-------|----------------|---------|---------|
| 0.00 | 6545.10 | 0.07 | 0. | 1400. | 1273. | 13333. | 6555.50 | 6562.10 |

3470 ENCROACHMENT STATIONS= 1460.0 1560.0 TYPE= 1 TARGET= 100.000
 ELENCL= 9999.90 ELENCR= 9999.90
 130.50 2.06 6544.16 0.00 0.00 6545.10 0.94 0.00 0.00 6562.10
 1600. 0. 1600. 0. 0. 206. 0. 640. 284. 9999.90
 1.32 0.00 7.78 0.00 0.000 0.025 0.000 0.000 6542.10 1460.00
 0.006908 20. 20. 20. 0 0 0 0.00 100.00 1560.00

CCHV= 0.100 CEHV= 0.300
 *SECNO 131.000
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1876.0 2858.0 TYPE= 1 TARGET= 982.000
 ELENCL= 9999.90 ELENCR= 9999.90
 131.00 1.77 6557.27 6557.27 0.00 6558.00 0.73 12.43 0.02 6673.60
 1600. 0. 1600. 0. 0. 233. 0. 647. 288. 6564.60
 1.38 0.00 6.88 0.00 0.000 0.030 0.000 0.000 6555.50 1989.49
 0.011839 1400. 1400. 1600. 4 15 0 0.00 160.87 2150.36

*SECNO 132.000
 3280 CROSS SECTION 132.00 EXTENDED 2.50 FEET

7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 1000.0 2627.0 TYPE= 1 TARGET= 1627.000
 ELENCL= 9999.90 ELENCR= 9999.90
 132.00 1.90 6577.30 6577.30 0.00 6577.87 0.57 12.40 0.02 6579.80
 1600. 0. 1600. 0. 0. 265. 0. 652. 292. 6578.40
 1.42 0.00 6.04 0.00 0.000 0.030 0.000 0.000 6575.40 1957.75
 0.012996 1600. 1000. 800. 2 8 0 0.00 239.27 2197.03

| SECNO | DEPTH | CWSEL | CRIMS | WSELK | EO | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 133.000

3265 DIVIDED FLOW

3280 CROSS SECTION 133.00 EXTENDED 0.58 FEET

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCROACHMENT STATIONS= | 1000.0 | 1866.0 | TYPE= | 1 | TARGET= | 866.000 | | | |
| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 133.00 | 3.08 | 6602.18 | 6602.18 | 0.00 | 6602.74 | 0.56 | 21.85 | 0.00 | 6602.00 |
| 1600. | 4. | 1596. | 0. | 4. | 266. | 0. | 663. | 303. | 6602.80 |
| 1.51 | 1.00 | 6.00 | 0.00 | 0.030 | 0.030 | 0.000 | 0.000 | 6599.10 | 1388.75 |
| 0.011873 | 1620. | 1760. | 1500. | 9 | 14 | 0 | 0.00 | 280.57 | 1716.32 |

*SECNO 134.000

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCROACHMENT STATIONS= | 2135.0 | 3000.0 | TYPE= | 1 | TARGET= | 865.000 | | | |
| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 134.00 | 1.96 | 6639.36 | 6639.36 | 0.00 | 6639.96 | 0.60 | 35.53 | 0.01 | 6640.80 |
| 1600. | 0. | 1600. | 0. | 0. | 257. | 0. | 681. | 319. | 6642.30 |
| 1.63 | 0.00 | 6.22 | 0.00 | 0.000 | 0.030 | 0.000 | 0.000 | 6637.40 | 2141.01 |
| 0.012917 | 2800. | 2870. | 2670. | 5 | 14 | 0 | 0.00 | 221.06 | 2362.08 |

