FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CAVE CREEK WASH
FUTURE CONDITIONS FLOODWAY STUDY
ARIZONA CANAL DIVERSION CHANNEL TO DEER VALLEY ROAD

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MARCH 1990

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
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INTRODUCTION

Purpose of Study

The purpose of this Future Conditions Floodway Study is to compute a 100-year floodway using peak discharges previously computed by the U.S. Army Corps of Engineers along Cave Creek Wash from the Arizona Canal Diversion Channel (ACDC) to Deer Valley Road. The area studied includes portions of the City of Phoenix in Maricopa County, Arizona.

Coordination and Acknowledgements

This study is based upon the hydraulic computer model developed for the 1990 Cave Creek Wash and East Fork of Cave Creek Floodplain Delineation Study prepared by Burgess & Niple, Inc. for the Flood Control District of Maricopa County.

Peak 100-year flood discharges used for this study were obtained from the report: Gila River Basin, Phoenix, Arizona and Vicinity, Arizona Canal Diversion Channel - 40th Street to Cactus Road, by the U.S. Army Corps of Engineers, dated April 1986.

AREA STUDIED

Scope of Study

This floodway study covers incorporated areas of Phoenix along Cave Creek Wash from the ACDC (River Mile 15.263) to Deer Valley Road (River mile 24.635). Refer to Figure 1 on the following page.

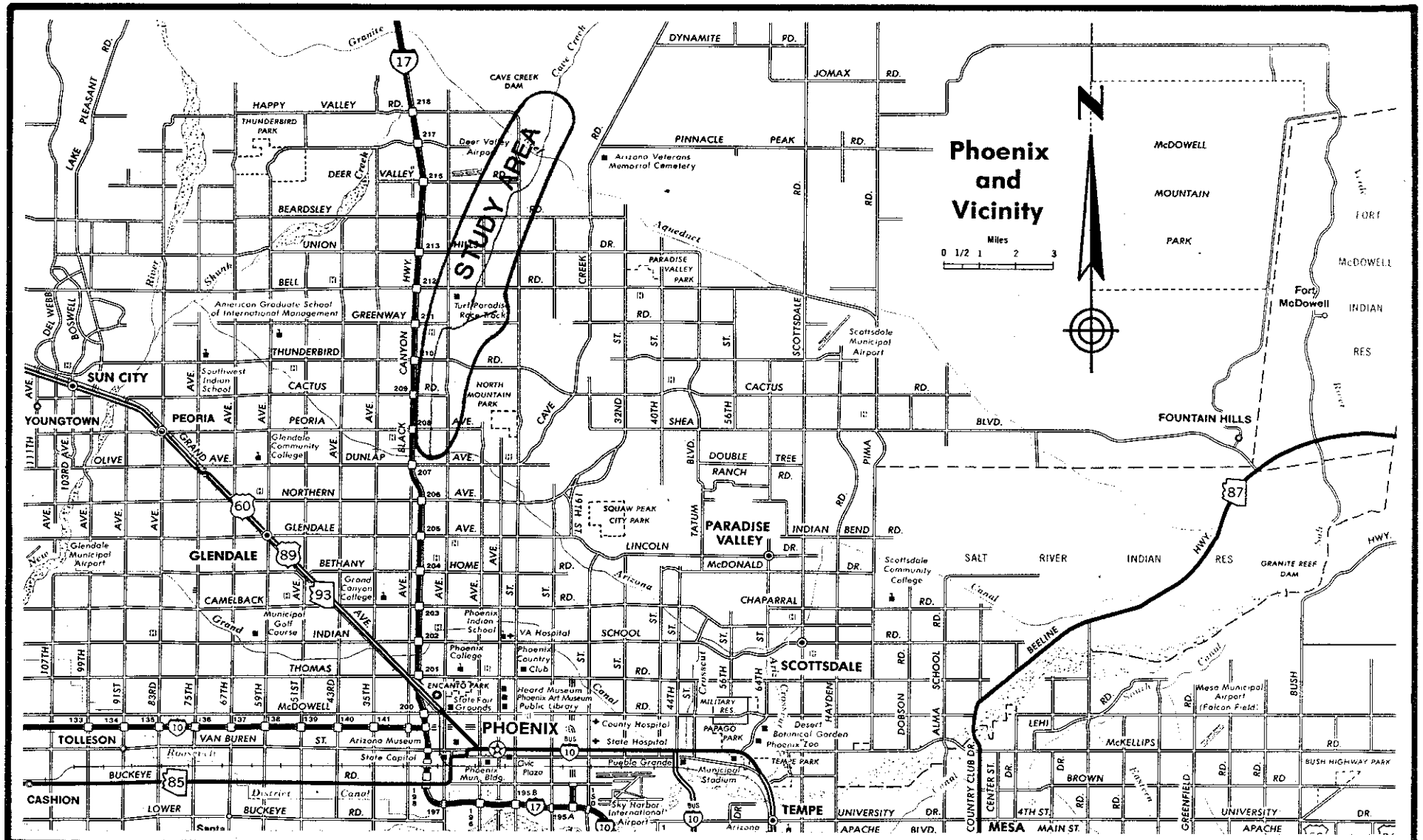

FIGURE 1

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Burgess & Niple, Inc.

Engineers and Architects

APPROXIMATE SCALE

0 4 8 12 16

VICINITY MAP

Community Description

Maricopa County has a total area of 9,238 square miles and is located in the south central region of Arizona. Total Maricopa County population in 1990 is projected to be 2,133,000. The area is experiencing rapid population growth, having grown from 1,509,262 in 1980. City of Phoenix population in 1988 was 955,695.

Terrain in Maricopa County varies from mountains to alluvial plains. Numerous small, intermittent streams and washes traverse the county. Major streams include the Gila, Salt, Agua Fria, New and Hassayampa Rivers.

The area is located within the Sonoran Desert with mild, short winters and long, hot summers.

Principal Flood Problems

Storms during summer months generally originate in the Gulf of Mexico area and tend to be intense and of short duration. Storms at other times of the year generally originate in the Pacific Ocean and tend to be more gentle rains of longer duration. Flooding may occur at any time of the year.

Cave Creek Wash is controlled by Cave Butte Dam for flood mitigation purposes. The dam is designed to retain a sufficient volume of the 100-year runoff to permit release of only 420 cfs downstream. An emergency spillway operates for events greater than the 100 year flood.

Cave Creek Wash within the study area is located in a wide alluvial flood plain. Flood hazards along the stream result when the channel overflows and inundates development which has occurred along the stream.

Flood Protection Measures

Cave Butte Dam is operated by the Flood Control District of Maricopa County to mitigate flood hazards for events up to and including the 100-year flood. Numerous retention basins located throughout the watershed also serve

to mitigate increased runoff due to urban development. Off-stream gravel mining adjacent to the channel in some areas provides unintended storage which may reduce peak flood discharges.

Construction of a concrete lined channel in the lower reach of Cave Creek Wash from the ACDC to the area of Sweetwater Road was substantially completed in 1989. The project, designed by the U.S. Army, Corps of Engineers, is intended to convey the 100-year flood within the channel. Construction includes a large sediment basin upstream of the channel and pier extensions for the Cactus Road and Peoria Avenue bridges in order to assure supercritical flow as designed.

ENGINEERING METHODS

Hydrologic Analyses

No hydrologic analyses were performed for this study. Peak 100-year discharges representing future conditions were obtained from a report prepared by the U.S. Army Corps of Engineers. These discharges, shown in Table 1, do not agree with peak 100-year flood discharges computed by Burgess & Niple, Inc. for existing conditions (also shown in Table 1).

Peak discharges computed for current conditions are greater than those computed for future conditions downstream of the confluence with the East Fork of Cave Creek. Increased development generally causes increased peak flood discharges for storms of 100-year magnitude. It appears likely that peak 100-year discharges computed prior to 1986 by the U.S. Army Corps of Engineers for projected future conditions may be too low considering that for conditions in 1990, some "future" discharges are already exceeded.

Hydraulic Analyses

Standard hydraulic methods were used to determine the future condition 100-year recurrence interval floodway for this study. Analyses reported herein reflect current physical conditions of the stream using future conditions hydrology.

Table 1

Summary of Discharges

Flooding Source and Location	COE "Future" 100-YR (cfs)	B&N Current 100-YR (cfs)
Cave Creek Wash		
Below Deer Valley Drive	5,400	5,200
Above the East Fork Cave Creek	5,800	5,700
Below the East Fork Cave Creek	14,000	14,600
Above Moon Valley Wash	14,000	15,400
Below Moon Valley Wash	16,000	17,500
At the Confluence with the Arizona Canal Diversion Channel	16,000	18,500

Water surface elevations are computed through the use of the Department of the Army, Corps of Engineers HEC-2 Water Surface Profiles computer program (Version of September 1988 including Error Correction 3) as implemented by Dodson and Associates, Inc. in ProHEC2. The starting elevation in the ACDC was obtained using normal depth. Elevations used are referenced to the National Geodetic Vertical Datum of 1929.

Hydraulic analyses are based upon unobstructed flow conditions. Flood elevations presented herein are considered valid only if the bridges and culverts remain unobstructed, and dams in the watershed do not fail.

FLOODPLAIN MANAGEMENT APPLICATIONS

Encroachment on flood plains, such as artificial fill, reduces the flood carrying capacity, increases flood heights of streams, and increases flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, the concept of a floodway is used as a

tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment in order that the 100-year flood can be carried without substantial increase in flood heights. Minimum federal standards limit such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.

The floodway presented for this study was computed for the existing condition 100-year flood and checked using future conditions flood discharges. The floodway limits computed for existing conditions per the National Flood Insurance Program, Federal Emergency Management Agency guidelines are adequate for future hydrologic conditions as presented in Table 1. The "Future Conditions" 100-year floodway limits are therefore identical to the floodway limits presented in the 1990 Cave Creek Wash and East Fork of Cave Creek Floodplain Delineation Study prepared by Burgess & Niple, Inc. The results of future conditions floodway computations are tabulated at selected cross sections for each stream segment for which a floodway is computed (Table 2). No floodway is computed in the channelized portion between the ACDC and the sediment basin near Sweetwater Road.

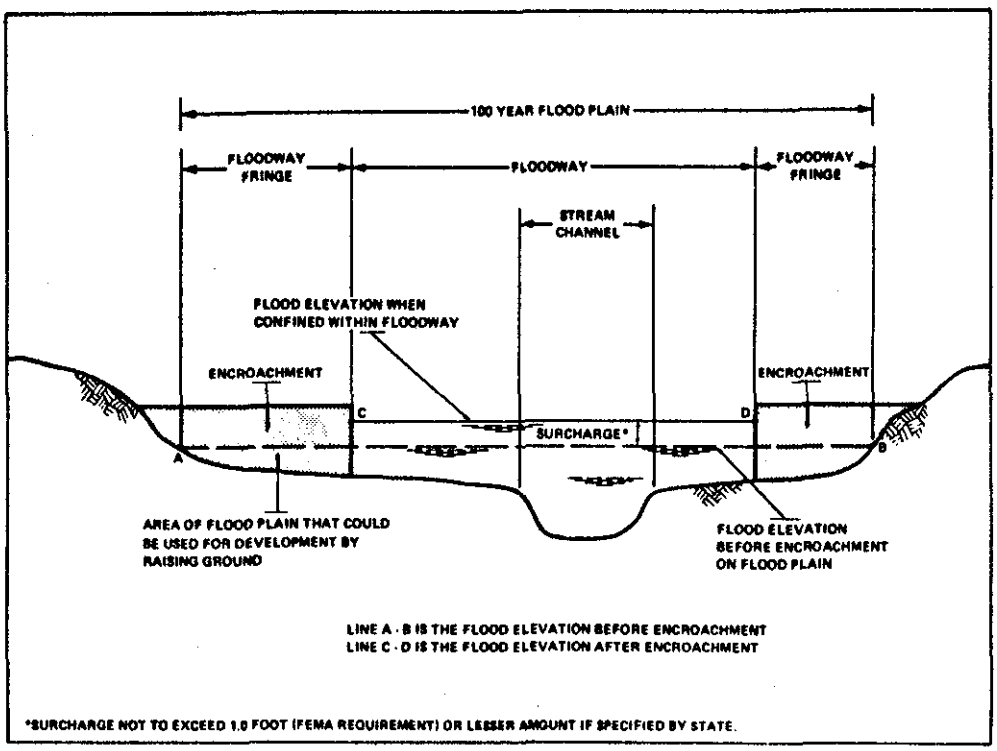

FIGURE 2

FLOODING SOURCE		FLOODWAY			WATER SURFACE ELEVATION[2]		
Cross Section	Distance[1]	Width (Feet)	Section Area (Sq. Ft.)	Mean Velocity (Feet/Sec.)	With Floodway	Without Floodway	Increase
AT	17.588	238.	2347.	6.0	1283.4	1283.3	.1
AU	17.662	249.	1741.	8.0	1283.8	1283.5	.3
AV	17.783	143.	1203.	11.6	1285.9	1285.3	.6
AW	17.932	110.	991.	14.1	1290.9	1290.5	.4
AX	18.081	185.	2185.	6.4	1298.4	1298.4	.0
AY	18.174	263.	2695.	5.2	1299.1	1299.1	.0
AZ	18.269	218.	2091.	6.7	1299.1	1299.1	.0
BA	18.362	203.	1861.	7.5	1299.6	1299.5	.1
BB	18.456	255.	1942.	7.2	1307.8	1307.1	.7
BC	18.545	288.	3163.	4.4	1308.7	1308.0	.7
BD	18.640	254.	2551.	5.5	1309.3	1309.0	.3
BE	18.734	228.	2197.	6.4	1309.6	1309.3	.3
BF	18.832	214.	2149.	6.5	1310.0	1309.7	.3
BG	18.925	198.	2030.	6.9	1310.4	1310.2	.2
BH	19.018	170.	1431.	9.8	1310.6	1310.4	.2
BI	19.117	116.	933.	15.0	1311.9	1311.9	.0
BJ	19.210	152.	1367.	10.2	1316.5	1316.5	.0
BK	19.313	157.	1271.	11.0	1322.9	1322.9	.0
BL	19.418	161.	1303.	10.7	1325.3	1325.3	.0
BM	19.560	129.	1276.	11.0	1328.0	1328.0	.0
BN	19.742	85.	935.	6.2	1331.6	1331.6	.0
BO	19.847	86.	835.	6.9	1331.8	1331.7	.1
BP	19.960	73.	421.	13.8	1332.3	1332.3	.0
BQ	20.049	50.	371.	15.6	1338.5	1338.5	.0

[1] Miles above mouth
[2] Feet, NGVD 1929

TABLE 2

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
Burgess & Niple, Inc.
Engineers and Architects

FLOODWAY DATA

CAVE CREEK WASH

FLOODING SOURCE		FLOODWAY			WATER SURFACE ELEVATION[2]		
Cross Section	Distance[1]	Width (Feet)	Section Area (Sq. Ft.)	Mean Velocity (Feet/Sec.)	With Floodway	Without Floodway	Increase
BR	20.144	57.	542.	10.7	1343.6	1343.6	.0
BS	20.242	71.	569.	10.2	1345.6	1345.6	.0
BT	20.335	73.	648.	9.0	1347.6	1347.5	.1
BU	20.423	114.	830.	7.0	1350.0	1349.7	.3
BV	20.529	139.	895.	6.5	1352.6	1352.4	.2
BW	20.628	130.	1092.	5.3	1353.6	1353.4	.2
BX	20.725	64.	403.	14.4	1356.1	1356.1	.0
BY	20.860	156.	870.	6.7	1366.1	1366.1	.0
BZ	20.942	250.	874.	6.6	1367.4	1367.4	.0
CA	21.127	160.	570.	10.2	1374.8	1374.8	.0
CB	21.230	225.	659.	8.8	1380.5	1380.5	.0
CC	21.363	166.	996.	5.8	1383.6	1383.4	.2
CD	21.484	225.	657.	8.8	1387.1	1386.5	.6
CE	21.576	225.	824.	7.0	1390.2	1389.3	.9
CF	21.669	225.	673.	8.3	1393.8	1393.4	.4
CG	21.742	200.	852.	6.6	1396.3	1395.3	1.0
CH	21.840	200.	697.	8.0	1398.0	1398.0	.0
CI	21.895	245.	712.	7.9	1399.8	1399.7	.1
CJ	21.953	421.	827.	6.8	1401.3	1401.1	.2
CK	22.065	410.	1179.	4.8	1404.5	1404.1	.4
CL	22.165	400.	1268.	4.4	1406.1	1405.3	.8
CM	22.273	377.	892.	6.3	1407.7	1406.7	1.0
CN	22.410	180.	569.	9.8	1414.3	1414.3	.0
CO	22.483	160.	1304.	4.3	1416.8	1416.5	.3

[1] Miles above mouth
[2] Feet, NGVD 1929

TABLE 2

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
Burgess & Niple, Inc.
Engineers and Architects

FLOODWAY DATA

CAVE CREEK WASH

FLOODING SOURCE		FLOODWAY			WATER SURFACE ELEVATION[2]		
Cross Section	Distance[1]	Width (Feet)	Section Area (Sq. Ft.)	Mean Velocity (Feet/Sec.)	With Floodway	Without Floodway	Increase
CP	22.578	96.	780.	7.2	1417.3	1416.4	.9
CQ	22.675	198.	1424.	3.9	1418.8	1418.1	.7
CR	22.794	183.	1191.	4.7	1419.6	1418.6	1.0
CS	22.880	169.	788.	7.1	1420.6	1420.1	.5
CT	22.990	136.	648.	8.6	1424.7	1423.7	1.0
CU	23.097	132.	568.	9.9	1430.7	1429.9	.8
CV	23.168	310.	1340.	4.2	1433.7	1433.1	.6
CW	23.253	45.	250.	13.6	1434.5	1434.5	.0
CX	23.334	67.	355.	9.6	1440.4	1440.4	.0
CY	23.416	59.	318.	10.7	1443.8	1443.8	.0
CZ	23.514	57.	365.	9.3	1448.1	1448.1	.0
DA	23.591	75.	478.	7.1	1453.1	1453.1	.0
DB	23.691	65.	368.	9.2	1455.2	1455.2	.0
DC	23.815	86.	525.	8.5	1459.1	1459.0	.1
DD	23.912	76.	627.	8.8	1461.1	1461.1	.0
DE	23.989	99.	851.	6.5	1462.8	1462.8	.0
DF	24.106	100.	971.	5.7	1465.7	1465.7	.0
DG	24.195	100.	1181.	4.7	1466.2	1466.2	.0
DH	24.322	140.	1837.	3.0	1466.6	1466.4	.2
DI	24.444	153.	1209.	4.5	1466.8	1466.4	.4
DJ	24.542	210.	686.	8.0	1467.6	1466.7	.9
DK	24.635	120.	496.	11.1	1472.1	1471.9	.2

[1] Miles above mouth
[2] Feet, NGVD 1929

TABLE 2

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
Burgess & Niple, Inc.
Engineers and Architects

FLOODWAY DATA

CAVE CREEK WASH

INSURANCE APPLICATION

This study is not intended for use as a Flood Insurance Study, and therefore has no insurance application.

OTHER STUDIES

Cave Creek was previously studied by the Federal Emergency Management Agency using detailed methodology in 1980. The most recent Flood Insurance Study map revision dated September 29, 1989 is based upon the 1980 study. Numerous changes have occurred along Cave Creek Wash during the past 10 years, including:

* Construction of the ACDC
* Concrete lined channelization, ACDC to Sweetwater Road
* Sediment basin at Sweetwater Road
* Construction of the Greenway Road bridge and channelization
* Construction of channelization from Tierra Buena Lane to Bell Road, including bridges at Tierra Buena Lane, 11th Avenue, 10th Avenue, and Phelps Road
* Partial construction of channelization from Bell Road to Union Hills Drive
* Continued gravel mining and landfill operations between Beardsley Road and 7th Street
* Channelization and relocation of Cave Creek Wash midway between the CAP Canal and Cave Butte Dam
* Increased urbanization of the watershed and additional tributary area not previously considered

LOCATION OF DATA

Survey, hydraulic, and other pertinent data used in this study may be obtained from the Flood Control District of Maricopa Count, 3335 West Durango Street, Phoenix, Arizona 85009.

APPENDIX "A"

HEC-2 FLOODWAY OUTPUT, SEDIMENT BASIN TO DEER VALLEY ROAD

```
**************************************************
*  WATER SURFACE PROFILES                        *
*  DEVELOPED BY THE COE                          *
*  VERSION OF SEPTEMBER 1988                     *
*  ERROR: 01,02,03                               *
*  RUN DATE     3/13/90   TIME    9:46:51        *
**************************************************
```


```
**************************************
*  DODSON & ASSOCIATES, INC.         *
*  HYDROLOGIST AND CIVIL ENGINEERS   *
*  5629 FM 1960 WEST SUITE 314       *
*  HOUSTON, TEXAS  77069             *
*  (713) 440-3787 Fax (713) 440-4742 *
**************************************
```


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

END OF BANNER

THIS RUN EXECUTED 3/13/90 9:46:52

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*************************************************
 HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989


 ERROR CORR -  01,02,03
 MODIFICATION -
*************************************************


T1      MIDDLE CAVE CREEK FLOODPLAIN DELINEATION STUDY, ACDC TO DEER VALLEY RD.
T2      FLOOD CONTROL DISTRICT OF MARICOPA CO. 1989 BY BURGESS & NIPLE
T3      CAVE CREEK WASH        NATURAL 100 YR FOR "FUTURE COND" COE Q'S

        SUBCRITICAL RUN FROM ACDC TO DEER VALLEY RD.
        FLOODWAY RUN FROM SEDIMENT BASIN TO DEER VALLEY RD.

        FOR SECTIONS 15.310 TO 16.971, REFER TO A SEPARATE SUPERCRITICAL
        RUN FOR THE CORPS OF ENGINEERS' CONCRETE LINED CHANNEL. (NATURAL PROF)

        FLOW IS WITHIN THE CORPS OF ENGINEER'S CHANNEL, SEDIMENT BASIN, OR
        BROAD CRESTED WEIR INLET FROM RM15.015 TO 17.492, THEREFORE NO FLOODWAY
        IS RUN FOR THIS REACH.


