```
1  1*   *     *    ***     *      *                                                                                                          1
1  1**  **   **    *   *   *      *                                       SPENCER, N.C.                                                      1
1  1* * * *  *     *     * *      *                                                                                                          1
1  1*  *  *  *     ******* *  **                                                                                                             1
1  1*     *  *     *       *   *                                          SOUTHERN RAILROAD BRANCH                                           1
1  1*     *  *     *  *    *   *                                                                                                             1
1  1                                                                                                                                         1
1  1                                                                                                                                         1
1  1****    *     *    ***    *     ***       ****            *****     ******        ***                                                    1
1  *     *  *  *  *   *   *  *   *   *     *      *      *  *   *    *     *     *     *                                                       1
1  1*       *  *  *   *   *  *   *   *     *      *      *  *   *    *     *     *     *                                                       1
1  1*****   ******* *  *   ****    ***       ****     *   *    *     *     *                                                                 1
1  1*     *  *   *  *   *  **  *    *   *    *      *   *    *    *    *                                                                       1
1  1*    *  *   *  *   *    *     *      *    *****    *****        *    *    *    ***                                                         1
```

PROGRAMMER=PAK   ACCOUNT=RTI·A25·P03078

	JOB TURN-AROUND		JOB PARAMETERS		TIME USED INCLUDES		MISC. JOB VALUES	
	DATE	TIME		SPECIFIED	USED		NO.	EQUIVALENT	
ENTERED	10/06/77	15:57:09.6	TIME	2:00.0	0:16.1	CPU		0:04.6	LINES IN	85
EXECUTED	10/06/77	18:24:29.3	PAGES	200	12	UR EXCPS	649	0:02.6	LINES OUT	480
RETURNED	10/07/77	13:29:09.3	CARDS	0	0	DISK EXCPS	443	0:08.9	MEMORY TIME	8040 K-SEC
JOB ENTERED ON THURSDAY			PLOTS	0	0	TAPE READ-WRITE		0:00.0	PRIORITY	00
						TAPE FILE SEARCH		0:00.0	APPROX. COST	$3.17