*SECNO 135.000

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|-----------------------------|---------|---------|---------|-------|---------|---------|-------|---------|---------|
| 3470 ENCROACHMENT STATIONS= | 1000.0 | 1894.0 | TYPE= | 1 | TARGET= | 894.000 | | | |
| ELENCI= | 9999.90 | ELENCR= | 9999.90 | | | | | | |
| 135.00 | 2.24 | 6674.54 | 6674.54 | 0.00 | 6674.92 | 0.38 | 26.36 | 0.02 | 6675.70 |
| 990. | 0. | 689. | 301. | 0. | 124. | 93. | 695. | 332. | 6674.40 |
| 1.79 | 0.00 | 5.57 | 3.23 | 0.000 | 0.030 | 0.030 | 0.000 | 6672.30 | 1602.79 |
| 0.006758 | 2120. | 2740. | 2350. | 4 | 11 | 0 | 0.00 | 217.56 | 1844.74 |

| SECNO | DEPTH | CWSFI | CRWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|-------|-------|-------|-------|--------|------|-------|-------|--------|------------|
| Q | DLOB | DCH | DROB | ALOB | ACH | AROB | VDL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 136.000

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| 3470 ENCROACHMENT STATIONS= | 0.0 | 2048.0 | TYPE= | 1 | TARGET= | 2047.999 | | | |
|-----------------------------|-------|---------|---------|-------|---------|----------|-------|---------|---------|
| 136.00 | 2.35 | 6698.15 | 6698.15 | 0.00 | 6698.91 | 0.75 | 14.92 | 0.11 | 6703.20 |
| 990. | 0. | 990. | 0. | 0. | 142. | 0. | 702. | 338. | 6698.80 |
| 1.85 | 0.00 | 6.96 | 0.00 | 0.000 | 0.030 | 0.000 | 0.000 | 6695.80 | 1364.19 |
| 0.011917 | 1550. | 1740. | 1450. | 11 | 8 | 0 | 0.00 | 96.89 | 1461.07 |

*SECNO 137.000

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| 137.00 | 1.77 | 6729.57 | 6729.57 | 0.00 | 6730.06 | 0.49 | 27.53 | 0.03 | 6730.50 |
|----------|-------|---------|---------|-------|---------|-------|-------|---------|---------|
| 990. | 0. | 856. | 134. | 0. | 148. | 31. | 710. | 345. | 6728.20 |
| 1.97 | 0.00 | 5.79 | 4.35 | 0.000 | 0.030 | 0.030 | 0.000 | 6727.80 | 1925.78 |
| 0.012764 | 1950. | 2250. | 2000. | 6 | 15 | 0 | 0.00 | 185.40 | 2111.18 |

THIS RUN EXECUTED 16-OCT-84 13:11:05

 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

EAR DEVELOPED FLOOD

SUMMARY PRINTOUT

| SECNO | CWSEL | DEPTH | O | OLOB | OROB | SSTA | ENDST | TOFWID |
|-----------|---------|---------|----------|---------|---------|---------|---------|--------|
| * 17.000 | 6026.10 | 5.80 | 15620.00 | 0.00 | 0.00 | 1849.67 | 2109.95 | 260.28 |
| * 18.000 | 6040.05 | 6.45 | 7895.00 | 0.00 | 0.00 | 1740.23 | 1851.57 | 111.34 |
| * 101.000 | 6055.71 | 6.71 | 7895.00 | 0.00 | 7895.00 | 2308.46 | 2414.37 | 105.91 |
| * 102.000 | 6071.26 | 6.76 | 7895.00 | 0.00 | 0.00 | 1938.06 | 2049.31 | 111.25 |
| * 103.000 | 6086.32 | 6.32 | 7660.00 | 0.00 | 0.00 | 1947.85 | 2051.63 | 103.79 |
| * 104.000 | 6096.40 | 6.60 | 7660.00 | 0.00 | 0.00 | 1948.30 | 2057.12 | 108.81 |
| * 105.000 | 6118.86 | 2.86 | 7590.00 | 5579.69 | 254.83 | 1647.01 | 2240.01 | 593.00 |
| * 106.000 | 6129.01 | 4.21 | 7590.00 | 371.28 | 75.54 | 1779.14 | 2038.94 | 259.80 |
| * 107.000 | 6152.12 | 3.92 | 7590.00 | 48.16 | 0.00 | 1458.83 | 1793.03 | 334.20 |
| * 108.000 | 6169.77 | 5.17 | 7590.00 | 0.00 | 0.23 | 1693.88 | 1851.75 | 157.87 |
| * 109.000 | 6190.28 | 8.28 | 7590.00 | 0.00 | 0.00 | 2019.90 | 2241.31 | 221.42 |
| * 110.000 | 6197.29 | 6.39 | 7590.00 | 0.00 | 0.00 | 1564.26 | 1686.28 | 122.01 |
| * 111.000 | 6208.19 | 4.89 | 7590.00 | 0.00 | 0.00 | 1891.00 | 2066.94 | 175.94 |
| | 111.500 | 6208.88 | 5.58 | 7590.00 | 0.00 | 1887.81 | 2071.20 | 183.39 |
| * 112.000 | 6226.53 | 3.33 | 7590.00 | 0.00 | 0.00 | 1566.12 | 2125.47 | 559.55 |
| * 113.000 | 6238.98 | 2.68 | 7590.00 | 0.00 | 0.00 | 1155.45 | 1565.61 | 401.13 |
| * 114.000 | 6254.26 | 2.76 | 7590.00 | 0.00 | 0.00 | 1905.00 | 2195.00 | 290.00 |