        FILE LAST MODIFIED 3/12/90


      ************************************************
      *       NOTE:  THIS IS NOT THE CURRENT         *
      *       CONDITION 100 YEAR MODEL.  THIS        *
      *       RUN REPRESENTS PREVIOUSLY COMPU-       *
      *       TED 100 YEAR DISCHARGES FOR A          *
      *       "FUTURE CONDITION" FLOOD.  THESE       *
      *       FLOOD ELEVATIONS MAY BE HIGHER         *
      *       OR LOWER THAN 100 YEAR ELEVA-          *
      *       TIONS FOR CURRENT CONDITIONS.          *
      *       FLOODWAY LIMITS HAVE BEEN SET          *
      *       EQUAL TO THE LIMITS COMPUTED FOR       *
      *       THE CURRENT CONDITIONS MODEL           *
      *       WHICH WAS DEVELOPED USING FEMA         *
      *       STANDARDS.                             *
      ************************************************


J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              2.                         0.0005

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    1.                 -1.                                                             15.
```

```
J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38.      42.      1.      53.      54.      4.      8.      43.      10.      51.
    46.      40.      41.              110.              200.

NC   0.015    0.015    0.015    0.1      0.3
QT     2.    16000.   16000.

       THE FOLLOWING 3 SECTIONS ARE IN THE ACDC SPACED AT 500 FEET TO
       ESTABLISH A STARTING ELEVATION AND DOWNSTREAM HYDRAULIC JUMP ELEVATION.
       THE ACDC HAS BEEN DESIGNED BY THE COE TO CONTAIN THE ENTIRE 100 YEAR
       FLOOD WITHIN THE CONCRETE LINED CHANNEL.  THE 100 YEAR FLOOD ELEVATION
       PROVIDED BY THE COE FOR THEIR ACDC CHANNEL WILL BE PLOTTED AS BACKWATER
       ON THE CAVE CREEK WASH PROFILE.  THE LOCATION OF THE HYDRAULIC JUMP WILL
       NOT BE SHOWN.

X1   15.015      5.      9945.    10055.
GR   1228.3    9945.   1206.79   9945.1   1205.69   10000.   1206.79   10055.   1226.29   10055.1

X1   15.109                                500.      500.     500.                0.25

X1   15.204                                500.      500.     500.                0.25

       15.310 IS THE FIRST SECTION IN CAVE CREEK WASH.  THE CONFLUENCE OCCURS
       AT RM 15.263

X1   15.310      5.      9967.5   10032.6   560.      560.     560.
GR   1229.5    9967.5   1207.53   9967.6   1206.88   10000.   1207.53   10032.5   1230.     10032.6

X1   15.454                                760.      760.     760.                0.38

X1   15.530      5.      9941.5   10060.5   400.      400.     400.
GR   1237.5    9941.5   1226.98   9962.5   1226.2    10000.   1226.95   10037.5   1238.45   10060.5

X1   15.680                                792.      792.     792.                3.35

X1   15.878      5.      9938.    10062.    1045.     1045.    1045.
GR   1244.7    9938.   1234.71   9958.    1233.87   10000.   1234.71   10042.   1244.71   10062.

       PEORIA AVENUE  (SPECIAL BRIDGE)

X1   15.920                                225.      225.     225.                0.97
```

```
SB      0.9      1.56        3.      100.     82.32        6.     1447.      1.84   1235.45   1235.07
X1   15.940                                   100.      100.      100.                 0.38

       ELTRD IS 1251.1+2.5HV = 1253.6

X2                           1.    1249.6    1253.6                          1.33

X1   16.023        7.     9946.    10053.      441.      441.      441.
GR   1252.5     9946.   1251.45    9946.8   1237.95     9975.   1237.45    10000.   1237.95     10025.
GR   1250.9   10052.2   1251.95    10053.

X1   16.148                                   660.      660.      660.                 2.79

X1   16.264                                   612.      612.      612.                 2.59

X1   16.373                                   576.      576.      576.                 2.43

X1   16.481        6.     9945.    10052.      570.      570.      570.
GR   1261.2     9945.   1260.17    9945.8   1248.17     9971.   1247.59    10000.   1248.17     10029.
GR   1259.7    10052.

X1   16.601        7.     9945.    10052.      634.      634.      634.                 2.67
GR   1261.2     9945.   1260.17    9945.8   1248.17     9971.   1247.59    10000.   1248.17     10029.
GR   1259.7    10052.    1261.3    10087.

X1   16.694        7.     9945.    10056.      491.      491.      491.
GR   1263.9     9945.   1262.92    9945.8   1252.92     9967.   1252.26    10000.   1252.92     10033.
GR   1263.4   10055.2   1264.42    10056.

X1   16.823                                   681.      681.      681.                 2.88

X1   16.902        9.     9940.    10063.      417.      417.      417.
GR   1268.8     9940.   1257.58    9962.5   1256.93    9994.5   1256.19     9996.   1256.19     10004.
GR   1256.9   10005.5   1257.58   10037.5   1269.33   10062.2   1270.33    10063.

       CACTUS ROAD  (SPECIAL BRIDGE)

X1   16.970        8.     9938.3   10064.7      359.      359.      359.
GR   1269.3    9938.3   1259.09    9958.7   1258.43    9991.2   1256.36     9996.   1256.36     10004.
GR   1258.4   10007.9   1259.09   10041.3   1270.78   10064.7

SB      0.9      1.56        3.      100.     82.57        6.     1513.      1.61   1258.71   1258.33
X1   16.988        8.     9938.3   10063.9      90.       90.       90.

       ELTRD IS 1275.25+2.6HV = 1277.8

X2                           1.    1273.75    1277.8
GR   1269.7    9938.3   1259.48    9958.7   1258.83    9991.1   1256.41     9996.   1256.41     10004.
GR   1258.8   10008.9   1259.48   10041.3   1270.17   10063.9
```

```
X1   17.061       8.     9938.3   10064.7      380.      380.      380.
GR   1271.3    9938.3    1261.1    9958.7   1260.51   9988.2   1256.61     9996.   1256.61    10004.
GR   1260.5   10011.8    1261.1   10041.3   1271.79  10064.7

        UPSTREAM EDGE OF SEDIMENT BASIN OUTFLOW SPILLWAY.

X1   17.206       4.     9875.   10125.      769.      769.      769.
GR    1279.    9875.     1267.    9900.     1267.   10100.     1279.   10125.

        SECTION IN SEDIMENTATION BASIN. X5 CARD BASED ON ELEVATION OUTFLOW
        TABLE PROVIDED BY THE CORPS OF ENGINEERS.

NC    0.03      0.03      0.03
X1   17.360      12.     9480.   10427.      820.      830.      813.
X5      2.    1275.4    1275.4
GR   1282.2    9480.    1280.6    9497.   1257.8    9610.   1257.2     9632.   1257.4     9877.
GR   1256.7    9974.    1256.9   10000.   1257.7   10092.   1257.7    10263.   1258.2    10281.
GR   1281.9   10406.    1281.8   10427.

QT      2.   14000.    14000.
X1   17.494      14.     9904.   10062.      750.      670.      707.
GR   1284.9    9809.    1279.1    9904.   1273.4    9967.   1270.3    10000.   1272.1    10008.
GR   1278.5   10062.    1278.8   10087.   1276.1   10109.   1278.7    10161.   1279.5    10167.
GR   1281.5   10304.    1281.6   10392.   1282.5   10461.   1283.1    10472.

NC    0.04      0.04      0.04

        BEGIN ENCROACHMENTS UPSTREAM OF THE SEDIMENT BASIN

ET                        4.1    9955.2   10193.
X1   17.588      25.     9982.   10193.      440.      560.      496.
GR   1291.4    9666.    1290.3    9746.   1275.6    9817.   1275.2     9835.   1273.5     9854.
GR   1277.8    9873.    1279.7    9889.   1277.3    9896.   1278.2     9909.   1281.6     9922.
GR   1281.9    9939.    1282.2    9964.   1278.1    9982.   1269.6     9992.   1270.6    10000.
GR   1270.9   10009.    1272.6   10014.   1273.6   10039.   1273.6    10079.   1271.2    10144.
GR   1271.2   10170.    1276.4   10193.   1290.5   10264.   1291.3    10328.    1291.    10495.

ET                        4.1    9900.   10150.
X1   17.662      23.     9941.   10130.      380.      400.      391.
GR   1293.1    9731.    1293.1    9781.   1291.6    9791.   1282.7     9835.   1278.1     9844.
GR   1279.2    9871.    1277.3    9911.   1276.4    9941.   1272.5     9986.   1271.6    10000.
GR   1274.6   10016.    1277.5   10033.   1278.8   10063.   1278.9    10086.   1276.8    10099.
GR   1275.7   10111.    1281.6   10130.   1285.2   10161.   1293.1    10208.    1294.    10221.
GR   1293.7   10281.     1294.   10400.   1294.5   10432.

ET                        4.1    9921.   10064.
X1   17.783      18.     9921.   10064.      540.      500.      639.
GR   1295.2    9812.     1294.    9837.   1291.3    9861.   1286.9     9895.   1280.5     9921.
GR   1276.8    9938.    1278.3    9954.   1277.6    9973.   1275.4    10000.   1276.3    10019.
GR   1277.4   10033.    1277.7   10045.   1281.1   10064.   1281.3    10074.   1284.6    10097.
GR   1289.8   10122.    1291.5   10143.   1291.9   10153.
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ET                          4.1     9956.     10066.
X1   17.932       23.      9956.    10066.      790.      780.      787.
GR   1294.8     9675.     1294.7    9732.     1295.5    9750.     1293.6    9766.     1297.5    9792.
GR   1297.5     9837.     1298.3    9869.     1291.9    9896.     1289.7    9956.     1283.6    9966.
GR   1283.5     9971.     1277.9    9986.     1278.2   10000.     1278.2   10006.     1279.5   10008.
GR   1279.9    10022.     1280.2   10032.     1285.5   10054.     1290.2   10066.     1290.6   10083.
GR   1298.5    10131.     1299.7   10159.     1299.7   10193.

      THUNDERBIRD ROAD BRIDGE - ALTHOUGH THE ROAD IS LOWEST IN THE RIGHT
      OVERBANK, HIGH BANKS UPSTREAM PREVENT THIS AREA FROM BECOMING EFFECTIVE,
      THEREFORE, ONLY THE BRIDGE OPENING IS CONSIDERED ON THE GR CARDS AND
      ONLY THE BRIDGE LENGTH IS CONSIDERED FOR THE BT CARDS.  ENDS OF THE
      SECTIONS ARE ARTIFICIALLY EXTENDED.  BT'S ARE RAISED 0.5' FROM CENTER-
      LINE OF ROAD ELEVATIONS AT THE BRIDGE. TO ACCOUNT FOR THE RAILING.

NC    0.035     0.035     0.025      0.3       0.5
ET                          4.1    9951.6   10048.38
X1   18.042       8.      9951.    10049.      620.      550.      581.                2.4
GR    1305.    9951.     1283.4    9952.     1282.9    9979.     1279.9    9980.     1279.9   10020.
GR   1281.9    10021.     1284.2   10048.     1305.    10049.

SB    1.05      1.56        3.                  75.       4.      1059.      0.81     1280.2    1279.9
NC    0.03      0.03      0.025
ET                          4.11   9951.5   10048.5
X1   18.061                                   101.      101.      101.                0.8

      ELTRD IS 1298.4+3.2HV =  1301.6

X2                          1.     1293.2    1301.6
BT      4.     9951.      1305.       0.      9952.    1298.4       0.     10048.     1298.4       0.
BT   10049.    1305.        0.

NC    0.035     0.035     0.035
ET                          4.1     9900.     10085.
X1   18.081       11.      9942.    10045.       80.      130.      106.
GR   1300.5    9819.     1300.2    9866.     1298.2    9899.     1286.6    9942.     1282.7    9960.
GR   1281.4   10000.     1281.1   10008.     1282.7   10030.     1284.9   10045.     1297.3   10088.
GR   1300.2   10112.

NC                                  0.1       0.3
ET                          4.1     9857.     10125.
X1   18.174       29.      9919.    10073.      500.      490.      491.
GR   1303.6    9673.     1304.6    9713.     1307.3    9757.     1302.5    9801.     1302.    9850.
GR    1288.    9904.     1287.3    9915.     1288.7    9919.     1284.     9927.     1283.5   9956.
GR   1282.6    9975.     1283.5    9985.     1281.8    9992.     1281.7   10000.     1282.   10006.
GR   1282.3   10011.     1282.7   10020.     1294.6   10073.     1297.    10093.     1296.2  10113.
GR   1293.7   10142.     1293.7   10182.     1296.8   10236.     1299.3   10270.     1298.9  10295.
GR    1298.   10340.     1299.8   10364.     1298.    10396.     1301.1   10478.
```

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ET                          4.1     9882.2    10110.
X1   18.269       12.      9942.    10060.      500.      500.      502.
GR   1303.8     9868.    1288.1     9928.    1288.4     9942.    1285.3     9952.    1283.8     9979.
GR   1283.8    10000.    1283.8    10010.    1285.6    10023.    1292.4    10060.     1294.    10071.
GR   1303.2    10130.    1303.7    10144.

ET                          4.1     9895.6   10107.8
X1   18.362       20.      9942.    10060.      490.      510.      491.
GR   1315.5     9728.    1315.4     9758.    1315.8     9780.    1310.6     9807.    1307.1     9862.
GR   1298.6     9905.     1290.     9942.    1287.8     9952.     1288.     9967.    1286.1     9971.
GR   1285.3    10000.    1286.8    10022.    1286.8    10036.    1290.6    10060.    1303.8    10124.
GR   1307.7    10151.    1307.5    10169.    1306.8    10183.    1308.1    10240.    1308.8    10283.

      DOWNSTREAM GOLF CART CROSSING ON A SINGLE 78" CMP WITH PROTRUDING
      ENDS AND EMBANKMENT SLOPES  (NO WINGWALLS).

ET                          4.1      9885.    10140.
X1   18.445       13.      9992.    10005.      470.      460.      440.
X3     10.                                                        1297.     1297.
GR   1315.1     9796.    1306.2     9880.     1300.     9920.    1299.5     9978.     1290.     9992.
GR   1287.3    10000.     1290.    10005.     1300.    10040.     1302.    10060.     1303.    10097.
GR    1305.    10200.    1305.6    10310.    1309.4    10330.

SB     0.9      2.34       3.0        0.      6.11       1.0      33.2        0.    1287.7    1287.4
ET                         4.11      9885.    10140.
X1   18.456                                     60.       60.       60.                 0.4

      ELTRD IS 1198.8+0.7HV = 1199.5

X2                          1.     1294.2    1299.5
X3     10.                                                        1298.8    1298.8
BT     10.      9796.    1315.5        0.     9880.    1306.6        0.     9928.    1301.9        0.
BT   9991.    11299.1       0.    10000.    1298.8        0.    10046.    1301.9        0.    10097.
BT   1303.4       0.    10200.    1305.4        0.    10310.     1306.       0.    10330.    1309.8
BT      0.

ET                          4.1     9881.4   10169.8
X1   18.545       21.      9951.    10058.      440.      480.      466.
GR   1324.2     9716.    1323.1     9748.    1324.4     9765.    1321.9     9790.    1318.3     9810.
GR    1317.     9839.    1306.7     9889.    1294.1     9951.    1291.5     9972.    1289.3     9993.
GR   1289.7    10000.    1289.7    10018.    1290.5    10040.    1293.8    10058.    1298.8    10073.
GR   1299.8    10094.    1303.4    10108.    1303.9    10121.     1303.    10135.    1310.1    10182.
GR   1310.2    10194.

      UPSTREAM GOLF CART CROSSING ON 2 - 72" RCP WITH FLUSH INLETS AND
      45 DEGREE WINGWALLS.
```

```
ET                          4.1     9880.7    10170.8
X1   18.575       21.      9972.    10000.      160.       160.       160.
X3      10.                                                          1297.      1297.
GR   1324.2     9716.    1323.1     9748.    1324.4      9765.    1321.9     9790.    1318.3     9810.
GR    1317.     9839.    1306.7     9889.    1294.1      9951.    1291.5     9972.    1289.3     9993.
GR   1289.7    10000.    1289.7    10018.    1290.5     10040.    1293.8    10058.    1298.8    10073.
GR   1299.8    10094.    1303.4    10108.    1303.9     10121.     1303.    10135.    1310.1    10182.
GR   1310.2    10194.

SB    1.25      1.56       3.0        0.      10.4       1.0      56.5        0.    1289.4    1289.3
ET                         4.11    9876.1   10177.2
X1   18.583                                    40.       40.       40.                 0.1

       ELTRD IS 1298.4+0.6HV = 1299.0

X2                          1.    1295.4     1299.
X3      10.                                                          1298.4     1298.4
BT       9.     9880.     1310.        0.     9965.      1300.        0.    10000.    1298.4        0.
BT   10037.     1300.        0.    10065.     1302.         0.    10085.     1304.        0.    10122.
BT    1306.        0.    10160.     1308.        0.     10170.     1310.        0.

ET                          4.1    9879.6   10134.7
X1   18.640       17.      9955.    10033.      300.       310.       301.
GR   1322.5     9707.    1323.7     9729.    1320.1      9768.    1313.8     9827.    1312.3     9858.
GR   1308.4     9887.    1302.6     9920.    1294.6      9955.    1292.8     9966.    1290.2     9993.
GR   1291.5    10000.    1291.8    10009.    1293.4     10033.    1307.8    10111.     1309.    10132.
GR   1312.1    10153.    1313.2    10167.

ET                          4.1    9883.2   10111.7
X1   18.734       19.      9938.    10062.      490.       500.       496.
GR   1320.7     9713.    1316.3     9762.    1316.6      9809.    1319.2     9819.    1317.9     9841.
GR   1308.7     9888.    1298.6     9938.    1293.4      9971.    1294.2     9981.    1292.4     9992.
GR   1294.5    10000.    1294.4    10025.    1300.8     10062.     1309.    10094.    1307.6    10104.
GR   1312.9    10124.     1314.    10143.    1317.1     10178.    1319.9    10201.

ET                          4.1    9891.8    10107.
X1   18.832       21.      9929.    10046.      480.       540.       517.
GR   1326.2     9779.     1328.     9788.    1320.6      9826.     1316.     9853.    1312.5     9880.
GR   1302.8     9929.    1296.1     9960.    1293.5      9982.    1293.2    10000.    1293.2    10005.
GR   1294.8    10008.    1295.5    10027.    1297.1     10046.    1307.7    10095.    1314.1    10128.
GR   1314.1    10141.    1317.1    10187.    1320.3     10221.    1319.9    10247.    1318.6    10271.
GR   1319.2    10278.

ET                          4.1    9887.7   10087.5
X1   18.925       14.      9941.    10048.      480.       500.       491.
GR   1329.1     9741.    1315.9     9866.    1297.6      9941.    1297.3     9960.    1295.3     9989.
GR    1295.    10000.    1296.1    10006.    1295.4     10022.    1294.6    10025.    1296.3    10034.
GR    1300.    10048.    1310.5    10087.    1320.1     10132.    1321.3    10161.
```

```
ET                        4.1    9866.3   10038.5
X1  19.018      20.     9903.    10030.     460.      520.      491.
GR   1331.    9681.    1321.2    9775.    1313.9    9847.    1305.1    9903.    1298.1    9930.
GR   1298.    9948.    1298.1    9957.    1297.6    9974.     1299.   10000.    1308.4   10030.
GR  1325.3   10088.     1327.   10101.    1325.5   10109.    1330.2   10118.    1330.9   10124.
GR   1327.   10145.    1326.8   10211.    1328.8   10218.    1332.6   10260.    1331.8   10268.

ET                        4.1    9942.1   10061.9
X1  19.117      10.     9973.    10026.     490.      560.      523.
GR  1333.9    9803.    1331.8    9872.    1323.    9908.    1302.9    9973.    1299.2    9997.
GR  1298.7   10000.    1298.6   10010.    1301.5   10026.    1328.9   10116.     1333.   10144.

ET                        4.1    9923.1   10081.
X1  19.210      16.     9945.    10060.     500.      490.      491.
GR  1333.2    9669.    1330.6    9853.    1328.7    9874.     1312.    9945.     1310.    9954.
GR  1303.8    9978.    1301.4    9991.    1300.2   10000.    1301.3   10010.    1303.4   10026.
GR   1312.   10060.    1321.3   10098.     1327.   10127.    1332.5   10166.    1335.3   10191.
GR  1335.6   10192.
```

19TH AVENUE (SPECIAL BRIDGE)

```
NC                                0.3       0.5
ET                        4.1    9948.    10057.
X1  19.283      12.     9948.    10057.     390.      390.      386.                11.2
X3     10.                                                                   1324.    1324.
GR  1333.2    9669.    1330.6    9853.    1328.7    9874.     1312.    9945.    1300.5    9948.
GR  1300.5   10057.     1312.   10060.    1321.3   10098.     1327.   10127.    1332.5   10166.
GR  1335.3   10191.    1335.6   10192.

SB     0.9    1.56        3.              109.       4.5     1304.       0.    1311.7    1311.7
ET                       4.11    9948.    10057.
X1  19.299                                 86.       86.       86.
```

ELTRD IS 1324.5+2HV = 1326.5

```
X2                        1.    1324.2    1326.5
X3     10.                                                                   1325.    1325.
BT      6.    9500.     1326.       0.    9650.    1324.5       0.    9855.    1325.3       0.
BT  10000.  1325.7        0.   10275.    1324.9       0.   10460.    1326.       0.

ET                        4.1    9944.4   10104.
X1  19.313      20.     9932.    10112.      75.       75.       74.
GR   1329.    9853.    1326.7    9859.    1327.6    9866.    1327.9    9932.    1314.5    9968.
GR  1312.2    9980.    1311.7    9988.    1313.1    9996.    1313.1   10000.    1313.4   10017.
GR   1312.   10029.    1313.7   10044.    1311.7   10054.    1313.7   10069.    1325.5   10112.
GR  1325.4   10137.    1324.3   10180.    1324.9   10219.    1325.2   10325.    1326.6   10464.
```

```
NC                                  0.1       0.3
ET                          4.1    9955.1    10117.8
X1   19.418       19.      9948.    10120.      570.       530.       554.
GR   1330.8     9898.    1328.8     9902.    1330.6      9910.    1330.2     9938.     1328.     9948.
GR   1313.1     9992.    1313.1    10000.     1313.     10004.    1316.1    10022.    1314.6    10058.
GR   1315.5    10076.    1320.1    10094.    1326.1     10120.    1327.6    10138.    1327.5    10186.
GR   1326.2    10276.     1327.    10322.    1328.3     10376.    1328.6    10401.
```