JOB CONSOLE LOG

```
* 18.24.17 JOB  558 -- RMAKS3    -- JCL INTERPRETED, TUCC CPU #2
* 18.24.29 JOB  558 -- RMAKS3    -- BEGINNING EXEC - INIT 3 - CLASS
L*18.24.29 JOB  558 +++++$=058,T=02,J=RMAKS3   18:24:29 MAK
* 18.26.21 JOB  558 END EXECUTION.
```

```
//RMAKS3 JOB RTI.A25.P03078,MAK,M=1,T=2,P=200,PRTY=0
      ***PROCLIB=RTI.MG.PROCLTB
// EXEC HEC2
   XXG EXEC PGM=HEC2,R=500K                                        00000010
   XXSTEPLIB DD DSN=RTI.A25.P03078.JCW.LIB.LOAD,DISP=SHR           00000020
   XXFT03F001 DD SYSOUT=A                                          00000030
   XXFT01F001 DD DDNAME=SYSIN                                      00000040
   XXFT91F001 DD DSN=&I91,UNIT=DISK,DISP=(,DELETE),SPACE=(TRK,(20,20)),  00000050
   XX DCB=(BUFNO=1,RECFM=FB,LRECL=133,BLKSIZE=6384)                00000060
   XXFT92F001 DD DSN=&I92,UNIT=DISK,DISP=(,DELETE),SPACE=(TRK,(20,20)),  00000070
   XX DCB=(BUFNO=1,RECFM=FB,LRECL=133,BLKSIZE=6384)                00000080
   XXFT93F001 DD DSN=&I93,UNIT=DISK,DISP=(,DELETE),SPACE=(TRK,(20,20)),  00000090
   XX DCB=(BUFNO=1,RECFM=FB,LRECL=133,BLKSIZE=6384)                00000100
   XXFT94F001 DD DSN=&I94,UNIT=DISK,DISP=(,DELETE),SPACE=(TRK,(20,20)),  00000110
   XX DCB=(BUFNO=1,RECFM=FB,LRECL=133,BLKSIZE=6384)                00000120
   XXFT95F001 DD DSN=&I95,UNIT=DISK,DISP=(,DELETE),SPACE=(TRK,(20,20)),  00000130
   XX DCB=(BUFNO=1,RECFM=VBS,LRECL=1000,BLKSIZE=6400)              00000140
   XXFT96F001 DD DSN=&I96,UNIT=DISK,DISP=(,DELETE),SPACE=(TRK,(20,20)),  00000150
   XX DCB=(BUFNO=1,RECFM=FB,LRECL=133,BLKSIZE=6384)                00000160
//SYSIN DD *
//
      IEF236I ALLOC. FOR RMAKS3   G
      IEF237I 177   ALLOCATED TO STEPLIB
      IEF237I 566   ALLOCATED TO FT03F001
      IEF237I 504   ALLOCATED TO FT01F001
      IEF237I 15C   ALLOCATED TO FT91F001
      IEF237I 15C   ALLOCATED TO FT92F001
      IEF237I 15C   ALLOCATED TO FT93F001
      IEF237I 15C   ALLOCATED TO FT94F001
      IEF237I 15C   ALLOCATED TO FT95F001
      IEF237I 15C   ALLOCATED TO FT96F001
IEF142I - STEP WAS EXECUTED - COND CODE 0000
      IEF285I   RTI.A25.P03078.JCW.LIB.LOAD              KEPT
      IEF285I   VOL SER NOS= RTI444.
      IEF285I   SYS77279.T182417.RV001.RMAKS3.I91        DELETED
      IEF285I   VOL SER NOS= SPARE7.
      IEF285I   SYS77279.T182417.RV001.RMAKS3.I92        DELETED
      IEF285I   VOL SER NOS= SPARE7.
      IEF285I   SYS77279.T182417.RV001.RMAKS3.I93        DELETED
      IEF285I   VOL SER NOS= SPARE7.
      IEF285I   SYS77279.T182417.RV001.RMAKS3.I94        DELETED
      IEF285I   VOL SER NOS= SPARE7.
      IEF285I   SYS77279.T182417.RV001.RMAKS3.I95        DELETED
      IEF285I   VOL SER NOS= SPARE7.
      IEF285I   SYS77279.T182417.RV001.RMAKS3.I96        DELETED
      IEF285I   VOL SER NOS= SPARE7.
   G  CORE=500K TIME---0:14.5    UR---597  RD/WR---0:00.0   RC-----0
   G  USED=234K CPU---0:04.6   DISK---417  REWND---0:00.0
   G           I/O--0:09.9  TAPE-----0  FL SR---0:00.0

RMAKS3    TIME--0:14.5
```

```
**************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
**************************************************


T1    SPENCER-ROWAN CO.  BASIN E  STRM 3S   SOUTHERN  RR BRANCH
T2    FLOODPLAIN STUDY AT  ROWAN & DAVIDSON  COUNTIES  M-G JOB NO.  6918
T3    10 YEAR FLOOD WATER SURFACE PROFILE

J1  ICHECK    INQ     NINV     IDIR     STRT    METRIC    HVINS      Q       WSEL      FQ

      -1.      2.       0.       0.  0.029000    0.0       0.0      -0.    685.200     0.0

J2  NPROF   IPLOT    PRFVS    XSECV    XSECH      FN      ALLDC     IBW      CHNIM    ITRACE

     0.0     0.0    -1.000     0.0      0.0      0.0       0.0      0.0      0.0       0.0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   38.000   39.000   40.000   41.000   43.000   42.000    1.000    2.000   26.000   53.000


   54.000   25.000   50.000     0.0    201.000     0.0      0.0      0.0      0.0       0.0

J5  LPRNT   NUMSEC                  ********REQUESTED SECTION NUMBERS********

   -10.000    0.0      0.0      0.0      0.0      0.0       0.0      0.0      0.0       0.0
NC   0.055    0.055    0.035    0.100    0.300    0.0       0.0      0.0      0.0       0.0
QT   5.000  107.000  218.000  284.000  455.000  284.000    0.0      0.0      0.0       0.0
ET   5.000    0.0      0.0      0.0      0.0    -10.400     0.0      0.0      0.0       0.0


X1 150.000   10.000 1293.000 1304.000  150.000  150.000  150.000    0.0     -6.000     0.0
GR 701.500 1000.000  699.100 1100.000  693.100 1200.000  687.800 1293.000  686.200 1298.000
GR 686.200 1299.000  686.200 1300.000  688.200 1304.000  698.100 1400.000  701.500 1448.000


X1 200.000    0.0      0.0      0.0     50.000   50.000   50.000    0.0      0.800     0.0
NC   0.025    0.025    0.025    0.100    0.300    0.0       0.0      0.0      0.0       0.0


X1 250.000   17.800 1348.000 1350.000   50.000   50.000   50.000    0.0      0.0       0.0
GR 702.400 1000.000  699.100 1084.000  693.600 1200.000  690.700 1250.000  685.400 1343.000
GR 664.800 1348.000  683.800 1348.000  683.800 1350.000  684.800 1350.000  685.800 1354.000
GR 688.000 1375.000  685.000 1400.000  689.900 1500.000  691.500 1600.000  696.300 1700.000
GR 697.400 1750.000  696.700 1800.000    0.0      0.0       0.0      0.0      0.0       0.0
S6   0.900    1.500    2.500    0.0      2.000    0.010     4.000    0.0      0.0       0.0


X1 303.000    0.0      0.0      0.0     53.000   53.000   53.000    0.0      0.0       0.0
X2   0.0      0.0      1.000  685.800  687.900    0.0       0.0      0.0      0.0       0.0
BT  12.000 1000.000  702.400    0.0   1084.000  699.100    0.0   1200.000  693.600     0.0
BT 1300.000 689.900    0.0   1348.000  687.900  685.800 1350.000  687.900  685.800 1400.000
BT 689.000    0.0   1500.000  689.900    0.0   1600.000  691.500    0.0   1700.000  696.300
BT   0.0   1750.000  697.400    0.0   1800.000  696.700    0.0      0.0      0.0       0.0
NC   0.055    0.055    0.035    0.100    0.300    0.0       0.0      0.0      0.0       0.0
```