| SECNO | CWSEL | DEPTH | Q | QLOB | QROB | SSTA | ENDST | TOPWID |
|-----------|---------|-------|-----------|---------|---------|---------|---------|--------|
| * 114.500 | 6254.62 | 3.12 | 7590.00 | 0.00 | 0.00 | 1905.00 | 2195.00 | 290.00 |
| * 115.000 | 6269.46 | 5.16 | 7590.00 | 0.00 | 0.00 | 1906.67 | 2149.50 | 242.82 |
| * 116.000 | 6277.69 | 3.89 | 7590.00 | 0.00 | 5022.35 | 1450.14 | 1957.92 | 494.44 |
| * 117.000 | 6291.84 | 10.84 | 7590.00 | 98.91 | 6266.83 | 1694.21 | 2139.44 | 445.23 |
| * 117.500 | 6291.98 | 6.98 | 7590.00 | 144.22 | 6717.24 | 1681.75 | 2140.93 | 459.18 |
| 118.000 | 6294.08 | 5.18 | 7590.00 | 0.00 | 74.23 | 2464.11 | 2900.82 | 436.71 |
| * 119.000 | 6308.30 | 4.00 | 7590.00 | 2046.61 | 0.00 | 2111.32 | 2700.20 | 588.88 |
| * 120.000 | 6326.81 | 4.41 | 7590.00 | 0.00 | 0.00 | 1955.68 | 2643.21 | 687.54 |
| * 121.000 | 6349.35 | 3.95 | 7590.00 | 0.00 | 0.00 | 1840.36 | 2098.87 | 258.52 |
| * 122.000 | 6360.55 | 2.95 | 7590.00 | 0.00 | 0.00 | 1515.62 | 1918.53 | 343.92 |
| * 123.000 | 6384.19 | 3.39 | 7590.00 | 0.00 | 0.00 | 1804.00 | 2277.68 | 473.68 |
| * 124.000 | 6401.32 | 3.32 | 7590.00 ✓ | 0.00 | 0.00 | 1595.39 | 2230.90 | 635.51 |
| * 125.000 | 6423.57 | 2.27 | 1870.00 | 0.00 | 0.00 | 2076.20 | 2222.52 | 146.32 |
| * 126.000 | 6448.26 | 3.16 | 1870.00 | 34.17 | 0.00 | 2146.06 | 2480.87 | 176.36 |
| * 126.200 | 6465.54 | 1.84 | 1870.00 | 0.00 | 0.00 | 1519.97 | 1732.87 | 212.89 |
| * 126.400 | 6484.79 | 1.99 | 1870.00 | 0.00 | 0.00 | 2025.53 | 2482.71 | 457.18 |
| * 127.000 | 6501.39 | 6.69 | 1870.00 | 772.87 | 746.49 | 2002.17 | 2475.29 | 473.12 |
| 127.500 | 6501.82 | 7.12 | 1870.00 | 854.55 | 804.93 | 1966.59 | 2535.85 | 569.26 |
| * 128.000 | 6507.38 | 2.18 | 1870.00 | 0.00 | 0.00 | 1890.46 | 2201.23 | 280.75 |
| * 129.000 | 6529.19 | 3.09 | 1870.00 ✓ | 0.00 | 1870.00 | 2236.70 | 2331.70 | 95.00 |
| * 130.000 | 6544.09 | 1.99 | 1600.00 | 0.00 | 0.00 | 1460.00 | 1560.00 | 100.00 |
| 130.500 | 6544.16 | 2.06 | 1600.00 | 0.00 | 0.00 | 1460.00 | 1560.00 | 100.00 |
| * 131.000 | 6557.27 | 1.77 | 1600.00 | 0.00 | 0.00 | 1989.49 | 2150.36 | 160.87 |
| * 132.000 | 6577.30 | 1.90 | 1600.00 | 0.00 | 0.00 | 1957.75 | 2197.03 | 239.27 |
| * 133.000 | 6602.18 | 3.08 | 1600.00 | 3.97 | 0.00 | 1388.75 | 1716.32 | 280.57 |
| * 134.000 | 6639.36 | 1.96 | 1600.00 ✓ | 0.00 | 0.00 | 2141.01 | 2362.08 | 221.06 |