SECTION 19.56 IS JUST DOWNSTREAM OF THE CONFLUENCE WITH THE EAST FORK. THIS SECTION IS USED TO BEGIN THE TRIBUTARY RUN FOR THE EAST FORK OF CAVE CREEK. THE CONFLUENCE OCCURS AT RM 19.608

```
ET                          4.1    9931.4    10061.
X1   19.56        17.      9929.    10065.      730.       720.       729.
GR   1346.1     9801.    1329.7     9902.    1329.7      9929.    1316.5     9950.    1316.8     9978.
GR   1315.6    10000.    1315.6    10008.    1316.6     10026.    1316.4    10035.    1317.5    10043.
GR   1330.6    10065.    1330.8    10099.    1330.5     10146.    1330.2    10195.    1330.9    10208.
GR   1331.2    10223.    1332.1    10301.
```

GREENWAY BRIDGE (SPECIAL BRIDGE). LARGE SKEW ACCOUNTED FOR PRIOR TO DATA INPUT BY ADJUSTING BWC ETC. DUE TO COMPLEX CHANNEL GEOMETRY DOWNSTREAM AT THE CONFLUENCE WITH THE EAST FORK, IT WAS MOST APPROPRIATE TO USE THE UPSTREAM SECTION, REPEATED AT THE DOWNSTREAM FACE. GR CARDS FROM SECTION 19.742 ARE REPEATED FOR 19.625 WITH PSXECE = -1.7

```
QT      2.      5800.     5800.
NC   0.035      0.035     0.015       0.3       0.5
ET                          4.1      9965.     10025.
X1   19.625       11.      9965.    10025.      580.        70.       364.                -1.7
X3     10.                                                                    1332.     1332.
GR   1335.7     9834.    1335.1     9893.    1333.4      9922.    1331.8     9937.    1331.6     9948.
GR   1319.3     9965.    1319.3    10025.     1331.     10042.    1339.2    10055.    1337.7    10060.
GR   1338.8    10100.

SB    1.05      1.56        3.       100.       60.         2.       564.        0.     1318.6    1317.6
ET                         4.11      9965.     10025.
X1   19.691                                     330.       430.       350.                 1.0
```

ELTRD IS 1332.8+2HV = 1334.8

```
X2                          1.     1328.3     1334.8
X3     10.                                                                    1333.     1333.

ET                          4.1      9953.     10038.
X1   19.742       13.      9948.    10042.       80.       470.       269.
GR   1335.7     9834.    1335.1     9893.    1333.4      9922.    1331.8     9937.    1331.6     9948.
GR   1319.1     9967.    1319.2    10000.    1319.7     10017.    1319.7    10027.     1331.    10042.
GR   1339.2    10055.    1337.7    10060.    1338.8     10100.
```

```
NC    0.035     0.035     0.035       0.1       0.3
ET                        4.1      9957.     10043.
X1   19.847       22.     9929.    10062.      570.      520.      554.
GR   1339.8     9621.   1338.7     9726.    1341.6     9738.    1338.8     9759.     1339.     9806.
GR   1337.7     9915.   1336.1     9921.    1336.3     9929.    1320.2     9974.    1318.8     9989.
GR   1320.8    10000.   1320.5    10017.    1321.3    10023.    1328.8    10040.    1335.8    10062.
GR   1336.1    10070.   1336.6    10084.    1335.8    10150.     1336.    10160.    1338.3    10175.
GR   1339.2    10195.   1339.2    10198.

ET                        4.1      9958.     10031.
X1   19.960       24.     9958.    10031.      640.      560.      597.
GR   1340.4     9544.   1339.1     9638.    1336.7     9736.    1337.2     9768.    1338.2     9807.
GR   1338.9     9836.   1338.4     9908.    1340.1     9911.    1337.7     9917.    1339.1     9924.
GR   1337.2     9935.    1330.     9958.    1327.8     9964.    1326.1     9977.    1324.6     9990.
GR   1324.7    10000.   1326.1    10008.    1326.8    10023.     1330.    10031.    1340.6    10059.
GR   1340.8    10072.   1340.7    10099.    1340.1    10194.    1339.9    10251.
```

TIERRA BUENA (SPECIAL BRIDGE)

DUE TO HIGHER DEPTHS THAN ANTICIPATED, XNCH HAS BEEN REDUCED
FROM 0.04 (PER MANNINGS n VALUE REPORT) TO 0.035 BETWEEN GREENWAY ROAD
AND UNION HILLS DRIVE

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NC    0.04      0.04     0.035       0.3       0.5
ET                        4.1      9969.     10020.
X1   19.974       10.     9969.    10020.      105.       65.       74.
X3    10.                                                                  1336.     1336.
GR   1340.1     9911.   1337.7     9917.    1339.1     9924.    1337.2     9935.     1330.     9958.
GR   1323.8     9969.   1323.8    10020.     1330.    10031.    1340.6    10059.    1340.8    10072.

SB    1.25      1.56       3.                  51.        3.       480.        0.    1324.1    1323.8
ET                       4.11      9969.     10020.
X1   19.986                                    61.       61.       61.
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ELTRD IS 1336.9+1HV = 1337.9

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X2                        1.     1334.1     1337.9
X3    10.                                                                  1337.     1337.
BT     3.      9560.    1340.        0.     10000.    1336.9        0.    10230.     1340.        0.

ET                        4.1      9975.     10025.
X1   20.049       37.     9954.    10027.      305.      345.      333.
X3    10.                                                                  1340.
GR   1344.7     9266.   1345.2     9300.    1342.4     9304.    1340.8     9328.    1332.6     9344.
GR   1333.1     9400.   1333.3     9490.     1334.     9563.    1334.8     9606.    1333.2     9728.
GR    1335.     9767.   1331.4     9805.     1331.     9820.    1331.5     9854.    1331.5     9901.
GR   1332.1     9920.   1341.1     9938.    1340.5     9950.    1343.4     9954.    1339.8     9969.
GR   1327.4     9991.   1327.1     9997.    1327.1    10000.    1328.4    10008.    1339.4    10027.
GR    1340.    10047.   1342.3    10075.    1342.4    10097.    1340.2    10114.    1342.3    10131.
GR    1343.    10142.   1341.5    10162.    1342.7    10175.    1342.9    10210.    1343.3    10307.
GR   1342.5    10378.    1343.    10477.
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NC                                  0.1       0.3
ET                        4.1     9972.     10029.
X1   20.144       38.    9955.    10025.       490.       500.       502.
X3      10.                                                          1344.
GR   1346.6     9136.   1347.4     9206.     1348.2      9208.     1348.4     9215.     1347.1      9235.
GR   1342.5     9239.   1341.7     9258.     1334.6      9278.      1332.     9297.     1332.6      9357.
GR   1333.7     9417.   1333.1     9457.     1334.1      9479.     1334.9     9499.     1335.3      9554.
GR   1334.4     9582.   1335.7     9631.     1335.6      9698.     1336.1     9745.     1334.6      9779.
GR   1329.6     9788.   1330.5     9820.     1329.4      9847.     1328.5     9881.     1328.5      9912.
GR   1341.6     9931.   1343.1     9951.     1344.6      9955.      1342.     9968.     1330.9      9986.
GR   1330.9    10000.   1330.9    10010.     1340.8     10025.     1342.2    10040.     1345.9     10053.
GR   1346.5    10073.    1347.    10128.      1347.     10198.

ET                        4.1     9964.     10035.
X1   20.242       32.    9953.    10029.       470.       560.       517.
X3      10.                                                          1348.
GR   1346.6     9200.   1347.9     9269.     1348.7      9271.     1348.7     9277.     1346.6      9330.
GR   1347.7     9377.   1342.3     9383.     1342.7      9400.     1332.4     9422.     1333.6      9470.
GR   1333.7     9529.   1334.9     9573.     1334.2      9626.     1334.9     9648.     1335.1      9651.
GR    1336.     9785.    1336.     9842.     1338.6      9846.     1339.3     9895.     1339.2      9935.
GR   1347.2     9953.   1343.7     9970.     1333.3      9988.     1333.7    10000.     1333.5     10012.
GR   1342.8    10029.   1343.2    10041.     1348.3     10061.     1349.2    10076.     1349.9     10107.
GR   1350.1    10201.   1350.3    10202.

ET                        4.1     9963.     10036.
X1   20.335       27.    9958.    10032.       510.       470.       491.
GR   1349.5     9230.   1351.4     9312.     1349.1      9322.     1350.7     9340.      1351.      9476.
GR   1351.2     9592.   1350.4     9726.     1350.1      9808.     1351.1     9820.     1351.4      9850.
GR   1351.8     9928.   1347.7     9950.      1344.      9958.     1337.7     9971.     1337.3      9987.
GR   1337.4    10000.   1338.3    10021.      1344.     10032.      1349.    10042.     1351.8     10056.
GR   1351.1    10100.   1351.6    10141.      1350.     10144.      1350.    10166.      1350.     10240.
GR   1350.8    10328.   1351.4    10406.

      11TH AVENUE  (SPECIAL BRIDGE)

NC                                  0.3       0.5
ET                        4.1     9970.     10021.
X1   20.347       25.    9970.    10021.        1.        150.        63.
X3      10.                                                          1351.5    1351.5
GR   1349.5     9230.   1351.4     9312.     1349.1      9322.     1350.7     9340.      1351.      9476.
GR   1351.2     9592.   1350.4     9726.     1350.1      9808.     1351.1     9820.     1351.4      9850.
GR   1351.8     9928.   1347.7     9950.      1344.      9958.     1337.2     9970.     1337.2     10021.
GR    1344.    10032.    1349.    10042.     1351.8     10056.     1351.1    10100.     1351.6     10141.
GR    1350.    10144.    1350.    10166.      1350.     10240.     1350.8    10328.     1351.4     10406.

SB    1.25      1.56      3.0      100.       51.        3.        576.        0.      1337.7     1337.2
ET                       4.11     9970.     10021.
X1   20.366                                  100.       100.       100.

      ELTRD IS 1352.5+2HV = 1354.5

X2                        1.     1349.7     1354.5
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X3     10.                                                          1352.5     1352.5

ET                        4.1     9958.    10072.
X1   20.423       21.    9975.    10045.      415.      205.      301.
GR   1354.3     9418.   1353.8     9613.   1355.3     9653.    1354.6     9696.    1353.3     9711.
GR   1353.6     9724.   1353.5     9931.    1352.     9950.     1345.     9975.     1338.    10000.
GR   1339.4    10027.   1339.7    10037.   1344.3    10045.     1345.    10055.    1353.3    10085.
GR   1353.5    10100.   1354.7    10127.   1354.4    10214.    1354.3    10273.    1353.3    10300.
GR   1353.5    10333.

       10TH AVENUE  (SPECIAL BRIDGE)


ET                        4.1     9985.    10036.
X1   20.430       20.    9985.    10036.       1.       65.       37.
X3     10.                                                          1352.5     1352.5
GR   1354.3     9418.   1353.8     9613.   1355.3     9653.    1354.6     9696.    1353.3     9711.
GR   1353.6     9724.   1353.5     9931.    1352.     9950.     1345.     9975.    1339.3     9985.
GR   1339.3    10036.   1344.3    10045.    1345.    10055.    1353.3    10085.    1353.5    10100.
GR   1354.7    10127.   1354.4    10214.   1354.3    10273.    1353.3    10300.    1353.5    10333.

SB    1.25      1.56      3.0      100.      51.       3.       576.       0.      1339.3    1339.3
ET                       4.11     9985.    10036.
X1   20.444                                  70.       70.       70.

       ELTRD IS 1353.5+2HV = 1355.5

X2                        1.     1351.3    1355.5
X3     10.                                                          1353.5     1353.5

ET                        4.1     9930.    10069.
X1   20.529       19.    9947.    10055.      545.      375.      449.
GR    1354.     9570.   1353.7     9764.   1354.8     9836.     1355.     9885.    1354.7     9898.
GR   1350.7     9910.   1350.2     9947.   1343.4     9963.    1343.4     9990.    1343.3    10000.
GR    1343.    10025.   1348.6    10041.   1350.4    10055.    1350.8    10090.     1355.    10105.
GR   1354.4    10159.    1355.    10192.    1355.    10302.    1355.2    10313.

NC                                 0.1       0.3
ET                        4.1     9935.    10065.
X1   20.628       16.    9909.    10076.      530.      520.      523.
GR   1357.3     9532.   1357.3     9624.   1356.8     9754.    1357.2     9808.    1357.1     9909.
GR   1351.5     9922.   1350.2     9947.   1343.3     9959.    1343.6     9991.    1343.6    10000.
GR   1343.7    10044.   1356.3    10076.    1357.    10082.    1357.1    10137.    1357.2    10282.
GR    1358.    10337.

ET                        4.1     9962.    10026.
X1   20.725       20.    9951.    10036.      510.      520.      512.
GR   1360.3     9544.   1361.1     9631.   1361.3     9734.     1361.     9783.     1362.     9858.
GR   1360.8     9940.   1360.4     9951.   1350.4     9970.    1350.4     9981.    1348.3     9984.
GR   1347.4     9992.   1347.2    10000.   1347.4    10010.     1361.    10036.    1363.4    10046.
GR   1363.8    10101.   1364.1    10156.   1364.7    10184.    1365.1    10212.    1364.7    10291.

       PHELPS ROAD  (SPECIAL BRIDGE)
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NC                                  0.3       0.5
ET                        4.1     9968.     10019.
X1   20.737       16.     9968.    10019.       80.       80.       80.                3.4
X3     10.                                                                   1363.     1363.
GR   1360.3     9544.   1361.1     9631.    1361.3     9734.     1361.     9783.     1362.     9858.
GR   1360.8     9940.   1360.4     9951.    1347.5     9968.    1347.5    10019.     1361.    10036.
GR   1363.4    10046.   1363.8    10101.    1364.1    10156.    1364.7    10184.    1365.1    10212.
GR   1364.7    10291.

SB    1.25      1.56      3.0      100.       51.        3.       576.        0.     1351.0    1350.9
ET                       4.11     9968.     10019.
X1   20.750                                   71.       71.       71.                0.1

       ELTRD IS 1364+2HV = 1366.0

X2                         1.     1363.     1366.
X3     10.                                                                   1364.     1364.

       BELL ROAD  (SPECIAL BRIDGE)  A SECTION TAKEN UPSTREAM OF BELL ROAD AT
       RM 20.845 IS USED TO MODEL THE BELL ROAD BRIDGE.  GR CARDS ARE REPEATED
       AT THE DOWNSTREAM FACE WITH PSXECE = -0.9.  TO MORE APPROPRIATELY MODEL
       CONTRACTION LOSSES, THE UPSTREAM SECTION IS PRESENTED AT RM 20.860
       INSTEAD OF RM 20.845 WHERE THE AERIAL SECTION WAS TAKEN.


ET                        4.1     9965.     10043.
X1   20.819       12.     9965.    10043.      375.      345.      365.               -0.9
X3     10.                                                                   1366.9    1366.9
GR   1366.5     9554.   1365.4     9663.    1365.5     9777.    1365.5     9846.    1365.3     9942.
GR   1357.4     9965.   1357.4    10043.    1367.6    10066.    1366.2    10107.    1366.2    10146.
GR    1367.    10166.   1367.2    10169.

SB    1.05      1.56      3.0      100.       77.3       3.3       655.        0.     1357.4    1356.5
ET                       4.11     9965.     10043.
X1   20.841                                  115.      115.      115.                0.9

       ELTRD IS 1367.9+2HV = 1369.9

X2                         1.    1365.4     1369.9
X3     10.                                                                   1367.9    1367.9

ET                        4.1     9904.     10060.
X1   20.860       14.     9942.    10066.       90.      110.      100.
X3     10.                                                                   1365.3    1367.6
GR    1370.     9800.   1365.5     9801.    1365.5     9846.    1365.3     9942.    1357.8     9975.
GR   1356.3     9991.   1356.4    10000.    1357.2    10015.     1357.    10040.    1367.6    10066.
GR   1366.2    10107.   1366.2    10146.     1367.    10166.    1367.2    10169.
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NC	0.04	0.035	0.035	0.1	0.3					
ET			4.1	9860.	10110.					
X1	20.942	26.	9854.	10024.	530.	490.	433.			
GR	1372.5	9619.	1367.2	9630.	1368.7	9643.	1369.8	9663.	1369.4	9719.
GR	1367.6	9792.	1367.6	9836.	1368.6	9854.	1360.2	9867.	1359.8	9879.
GR	1359.8	9891.	1364.6	9904.	1365.2	9942.	1363.7	9970.	1366.	9977.
GR	1360.3	9998.	1359.6	10000.	1366.5	10024.	1364.7	10027.	1364.5	10053.
GR	1365.7	10070.	1364.5	10114.	1361.6	10153.	1368.3	10171.	1368.3	10194.
GR	1368.3	10204.								
NC	0.04	0.04	0.035							
ET			4.1	9810.	10060.					
X1	21.036	19.	9912.	10020.	490.	490.	496.			
GR	1376.1	9530.	1372.	9541.	1372.	9561.	1371.3	9665.	1371.9	9728.
GR	1371.6	9758.	1370.9	9867.	1370.7	9912.	1367.3	9917.	1367.5	9952.
GR	1366.3	9980.	1363.5	9994.	1363.6	10000.	1364.3	10009.	1370.4	10020.
GR	1371.2	10041.	1371.2	10075.	1371.8	10089.	1378.	10090.		
ET			4.1	9900.	10060.					
X1	21.127	13.	9974.	10067.	400.	500.	480.			
X3	10.							1374.		
GR	1378.9	9623.	1373.6	9634.	1373.6	9666.	1373.4	9759.	1373.5	9860.
GR	1373.7	9913.	1374.2	9974.	1366.9	9990.	1366.7	10000.	1367.5	10015.
GR	1367.8	10039.	1375.	10067.	1375.	10077.				
ET			4.1	9900.	10125.					
X1	21.230	28.	9967.	10048.	560.	500.	544.			
GR	1381.5	9741.	1381.5	9764.	1381.5	9786.	1380.7	9813.	1379.3	9835.
GR	1379.3	9852.	1379.9	9862.	1378.2	9870.	1379.8	9879.	1378.9	9891.
GR	1379.5	9916.	1379.6	9930.	1378.9	9944.	1379.2	9955.	1379.3	9967.
GR	1374.7	9982.	1372.4	9992.	1372.	10000.	1373.2	10014.	1375.6	10023.
GR	1379.3	10037.	1380.6	10048.	1378.	10062.	1377.5	10083.	1377.4	10102.
GR	1377.7	10117.	1377.8	10126.	1385.	10127.				
ET			4.1	9939.	10105.					
X1	21.363	55.	9928.	10088.	740.	700.	702.			
GR	1384.8	9135.	1384.7	9160.	1383.9	9189.	1384.6	9215.	1383.9	9245.
GR	1384.4	9279.	1383.8	9313.	1384.	9345.	1384.1	9374.	1383.8	9405.
GR	1383.5	9428.	1384.5	9459.	1385.	9498.	1384.7	9527.	1385.	9549.
GR	1382.2	9561.	1381.	9570.	1382.1	9583.	1383.9	9596.	1384.3	9628.
GR	1384.3	9657.	1384.	9697.	1383.6	9739.	1384.1	9779.	1383.9	9811.
GR	1383.1	9822.	1383.6	9848.	1383.3	9886.	1383.5	9907.	1384.1	9916.
GR	1383.2	9922.	1384.4	9928.	1383.6	9939.	1379.2	9954.	1377.7	9977.
GR	1375.	9996.	1374.8	10000.	1375.	10016.	1374.2	10037.	1374.1	10045.
GR	1377.5	10066.	1382.1	10088.	1383.8	10108.	1384.	10125.	1384.5	10147.
GR	1382.7	10174.	1383.2	10202.	1383.1	10224.	1383.1	10245.	1383.3	10265.
GR	1384.3	10285.	1383.4	10301.	1383.	10319.	1383.	10334.	1383.	10337.

ET			4.1	9852.	10077.					
X1	21.484	33.	9932.	10026.	650.	520.	639.			
GR	1386.8	9487.	1385.8	9527.	1385.8	9572.	1385.4	9614.	1384.8	9647.
GR	1385.2	9678.	1385.6	9709.	1386.7	9746.	1385.9	9776.	1384.5	9805.
GR	1383.9	9837.	1384.4	9867.	1384.	9892.	1386.5	9919.	1386.9	9932.
GR	1386.2	9943.	1383.5	9964.	1380.2	9970.	1379.7	9988.	1378.5	9994.
GR	1378.6	10000.	1381.2	10014.	1386.5	10026.	1386.6	10053.	1387.8	10056.
GR	1385.5	10060.	1388.2	10068.	1385.8	10075.	1387.4	10079.	1387.4	10101.
GR	1387.6	10116.	1387.5	10131.	1387.4	10134.				
ET			4.1	9940.	10165.					
X1	21.576	43.	9980.	10087.	320.	480.	486.			
GR	1388.7	9388.	1388.6	9414.	1388.2	9461.	1388.5	9500.	1389.3	9532.
GR	1388.7	9570.	1388.5	9607.	1387.9	9643.	1388.6	9664.	1388.8	9705.
GR	1389.1	9743.	1388.9	9780.	1388.	9821.	1388.4	9852.	1388.7	9889.
GR	1389.1	9922.	1389.7	9952.	1390.1	9968.	1390.	9980.	1382.5	9994.
GR	1382.1	10000.	1382.2	10008.	1383.8	10015.	1385.1	10038.	1385.2	10056.
GR	1384.1	10065.	1384.6	10073.	1388.3	10087.	1387.1	10114.	1387.1	10140.
GR	1387.8	10162.	1387.7	10199.	1388.4	10243.	1388.7	10281.	1389.3	10300.
GR	1390.3	10307.	1389.2	10313.	1390.7	10320.	1387.6	10329.	1388.9	10335.
GR	1389.7	10348.	1390.2	10360.	1390.3	10386.				
QT	2.	5600.	5600.							
ET			4.1	9890.	10115.					
X1	21.669	35.	9962.	10031.	440.	470.	491.			
GR	1393.2	9392.	1393.	9426.	1392.7	9446.	1392.3	9515.	1392.9	9562.
GR	1392.2	9606.	1392.8	9663.	1392.7	9710.	1393.1	9742.	1393.5	9777.
GR	1393.3	9819.	1392.7	9858.	1392.2	9893.	1391.6	9925.	1392.	9949.
GR	1393.8	9962.	1392.7	9974.	1392.2	9982.	1385.	9989.	1384.	9997.
GR	1384.5	10000.	1385.1	10011.	1388.7	10023.	1392.	10031.	1391.2	10045.
GR	1392.	10074.	1391.7	10124.	1391.9	10182.	1392.	10245.	1392.1	10303.
GR	1391.9	10361.	1392.	10395.	1392.6	10401.	1391.6	10404.	1393.3	10414.
ET			4.1	9940.	10140.					
X1	21.742	25.	9975.	10091.	430.	390.	385.			
GR	1396.	9733.	1394.6	9753.	1395.1	9777.	1395.	9802.	1395.	9839.
GR	1395.6	9885.	1395.1	9930.	1395.3	9940.	1394.7	9975.	1387.4	9991.
GR	1386.4	10000.	1386.9	10015.	1392.2	10035.	1391.9	10052.	1389.9	10062.
GR	1391.5	10080.	1394.2	10091.	1394.2	10126.	1394.9	10176.	1395.	10240.
GR	1394.6	10281.	1394.8	10324.	1395.2	10355.	1395.3	10367.	1397.3	10376.
ET			4.1	9900.	10100.					
X1	21.840	22.	9946.	10054.	430.	430.	517.			
GR	1401.5	9827.	1402.1	9842.	1397.3	9860.	1395.5	9882.	1395.	9913.
GR	1395.3	9931.	1396.2	9946.	1395.7	9953.	1392.1	9967.	1392.6	9984.
GR	1393.7	9997.	1393.3	10000.	1392.5	10020.	1391.1	10033.	1393.5	10045.
GR	1397.	10054.	1396.5	10097.	1397.3	10145.	1397.8	10186.	1397.5	10227.
GR	1397.6	10273.	1398.3	10308.						