BT	1300.000	689.000	0.0	1348.000	687.900	685.800	1320.000	687.900	685.800	1400.000
AT	688.000	0.0	1500.000	689.900	0.0	1600.000	691.500	0.0	1700.000	696.300
BT	0.0	1750.000	697.400	0.0	1800.000	696.700	0.0	0.0	0.0	0.0
NC	0.055	0.055	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0
X1	355.000	10.000	1293.000	1304.000	50.000	50.000	50.000	0.0	0.0	0.0
GR	701.500	1000.000	699.100	1100.000	693.100	1200.000	687.800	1293.000	686.200	1298.000
GR	686.200	1299.000	686.200	1300.000	688.200	1304.000	698.100	1400.000	701.500	1448.000
X1	403.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.800	0.0
QT	5.000	93.000	188.000	246.000	398.000	246.000	0.0	0.0	0.0	0.0
X1	533.000	14.000	492.000	510.000	130.000	130.000	130.000	0.0	0.0	0.0
GR	698.000	300.000	694.000	350.000	694.000	400.000	695.000	450.000	695.000	492.000
GR	694.000	495.000	692.200	497.000	692.000	500.000	692.300	503.000	694.000	505.000
GR	695.000	510.000	695.000	520.000	696.000	550.000	700.000	580.000	0.0	0.0
X1	583.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.900	0.0
NC	0.025	0.025	0.025	0.100	0.300	0.0	0.0	0.0	0.0	0.0
X1	633.000	13.000	2226.200	2227.800	50.000	50.000	50.000	0.0	0.0	0.0
GR	704.300	2000.000	704.300	2191.000	700.300	2206.000	698.700	2221.000	697.400	2226.200
GR	696.400	2226.200	696.400	2227.800	697.400	2227.800	697.700	2235.000	706.400	2290.000
GR	706.700	2300.000	710.200	2400.000	713.200	2472.000	0.0	0.0	0.0	0.0
S8	1.250	2.500	2.500	0.0	1.500	0.010	3.000	0.0	0.0	0.0
X1	817.000	0.0	0.0	0.0	184.000	184.000	1.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	698.400	0.0	0.0	0.0	0.0	0.0	0.0
BT	0.000	2000.000	704.300	0.0	2191.000	704.300	0.0	2200.000	704.300	0.0
BT	2226.200	704.700	698.400	2227.800	704.700	698.400	2300.000	706.700	0.0	2400.000
BT	710.200	0.0	2472.000	713.200	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.055	0.055	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0
X1	867.000	10.000	1104.000	1118.000	50.000	50.000	50.000	0.0	0.0	0.0
GR	718.300	1000.000	711.000	1056.000	702.100	1089.000	700.700	1104.000	698.200	1109.000
GR	698.200	1110.000	698.400	1111.000	699.500	1118.000	712.800	1200.000	718.300	1265.000
X1	917.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.900	0.0
QT	5.000	67.000	139.000	183.000	301.000	183.000	0.0	0.0	0.0	0.0
X1	1293.000	7.000	1093.000	1097.000	376.000	376.000	376.000	0.0	0.0	0.0
GR	726.700	1000.000	717.100	1050.000	710.000	1093.000	709.100	1095.000	710.800	1097.000
GR	720.300	1100.000	726.700	1136.000	0.0	0.0	0.0	0.0	0.0	0.0
EU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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*********************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*********************************************************