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| | SECNO | CWSEL | DEPTH | O | OLOB | OROB | SSTA | ENDST | TOPWID |
|---|---------|---------|-------|--------|------|--------|---------|---------|--------|
| * | 135.000 | 6674.54 | 2.24 | 990.00 | 0.00 | 300.88 | 1602.79 | 1844.74 | 217.56 |
| * | 136.000 | 6698.15 | 2.35 | 990.00 | 0.00 | 0.00 | 1364.19 | 1461.07 | 96.89 |
| * | 137.000 | 6729.57 | 1.77 | 990.00 | 0.00 | 134.39 | 1925.78 | 2111.18 | 185.40 |

SUMMARY OF ERRORS AND SPECIAL NOTES

| | | | | |
|---------|--------|---------|------------|-------------------------------------|
| CAUTION | SECNO= | 17.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 18.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 18.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 18.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 101.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 101.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 101.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 102.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 102.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 102.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 103.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 103.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 103.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 104.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 104.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 104.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 105.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 105.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 105.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 106.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 106.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 107.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 107.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 107.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 108.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 108.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 108.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 109.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 109.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 109.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 110.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 110.000 | PROFILE= 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 111.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 111.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 111.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 112.000 | PROFILE= 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 112.000 | PROFILE= 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 112.000 | PROFILE= 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |

| | | | | | |
|---------|--------|---------|----------|---|-------------------------------------|
| CAUTION | SECNO= | 113.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 113.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 114.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 114.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 114.500 | PROFILE= | 1 | HYDRAULIC JUMP D.S. |
| CAUTION | SECNO= | 115.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 115.000 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 115.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 116.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 116.000 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 116.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSFL |
| CAUTION | SECNO= | 117.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 117.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSFL |
| CAUTION | SECNO= | 117.500 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 117.500 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 117.500 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 119.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 119.000 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 119.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 120.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 120.000 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 120.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 121.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 121.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 122.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 122.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 123.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 123.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 124.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 124.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 125.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 125.000 | PROFILE= | 1 | PROBABLE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 125.000 | PROFILF= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 126.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 126.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 126.200 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 126.200 | PROFILF= | 1 | MINIMUM SPECIFIC ENERGY |

| | | | | | |
|---------|--------|---------|----------|---|-------------------------------------|
| CAUTION | SECNO= | 126.400 | PROFILE= | 1 | CRITICAL DFPTH ASSUMED |
| CAUTION | SECNO= | 126.400 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 127.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 127.000 | PROFILE= | 1 | PROBABIE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 127.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 128.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 128.000 | PROFILE= | 1 | PROBABIE MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 128.000 | PROFILE= | 1 | 20 TRIALS ATTEMPTED TO BALANCE WSEL |
| CAUTION | SECNO= | 129.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 129.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 130.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 130.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 131.000 | PROFILF= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 131.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 132.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 132.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 133.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 133.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 134.000 | PROFILE= | 1 | CRITICAL DFPTH ASSUMED |
| CAUTION | SECNO= | 134.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 135.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 135.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 136.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 136.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |
| CAUTION | SECNO= | 137.000 | PROFILE= | 1 | CRITICAL DEPTH ASSUMED |
| CAUTION | SECNO= | 137.000 | PROFILE= | 1 | MINIMUM SPECIFIC ENERGY |

 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
 ERROR CORR - 01,02,03,04,05,06
 MODIFICATION - 50,51,52,53,54,55