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ET                          4.1     9835.    10080.
X1   21.895       31.     9975.    10031.      330.      220.      290.
GR   1402.6     9807.    1402.6     9825.    1398.4     9839.    1397.2     9857.    1396.7     9885.
GR   1396.7     9919.    1397.7     9939.    1397.9     9960.     1398.     9975.    1397.1     9981.
GR    1393.     9990.    1391.9    10000.    1392.3    10010.     1394.    10021.    1397.7    10031.
GR   1398.6    10046.     1399.    10078.    1398.4    10113.    1398.6    10149.    1398.7    10187.
GR   1398.5    10225.    1398.1    10251.    1398.6    10292.    1398.6    10333.    1399.3    10364.
GR   1398.8    10399.    1399.5    10428.    1400.5    10446.    1400.5    10458.    1399.7    10463.
GR   1400.9    10470.
```

UNION HILLS RD: PIPES BENEATH LOW CROSSING WERE MODELLED AS AN AREA (BAREA) WITH AN ORIFICE COEFFICIENT. THE 100 YEAR FLOW THROUGH THE PIPES WAS NEGLIGIBLE (18 CFS). UNION HILLS IS THEREFORE MORE APPROPRIATELY MODELLED AS A NORMAL SECTION USING GR CARDS.

```
ET                          4.1     9650.    10070.
X1   21.933       12.     9865.    10140.      210.      210.      210.
GR    1402.    9060.    1400.3     9440.     1400.     9590.     1398.     9680.    1397.4     9725.
GR    1398.    9780.    1399.4     9840.     1398.     9865.    1396.8    10000.     1398.    10140.
GR    1400.   10285.     1406.    10286.

NC   0.045     0.045     0.045
ET                          4.1     9630.    10051.
X1   21.953       39.     9969.    10029.       75.       75.       74.
GR    1402.    9320.    1400.5     9487.    1400.8     9527.    1401.4     9557.    1400.2     9580.
GR   1401.7    9599.    1401.1     9621.    1400.2     9647.    1399.6     9678.    1398.8     9699.
GR   1398.3    9714.    1397.6     9720.    1396.6     9725.    1398.8     9735.    1399.3     9745.
GR   1398.8    9759.    1397.3     9768.    1398.9     9782.    1398.9     9810.    1400.1     9832.
GR   1402.1    9851.    1401.7     9870.    1403.3     9884.    1403.7     9893.    1403.4     9912.
GR   1402.3    9939.     1401.     9956.    1399.7     9965.    1400.2     9969.    1395.6     9986.
GR   1394.4    9997.    1394.1    10000.     1394.    10010.    1394.9    10018.    1398.3    10029.
GR   1400.1   10044.    1401.6    10058.    1401.4    10064.     1407.    10065.

ET                          4.1     9620.    10030.
X1   22.065       39.     9961.    10028.      430.      630.      591.
GR   1404.2    9230.     1404.     9250.     1402.     9270.     1402.     9500.    1403.1     9594.
GR   1403.6    9604.    1400.4     9627.    1400.1     9645.    1400.6     9657.    1400.3     9680.
GR   1400.5    9700.    1401.9     9717.    1403.3     9731.    1403.7     9746.    1403.9     9761.
GR   1400.1    9776.     1400.     9785.    1401.1     9796.     1401.     9816.    1403.7     9829.
GR   1403.7    9843.    1400.7     9861.    1399.7     9869.    1402.7     9890.    1403.5     9899.
GR   1404.1    9915.    1404.8     9934.    1403.6     9950.    1404.1     9961.    1401.4     9977.
GR    1398.    9989.    1395.8     9995.    1395.8    10000.    1395.9    10006.    1399.4    10010.
GR    1402.   10028.    1402.6    10043.    1406.6    10061.    1407.1    10085.

ET                          4.1     9620.    10020.
X1   22.165       63.     9983.    10018.      530.      530.      528.
GR    1406.    9130.    1405.2     9138.     1405.     9151.    1404.4     9164.    1402.8     9176.
GR   1402.7    9184.    1400.8     9204.    1399.8     9213.    1399.3     9222.    1401.2     9232.
GR    1403.    9256.    1403.8     9282.    1403.8     9308.    1404.3     9334.    1404.2     9364.
GR   1404.1    9396.     1404.     9425.    1404.9     9463.    1405.2     9499.    1405.3     9526.
GR   1404.9    9548.    1403.8     9565.    1402.8     9579.    1404.6     9595.    1404.8     9608.
GR   1402.4    9624.     1400.     9637.    1399.7     9645.    1400.6     9657.     1402.     9669.
```

GR	1403.1	9686.	1404.5	9701.	1405.8	9714.	1406.2	9728.	1406.1	9741.
GR	1404.	9753.	1403.8	9760.	1405.2	9772.	1405.6	9784.	1405.3	9793.
GR	1402.9	9806.	1402.7	9820.	1402.6	9834.	1402.6	9843.	1401.8	9849.
GR	1401.9	9862.	1402.8	9872.	1403.8	9876.	1405.	9894.	1406.1	9909.
GR	1405.4	9919.	1403.1	9930.	1403.	9946.	1402.1	9967.	1400.9	9983.
GR	1395.3	9994.	1395.	10000.	1396.1	10007.	1403.7	10018.	1404.8	10038.
GR	1405.2	10053.	1405.2	10060.	1405.7	10065.				
ET			4.1	9650.	10027.					
X1	22.273	57.	9933.	10028.	470.	580.	570.			
GR	1418.7	9227.	1418.7	9238.	1412.4	9262.	1411.6	9274.	1410.9	9284.
GR	1409.	9292.	1407.6	9300.	1407.3	9314.	1406.3	9325.	1403.5	9335.
GR	1403.1	9344.	1403.	9350.	1404.3	9359.	1405.4	9369.	1405.8	9386.
GR	1406.7	9408.	1407.1	9427.	1407.4	9444.	1407.2	9460.	1406.4	9473.
GR	1406.5	9485.	1406.9	9502.	1407.7	9520.	1408.2	9532.	1407.1	9558.
GR	1404.4	9574.	1404.3	9598.	1406.	9622.	1407.	9657.	1407.3	9686.
GR	1406.2	9708.	1406.4	9727.	1406.4	9745.	1405.6	9754.	1402.6	9766.
GR	1402.8	9774.	1406.7	9789.	1409.4	9801.	1408.5	9827.	1407.9	9851.
GR	1408.8	9869.	1406.3	9887.	1407.	9902.	1404.	9915.	1404.1	9933.
GR	1403.2	9948.	1401.8	9961.	1400.6	9977.	1400.1	9992.	1399.4	9999.
GR	1399.8	10000.	1401.2	10011.	1404.	10021.	1406.9	10028.	1408.	10050.
GR	1408.3	10080.	1408.7	10109.						
ET			4.1	9860.	10040.					
X1	22.410	25.	9973.	10027.	750.	630.	723.			
GR	1420.	9802.	1419.1	9817.	1418.8	9825.	1415.8	9838.	1414.8	9850.
GR	1412.6	9867.	1413.9	9879.	1412.	9890.	1413.4	9903.	1414.5	9914.
GR	1416.1	9922.	1414.	9931.	1412.4	9941.	1411.4	9954.	1411.2	9967.
GR	1410.7	9973.	1405.7	9987.	1404.9	9997.	1404.	10000.	1404.7	10007.
GR	1407.6	10017.	1411.3	10027.	1413.5	10042.	1413.8	10057.	1414.4	10071.
ET			4.1	9890.	10050.					
X1	22.483	19.	9941.	10105.	380.	390.	385.			
GR	1421.	9823.	1420.2	9843.	1416.7	9873.	1414.4	9891.	1413.1	9915.
GR	1411.1	9941.	1407.8	9961.	1406.2	9984.	1405.5	10000.	1405.5	10027.
GR	1406.4	10056.	1408.3	10084.	1411.2	10105.	1412.3	10120.	1412.6	10138.
GR	1412.6	10156.	1411.9	10175.	1412.7	10191.	1419.8	10208.		
ET			4.1	9968.	10064.					
X1	22.578	13.	9968.	10072.	540.	490.	502.			
GR	1417.2	9914.	1417.6	9942.	1416.4	9958.	1416.6	9968.	1406.7	9983.
GR	1406.7	9993.	1407.5	10000.	1408.5	10024.	1408.5	10040.	1408.8	10050.
GR	1415.6	10063.	1421.2	10072.	1421.4	10090.				
ET			4.1	9830.	10028.					
X1	22.675	19.	9736.	10032.	570.	480.	512.			
GR	1419.9	9671.	1419.9	9710.	1419.8	9736.	1410.6	9759.	1411.1	9783.
GR	1410.6	9809.	1409.7	9828.	1410.8	9850.	1411.5	9873.	1413.4	9892.
GR	1412.2	9922.	1411.	9950.	1411.	9976.	1410.7	10000.	1410.6	10015.
GR	1420.	10032.	1428.3	10047.	1426.6	10055.	1426.	10060.		

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ET                          4.1     9977.    10160.
X1   22.794       20.     9983.    10169.      460.      500.      628.
GR   1420.6     9968.    1417.8     9983.    1413.6     9998.    1412.4    10000.    1412.3    10013.
GR   1410.7    10041.    1411.6    10065.    1413.7    10080.    1413.8    10103.    1414.2    10119.
GR   1411.7    10136.    1413.8    10151.    1416.1    10169.    1417.2    10189.    1420.3    10202.
GR   1423.1    10219.     1427.    10244.    1429.9    10261.    1429.8    10278.    1429.8    10282.

ET                          4.1     9951.    10120.
X1   22.880       34.     9927.    10167.      440.      480.      454.
GR   1427.3     9791.     1427.     9807.    1426.5     9815.    1424.8     9827.    1424.6     9838.
GR   1424.8     9863.    1424.8     9883.    1424.5     9903.    1424.7     9917.    1426.4     9927.
GR   1423.9     9934.    1421.4     9947.    1418.5     9958.    1416.1     9968.     1415.     9984.
GR    1414.     9999.    1414.3    10000.    1414.5    10012.    1415.2    10024.    1416.1    10048.
GR   1416.5    10067.    1416.4    10101.    1416.2    10125.    1415.5    10143.    1413.2    10152.
GR    1413.    10156.    1414.8    10160.    1424.2    10167.    1426.6    10188.    1428.4    10200.
GR   1430.9    10214.    1433.5    10230.    1433.8    10241.    1433.5    10248.

ET                          4.1     9890.    10026.
X1   22.990       35.     9739.    10034.      480.      530.      581.
GR   1427.7     9668.    1427.6     9697.    1425.6     9719.    1425.3     9730.    1425.4     9739.
GR   1423.9     9751.    1422.5     9767.    1422.4     9785.    1421.5     9804.    1421.3     9817.
GR   1421.3     9829.    1420.8     9843.    1419.5     9855.    1418.9     9864.    1417.9     9873.
GR   1419.4     9886.     1420.     9903.    1420.6     9921.    1420.8     9935.    1420.3     9949.
GR    1420.     9963.    1419.1     9977.    1419.1     9995.    1419.1    10000.    1418.7    10014.
GR   1420.3    10020.    1427.9    10034.    1427.3    10044.    1428.3    10060.    1430.5    10076.
GR   1435.7    10094.    1437.4    10108.    1438.7    10119.    1436.3    10126.    1435.1    10133.

ET                          4.1     9958.    10090.
X1   23.097       48.     9951.    10121.      640.      490.      565.
GR   1433.9     9713.    1433.9     9740.    1433.8     9758.    1432.3     9772.    1432.1     9778.
GR   1433.5     9794.    1433.5     9811.    1433.5     9835.    1433.4     9849.    1431.1     9864.
GR    1430.     9878.    1430.1     9885.     1431.     9892.    1429.6     9901.    1429.1     9916.
GR   1429.6     9925.    1431.3     9935.    1432.2     9945.    1432.3     9951.    1427.9     9964.
GR   1426.4     9977.    1425.6     9988.    1425.1     9999.    1425.1    10000.     1426.    10012.
GR   1426.1    10021.    1426.5    10044.    1426.5    10063.    1426.5    10073.    1426.5    10082.
GR   1425.5    10093.    1426.4    10101.    1428.5    10112.    1430.8    10121.    1430.1    10135.
GR    1430.    10150.    1431.6    10163.    1432.8    10176.     1433.    10198.    1432.7    10221.
GR   1431.6    10247.    1430.9    10267.    1430.6    10286.    1431.5    10296.    1433.4    10310.
GR   1438.3    10337.    1439.7    10353.    1440.5    10363.
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THE BEARDSLEY ROAD LOW CROSSING IS MODELLED WITH GR CARDS AS A NORMAL CROSS SECTION. THE BEARDSLEY ROAD CENTERLINE IS AT RM 23.168

```
ET                          4.1     9830.    10140.
X1   23.168       22.     9777.    10116.      330.      300.      375.
GR   1435.4     9358.    1435.5     9412.    1435.6     9477.    1434.7     9533.    1433.2     9598.
GR   1431.8     9657.    1430.8     9718.    1429.5     9777.    1428.9     9827.     1429.     9877.
GR   1429.1     9942.     1429.     9999.    1429.1    10000.    1429.8    10053.    1430.3    10116.
GR   1431.8    10176.    1433.6    10230.    1434.3    10274.    1434.9    10326.    1435.5    10363.
GR   1435.6    10399.    1435.8    10409.
```

DUE TO BREAKOUTS (SPLIT FLOWS) BETWEEN RM 23.55 AND RM 23.8, THE

FUTURE CONDITION Q IS REDUCED PER THE FOLLOWING TABLE.

NO ENCROACHMENTS ARE COMPUTED FOR THE FOLLOWING REACH BETWEEN RM 23.253 AND 7TH STREET. FOR PURPOSES OF A FLOODWAY, A 100 FT CORRIDOR IS MAINTAINED OUTSIDE OF THE LEVEES (WHICH ARE LIKELY TO BE ERODABLE) TO PASS THE SPLIT FLOWS WHICH HAVE BEEN REMOVED FROM THE MODEL, AS DISCUSSED WITH CITY OF PHOENIX AND FLOOD CONTROL DISTRICT REPRESENTATIVES. IF THIS CORRIDOR IS NOT MAINTAINED, THE REDUCTION IN Q FOR THIS MODEL IS NOT VALID, RESULTING IN A FLOODWAY PROFILE ABOVE THE NATURAL PROFILE BY MORE THAN THE STATUTORY 1.0 FT.

	FULL Q	REDUCED Q
100 YEAR	5600.	3400

THE 10 YEAR Q (3200 CFS) IS UNAFFECTED

```
QT      2.      3400.     3400.
NC   0.035       0.05      0.04
ET                          4.1    9978.5    10023.2
X1  23.253        8.      9973.    10038.      470.      450.      459.
GR  1437.5     9973.     1425.5     9995.     1425.2    10000.    1427.4    10008.    1429.2    10015.
GR  1444.2    10038.     1444.9    10052.      1445.    10060.

ET                          4.1     9969.     10036.
X1  23.334       10.      9962.    10055.      400.      420.      417.
GR  1443.8     9962.     1435.6     9979.     1433.2     9990.    1432.6    10000.    1433.2    10012.
GR  1435.4    10022.     1438.5    10032.     1444.2    10044.    1449.8    10055.    1449.6    10063.

ET                          4.1     9981.     10040.
X1  23.416       10.      9974.    10053.      400.      430.      433.
GR  1447.7     9958.     1447.8     9974.     1439.2     9989.    1436.5     9999.    1436.6    10000.
GR  1437.2    10017.     1437.6    10030.     1444.4    10041.    1450.2    10053.    1450.4    10066.

X1  23.514        8.      9973.    10039.      560.      470.      517.
GR  1451.5     9965.     1451.4     9973.     1439.8     9989.    1439.6    10000.    1440.1    10012.
GR  1441.5    10022.     1443.6    10029.     1451.1    10039.
```

SPECIAL BRIDGE IS USED TO MODEL EMBANKMENT PLACED IN THE CHANNEL TO ALLOW VEHICULAR ACCESS BETWEEN THE LANDFILL ON THE LEFT AND THE GRAVEL PIT ON THE RIGHT. THE EMBANKMENT MAY WASH OUT, BUT FOR THIS STUDY, IT IS ASSUMED TO REMAIN. LOW FLOWS PASS THROUGH 2-36" CMP'S.

```
X1  23.544                                  190.      150.      158.                1.8
X3     10.                                                               1445.     1445.
```

```
SB    1.25      2.48      3.2       0.        5.7       1.        14.1      0.        1442.     1441.4
X1   23.555                                   60.       60.       60.                   0.6

        ELTRD IS 1448.4+0.6HV = 1449

X2                          1.      1445.      1449.
X3    10.                                                                   1480.     1480.
BT    10.       9930.     1452.       0.       9939.     1451.2      0.      9951.     1451.1       0.
BT  9967.      1449.8       0.      9987.      1448.4       0.     10000.   1448.4       0.      10019.
BT  1448.6       0.     10041.     1449.5       0.      10055.     1450.      0.      10070.      1452.
BT     0.

X1   23.591      17.      9968.     10045.      100.      210.      190.

        ARTIFICIAL LEVEES ARE SET VERY HIGH ON THE LEFT AND RIGHT OVERBANKS
        USING THE X3 CARD TO CONSIDER ONLY THE CHANNEL AREA AS EFFECTIVE.  SPLIT
        FLOW THAT BREAKS OUT UPSTREAM IS ACCOUNTED FOR BY THE REDUCED Q.  FLOWS
        ARE RETURNED TO CAVE CREEK DOWNSTREAM AT BEARDSLEY ROAD.

X3    10.                                                                   1480.     1480.
GR  1460.      9700.     1448.     9760.      1448.     9850.     1452.9    9959.     1452.9     9968.
GR  1446.8     9982.     1444.6    9993.      1444.2    10000.    1444.2    10013.    1444.9     10023.
GR  1449.9     10036.    1453.8    10045.     1451.9    10048.    1448.     10070.    1448.      10430.
GR  1450.      10770.    1452.     11200.

ET                          4.1    9970.39   10035.72
X1   23.691      43.      9965.     10036.      510.      540.      528.

        HIGH ARTIFICIAL LEVEE

X3    10.                                                                   1480.     1480.
GR  1461.1     9722.     1449.4    9747.      1449.4    9767.     1449.5    9784.     1449.1     9800.
GR  1448.3     9819.     1448.6    9832.      1448.3    9866.     1449.     9894.     1449.3     9913.
GR  1450.2     9925.     1453.5    9936.      1456.1    9944.     1455.4    9951.     1457.3     9955.
GR  1457.6     9965.     1450.8    9980.      1448.5    9985.     1447.2    9991.     1446.6     9999.
GR  1446.4     10000.    1447.     10011.     1449.6    10017.    1451.3    10028.    1455.3     10036.
GR  1453.2     10045.    1452.4    10054.     1451.3    10057.    1452.2    10062.    1452.4     10077.
GR  1452.2     10094.    1451.7    10108.     1452.6    10117.    1451.4    10123.    1452.7     10128.
GR  1451.      10138.    1452.3    10143.     1451.7    10147.    1453.4    10155.    1452.1     10160.
GR  1452.      10320.    1454.     10560.     1456.     10730.

        Q IS NOW CHANGED TO BE THE AVERAGE OF THE FULL Q UPSTREAM OF THE
        BREAKOUT AND OF THE REDUCED Q DOWNSTREAM OF THE BREAKOUT.

QT     2.       4450.     4450.
ET                          4.1      9951.     10037.
X1   23.815      31.      9951.     10037.      650.      680.      655.