T1     SPENCER-ROWAN CO. BASIN E STRM 3S    SOUTHERN RR BRANCH
T2     FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES  M-G JOB NO. 6918
T3     50 YEAR FLOOD WATER SURFACE PROFILE

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS      Q       WSEL      FQ

    -10.       3.       0.       0.   0.029000    0.0      0.0       0.    686.200    0.0

J2  NPROF    IPLOT     PRFVS    XSECV    XSECH     FN      ALLDC     IBW     CHNIM     ITRACE

    2.000     0.0     -1.000     0.0      0.0      0.0      0.0      0.0      0.0       0.0
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*********************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*********************************************************


T1      SPENCER-ROWAN CO. BASIN E STRM 3S    SOUTHERN RR BRANCH
T2      FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES M-G JOB NO. 6918
T3      100 YEAR FLOOD WATER SURFACE PROFILE

J1  ICHECK    INQ     NINV    IDIR      STRT    METRIC    HVINS      Q        WSEL      FQ

     -10.      4.      0.      0.    0.029000    0.0       0.0       0.     687.200    0.0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH      FN      ALLOC     IBW      CHNIM    ITRACE

    3.000     0.0    -1.000     0.0      0.0      0.0       0.0      0.0      0.0       0.0
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***************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
***************************************************


T1     SPENCER-ROWAN CO. BASIN E STRM 3S   SOUTHERN RR BRANCH
T2     FLOODPLAIN STUDY AT ROWAN & DAVIDSON COUNTIES  M-G JOB NO. 6918
T3     500 YEAR FLOOD WATER SURFACE PROFILE

J1  ICHECK    INQ      NINV     IDIR      STRT     METRIC    HVINS      Q        WSEL       FQ
     -10.       5.       0.       0.    0.029000     0.0       0.0       0.      688.200     0.0

J2  NPROF     IPLOT    PRFVS     XSECV    XSECH      FN       ALLDC      IBW      CHNIM     ITRACE
    15.000     0.0    -1.000      0.0       0.0       0.0       0.0       0.0       0.0       0.0
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*******************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
*******************************************************