        HIGH ARTIFICIAL LEVEE

X3    10.                                                                   1480.     1480.
GR  1470.      9650.     1459.3    9716.      1453.5    9738.     1453.1    9772.     1453.4     9812.
```

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GR   1454.5     9857.    1455.1     9890.      1455.      9914.     1455.4     9941.     1458.9     9951.
GR    1458.     9963.    1451.4     9979.     1449.7      9988.     1449.9     9996.     1449.7    10000.
GR   1449.7    10017.    1454.6    10028.     1457.8     10037.     1456.8    10043.     1456.8    10060.
GR   1456.9    10081.    1457.1    10110.     1458.2     10140.     1458.4    10157.     1459.5    10172.
GR   1458.5    10182.     1456.    10195.     1457.2     10215.     1458.7    10226.     1457.1    10235.
GR   1465.5    10249.

       Q IS NOW CHANGED TO BE THE FULL Q UPSTREAM OF THE BREAKOUT

QT      2.      5500.     5500.
ET                         4.1   9967.41     10043.
X1  23.912       12.     9967.    10043.       480.       510.       512.

       HIGH ARTIFICIAL LEVEE

X3     10.                                                                1480.     1480.
GR   1463.9     9868.    1461.7     9878.     1460.6      9898.     1460.7     9925.     1461.4     9950.
GR   1461.3     9967.    1451.3     9983.     1447.9      9994.      1448.    10000.     1447.9    10010.
GR   1454.9    10026.    1460.9    10043.

ET                         4.1   9944.77   10043.68
X1  23.989        9.     9937.    10049.       400.       410.       407.
GR   1465.6     9937.    1457.9     9957.     1452.6      9977.     1450.8     9989.     1449.7    10000.
GR   1450.5    10014.    1452.5    10024.      1458.     10036.     1465.8    10049.

       7TH STREET  (SPECIAL BRIDGE).  THE GR CARDS FROM SECTION 24.106 TAKEN
       UPSTREAM OF 7TH STREET ARE REPEATED AT THE DOWNSTREAM FACE OF THE BRIDGE
       AS SECTION 24.086 WITH PSXECE = -1.3.

NC                                   0.3       0.5
ET                         4.1     9972.     10044.
X1  24.086       12.     9972.    10044.       450.       560.       512.                -1.3
X3     10.                                                                1463.7    1463.7
GR   1470.1     9942.    1464.1     9955.     1454.9      9972.     1454.9    10044.      1456.    10052.
GR   1458.5    10064.    1461.9    10091.     1463.7     10108.     1465.7    10123.     1466.1    10136.
GR   1466.4    10155.    1467.4    10310.

SB     0.9      1.56        3.      100.       71.6         3.       590.        0.     1453.6    1453.6
ET                         4.1     9972.     10044.
X1  24.096                                      56.        56.        56.

       ELTRD IS 1464.7+2HV = 1466.7

X2                         1.    1462.2     1466.7
X3     10.                                                                1466.     1466.

ET                         4.1     9955.     10055.
X1  24.106       13.     9955.    10064.        80.        20.        53.
GR   1470.1     9942.    1464.1     9955.     1455.2      9972.     1454.7     9997.     1454.2    10000.
GR   1454.9    10028.     1456.    10052.     1458.5     10064.     1461.9    10091.     1463.7    10108.
GR   1465.7    10123.    1466.1    10136.     1466.4     10155.
```

```
NC                                  0.1       0.3
ET                        4.1     9950.     10050.
X1   24.195       13.     9933.    10142.      470.      460.      470.
GR   1498.7     9862.    1497.1     9889.    1470.4     9933.    1454.1     9961.    1453.6     9996.
GR   1453.6    10000.    1453.9    10032.    1455.5    10052.    1456.3    10073.    1458.8    10093.
GR   1462.3    10117.    1466.4    10142.    1468.9    10164.

ET                        4.1     9940.     10080.
X1   24.322       11.     9871.    10064.      640.      630.      671.
GR   1473.7     9820.    1463.5     9871.    1453.2     9895.    1451.6     9972.    1452.1    10000.
GR   1454.5    10042.    1456.8    10064.    1457.7    10134.    1459.6    10177.    1465.2    10220.
GR   1470.9    10262.

NC    0.045     0.045     0.045
ET                        4.1     9927.     10080.
X1   24.444       16.     9928.    10122.      640.      600.      644.
GR   1478.8     9885.    1478.7     9906.     1465.     9928.    1457.6     9939.     1458.     9972.
GR   1457.3     9995.    1457.7    10000.    1459.1    10027.    1460.4    10064.    1459.3    10097.
GR   1461.7    10122.    1458.9    10142.    1460.7    10166.    1460.3    10180.    1468.5    10215.
GR   1474.2    10230.

ET                        4.1     9950.     10160.
X1   24.542       20.     9914.    10187.      470.      530.      517.
GR   1488.2     9844.     1464.     9914.    1463.2     9948.    1460.4     9968.    1459.8     9996.
GR   1459.8    10000.    1461.4    10017.    1462.3    10033.    1470.7    10056.    1470.3    10083.
GR   1472.2    10112.    1470.9    10127.    1464.4    10141.    1462.5    10166.     1463.    10171.
GR   1464.7    10175.    1467.8    10187.    1473.8    10237.    1475.2    10268.    1478.9    10283.
```

THE DEER VALLEY ROAD LOW CROSSING IS MODELLED WITH GR CARDS AS A NORMAL CROSS SECTION. THE DEER VALLEY ROAD CENTERLINE IS AT RM 24.635.

```
ET                        4.1     9940.     10060.
X1   24.635        8.     9876.    10111.      650.      220.      491.
GR   1480.9     9752.    1474.5     9876.     1467.     9983.    1466.8    10000.    1467.9    10037.
GR   1472.4    10111.    1478.6    10193.    1480.1    10247.
```

"FUTURE CONDITIONS" 100 YEAR DISCHARGES WERE NOT PUBLISHED BY THE CORPS OF ENGINEERS FOR CAVE CREEK WASH ABOVE DEER VALLEY ROAD. THIS MODEL THEREFORE TERMINATES AT DEER VALLEY ROAD, ALTHOUGH A SEPARATE MODEL FOR CURRENT CONDITIONS (PER FEMA STANDARDS) CONTINUES ON TO CAVE BUTTE DAM.

```
   SECNO    DEPTH    CWSEL    CRIWS    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


*PROF 1

CCHV=     .100 CEHV=     .300
*SECNO 15.015
2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
   15.015    13.40  1219.09      .00      .00  1221.08     1.99      .00      .00  1228.30
   16000.       0.   16000.       0.       0.    1412.       0.       0.       0.   1206.79
      .00      .00    11.33      .22     .000     .015     .015     .000  1205.69  9945.04
  .000500       0.       0.       0.        0        0        4      .00   110.02 10055.06


FLOW DISTRIBUTION FOR SECNO=     15.02         CWSEL=   1219.09

STA=    9945.   10055.   10055.
  PER Q=    100.0       .0
   AREA=   1412.5       .4
    VEL=     11.3       .2
  DEPTH=     12.8      6.1

*SECNO 15.109
   15.109    13.40  1219.34      .00      .00  1221.33     1.99      .25      .00  1228.55
   16000.       0.   16000.       0.       0.    1413.       0.      16.       1.   1207.04
      .01      .00    11.33      .22     .000     .015     .015     .000  1205.94  9945.04
  .000500     500.     500.     500.        0        0        0      .00   110.02 10055.06


FLOW DISTRIBUTION FOR SECNO=     15.11         CWSEL=   1219.34

STA=    9945.   10055.   10055.
  PER Q=    100.0       .0
   AREA=   1412.5       .4
    VEL=     11.3       .2
  DEPTH=     12.8      6.1

*SECNO 15.204
   15.204    13.40  1219.59      .00      .00  1221.58     1.99      .25      .00  1228.80
   16000.       0.   16000.       0.       0.    1413.       0.      32.       3.   1207.29
      .02      .00    11.33      .22     .000     .015     .015     .000  1206.19  9945.04
  .000500     500.     500.     500.        0        0        0      .00   110.02 10055.06
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     15.20         CWSEL=   1219.59

STA=    9945.   10055.   10055.
  PER Q=    100.0       .0
   AREA=   1412.5       .4
    VEL=     11.3       .2
  DEPTH=     12.8      6.1

*SECNO 15.310

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.310    12.69  1219.57  1219.57      .00  1225.73     6.17      .51     1.25  1229.50
   16000.       0.   16000.       0.       0.     803.       0.      47.       4.   1230.00
      .03      .00    19.93      .00     .000     .015     .000     .000  1206.88  9967.54
  .002154     560.     560.     560.       20        8        0      .00    65.01 10032.55


FLOW DISTRIBUTION FOR SECNO=     15.31         CWSEL=   1219.57

STA=    9968.   10033.
  PER Q=    100.0
   AREA=    802.9
    VEL=     19.9
  DEPTH=     12.4

*SECNO 15.454

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42

   15.454    15.99  1223.25      .00      .00  1227.09     3.84     1.12      .23  1229.88
   16000.       0.   16000.       0.       0.    1018.       0.      63.       5.   1230.38
      .05      .00    15.72      .00     .000     .015     .000     .000  1207.26  9967.53
  .001076     760.     760.     760.        4        0        0      .00    65.04 10032.57
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     15.45         CWSEL=   1223.25

STA=    9968.   10033.
  PER Q=    100.0
   AREA=   1017.5
    VEL=     15.7
  DEPTH=     15.6

*SECNO 15.530
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.530    10.66  1236.86  1236.86      .00  1241.12     4.26      .54      .13  1237.50
   16000.       0.   16000.       0.       0.     966.       0.      72.       6.   1238.45
      .05      .00    16.56      .00     .000     .015     .000     .000  1226.20  9942.79
  .001717     400.     400.     400.       20       14        0      .00   114.53 10057.31


FLOW DISTRIBUTION FOR SECNO=     15.53         CWSEL=   1236.86

STA=    9943.   10061.
  PER Q=    100.0
   AREA=    966.0
    VEL=     16.6
  DEPTH=      8.4

*SECNO 15.680
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.680    10.66  1240.21  1240.21      .00  1244.47     4.26     1.36      .00  1240.85
   16000.       0.   16000.       0.       0.     966.       0.      89.       8.   1241.80
      .07      .00    16.56      .00     .000     .015     .000     .000  1229.55  9942.78
  .001715     792.     792.     792.       20        5        0      .00   114.54 10057.32


FLOW DISTRIBUTION FOR SECNO=     15.68         CWSEL=   1240.21

STA=    9943.   10061.
  PER Q=    100.0
   AREA=    966.4
    VEL=     16.6
  DEPTH=      8.4
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   SECNO    DEPTH    CWSEL    CRIWS    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 15.878
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.878    10.12  1243.99  1243.99      .00  1248.07     4.08     1.79      .02  1244.70
   16000.       0.   16000.       0.       0.     987.       0.     113.      11.   1244.71
      .08      .00    16.21      .00     .000     .015     .000     .000  1233.87  9939.42
  .001711    1045.    1045.    1045.       20        8        0      .00   121.15 10060.56


FLOW DISTRIBUTION FOR SECNO=     15.88         CWSEL=   1243.99

STA=    9939.   10062.
  PER Q=    100.0
   AREA=    987.3
    VEL=     16.2
  DEPTH=      8.1

*SECNO 15.920
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.920    10.09  1244.93  1244.93      .00  1249.04     4.11      .39      .01  1245.67
   16000.       0.   16000.       0.       0.     984.       0.     118.      11.   1245.68
      .09      .00    16.27      .00     .000     .015     .000     .000  1234.84  9939.48
  .001730     225.     225.     225.       20        5        0      .00   121.02 10060.50


FLOW DISTRIBUTION FOR SECNO=     15.92         CWSEL=   1244.93

STA=    9939.   10062.
  PER Q=    100.0
   AREA=    983.6
    VEL=     16.3
  DEPTH=      8.1
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SECNO    DEPTH    CWSEL    CRIWS    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


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1243.33 , NOT    1244.93 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     .90     1.56     3.00    100.00    82.32     6.00   1447.00     1.84   1235.45   1235.07

*SECNO 15.940
3280 CROSS SECTION     15.94 EXTENDED      1.84 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1245.43 BRIDGE VELOCITY=      16.55     CALCULATED CHANNEL AREA=       945.

 EGPRS     EGLWC      H3       QWEIR     QLOW     BAREA   TRAPEZOID     ELLC     ELTRD    WEIRLN
                                                            AREA
  1247.89  1250.24     .00        0.    16000.    1447.    1448.    1249.60   1253.60        0.


  15.940    12.67  1247.89      .00      .00  1250.24     2.34     1.20      .00  1246.05
  16000.       0.   16000.       0.       0.    1303.       0.     120.      11.   1246.06
     .09      .00    12.28      .00     .000     .015     .000     .000  1235.22  9938.00
 .000729     100.     100.     100.        0        0        0      .00   124.00 10062.00


FLOW DISTRIBUTION FOR SECNO=     15.94          CWSEL=   1247.89

STA=    9938.   10062.
  PER Q=    100.0
   AREA=   1302.6
    VEL=     12.3
  DEPTH=     10.5

*SECNO 16.023

3301 HV CHANGED MORE THAN HVINS
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   SECNO    DEPTH    CWSEL    CRIWS    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


3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.023    12.60  1250.05  1250.05      .00  1254.70     4.65      .47      .69  1252.50
   16000.       0.   16000.       0.       0.     924.       0.     132.      13.   1251.95
      .10      .00    17.31      .00     .000     .015     .000     .000  1237.45  9949.72
  .001705     441.     441.     441.       20        5        0      .00   100.69 10050.42


FLOW DISTRIBUTION FOR SECNO=     16.02         CWSEL=   1250.05

STA=    9950.   10053.
  PER Q=    100.0
   AREA=    924.2
    VEL=     17.3
  DEPTH=      9.2

*SECNO 16.148
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.148    12.61  1252.85  1252.85      .00  1257.49     4.64     1.12      .00  1255.29
   16000.       0.   16000.       0.       0.     926.       0.     146.      14.   1254.74
      .11      .00    17.29      .00     .000     .015     .000     .000  1240.24  9949.69
  .001698     660.     660.     660.       20        5        0      .00   100.75 10050.44


FLOW DISTRIBUTION FOR SECNO=     16.15         CWSEL=   1252.85

STA=    9950.   10053.
  PER Q=    100.0
   AREA=    925.6
    VEL=     17.3
  DEPTH=      9.2

*SECNO 16.264
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.264    12.61  1255.44  1255.44      .00  1260.08     4.64     1.04      .00  1257.88
   16000.       0.   16000.       0.       0.     925.       0.     159.      16.   1257.33
      .12      .00    17.29      .00     .000     .015     .000     .000  1242.83  9949.70
  .001699     612.     612.     612.       20        5        0      .00   100.74 10050.44
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     16.26         CWSEL=   1255.44

STA=    9950.   10053.
  PER Q=    100.0
   AREA=    925.4
    VEL=     17.3
  DEPTH=      9.2

*SECNO 16.373
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.373    12.61  1257.87  1257.87      .00  1262.51     4.64      .98      .00  1260.31
   16000.       0.   16000.       0.       0.     925.       0.     171.      17.   1259.76
      .13      .00    17.29      .00     .000     .015     .000     .000  1245.26  9949.70
  .001699     576.     576.     576.       20        5        0      .00   100.74 10050.44


FLOW DISTRIBUTION FOR SECNO=     16.37         CWSEL=   1257.87

STA=    9950.   10053.
  PER Q=    100.0
   AREA=    925.5
    VEL=     17.3
  DEPTH=      9.2

*SECNO 16.481
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.481    11.91  1259.50  1259.50      .00  1264.03     4.53      .97      .01  1261.20
   16000.       0.   16000.       0.       0.     937.       0.     183.      18.   1259.70
      .14      .00    17.08      .00     .000     .015     .000     .000  1247.59  9947.21
  .001703     570.     570.     570.       20       11        0      .00   104.38 10051.60


FLOW DISTRIBUTION FOR SECNO=     16.48         CWSEL=   1259.50

STA=    9947.   10052.
  PER Q=    100.0
   AREA=    936.5
    VEL=     17.1
  DEPTH=      9.0
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   SECNO    DEPTH    CWSEL    CRIWS    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 16.601
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.601    11.88  1262.14  1262.14      .00  1266.70     4.56     1.08      .01  1263.87
   16000.       0.   16000.       0.       0.     934.       0.     197.      20.   1262.37
      .15      .00    17.13      .00     .000     .015     .000     .000  1250.26  9947.26
  .001716     634.     634.     634.       20        5        0      .00   104.29 10051.55


FLOW DISTRIBUTION FOR SECNO=     16.60         CWSEL=   1262.14

STA=    9947.   10052.
  PER Q=    100.0
   AREA=    934.0
    VEL=     17.1
  DEPTH=      9.0

*SECNO 16.694
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.694    11.19  1263.45  1263.45      .00  1267.84     4.39      .84      .02  1263.90
   16000.       0.   16000.       0.       0.     951.       0.     207.      21.   1264.42
      .15      .00    16.82      .00     .000     .015     .000     .000  1252.26  9945.37
  .001718     491.     491.     491.        4       11        0      .00   109.87 10055.24


FLOW DISTRIBUTION FOR SECNO=     16.69         CWSEL=   1263.45

STA=    9945.   10056.
  PER Q=    100.0
   AREA=    951.2
    VEL=     16.8
  DEPTH=      8.7

*SECNO 16.823
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.823    11.20  1266.34  1266.34      .00  1270.72     4.38     1.17      .00  1266.78
   16000.       0.   16000.       0.       0.     953.       0.     222.      23.   1267.30
      .17      .00    16.80      .00     .000     .015     .000     .000  1255.14  9945.36
  .001711     681.     681.     681.       20        5        0      .00   109.89 10055.25
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     16.82         CWSEL=   1266.34

STA=    9945.   10056.
  PER Q=    100.0
   AREA=    952.5
    VEL=     16.8
  DEPTH=      8.7

*SECNO 16.902
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.902    11.19  1267.38  1267.38      .00  1271.62     4.25      .72      .01  1268.80
   16000.       0.   16000.       0.       0.     967.       0.     231.      24.   1270.33
      .17      .00    16.54      .00     .000     .015     .000     .000  1256.19  9942.86
  .001727     417.     417.     417.        2        5        0      .00   115.24 10058.09


FLOW DISTRIBUTION FOR SECNO=     16.90         CWSEL=   1267.38

STA=    9943.   10063.
  PER Q=    100.0
   AREA=    967.3
    VEL=     16.5
  DEPTH=      8.4

*SECNO 16.970
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.970    11.83  1268.19  1268.19      .00  1272.36     4.18      .62      .01  1269.30
   16000.       0.   16000.       0.       0.     976.       0.     239.      25.   1270.78
      .18      .00    16.40      .00     .000     .015     .000     .000  1256.36  9940.53
  .001755     359.     359.     359.        2        8        0      .00   118.98 10059.51


FLOW DISTRIBUTION FOR SECNO=     16.97         CWSEL=   1268.19

STA=    9941.   10065.
  PER Q=    100.0
   AREA=    975.7
    VEL=     16.4
  DEPTH=      8.2
```

SECNO	DEPTH	CWSEL	CRIWS	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

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1266.61 , NOT 1268.19 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	3.00	100.00	82.57	6.00	1513.00	1.61	1258.71	1258.33

*SECNO 16.988
3280 CROSS SECTION 16.99 EXTENDED 1.43 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1268.78 BRIDGE VELOCITY= 16.75 CALCULATED CHANNEL AREA= 934.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1273.47	.00	0.	16000.	1513.	1516.	1273.75	1277.80	0.

16.988	14.72	1271.13	.00	.00	1273.47	2.34	1.11	.00	1269.70
16000.	0.	16000.	0.	0.	1302.	0.	242.	25.	1270.17
.18	.00	12.29	.00	.000	.015	.000	.000	1256.41	9938.30
.000741	90.	90.	90.	0	0	0	.00	125.60	10063.90

FLOW DISTRIBUTION FOR SECNO= 16.99 CWSEL= 1271.13

STA= 9938. 10064.
PER Q= 100.0
AREA= 1302.4
VEL= 12.3
DEPTH= 10.4

*SECNO 17.061

3301 HV CHANGED MORE THAN HVINS

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   SECNO    DEPTH    CWSEL    CRIWS    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


   17.061    14.18  1270.79      .00      .00  1274.13     3.34      .36      .30  1271.30
   16000.       0.  16000.       0.       0.    1091.       0.     252.      26.   1271.79
      .19      .00    14.67      .00     .000     .015     .000     .000  1256.61  9939.31
  .001278     380.     380.     380.        3        0        0      .00   123.21 10062.52


FLOW DISTRIBUTION FOR SECNO=     17.06          CWSEL=   1270.79

STA=    9939.   10065.
  PER Q=    100.0
   AREA=   1090.8
    VEL=     14.7
  DEPTH=      8.9

*SECNO 17.206

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.206     5.70  1272.70  1272.70      .00  1275.43     2.73     1.19      .06  1279.00
   16000.       0.  16000.       0.       0.    1207.       0.     272.      29.   1279.00
      .20      .00    13.26      .00     .000     .015     .000     .000  1267.00  9888.13
  .001922     769.     769.     769.        4       18        0      .00   223.73 10111.87


FLOW DISTRIBUTION FOR SECNO=     17.21          CWSEL=   1272.70

STA=    9888.   10125.
  PER Q=    100.0
   AREA=   1206.8
    VEL=     13.3
  DEPTH=      5.4

*SECNO 17.360
 WATER EL=X5 CARD=   1275.400

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO = 11.77

   17.360    18.70  1275.40      .00      .00  1275.42      .02      .04      .27  1282.20
   16000.       0.  16000.       0.       0.   13646.       0.     411.      39.   1281.80
      .40      .00     1.17      .00     .000     .030     .000     .000  1256.70  9522.77
  .000014     820.     813.     830.        0        0        0      .00   848.95 10371.72
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     17.36         CWSEL=   1275.40

STA=    9523.   10427.
  PER Q=    100.0
   AREA=  13645.7
    VEL=      1.2
  DEPTH=     16.1

*SECNO 17.494

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.494    10.46  1280.76  1280.76      .00  1282.72     1.96      .03      .58  1279.10
   14000.      73.   11397.    2530.      23.     950.     365.     533.      49.   1278.50
      .41     3.22    12.00     6.93     .030     .030     .030     .000  1270.30  9876.77
  .005411     750.     707.     670.       20       11        0      .00   376.72 10253.49


FLOW DISTRIBUTION FOR SECNO=     17.49         CWSEL=   1280.76

STA=    9877.    9904.   10062.   10087.   10109.   10161.   10167.   10253.
  PER Q=       .5     81.4      2.3      4.2     10.2       .4      1.0
   AREA=     22.6    949.9     52.8     72.9    174.9     10.0     54.6
    VEL=      3.2     12.0      6.0      8.1      8.2      5.1      2.7
  DEPTH=       .8      6.0      2.1      3.3      3.4      1.7       .6

*SECNO 17.588

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.77

   17.588    13.74  1283.34      .00      .00  1283.64      .30      .76      .17  1278.10
   14000.    2997.   10732.     271.     945.    2263.     121.     559.      54.   1276.40
      .45     3.17     4.74     2.23     .040     .040     .040     .000  1269.60  9779.63
  .000707     440.     496.     560.        2        0        0      .00   448.30 10227.93
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     17.59         CWSEL=   1283.34

STA=    9780.    9835.    9854.    9873.    9909.    9982.   10193.   10228.
  PER Q=      6.5      5.2      3.9      3.7      2.1     76.7      1.9
   AREA=    287.4    170.8    146.1    179.9    161.2   2263.3    121.2
    VEL=      3.2      4.3      3.8      2.9      1.8      4.7      2.2
  DEPTH=      5.2      9.0      7.7      5.0      2.2     10.7      3.5

*SECNO 17.662

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .49

   17.662    11.87  1283.47      .00      .00  1284.29      .82      .50      .15  1276.40
   14000.    3561.   10410.      29.     567.    1376.      15.     582.      57.  1281.60
      .46     6.28     7.57     1.93     .040     .040     .040     .000  1271.60  9831.17
  .002979     380.     391.     400.        3        0        0      .00   314.97 10146.14


FLOW DISTRIBUTION FOR SECNO=     17.66         CWSEL=   1283.47

STA=    9831.    9835.    9844.    9871.    9911.    9941.   10130.   10146.
  PER Q=       .0       .8      5.4      9.1     10.1     74.4       .2
   AREA=      1.5     27.7    130.3    209.0    198.7   1375.8     15.1
    VEL=      1.1      4.0      5.8      6.1      7.1      7.6      1.9
  DEPTH=       .4      3.1      4.8      5.2      6.6      7.3       .9

*SECNO 17.783

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .67

   17.783     9.85  1285.25      .00      .00  1287.34     2.09     2.67      .38  1280.50
   14000.     243.   13164.     593.      46.    1110.      94.     605.      61.  1281.10
      .48     5.30    11.86     6.27     .040     .040     .040     .000  1275.40  9901.70
  .006681     540.     639.     500.        3        0        0      .00   198.44 10100.13
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       DLOSS   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


FLOW DISTRIBUTION FOR SECNO=     17.78         CWSEL=   1285.25

STA=    9902.    9921.   10064.   10074.   10097.   10100.
  PER Q=      1.7     94.0      2.2      2.0       .0
   AREA=     45.9   1110.4     40.5     52.9      1.0
    VEL=      5.3     11.9      7.7      5.3      1.4
  DEPTH=      2.4      7.8      4.1      2.3       .3

*SECNO 17.932

3301 HV CHANGED MORE THAN HVINS

   17.932    12.63  1290.53  1289.66      .00  1293.88     3.35     6.17      .38  1289.70
   14000.      19.   13978.       3.       9.     951.       2.     625.      64.   1290.20
      .49     2.00    14.70     1.09     .040     .040     .040     .000  1277.90  9933.27
  .009316     790.     787.     780.        6       11        0      .00   146.91 10080.18


FLOW DISTRIBUTION FOR SECNO=     17.93         CWSEL=   1290.53

STA=    9933.    9956.   10066.   10080.
  PER Q=       .1     99.8       .0
   AREA=      9.5    951.1      2.4
    VEL=      2.0     14.7      1.1
  DEPTH=       .4      8.6       .2

CCHV=     .300 CEHV=     .500
*SECNO 18.042

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54

   18.042    11.50  1293.80      .00      .00  1297.31     3.51     3.35      .08  1307.40
   14000.       0.   14000.       0.       0.     932.       0.     638.      65.   1307.40
      .50      .00    15.03      .00     .000     .025     .000     .000  1282.30  9951.63
  .003914     620.     581.     550.        4        0        0      .00    96.72 10048.35


FLOW DISTRIBUTION FOR SECNO=     18.04         CWSEL=   1293.80

STA=    9952.   10049.
  PER Q=    100.0
   AREA=    931.8
    VEL=     15.0
  DEPTH=      9.6
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.05	1.56	3.00	.00	75.00	4.00	1059.00	.81	1280.20	1279.90

*SECNO 18.061
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1293.57 BRIDGE VELOCITY= 12.63 CALCULATED CHANNEL AREA= 1094.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1298.04	1298.17	1.02	0.	14000.	1059.	1060.	1293.20	1301.60	0.

18.061	11.72	1294.82	.00	.00	1298.17	3.35	.86	.00	1308.20
14000.	0.	14000.	0.	0.	953.	0.	640.	66.	1308.20
.50	.00	14.70	.00	.000	.025	.000	.000	1283.10	9951.62
.003653	101.	101.	101.	0	0	0	.00	96.74	10048.36

FLOW DISTRIBUTION FOR SECNO= 18.06 CWSEL= 1294.82

STA= 9952. 10049.
PER Q= 100.0
AREA= 952.6
VEL= 14.7
DEPTH= 9.0

*SECNO 18.081

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.22

18.081	17.29	1298.39	.00	.00	1299.11	.72	.15	.79	1286.60
14000.	960.	11710.	1331.	258.	1619.	318.	644.	66.	1284.90
.51	3.72	7.23	4.18	.035	.035	.035	.000	1281.10	9895.90
.000743	80.	106.	130.	3	0	0	.00	201.10	10097.00

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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     18.08         CWSEL=   1298.39

STA=    9896.    9942.   10045.   10088.   10097.
  PER Q=      6.9     83.6      9.5       .0
   AREA=    257.8   1619.4    313.4      4.9
    VEL=      3.7      7.2      4.2       .8
  DEPTH=      5.6     15.7      7.3       .5

CCHV=     .100 CEHV=     .300
*SECNO 18.174

3265 DIVIDED FLOW

   18.174    17.38  1299.08      .00      .00  1299.43      .34      .28      .04  1288.70
   14000.    1402.   11002.    1596.     407.    2155.     756.     675.      70.   1294.60
      .54     3.44     5.10     2.11     .035     .035     .035     .000  1281.70  9861.25
  .000439     500.     491.     490.        2        0        0      .00   524.56 10424.64


FLOW DISTRIBUTION FOR SECNO=     18.17         CWSEL=   1299.08

STA=    9861.    9904.    9915.    9919.   10073.   10142.   10182.   10236.   10425.
  PER Q=      4.6      4.1      1.3     78.6      3.5      4.2      3.2       .5
   AREA=    236.9    125.8     44.3   2155.4    235.2    215.3    207.0     98.7
    VEL=      2.7      4.5      4.3      5.1      2.1      2.7      2.2       .7
  DEPTH=      5.5     11.4     11.1     14.0      3.4      5.4      3.8       .5

*SECNO 18.269

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66

   18.269    15.30  1299.10      .00      .00  1299.88      .77      .32      .13  1288.40
   14000.    1953.   11555.     492.     383.    1551.     148.     706.      74.   1292.40
      .56     5.10     7.45     3.32     .035     .035     .035     .000  1283.80  9885.96
  .001007     500.     502.     500.        2        0        0      .00   217.76 10103.72


FLOW DISTRIBUTION FOR SECNO=     18.27         CWSEL=   1299.10

STA=    9886.    9928.    9942.   10060.   10071.   10104.
  PER Q=      6.8      7.2     82.5      2.0      1.5
   AREA=    231.3    151.9   1550.7     64.9     83.4
    VEL=      4.1      6.6      7.5      4.4      2.5
  DEPTH=      5.5     10.9     13.1      5.9      2.6
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   SECNO    DEPTH    CWSEL    CRIWS    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 18.362
   18.362    14.22  1299.52      .00      .00  1300.52     1.00      .57      .07  1290.00
   14000.     900.   12289.     811.     195.    1465.     193.     728.      77.   1290.60
      .57     4.61     8.39     4.20     .035     .035     .035     .000  1285.30  9900.34
  .001372     490.     491.     510.        2        0        0      .00   202.91 10103.25


FLOW DISTRIBUTION FOR SECNO=     18.36         CWSEL=   1299.52

STA=    9900.    9905.    9942.   10060.   10103.
  PER Q=       .0      6.4     87.8      5.8
   AREA=      2.1    193.2   1465.3    192.9
    VEL=       .9      4.7      8.4      4.2
  DEPTH=       .5      5.2     12.4      4.5

*SECNO 18.445

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   18.445    17.73  1305.03  1305.03      .00  1307.09     2.07     1.01      .32  1290.00
   14000.    4648.    3602.    5750.     531.     213.     631.     745.      79.   1290.00
      .59     8.75    16.92     9.12     .035     .035     .035     .000  1287.30  9887.57
  .004266     470.     440.     460.       20       11        0      .00   317.19 10204.77


FLOW DISTRIBUTION FOR SECNO=     18.44         CWSEL=   1305.03

STA=    9888.    9920.    9978.    9992.   10005.   10040.   10060.   10097.   10200.
  PER Q=      3.0     18.4     11.9     25.7     31.5      4.0      3.4      2.1
   AREA=     81.5    306.0    143.9    212.9    350.9     80.5     93.5    105.7
    VEL=      5.1      8.4     11.6     16.9     12.6      7.0      5.1      2.8
  DEPTH=      2.5      5.3     10.3     16.4     10.0      4.0      2.5      1.0
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SECNO	DEPTH	CWSEL	CRIWS	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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	2.34	3.00	.00	6.11	1.00	33.20	.00	1287.70	1287.40

*SECNO 18.456

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.50

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
7766.18	1308.05	.96	13709.	299.	33.	33.	1294.20	1299.50	453.

18.456	19.35	1307.05	.00	.00	1307.98	.93	.89	.00	1290.40
14000.	4707.	2811.	6481.	710.	234.	1100.	747.	80.	1290.40
.59	6.63	12.01	5.89	.035	.035	.035	.000	1287.70	9875.70
.001894	60.	60.	60.	3	0	8	.00	439.86	10315.56

FLOW DISTRIBUTION FOR SECNO= 18.46 CWSEL= 1307.05

STA=	9876.	9920.	9978.	9992.	10005.	10040.	10060.	10097.	10200.	10310.	10316.
PER Q=	4.3	19.2	10.1	20.1	27.0	4.7	5.2	6.9	2.4	.0	
AREA=	143.2	400.5	166.7	234.1	407.9	113.1	153.8	273.5	149.1	2.9	
VEL=	4.2	6.7	8.5	12.0	9.3	5.8	4.8	3.5	2.3	1.2	
DEPTH=	3.2	6.9	11.9	18.0	11.7	5.7	4.2	2.7	1.4	.5	

*SECNO 18.545

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.14

18.545	18.67	1307.97	.00	.00	1308.39	.41	.36	.05	1294.10
14000.	1543.	10379.	2078.	473.	1824.	648.	774.	84.	1293.80
.61	3.26	5.69	3.21	.035	.035	.035	.000	1289.30	9882.82
.000412	440.	466.	480.	2	0	0	.00	285.11	10167.92

SECNO	DEPTH	CWSEL	CRIWS	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

FLOW DISTRIBUTION FOR SECNO= 18.55 CWSEL= 1307.97

STA=	9883.	9889.	9951.	10058.	10073.	10094.	10108.	10121.	10135.	10168.
PER Q=	.0	11.0	74.1	5.4	4.7	1.8	.9	1.1	.9	
AREA=	3.9	469.6	1824.0	175.1	182.1	89.2	56.2	63.3	81.9	
VEL=	.6	3.3	5.7	4.3	3.6	2.9	2.3	2.4	1.6	
DEPTH=	.6	7.6	17.0	11.7	8.7	6.4	4.3	4.5	2.5	

*SECNO 18.575

18.575	18.80	1308.10	.00	.00	1308.46	.36	.06	.01	1291.50
14000.	3225.	2900.	7875.	803.	502.	1676.	785.	85.	1289.70
.62	4.01	5.78	4.70	.035	.035	.035	.000	1289.30	9882.20
.000397	160.	160.	160.	2	0	0	.00	286.56	10168.76

FLOW DISTRIBUTION FOR SECNO= 18.58 CWSEL= 1308.10

STA=	9882.	9951.	9972.	10000.	10018.	10040.	10058.	10073.	10094.	10135.	10169.
PER Q=	11.1	11.9	20.7	14.0	16.4	10.9	5.4	4.8	3.9	1.0	
AREA=	482.2	321.3	501.9	331.2	396.0	287.1	177.0	184.8	214.0	86.1	
VEL=	3.2	5.2	5.8	5.9	5.8	5.3	4.2	3.6	2.6	1.6	
DEPTH=	7.0	15.3	17.9	18.4	18.0	16.0	11.8	8.8	5.2	2.6	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	3.00	.00	10.40	1.00	56.50	.00	1289.40	1289.30

*SECNO 18.583
PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
2795.40	1308.53	.07	13587.	410.	57.	56.	1295.40	1299.00	282.

18.583	19.67	1309.07	.00	.00	1309.38	.30	.92	.00	1291.60
14000.	3312.	2810.	7878.	884.	526.	1826.	788.	85.	1289.80
.63	3.75	5.34	4.31	.035	.035	.035	.000	1289.40	9877.96
.000318	40.	40.	40.	2	0	7	.00	296.60	10174.55

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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     18.58         CWSEL=   1309.07

STA=    9878.    9951.    9972.   10000.   10018.   10040.   10058.   10073.   10094.   10121.   10175.
  PER Q=     12.0     11.7     20.1     13.5     15.9     10.6      5.4      5.0      3.2      2.6
   AREA=    544.2    339.7    526.4    347.0    415.3    302.9    190.1    203.2    172.5    195.5
    VEL=      3.1      4.8      5.3      5.4      5.4      4.9      4.0      3.4      2.6      1.9
  DEPTH=      7.5     16.2     18.8     19.3     18.9     16.8     12.7      9.7      6.4      3.7

*SECNO 18.640
   18.640    18.81  1309.01      .00      .00  1309.59      .58      .13      .08  1294.60
   14000.    2075.    9094.    2831.     482.    1319.     669.     808.      87.   1293.40
      .64     4.31     6.90     4.23     .035     .035     .035     .000  1290.20  9882.44
  .000613     300.     301.     310.        2        0        0      .00   249.64 10132.09


FLOW DISTRIBUTION FOR SECNO=     18.64         CWSEL=   1309.01

STA=    9882.    9920.    9955.   10033.   10111.   10132.
  PER Q=      2.0     12.8     65.0     20.2       .1
   AREA=    117.3    364.4   1318.6    656.2     12.9
    VEL=      2.4      4.9      6.9      4.3       .8
  DEPTH=      3.1     10.4     16.9      8.4       .6

*SECNO 18.734
   18.734    16.85  1309.25      .00      .00  1310.01      .76      .37      .05  1298.60
   14000.    1123.   12392.     485.     281.    1694.     154.     834.      90.   1300.80
      .66     4.00     7.31     3.16     .035     .035     .035     .000  1292.40  9885.20
  .000922     490.     496.     500.        1        0        0      .00   225.02 10110.22


FLOW DISTRIBUTION FOR SECNO=     18.73         CWSEL=   1309.25

STA=    9885.    9938.   10062.   10094.   10104.   10110.
  PER Q=      8.0     88.5      3.3       .1       .0
   AREA=    280.7   1694.4    139.1      9.5      5.1
    VEL=      4.0      7.3      3.4      1.2      1.1
  DEPTH=      5.3     13.7      4.3       .9       .8

*SECNO 18.832
   18.832    16.53  1309.73      .00      .00  1310.50      .77      .48      .00  1302.80
   14000.     357.   11889.    1754.     121.    1604.     370.     859.      92.   1297.10
      .68     2.95     7.41     4.74     .035     .035     .035     .000  1293.20  9894.00
  .000943     480.     517.     540.        2        0        0      .00   211.45 10105.46
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     18.83         CWSEL=   1309.73

STA=    9894.    9929.   10046.   10095.   10105.
  PER Q=      2.6     84.9     12.4       .1
   AREA=    121.2   1603.8    359.1     10.6
    VEL=      2.9      7.4      4.8      1.3
  DEPTH=      3.5     13.7      7.3      1.0

*SECNO 18.925
   18.925    15.55  1310.15      .00      .00  1311.03      .88      .50      .03  1297.60
   14000.    1504.   11726.     771.     323.    1472.     191.     882.      95.   1300.00
      .70     4.66     7.97     4.03     .035     .035     .035     .000  1294.60  9889.56
  .001081     480.     491.     500.        2        0        0      .00   196.14 10085.70


FLOW DISTRIBUTION FOR SECNO=     18.92         CWSEL=   1310.15

STA=    9890.    9941.   10048.   10086.
  PER Q=     10.7     83.8      5.5
   AREA=    322.8   1471.8    191.4
    VEL=      4.7      8.0      4.0
  DEPTH=      6.3     13.8      5.1

*SECNO 19.018

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62

   19.018    12.81  1310.41      .00      .00  1312.07     1.66      .80      .23  1305.10
   14000.     383.   13602.      15.      90.    1301.       7.     901.      97.   1308.40
      .71     4.27    10.45     2.19     .035     .035     .035     .000  1297.60  9869.21
  .002792     460.     491.     520.        2        0        0      .00   167.69 10036.90


FLOW DISTRIBUTION FOR SECNO=     19.02         CWSEL=   1310.41

STA=    9869.    9903.   10030.   10037.
  PER Q=      2.7     97.2       .1
   AREA=     89.7   1301.2      6.9
    VEL=      4.3     10.5      2.2
  DEPTH=      2.7     10.2      1.0
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   SECNO    DEPTH    CWSEL    CRIWS    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 19.117

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   19.117    13.26  1311.86  1311.86      .00  1316.05     4.19     2.16      .76  1302.90
   14000.    1191.   11024.    1784.     130.     619.     176.     915.      98.   1301.50
      .72     9.18    17.81    10.13     .035     .035     .035     .000  1298.60  9944.03
  .006733     490.     523.     560.       20        8        0      .00   115.99 10060.02


FLOW DISTRIBUTION FOR SECNO=     19.12          CWSEL=   1311.86

STA=    9944.    9973.   10026.   10060.
  PER Q=      8.5     78.7     12.7
   AREA=    129.7    619.1    176.2
    VEL=      9.2     17.8     10.1
  DEPTH=      4.5     11.7      5.2

*SECNO 19.210

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.61

   19.210    16.31  1316.51      .00      .00  1318.23     1.73     1.94      .25  1312.00
   14000.     158.   13691.     151.      43.    1286.      42.     928.     100.   1312.00
      .73     3.65    10.65     3.64     .035     .035     .035     .000  1300.20  9925.83
  .002589     500.     491.     490.        3        0        0      .00   152.59 10078.42


FLOW DISTRIBUTION FOR SECNO=     19.21          CWSEL=   1316.51

STA=    9926.    9945.   10060.   10078.
  PER Q=      1.1     97.8      1.1
   AREA=     43.2   1286.0     41.5
    VEL=      3.6     10.6      3.6
  DEPTH=      2.3     11.2      2.3
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SECNO    DEPTH    CWSEL    CRIWS    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


CCHV=     .300 CEHV=     .500
*SECNO 19.283

3301 HV CHANGED MORE THAN HVINS

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1324.00 ELREA=     1324.00

  19.283     7.99  1319.69  1319.69      .00  1323.70     4.01     1.69     1.14  1311.70
  14000.       0.   14000.       0.       0.     871.       0.     938.     101.   1311.70
     .74      .00    16.08      .00     .000     .035     .000     .000  1311.70  9948.00
 .008978     390.     386.     390.       20       11        0      .00   109.00 10057.00


FLOW DISTRIBUTION FOR SECNO=     19.28         CWSEL=   1319.69


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1318.52 , NOT    1319.69 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XXDR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .90      1.56      3.00       .00    109.00      4.50   1304.00      .00   1311.70   1311.70

*SECNO 19.299

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.47

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1319.93 BRIDGE VELOCITY=     16.28     CALCULATED CHANNEL AREA=      860.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                 AREA
   1322.48   1324.30      .00        0.    14000.     1304.     1306.     1324.20   1326.50        0.
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   SECNO    DEPTH    CWSEL    CRIWS    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


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1325.00 ELREA=     1325.00

   19.299    10.07  1321.77      .00      .00  1324.30     2.53      .59      .00  1311.70
   14000.       0.   14000.       0.       0.    1098.       0.     940.     101.   1311.70
      .74      .00    12.76      .00     .000     .035     .000     .000  1311.70  9948.00
  .004150      86.      86.      86.        0        0        0      .00   109.00 10057.00


FLOW DISTRIBUTION FOR SECNO=     19.30         CWSEL=   1321.77

*SECNO 19.313

3301 HV CHANGED MORE THAN HVINS

   19.313    11.19  1322.89      .00      .00  1324.80     1.90      .31      .19  1327.90
   14000.       0.   14000.       0.       0.    1264.       0.     942.     101.   1325.50
      .74      .00    11.07      .00     .000     .035     .000     .000  1311.70  9945.47
  .004343      75.      74.      75.        3        0        0      .00   157.00 10102.47


FLOW DISTRIBUTION FOR SECNO=     19.31         CWSEL=   1322.89

STA=    9945.   10112.
  PER Q=    100.0
   AREA=   1264.4
    VEL=     11.1
  DEPTH=      8.1

CCHV=     .100 CEHV=     .300
*SECNO 19.418
   19.418    12.34  1325.34      .00      .00  1327.13     1.79     2.32      .01  1328.00
   14000.       0.   14000.       0.       0.    1302.       0.     958.     104.   1326.10
      .76      .00    10.75      .00     .000     .035     .000     .000  1313.00  9955.86
  .004058     570.     554.     530.        2        0        0      .00   160.84 10116.70


FLOW DISTRIBUTION FOR SECNO=     19.42         CWSEL=   1325.34

STA=    9956.   10120.
  PER Q=    100.0
   AREA=   1302.3
    VEL=     10.8
  DEPTH=      8.1
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   SECNO    DEPTH    CWSEL    CRIWS    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 19.560
   19.560    12.37  1327.97      .00      .00  1329.83     1.87     2.68      .02  1329.70
   14000.       0.   14000.       0.       0.    1276.       0.     979.     106.   1330.60
      .78      .00    10.97      .00     .000     .035     .000     .000  1315.60  9931.76
  .003346     730.     729.     720.        3        0        0      .00   128.82 10060.58


FLOW DISTRIBUTION FOR SECNO=     19.56         CWSEL=   1327.97

STA=    9932.   10065.
  PER Q=    100.0
   AREA=   1276.0
    VEL=     11.0
  DEPTH=      9.9

CCHV=     .300 CEHV=     .500
*SECNO 19.625

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1332.00 ELREA=     1332.00

   19.625    11.84  1329.44      .00      .00  1330.47     1.04      .39      .25  1317.60
    5800.       0.    5800.       0.       0.     710.       0.     988.     107.   1317.60
      .79      .00     8.17      .00     .000     .015     .000     .000  1317.60  9965.00
  .000252     580.     364.      70.        2        0        0      .00    60.00 10025.00


FLOW DISTRIBUTION FOR SECNO=     19.63         CWSEL=   1329.44


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.05      1.56      3.00    100.00     60.00      2.00    564.00       .00   1318.60   1317.60