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


10 YEAR FLOOD WATER SURF

SUMMARY PRINTOUT
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	SECNO	XLCH	ELTRD	ELLC	Q	ELMIN	CWSEL	CRIWS	VCH	SSTA	ENDST	AREA	DIFWSP
*	150.000	150.00	0.0	0.0	107.00	680.20	682.43	682.43	6.15	1281.91	1306.25	20.32	0.0
*	150.000	150.00	0.0	0.0	218.00	680.20	683.19	683.19	7.02	1268.67	1313.56	46.43	0.75
*A	150.000	150.00	0.0	0.0	284.00	680.20	683.48	683.48	7.49	1263.58	1316.38	60.61	0.29
*	150.000	150.00	0.0	0.0	456.00	680.20	684.03	684.03	8.50	1253.79	1321.79	94.31	0.56
*	200.000	50.00	0.0	0.0	107.00	681.00	683.23	683.23	6.15	1281.90	1306.25	20.33	0.0
*	200.000	50.00	0.0	0.0	218.00	681.00	683.99	683.99	7.00	1268.61	1313.60	46.60	0.76
*	200.000	50.00	0.0	0.0	284.00	681.00	684.28	684.28	7.45	1263.45	1316.45	61.01	0.29
*	200.000	50.00	0.0	0.0	456.00	681.00	684.85	684.85	8.44	1253.59	1321.90	95.09	0.56
*	250.000	50.00	0.0	0.0	107.00	683.80	685.29	686.29	5.99	1327.43	1358.65	22.90	0.0
*	250.000	50.00	0.0	0.0	218.00	683.80	686.73	686.73	7.00	1319.68	1362.87	39.34	0.44
*B	250.000	50.00	0.0	0.0	284.00	683.80	687.02	687.02	6.70	1314.61	1365.62	52.93	0.29
*	250.000	50.00	0.0	0.0	456.00	683.80	687.42	687.42	7.38	1307.50	1369.49	75.83	0.41
	303.000	53.00	687.90	685.80	107.00	683.80	688.48	0.0	0.76	1288.89	1425.45	173.94	0.0
	303.000	53.00	687.90	685.80	218.00	683.80	688.85	0.0	1.19	1282.39	1444.95	229.36	0.37
C	303.000	53.00	687.90	685.80	284.00	683.80	689.00	0.0	1.39	1279.75	1452.87	254.62	0.16
	303.000	53.00	687.90	685.80	456.00	683.80	689.32	0.0	1.82	1274.23	1469.42	312.52	0.31
*	353.000	50.00	0.0	0.0	107.00	686.20	688.44	688.44	6.11	1281.79	1306.31	20.48	0.0
*	353.000	50.00	0.0	0.0	218.00	686.20	689.18	689.18	7.03	1268.71	1313.54	46.33	0.75
*	353.000	50.00	0.0	0.0	284.00	686.20	689.48	689.48	7.49	1263.55	1316.39	60.65	0.29
*	353.000	50.00	0.0	0.0	456.00	686.20	690.03	690.03	8.50	1253.78	1321.79	94.32	0.56
*	403.000	50.00	0.0	0.0	107.00	687.00	689.23	689.23	6.15	1281.91	1306.25	20.32	0.0
*	403.000	50.00	0.0	0.0	218.00	687.00	689.99	689.99	7.00	1268.60	1313.60	46.61	0.76
*D	403.000	50.00	0.0	0.0	284.00	687.00	690.28	690.28	7.45	1263.42	1316.46	61.08	0.30
*	403.000	50.00	0.0	0.0	456.00	687.00	690.85	690.85	8.44	1253.57	1321.91	95.14	0.56
*	533.000	130.00	0.0	0.0	93.00	692.00	694.28	694.28	4.35	346.51	506.40	34.24	0.0
*	533.000	130.00	0.0	0.0	188.00	692.00	694.58	694.58	5.44	342.79	507.88	61.05	0.30
*E	533.000	130.00	0.0	0.0	246.00	692.00	694.75	694.75	5.49	340.64	508.74	79.41	0.17
*	533.000	130.00	0.0	0.0	398.00	692.00	694.96	694.96	6.65	338.01	509.80	104.74	0.21
*	583.000	50.00	0.0	0.0	93.00	692.90	695.16	695.16	4.45	346.69	506.32	33.12	0.0
*	583.000	50.00	0.0	0.0	188.00	692.90	695.50	695.50	5.21	342.45	508.02	63.88	0.34
*	583.000	50.00	0.0	0.0	246.00	692.90	695.60	695.60	5.90	341.26	508.50	73.94	0.09
*	583.000	50.00	0.0	0.0	398.00	692.90	695.89	695.89	6.38	337.61	509.95	108.83	0.29