*SECNO 19.691
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  SECNO    DEPTH    CWSEL    CRIWS    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


PRESSURE FLOW


 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                             AREA
  1332.00   1330.75      .10        0.     5800.      564.     563.     1328.30   1334.80        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1333.00 ELREA=     1333.00

  19.691    12.46  1331.06      .00      .00  1332.00      .93     1.53      .00  1318.60
   5800.       0.    5800.       0.       0.     748.       0.     994.     107.   1318.60
     .80      .00     7.75      .00     .000     .015     .000     .000  1318.60  9965.00
 .000212     330.     350.     430.        2        0        0      .00    60.00 10025.00


FLOW DISTRIBUTION FOR SECNO=     19.69         CWSEL=   1331.06

*SECNO 19.742
  19.742    12.47  1331.57      .00      .00  1332.16      .58      .05      .10  1331.60
   5800.       0.    5800.       0.       0.     947.       0.     999.     108.   1331.00
     .81      .00     6.13      .23     .000     .015     .035     .000  1319.10  9948.04
 .000195      80.     269.     470.        2        0        0      .00    94.88 10042.91


FLOW DISTRIBUTION FOR SECNO=     19.74         CWSEL=   1331.57

STA=    9948.   10042.   10043.
  PER Q=    100.0       .0
   AREA=    946.7       .3
    VEL=      6.1       .2
  DEPTH=     10.1       .3

CCHV=     .100 CEHV=     .300
*SECNO 19.847

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .36

  19.847    12.95  1331.75      .00      .00  1332.42      .67      .23      .03  1336.30
   5800.       0.    5800.       0.       0.     883.       0.    1010.     109.   1335.80
     .84      .00     6.57      .00     .000     .035     .000     .000  1318.80  9941.73
 .001525     570.     554.     520.        2        0        0      .00   107.54 10049.26
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       DLOSS   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


FLOW DISTRIBUTION FOR SECNO=     19.85         CWSEL=   1331.75

STA=    9942.   10062.
  PER Q=    100.0
   AREA=    882.7
    VEL=      6.6
  DEPTH=      8.2

*SECNO 19.960

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   19.960     7.66  1332.26  1332.26      .00  1335.02     2.76     1.86      .63  1330.00
    5800.      36.    5735.      29.       8.     428.       7.    1020.     110.   1330.00
      .85     4.39    13.39     4.33     .035     .035     .035     .000  1324.60  9950.77
  .009627     640.     597.     560.        2       14        0      .00    86.21 10036.98


FLOW DISTRIBUTION FOR SECNO=     19.96         CWSEL=   1332.26

STA=    9951.    9958.   10031.   10037.
  PER Q=       .6     98.9       .5
   AREA=      8.2    428.3      6.8
    VEL=      4.4     13.4      4.3
  DEPTH=      1.1      5.9      1.1

CCHV=     .300 CEHV=     .500
*SECNO 19.974

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.61


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1336.00 ELREA=     1336.00

   19.974     9.68  1333.48      .00      .00  1335.62     2.15      .42      .18  1323.80
    5800.       0.    5800.       0.       0.     493.       0.    1020.     110.   1323.80
      .85      .00    11.75      .00     .000     .035     .000     .000  1323.80  9969.00
  .003717     105.     74.      65.        3        0        0      .00    51.00 10020.00
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SECNO    DEPTH    CWSEL    CRIWS    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   IOC      ICONT    CORAR    TOPWID     ENDST


FLOW DISTRIBUTION FOR SECNO=     19.97         CWSEL=   1333.48


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      3.00       .00     51.00      3.00    480.00       .00   1324.10   1323.80

*SECNO 19.986

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW


 EGPRS      EGLWC       H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                 AREA
   1337.01   1336.18      .91        0.     5800.      480.      480.     1334.10   1337.90        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1337.00 ELREA=     1337.00

   19.986    11.76  1335.56      .00      .00  1337.01     1.45     1.39      .00  1323.80
    5800.       0.    5800.       0.       0.     600.       0.    1021.     110.   1323.80
      .85      .00     9.67      .00     .000     .035     .000     .000  1323.80  9969.00
  .001940      61.      61.      61.        8        0        0      .00    51.00 10020.00


FLOW DISTRIBUTION FOR SECNO=     19.99         CWSEL=   1335.56

*SECNO 20.049

3301 HV CHANGED MORE THAN HVINS

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1340.00 ELREA=     1339.40

   20.049    11.36  1338.46  1338.46      .00  1342.02     3.56     1.27     1.06  1343.40
    5800.       0.    5800.       0.       0.     383.       0.    1025.     111.   1339.40
      .86      .00    15.15      .00     .000     .035     .000     .000  1327.10  9971.38
  .010686     305.     333.     345.       20       10        0      .00    53.99 10025.37
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     20.05         CWSEL=   1338.46

STA=    9971.   10027.
  PER Q=    100.0
   AREA=    382.9
    VEL=     15.1
  DEPTH=      7.1

CCHV=     .100 CEHV=     .300
*SECNO 20.144

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.69


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1344.00 ELREA=     1340.80

   20.144    12.69  1343.59      .00      .00  1345.18     1.59     2.97      .20  1344.60
    5800.       0.    5677.     123.       0.     556.      35.    1030.     112.   1340.80
      .87      .00    10.21     3.52     .000     .035     .040     .000  1330.90  9960.03
  .003741     490.     502.     500.        2        0        0      .00    84.87 10044.90


FLOW DISTRIBUTION FOR SECNO=     20.14         CWSEL=   1343.59

STA=    9960.   10025.   10040.   10045.
  PER Q=     97.9      2.0       .1
   AREA=    555.8     31.4      3.4
    VEL=     10.2      3.7      1.7
  DEPTH=      8.6      2.1       .7

*SECNO 20.242

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1348.00 ELREA=     1342.80

   20.242    12.30  1345.60      .00      .00  1347.17     1.58     1.99      .00  1347.20
    5800.       0.    5634.     166.       0.     552.      42.    1038.     113.   1342.80
      .89      .00    10.20     3.91     .000     .035     .040     .000  1333.30  9960.78
  .003927     470.     517.     560.        3        0        0      .00    89.63 10050.41
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     20.24         CWSEL=   1345.60

STA=    9961.   10029.   10041.   10050.
  PER Q=     97.1      2.4       .5
   AREA=   552.3     31.2     11.3
    VEL=    10.2      4.4      2.6
  DEPTH=     8.1      2.6      1.2

*SECNO 20.335
   20.335    10.23  1347.53      .00      .00  1348.72     1.18     1.51      .04  1344.00
    5800.      34.    5735.      31.      13.     653.      12.    1045.     114.   1344.00
      .90     2.53     8.78     2.50     .040     .035     .040     .000  1337.30  9950.36
  .002464     510.     491.     470.        2        0        0      .00    88.70 10039.06


FLOW DISTRIBUTION FOR SECNO=     20.33         CWSEL=   1347.53

STA=    9950.    9958.   10032.   10039.
  PER Q=       .6     98.9       .5
   AREA=     13.5    653.3     12.5
    VEL=      2.5      8.8      2.5
  DEPTH=      1.8      8.8      1.8

CCHV=     .300 CEHV=     .500
*SECNO 20.347

3301 HV CHANGED MORE THAN HVINS


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1351.50 ELREA=     1351.50

   20.347    10.12  1347.32      .00      .00  1349.28     1.96      .18      .39  1337.20
    5800.       0.    5800.       0.       0.     516.       0.    1046.     114.   1337.20
      .91      .00    11.23      .00     .000     .035     .000     .000  1337.20  9970.00
  .003197       1.      63.     150.        2        0        0      .00    51.00 10021.00


FLOW DISTRIBUTION FOR SECNO=     20.35         CWSEL=   1347.32
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SECNO	DEPTH	CWSEL	CRIWS	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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	3.00	100.00	51.00	3.00	576.00	.00	1337.70	1337.20

*SECNO 20.366
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1349.78	1349.77	.75	0.	5800.	576.	576.	1349.70	1354.50	0.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1352.50 ELREA= 1352.50

20.366	10.88	1348.08	.00	.00	1349.78	1.70	.50	.00	1337.20
5800.	0.	5800.	0.	0.	555.	0.	1047.	114.	1337.20
.91	.00	10.45	.00	.000	.035	.000	.000	1337.20	9970.00
.002510	100.	100.	100.	3	0	0	.00	51.00	10021.00

FLOW DISTRIBUTION FOR SECNO= 20.37 CWSEL= 1348.08

*SECNO 20.423

3301 HV CHANGED MORE THAN HVINS

20.423	11.71	1349.71	.00	.00	1350.65	.94	.64	.23	1345.00
5800.	109.	5343.	348.	40.	666.	91.	1051.	115.	1344.30
.92	2.76	8.03	3.84	.040	.035	.040	.000	1338.00	9958.19
.001850	415.	301.	205.	3	0	0	.00	113.82	10072.01

FLOW DISTRIBUTION FOR SECNO= 20.42 CWSEL= 1349.71

STA=	9950.	9975.	10045.	10055.	10072.
PER Q=	1.9	92.1	4.1	1.9	
AREA=	39.6	665.6	50.6	40.0	
VEL=	2.8	8.0	4.7	2.8	
DEPTH=	2.4	9.5	5.1	2.4	

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SECNO    DEPTH    CWSEL    CRIWS    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 20.430

3301 HV CHANGED MORE THAN HVINS


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1352.50 ELREA=     1352.50

  20.430     9.96  1349.26      .00      .00  1351.28     2.02      .09      .54  1339.30
   5800.       0.    5800.       0.       0.     508.       0.    1052.     115.   1339.30
     .92      .00    11.42      .00     .000     .035     .000     .000  1339.30  9985.00
 .003375       1.      37.      65.        2        0        0      .00    51.00 10036.00


FLOW DISTRIBUTION FOR SECNO=     20.43         CWSEL=   1349.26


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      3.00    100.00     51.00      3.00    576.00      .00   1339.30   1339.30

*SECNO 20.444
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1348.71 BRIDGE VELOCITY=      12.84     CALCULATED CHANNEL AREA=      452.

 EGPRS      EGLWC      H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                              AREA
  1351.71   1351.79      .80        0.     5800.      576.      576.     1351.30   1355.50        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1353.50 ELREA=     1353.50

  20.444    10.76  1350.06      .00      .00  1351.79     1.74      .51      .00  1339.30
   5800.       0.    5800.       0.       0.     549.       0.    1053.     115.   1339.30
     .92      .00    10.57      .00     .000     .035     .000     .000  1339.30  9985.00
 .002611      70.      70.      70.        0        0        0      .00    51.00 10036.00


FLOW DISTRIBUTION FOR SECNO=     20.44         CWSEL=   1350.06
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   SECNO    DEPTH    CWSEL    CRIWS    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 20.529

3301 HV CHANGED MORE THAN HVINS

   20.529     9.40  1352.40      .00      .00  1353.09      .69      .98      .32  1350.20
    5800.     185.    5460.     155.      76.     800.      68.    1061.     116.   1350.40
      .94     2.42     6.82     2.29     .040     .035     .040     .000  1343.00  9904.90
  .001840     545.     449.     375.        3        0        0      .00   190.81 10095.71


FLOW DISTRIBUTION FOR SECNO=     20.53         CWSEL=   1352.40

STA=    9905.    9910.    9947.   10055.   10090.   10096.
  PER Q=       .1      3.1     94.1      2.6       .1
   AREA=      4.3     72.1    800.5     63.0      4.6
    VEL=      1.4      2.5      6.8      2.4      1.3
  DEPTH=       .8      1.9      7.4      1.8       .8

CCHV=     .100 CEHV=     .300
*SECNO 20.628
   20.628    10.12  1353.42      .00      .00  1353.85      .43      .74      .03  1357.10
    5800.       0.    5800.       0.       0.    1106.       0.    1073.     118.   1356.30
      .97      .00     5.24      .00     .000     .035     .000     .000  1343.30  9917.54
  .001113     530.     523.     520.        2        0        0      .00   151.15 10068.69


FLOW DISTRIBUTION FOR SECNO=     20.63         CWSEL=   1353.42

STA=    9918.   10076.
  PER Q=    100.0
   AREA=   1106.1
    VEL=      5.2
  DEPTH=      7.3

*SECNO 20.725

3301 HV CHANGED MORE THAN HVINS

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


   20.725     8.92  1356.12  1356.12      .00  1359.20     3.08     1.30      .80  1360.40
    5800.       0.    5800.       0.       0.     412.       0.    1082.     119.   1361.00
      .98      .00    14.09      .00     .000     .035     .000     .000  1347.20  9959.14
  .010732     510.     512.     520.       20       11        0      .00    67.52 10026.66


FLOW DISTRIBUTION FOR SECNO=     20.73         CWSEL=   1356.12

STA=    9959.   10036.
  PER Q=    100.0
   AREA=    411.6
    VEL=     14.1
  DEPTH=      6.1

CCHV=     .300 CEHV=     .500
*SECNO 20.737

3301 HV CHANGED MORE THAN HVINS

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1363.00 ELREA=     1363.00

   20.737     7.35  1358.25  1358.25      .00  1361.97     3.72      .80      .32  1350.90
    5800.       0.    5800.       0.       0.     375.       0.    1083.     119.   1350.90
      .98      .00    15.47      .00     .000     .035     .000     .000  1350.90  9968.00
  .009291      80.      80.      80.       20       15        0      .00    51.00 10019.00


FLOW DISTRIBUTION FOR SECNO=     20.74         CWSEL=   1358.25


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1357.00 , NOT    1358.25 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)
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SECNO    DEPTH    CWSEL    CRIWS    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   IOC      ICONT    CORAR    TOPWID     ENDST


SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      3.00    100.00     51.00      3.00    576.00      .00   1351.00   1350.90

*SECNO 20.750

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.59

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1358.63 BRIDGE VELOCITY=      15.73     CALCULATED CHANNEL AREA=       366.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                                 AREA
       .00   1362.84      .00        0.     5800.      576.      576.     1363.00   1366.00        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1364.00 ELREA=     1364.00

   20.750     9.71  1360.71      .00      .00  1362.84     2.13      .87      .00  1351.00
    5800.      0.    5800.       0.       0.     495.       0.    1083.     119.   1351.00
      .98      .00    11.71      .00     .000     .035     .000     .000  1351.00  9968.00
  .003673     71.      71.      71.        0        0        0      .00    51.00 10019.00


FLOW DISTRIBUTION FOR SECNO=     20.75         CWSEL=   1360.71

*SECNO 20.819

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .68


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1366.90 ELREA=     1366.90

   20.819     5.97  1362.47      .00      .00  1364.88     2.41     1.90      .14  1356.50
    5800.      0.    5800.       0.       0.     465.       0.    1087.     120.   1356.50
      .99      .00    12.46      .00     .000     .035     .000     .000  1356.50  9965.00
  .007956    375.     365.     345.        3        0        0      .00    78.00 10043.00
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     20.82         CWSEL=   1362.47


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1361.25 , NOT    1362.47 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKDR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.05      1.56      3.00    100.00     77.30      3.30    655.00      .00   1357.40   1356.50

*SECNO 20.841

3301 HV CHANGED MORE THAN HVINS

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1362.70 BRIDGE VELOCITY=      13.62     CALCULATED CHANNEL AREA=       393.

 EGPRS     EGLWC      H3       QWEIR     QLOW      BAREA   TRAPEZOID     ELLC     ELTRD     WEIRLN
                                                             AREA
   1364.37   1366.18      .00        0.     5800.      655.     592.    1365.40   1369.90        0.



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1367.90 ELREA=     1367.90

   20.841     7.06  1364.46      .00      .00  1366.18     1.72     1.30      .00  1357.40
   5800.        0.    5800.       0.       0.     551.       0.    1089.     120.   1357.40
     .99      .00    10.53      .00     .000     .035     .000     .000  1357.40  9965.00
  .004534     115.     115.     115.        0        0        0      .00    78.00 10043.00


FLOW DISTRIBUTION FOR SECNO=     20.84         CWSEL=   1364.46

*SECNO 20.860

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54
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  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       DLOSS   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 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1365.30 ELREA=     1367.60

   20.860     9.79  1366.09      .00      .00  1366.78      .69      .28      .31  1365.30
    5800.     113.    5687.       0.      92.     847.       0.    1090.     121.   1367.60
     1.00     1.23     6.71      .00     .040     .035     .000     .000  1356.30  9800.87
  .001907      90.     100.     110.        2        0        0      .00   261.42 10062.29


FLOW DISTRIBUTION FOR SECNO=     20.86         CWSEL=   1366.09

STA=    9801.    9846.    9942.   10066.
  PER Q=       .5      1.4     98.0
   AREA=     26.4     65.9    847.2
    VEL=      1.1      1.3      6.7
  DEPTH=       .6       .7      7.0

CCHV=     .100 CEHV=     .300
*SECNO 20.942

3265 DIVIDED FLOW

   20.942     7.77  1367.37      .00      .00  1367.80      .43     1.00      .03  1368.60
    5800.       0.    3777.    2023.       0.     687.     429.    1101.     124.   1366.50
     1.02      .30     5.50     4.71     .040     .035     .035     .000  1359.60  9629.64
  .002674     530.     433.     490.        2        0        0      .00   314.44 10168.50


FLOW DISTRIBUTION FOR SECNO=     20.94         CWSEL=   1367.37

STA=    9630.    9631.   10024.   10027.   10053.   10070.   10114.   10153.   10169.
  PER Q=       .0     65.1       .3      5.4      2.5      6.5     16.9      3.3
   AREA=       .1    686.9      5.3     72.1     38.6     99.9    168.5     44.7
    VEL=       .4      5.5      2.9      4.3      3.8      3.8      5.8      4.3
  DEPTH=       .1      4.1      1.8      2.8      2.3      2.3      4.3      2.9

*SECNO 21.036

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
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   SECNO    DEPTH    CWSEL    CRIWS    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


3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.036     8.51  1372.01  1372.01      .00  1373.11     1.10     1.71      .20  1370.70
    5800.     419.    5237.     144.     207.     593.      60.    1112.     129.   1370.40
     1.04     2.02     8.83     2.40     .040     .035     .040     .000  1363.50  9540.98
  .004622     490.     496.     490.       20       11        0      .00   548.05 10089.03


FLOW DISTRIBUTION FOR SECNO=     21.04         CWSEL=   1372.01

STA=    9541.    9665.    9728.    9758.    9867.    9912.   10020.   10041.   10075.   10089.
  PER Q=       .8       .6       .1      3.0      2.7     90.3      1.3      1.0       .2
   AREA=     37.3     25.6      7.7     82.5     54.3    593.3     25.3     27.4      7.1
    VEL=      1.3      1.4      1.0      2.1      2.9      8.8      2.9      2.2      1.6
  DEPTH=       .3       .4       .3       .8      1.2      5.5      1.2       .8       .5

*SECNO 21.127
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1374.00 ELREA=      1375.00

   21.127     8.08  1374.78  1374.78      .00  1375.78     1.00     2.11      .01  1374.20
    5800.    1128.    4672.       0.     405.     528.       0.    1121.     133.   1375.00
     1.05     2.79     8.84      .00     .040     .035     .000     .000  1366.70  9631.56
  .004382     400.     480.     500.        3       10        0      .00   434.58 10066.13


FLOW DISTRIBUTION FOR SECNO=     21.13         CWSEL=   1374.78

STA=    9632.    9634.    9666.    9759.    9860.    9913.    9974.   10067.
  PER Q=       .0      1.8      5.9      6.9      2.9      1.9     80.6
   AREA=      1.4     37.7    118.8    134.0     62.4     50.4    528.3
    VEL=      1.6      2.7      2.9      3.0      2.7      2.2      8.8
  DEPTH=       .6      1.2      1.3      1.3      1.2       .8      5.7

*SECNO 21.230

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
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   SECNO    DEPTH    CWSEL    CRIWS    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


3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.230     8.49  1380.49  1380.49      .00  1381.70     1.21     2.89      .06  1379.30
    5800.     590.    4021.    1190.     173.     402.     202.    1132.     138.  1380.60
     1.07     3.41    10.00     5.90     .040     .035     .040     .000  1372.00  9816.25
  .006651     560.     544.     500.       20        9        0      .00   308.65 10126.37


FLOW DISTRIBUTION FOR SECNO=     21.23         CWSEL=   1380.49

STA=    9816.    9879.    9930.    9967.   10048.   10083.   10102.   10117.   10126.
  PER Q=      3.7      3.5      3.0     69.3      6.9      6.3      4.7      2.5
   AREA=     65.4     59.3     48.2    402.2     74.3     57.8     44.1     25.2
    VEL=      3.3      3.4      3.6     10.0      5.4      6.4      6.2      5.8
  DEPTH=      1.0      1.2      1.3      5.0      2.1      3.0      2.9      2.7

*SECNO 21.363

3265 DIVIDED FLOW

3280 CROSS SECTION     21.36 EXTENDED       .36 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.95

   21.363     9.26  1383.36      .00      .00  1383.91      .55     2.15      .07  1384.40
    5800.     100.    5663.      37.      51.     940.      47.    1147.     144.  1382.10
     1.11     1.97     6.03      .79     .040     .035     .040     .000  1374.10  9556.03
  .001741     740.     702.     700.        2        0        0      .00   368.53 10337.00


FLOW DISTRIBUTION FOR SECNO=     21.36         CWSEL=   1383.36

STA=    9556.    9923.   10088.   10337.
  PER Q=      1.7     97.6       .6
   AREA=     50.8    939.6     46.9
    VEL=      2.0      6.0       .8
  DEPTH=       .1      6.3       .2
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   SECNO    DEPTH    CWSEL    CRIWS    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


*SECNO 21.484

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.484     8.04  1386.54  1386.54      .00  1387.48      .93     1.94      .11  1386.90
    5800.    2097.    3696.       7.     517.     401.       4.    1161.     150.   1386.50
     1.13     4.06     9.21     1.62     .040     .035     .040     .000  1378.50  9497.28
  .006501     650.     639.     520.       20       12        0      .00   520.92 10076.86


FLOW DISTRIBUTION FOR SECNO=     21.48         CWSEL=   1386.54

STA=    9497.    9614.    9647.    9678.    9805.    9837.    9867.    9892.    9920.   10026.   10077.
  PER Q=      3.7      3.1      3.3      5.1      6.8      6.6      5.3      2.1     63.7       .1
   AREA=     84.1     47.6     47.8     97.1     75.0     71.8     58.6     34.9    401.3      4.3
    VEL=      2.5      3.8      4.0      3.0      5.3      5.4      5.3      3.5      9.2      1.6
  DEPTH=       .7      1.4      1.5       .8      2.3      2.4      2.3      1.2      4.5       .1