	SECNO	XLCH	ELTRD	ELLC	Q	ELMIN	CWSEL	CRIWS	VCH	SSTA	ENDST	AREA	DIFWSP
*	633.000	50.00	0.0	0.0	93.00	696.40	698.66	698.66	5.85	2221.83	2241.07	17.28	0.0
*	633.000	50.00	0.0	0.0	188.00	696.40	699.26	699.26	6.17	2217.12	2244.88	31.11	0.60
* F	633.000	50.00	0.0	0.0	246.00	696.40	699.52	699.52	6.39	2214.33	2246.52	38.92	0.26
*	633.000	50.00	0.0	0.0	398.00	696.40	700.05	700.05	6.88	2208.72	2249.83	58.10	0.52
	817.000	184.00	704.30	698.40	93.00	696.40	704.53	0.0	0.23	2000.00	2278.17	394.87	0.0
	817.000	184.00	704.30	698.40	188.00	696.40	704.73	0.0	0.43	2000.00	2279.49	453.07	0.21
G	817.000	184.00	704.30	698.40	246.00	696.40	704.84	0.0	0.54	2000.00	2280.14	481.83	0.10
	817.000	184.00	704.30	698.40	398.00	696.40	705.05	0.0	0.80	2000.00	2281.54	544.30	0.22
	867.000	50.00	0.0	0.0	93.00	698.20	704.53	0.0	0.64	1080.01	1146.98	212.60	0.0
	867.000	50.00	0.0	0.0	188.00	698.20	704.73	0.0	1.21	1079.26	1150.23	226.72	0.20
	867.000	50.00	0.0	0.0	246.00	698.20	704.82	0.0	1.54	1078.90	1150.83	233.65	0.10
	867.000	50.00	0.0	0.0	398.00	698.20	705.02	0.0	2.36	1078.15	1152.07	248.33	0.20
	917.000	50.00	0.0	0.0	93.00	699.10	704.53	0.0	0.86	1083.34	1143.44	154.59	0.0
H	917.000	50.00	0.0	0.0	188.00	699.10	704.73	0.0	1.61	1082.58	1144.70	167.08	0.20
	917.000	50.00	0.0	0.0	246.00	699.10	704.83	0.0	2.04	1082.21	1145.31	173.27	0.10
	917.000	50.00	0.0	0.0	398.00	699.10	705.03	0.0	3.08	1081.44	1146.60	186.64	0.20
*	1293.000	376.00	0.0	0.0	67.00	709.10	711.43	711.43	6.77	1084.37	1097.20	12.91	0.0
* I	1293.000	376.00	0.0	0.0	139.00	709.10	712.14	712.14	8.15	1080.04	1097.42	23.70	0.71
*	1293.000	376.00	0.0	0.0	183.00	709.10	712.46	712.46	8.78	1078.11	1097.52	29.59	0.32
*	1293.000	376.00	0.0	0.0	301.00	709.10	713.13	713.13	10.02	1074.03	1097.74	44.11	0.67

SUMMARY OF ERRORS

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CAUTION  SECNO=  150.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  150.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  150.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  150.000  PROFILE= 4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO=  200.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  200.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  200.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  200.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  200.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  200.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  200.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  200.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  200.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  200.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  200.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=  250.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  250.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  250.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  250.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  250.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  250.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  250.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  250.060  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  250.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  250.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  250.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION   SECNO=  250.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  250.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  250.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  250.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  250.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO=  353.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  353.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  353.000   PROFILE= 1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  353.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  353.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  353.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  353.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  353.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  353.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  353.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  353.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  353.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO=  403.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  403.000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  403.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  403.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  403.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  403.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  403.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  403.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  403.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  403.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  403.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO=  533.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  533.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  533.000   PROFILE= 1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  533.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  533.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  533.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  533.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  533.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  533.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  533.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  533.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  533.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO=  583.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  583.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  583.000   PROFILE= 1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  583.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  583.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  583.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  583.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  583.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  583.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  583.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  583.000   PROFILE= 4   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=  633.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  633.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  633.000   PROFILE= 1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  633.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  633.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  633.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  633.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  633.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  633.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=  633.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=  633.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=  633.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO= 1293.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO= 1293.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO= 1293.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 1293.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 1293.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 1293.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 1293.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 1293.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 1293.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 1293.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 1293.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 1293.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 1293.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 1293.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOOD INSURANCE ZONE DATA FOR 10 YEAR FLOOD WATER SURF

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND E		
		10C	2C	0.2C
150.000	0.	-1.6	-0.3	0.6
200.000	50.	-1.1	-0.3	0.6
250.000	100.	-0.7	-0.3	0.4
303.000	153.	-0.5	-0.2	0.3
353.000	203.	-1.0	-0.3	0.6
403.000	253.	-1.1	-0.3	0.6
533.000	383.	-0.5	-0.2	0.2
583.000	433.	-0.4	-0.1	0.3
633.000	483.	-0.9	-0.3	0.5
817.000	667.	-0.3	-0.1	0.2
867.000	717.	-0.3	-0.1	0.2
917.000	767.	-0.3	-0.1	0.2
1293.000	1143.	-1.0	-0.3	0.7
WEIGHTED AVG FOR REACH		-0.7	-0.2	0.4

FHF FOR THE REACH = 005 WITH 100.0C OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 1

GR   698.300   1600.000   695.600   1613.000   0.0   0.0   0.0 0.0   0.0

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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EJ
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