*SECNO 21.576

3265 DIVIDED FLOW

3280 CROSS SECTION     21.58 EXTENDED       .56 FEET

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.576     7.16  1389.26  1389.26      .00  1390.04      .78     2.54      .02  1390.00
    5800.     757.    4047.     996.     347.     490.     291.    1171.     156.   1388.30
     1.15     2.18     8.26     3.43     .040     .035     .040     .000  1382.10  9388.00
  .005047     320.     486.     480.        2       12        0      .00   872.76 10340.87


FLOW DISTRIBUTION FOR SECNO=     21.58         CWSEL=   1389.26

STA=    9388.    9500.    9643.    9821.    9930.   10087.   10140.   10199.   10281.   10341.
  PER Q=      3.7      3.1      3.4      2.8     69.8      6.9      6.0      3.7       .5
   AREA=     91.9     84.2     99.0     71.8    490.0     98.3     95.8     80.3     16.1
    VEL=      2.3      2.2      2.0      2.3      8.3      4.0      3.7      2.7      1.9
  DEPTH=       .8       .6       .6       .7      4.6      1.9      1.6      1.0       .3
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   SECNO    DEPTH    CWSEL    CRIWS    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 21.669

3265 DIVIDED FLOW

3280 CROSS SECTION     21.67 EXTENDED       .19 FEET

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.669     9.39  1393.39  1393.39      .00  1394.00      .61     2.30      .02  1393.80
    5600.     936.    2815.    1848.     398.     339.     564.    1184.     166.   1392.00
     1.17     2.35     8.31     3.28     .040     .035     .040     .000  1384.00  9392.00
  .004579     440.     491.     470.       20       16        0      .00   981.92 10414.00


FLOW DISTRIBUTION FOR SECNO=     21.67          CWSEL=   1393.39

STA=    9392.    9515.    9663.    9893.    9949.    9959.   10031.   10074.   10124.   10182.   10245.   10303.   10361.
  PER Q=      3.1      5.0      3.3      5.1       .2     50.3      5.1      4.6      5.6      5.2      4.2      4.5
   AREA=     82.1    124.9     98.5     85.9      7.0    338.9     77.0     77.0     92.2     90.7     77.7     80.6
    VEL=      2.1      2.2      1.9      3.3      2.0      8.3      3.7      3.4      3.4      3.2      3.1      3.1
  DEPTH=       .7       .8       .4      1.5       .7      5.3      1.8      1.5      1.6      1.4      1.3      1.4

STA=   10361.   10401.   10414.
  PER Q=      3.1       .6
   AREA=     55.5     13.3
    VEL=      3.1      2.5
  DEPTH=      1.4      1.0

*SECNO 21.742

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.742     8.88  1395.28  1395.28      .00  1396.42     1.14     1.87      .16  1394.70
    5600.      52.    5249.     299.      45.     595.     150.    1194.     173.   1394.20
     1.18     1.16     8.82     2.00     .040     .035     .040     .000  1386.40  9743.25
  .005037     430.     385.     390.        2        8        0      .00   566.72 10364.86
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     21.74         CWSEL=   1395.28

STA=    9743.    9975.   10091.   10176.   10365.
  PER Q=       .9     93.7      3.3      2.1
   AREA=     45.2    595.3     74.5     75.2
    VEL=      1.2      8.8      2.5      1.5
  DEPTH=       .2      5.1       .9       .4

*SECNO 21.840
   21.840     6.92  1398.02      .00      .00  1398.86      .84     2.42      .03  1396.20
    5600.     960.    4249.     392.     208.     522.     169.    1203.     178.   1397.00
     1.20     4.61     8.14     2.32     .040     .035     .040     .000  1391.10  9857.30
  .004577     430.     517.     430.        2        0        0      .00   436.66 10293.96


FLOW DISTRIBUTION FOR SECNO=     21.84         CWSEL=   1398.02

STA=    9857.    9860.    9882.    9913.    9931.    9946.   10054.   10097.   10145.   10186.   10227.   10273.   10294.
  PER Q=       .0      2.2      7.6      4.7      2.6     75.9      2.9      2.6       .5       .3       .6       .1
   AREA=      1.0     35.6     85.8     51.6     34.0    522.2     54.6     53.7     19.2     15.1     21.6      4.4
    VEL=      1.2      3.5      5.0      5.1      4.3      8.1      2.9      2.7      1.5      1.3      1.5       .9
  DEPTH=       .4      1.6      2.8      2.9      2.3      4.8      1.3      1.1       .5       .4       .5       .2

*SECNO 21.895
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.895     7.80  1399.70  1399.70      .00  1400.50      .80     1.37      .00  1398.00
    5600.    1585.    2883.    1132.     332.     314.     410.    1209.     181.   1397.70
     1.22     4.77     9.19     2.76     .040     .035     .040     .000  1391.90  9834.67
  .004915     330.     290.     220.        2        8        0      .00   596.90 10431.57


FLOW DISTRIBUTION FOR SECNO=     21.90         CWSEL=   1399.70

STA=    9835.    9885.    9919.    9939.    9975.   10031.   10113.   10187.   10251.   10292.   10364.   10432.
  PER Q=      9.6      9.9      4.3      4.6     51.5      4.3      4.2      4.2      3.1      3.1      1.3
   AREA=    113.9    101.9     50.0     66.1    313.7     86.9     83.0     78.1     55.3     68.2     38.9
    VEL=      4.7      5.4      4.8      3.9      9.2      2.8      2.8      3.0      3.2      2.6      1.9
  DEPTH=      2.3      3.0      2.5      1.8      5.6      1.1      1.1      1.2      1.3       .9       .6
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   SECNO    DEPTH    CWSEL    CRIWS    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 21.933

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.00

   21.933     4.09  1400.89      .00      .00  1401.02      .14      .46      .07  1398.00
    5600.    1780.    3277.     543.     823.     959.     274.    1217.     185.   1398.00
     1.24     2.16     3.42     1.99     .040     .035     .040     .000  1396.80  9308.97
  .001226     210.     210.     210.        2        0        0      .00   976.18 10285.15


FLOW DISTRIBUTION FOR SECNO=     21.93         CWSEL=   1400.89

STA=    9309.    9440.    9590.    9680.    9725.    9780.    9840.    9865.   10140.   10285.
  PER Q=       .4      2.1      6.0      7.2      8.8      5.1      2.1     58.5      9.7
   AREA=     38.4    110.4    169.8    143.4    175.2    131.2     54.7    958.7    273.5
    VEL=       .6      1.1      2.0      2.8      2.8      2.2      2.2      3.4      2.0
  DEPTH=       .3       .7      1.9      3.2      3.2      2.2      2.2      3.5      1.9

*SECNO 21.953

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   21.953     7.09  1401.09  1401.09      .00  1402.04      .94      .20      .24  1400.20
    5600.    2442.    3010.     148.     483.     315.      33.    1219.     186.   1398.30
     1.24     5.06     9.56     4.49     .045     .045     .045     .000  1394.00  9420.76
  .009439      75.      74.      75.       20       14        0      .00   468.31 10053.29


FLOW DISTRIBUTION FOR SECNO=     21.95         CWSEL=   1401.09
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SECNO	DEPTH	CWSEL	CRIWS	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

STA=	9421.	9678.	9699.	9714.	9725.	9735.	9759.	9768.	9782.	9810.	9965.	9969.	10029.
PER Q=	4.3	3.5	4.1	5.2	4.3	4.5	3.3	5.0	5.9	3.2	.3	53.8	
AREA=	101.0	39.8	38.2	38.8	33.9	49.1	27.4	41.9	61.5	46.6	4.6	314.9	
VEL=	2.4	4.9	6.0	7.4	7.1	5.2	6.7	6.6	5.4	3.9	3.5	9.6	
DEPTH=	.4	1.9	2.5	3.5	3.4	2.0	3.0	3.0	2.2	.3	1.1	5.2	

STA=	10029.	10053.
PER Q=	2.6	
AREA=	33.0	
VEL=	4.5	
DEPTH=	1.4	

*SECNO 22.065

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.94

22.065	8.31	1404.11	.00	.00	1404.28	.17	2.17	.08	1404.10
5600.	4240.	1287.	73.	1409.	296.	32.	1233.	193.	1402.00
1.28	3.01	4.34	2.28	.045	.045	.045	.000	1395.80	9239.21
.002510	430.	591.	630.	4	0	0	.00	782.57	10049.79

FLOW DISTRIBUTION FOR SECNO= 22.07 CWSEL= 1404.11

STA=	9239.	9500.	9594.	9645.	9657.	9680.	9700.	9731.	9785.	9816.	9869.	9890.	9961.
PER Q=	24.2	5.8	7.6	3.2	5.9	5.2	3.8	4.5	6.5	4.9	3.7	.4	
AREA=	507.6	146.4	125.5	45.1	84.1	74.2	70.5	81.9	100.3	94.2	61.1	18.6	
VEL=	2.7	2.2	3.4	4.0	3.9	4.0	3.0	3.1	3.6	2.9	3.3	1.2	
DEPTH=	1.9	1.6	2.5	3.8	3.7	3.7	2.3	1.5	3.2	1.8	2.9	.3	

STA=	9961.	10028.	10050.
PER Q=	23.0	1.3	
AREA=	296.1	32.2	
VEL=	4.3	2.3	
DEPTH=	4.4	1.5	

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  SECNO    DEPTH    CWSEL    CRIWS    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 22.165

3265 DIVIDED FLOW

  22.165    10.28  1405.28      .00      .00  1405.49      .21     1.20      .01  1400.90
   5600.    4121.    1445.      34.    1410.     267.      26.    1254.     202.   1403.70
    1.32     2.92     5.41     1.35     .045     .045     .045     .000  1395.00  9137.16
 .002047     530.     528.     530.        3        0        0      .00   841.22 10060.84


FLOW DISTRIBUTION FOR SECNO=     22.17         CWSEL=   1405.28

STA=    9137.    9204.    9213.    9222.    9232.    9256.    9308.    9425.    9595.    9637.    9645.    9657.    9669.
  PER Q=      6.3      3.5      4.4      3.9      4.4      3.3      4.0      3.4      4.7      3.6      4.9      3.2
   AREA=    121.1     44.9     51.6     50.3     76.4     87.5    135.1    114.0     87.6     43.5     61.6     47.8
    VEL=      2.9      4.3      4.8      4.3      3.2      2.1      1.6      1.6      3.0      4.6      4.4      3.7
  DEPTH=      1.8      5.0      5.7      5.0      3.2      1.7      1.2       .7      2.1      5.4      5.1      4.0

STA=    9669.    9701.    9834.    9862.    9946.    9983.   10018.   10061.
  PER Q=      3.2      4.7      5.0      4.3      6.9     25.8       .6
   AREA=     68.7    114.0     87.3    100.9    117.9    267.2     25.5
    VEL=      2.6      2.3      3.2      2.4      3.3      5.4      1.3
  DEPTH=      2.1       .9      3.1      1.2      3.2      7.6       .6

*SECNO 22.273

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING=  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54

  22.273     7.30  1406.70      .00      .00  1407.42      .72     1.77      .15  1404.10
   5600.    2029.    3571.       0.     448.     457.       0.    1269.     209.   1406.90
    1.34     4.53     7.81      .00     .045     .045     .000     .000  1399.40  9320.61
 .006959     470.     570.     580.        2        0        0      .00   425.37 10027.51


FLOW DISTRIBUTION FOR SECNO=     22.27         CWSEL=   1406.70
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   SECNO    DEPTH    CWSEL    CRIWS    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


STA=    9321.    9344.    9359.    9574.    9598.    9745.    9766.    9774.    9915.    9933.   10028.
  PER Q=     4.7      5.4      3.5      4.9      3.0      3.1      4.0      3.2      4.5     63.8
   AREA=    49.5     49.3     67.3     56.4     61.2     37.5     32.0     47.3     47.7    457.3
    VEL=     5.3      6.1      2.9      4.9      2.8      4.6      6.9      3.7      5.3      7.8
  DEPTH=     2.1      3.3       .3      2.3       .4      1.8      4.0       .3      2.6      4.8

*SECNO 22.410

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   22.410    10.29  1414.29  1414.29      .00  1416.04     1.76     5.65      .31  1410.70
    5600.     807.    4636.     157.     164.     404.      41.    1282.     215.   1411.30
     1.36     4.94    11.48     3.87     .045     .045     .045     .000  1404.00  9853.97
  .008702     750.     723.     630.        3       11        0      .00   196.44 10068.33


FLOW DISTRIBUTION FOR SECNO=     22.41         CWSEL=   1414.29

STA=    9854.    9903.    9954.    9967.    9973.   10027.   10068.
  PER Q=     3.7      3.8      4.4      2.5     82.8      2.8
   AREA=    58.7     46.0     38.8     20.0    403.8     40.6
    VEL=     3.6      4.6      6.4      6.9     11.5      3.9
  DEPTH=     1.2       .9      3.0      3.3      7.5      1.0

*SECNO 22.483

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.53

   22.483    11.02  1416.52      .00      .00  1416.64      .12      .44      .16  1411.10
    5600.     312.    4622.     666.     199.    1534.     381.    1294.     217.   1411.20
     1.40     1.57     3.01     1.75     .045     .045     .045     .000  1405.50  9874.42
  .000425     380.     385.     390.        3        0        0      .00   325.72 10200.14
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  SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     22.48         CWSEL=   1416.52

STA=    9874.    9891.    9915.    9941.   10105.   10120.   10138.   10156.   10175.   10191.   10200.
  PER Q=      .2      1.6      3.8     82.5      2.5      2.3      2.1      2.6      2.1       .3
   AREA=    17.6     66.4    114.9   1533.8     71.5     73.2     70.5     81.1     67.5     17.5
    VEL=      .7      1.3      1.8      3.0      1.9      1.7      1.7      1.8      1.8      1.0
  DEPTH=     1.1      2.8      4.4      9.4      4.8      4.1      3.9      4.3      4.2      1.9

*SECNO 22.578

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .31

   22.578     9.70  1416.40      .00      .00  1417.41     1.01      .50      .27  1416.60
    5600.       0.    5600.       0.       0.     694.       0.    1310.     219.   1421.20
     1.42      .00     8.07      .00     .000     .045     .000     .000  1406.70  9957.99
  .004561     540.     502.     490.        3        0        0      .00    96.02 10064.29


FLOW DISTRIBUTION FOR SECNO=     22.58         CWSEL=   1416.40

STA=    9958.   10072.
  PER Q=    100.0
   AREA=    694.1
    VEL=      8.1
  DEPTH=      7.2

*SECNO 22.675

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.59

   22.675     8.38  1418.08      .00      .00  1418.22      .14      .72      .09  1419.80
    5600.       0.    5600.       0.       0.    1880.       0.    1325.     222.   1420.00
     1.47      .00     2.98      .00     .000     .045     .000     .000  1409.70  9740.30
  .000678     570.     512.     480.        2        0        0      .00   288.23 10028.53
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     22.67         CWSEL=   1418.08

STA=    9740.   10032.
  PER Q=    100.0
   AREA=   1880.2
    VEL=      3.0
  DEPTH=      6.5

*SECNO 22.794

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .51

   22.794     7.93  1418.63      .00      .00  1419.05      .42      .74      .09  1417.80
    5600.       2.    5488.     110.       2.    1043.      44.    1346.     225.   1416.10
     1.50      .92     5.26     2.51     .045     .045     .045     .000  1410.70  9978.56
  .002579     460.     628.     500.        2        0        0      .00   216.43 10194.99


FLOW DISTRIBUTION FOR SECNO=     22.79         CWSEL=   1418.63

STA=    9979.    9983.   10169.   10189.   10195.
  PER Q=       .0     98.0      1.9       .1
   AREA=      1.8   1042.9     39.6      4.3
    VEL=       .9      5.3      2.6      1.3
  DEPTH=       .4      5.6      2.0       .7

*SECNO 22.880
   22.880     7.11  1420.11      .00      .00  1420.69      .58     1.59      .05  1426.40
    5600.       0.    5600.       0.       0.     914.       0.    1357.     228.   1424.20
     1.52      .00     6.13      .00     .000     .045     .000     .000  1413.00  9951.91
  .005028     440.     454.     480.        2        0        0      .00   212.04 10163.95


FLOW DISTRIBUTION FOR SECNO=     22.88         CWSEL=   1420.11

STA=    9952.   10167.
  PER Q=    100.0
   AREA=    914.2
    VEL=      6.1
  DEPTH=      4.3
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   SECNO    DEPTH    CWSEL    CRIWS    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 22.990
   22.990     5.77  1423.67      .00      .00  1424.30      .63     3.60      .01  1425.40
    5600.       0.    5600.       0.       0.     880.       0.    1369.     231.   1427.90
     1.55      .00     6.36      .00     .000     .045     .000     .000  1417.90  9753.61
  .007825     480.     581.     530.        3        0        0      .00   272.60 10026.21


FLOW DISTRIBUTION FOR SECNO=     22.99         CWSEL=   1423.67

STA=    9754.   10034.
  PER Q=    100.0
   AREA=    880.5
    VEL=      6.4
  DEPTH=      3.2

*SECNO 23.097

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   23.097     4.82  1429.92  1429.92      .00  1431.51     1.59     6.50      .29  1432.30
    5600.      43.    5557.       0.      14.     546.       0.    1378.     234.   1430.80
     1.56     3.00    10.17      .00     .045     .045     .000     .000  1425.10  9898.96
  .018517     640.     565.     490.       10       11        0      .00   187.42 10117.55


FLOW DISTRIBUTION FOR SECNO=     23.10         CWSEL=   1429.92

STA=    9899.    9916.    9925.    9927.   10121.
  PER Q=       .5       .3       .0    99.2
   AREA=      8.8      5.1       .3   546.4
    VEL=      3.0      3.1      1.3    10.2
  DEPTH=       .5       .6       .2     3.4

*SECNO 23.168
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   SECNO    DEPTH    CWSEL    CRIWS    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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.12

   23.168     4.20  1433.10      .00      .00  1433.27      .17     1.61      .14  1429.50
    5600.     786.    4501.     312.     319.    1285.     148.    1388.     237.   1430.30
     1.59     2.47     3.50     2.11     .045     .045     .045     .000  1428.90  9602.32
  .001902     330.     375.     300.        5        0        0      .00   612.60 10214.92


FLOW DISTRIBUTION FOR SECNO=     23.17         CWSEL=   1433.10

STA=    9602.    9657.    9718.    9777.   10116.   10176.   10215.
  PER Q=       .7      4.2      9.2     80.4      5.1       .5
   AREA=     35.5    109.6    173.9   1285.4    122.8     25.2
    VEL=      1.1      2.1      3.0      3.5      2.3      1.1
  DEPTH=       .6      1.8      2.9      3.8      2.0       .6

*SECNO 23.253

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   23.253     9.33  1434.53  1434.53      .00  1437.36     2.83     1.53      .80  1437.50
    3400.       0.    3400.       0.       0.     252.       0.    1399.     241.   1444.20
     1.60      .00    13.51      .00     .000     .040     .000     .000  1425.20  9978.45
  .014963     470.     459.     450.       20       17        0      .00    44.72 10023.17


FLOW DISTRIBUTION FOR SECNO=     23.25         CWSEL=   1434.53

STA=    9978.   10038.
  PER Q=    100.0
   AREA=    251.7
    VEL=     13.5
  DEPTH=      5.6
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   SECNO    DEPTH    CWSEL    CRIWS    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 23.334

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.40

   23.334     7.80  1440.40      .00      .00  1441.83     1.43     4.33      .14  1443.80
    3400.       0.    3400.       0.       0.     354.       0.    1401.     241.   1449.80
     1.61      .00     9.61      .00     .000     .040     .000     .000  1432.60  9969.06
  .007627     400.     417.     420.        2        0        0      .00    66.93 10035.99


FLOW DISTRIBUTION FOR SECNO=     23.33         CWSEL=   1440.40

STA=    9969.   10055.
  PER Q=    100.0
   AREA=    353.9
    VEL=      9.6
  DEPTH=      5.3

*SECNO 23.416
   23.416     7.32  1443.82      .00      .00  1445.60     1.77     3.66      .10  1447.80
    3400.       0.    3400.       0.       0.     318.       0.    1405.     242.   1450.20
     1.63      .00    10.68      .00     .000     .040     .000     .000  1436.50  9980.93
  .009446     400.     433.     430.        3        0        0      .00    59.13 10040.07


FLOW DISTRIBUTION FOR SECNO=     23.42         CWSEL=   1443.82

STA=    9981.   10053.
  PER Q=    100.0
   AREA=    318.2
    VEL=     10.7
  DEPTH=      5.4

*SECNO 23.514
   23.514     8.51  1448.11      .00      .00  1449.46     1.35     3.82      .04  1451.40
    3400.       0.    3400.       0.       0.     365.       0.    1409.     242.   1451.10
     1.64      .00     9.32      .00     .000     .040     .000     .000  1439.60  9977.54
  .005936     560.     517.     470.        2        0        0      .00    57.47 10035.01
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     23.51         CWSEL=   1448.11

STA=    9978.   10039.
  PER Q=    100.0
   AREA=    364.8
    VEL=      9.3
  DEPTH=      6.3

*SECNO 23.544

3301 HV CHANGED MORE THAN HVINS

   23.544     7.51  1448.91      .00      .00  1450.79     1.88     1.17      .16  1453.20
    3400.       0.    3400.       0.       0.     309.       0.    1410.     243.   1452.90
     1.65      .00    10.99      .00     .000     .040     .000     .000  1441.40  9978.90
  .009551     190.     158.     150.        2        0        0      .00    54.80 10033.70


FLOW DISTRIBUTION FOR SECNO=     23.54         CWSEL=   1448.91

STA=    9979.   10039.
  PER Q=    100.0
   AREA=    309.4
    VEL=     11.0
  DEPTH=      5.6


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      2.48      3.20       .00      5.70      1.00     14.10       .00   1442.00   1441.40

*SECNO 23.555

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.95

PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape
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SECNO	DEPTH	CWSEL	CRIWS	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

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
3688.08	1453.59	2.80	3249.	152.	14.	14.	1445.00	1449.00	140.

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1480.00 ELREA= 1480.00

23.555	10.64	1452.64	.00	.00	1453.37	.74	2.58	.00	1453.80
3400.	0.	3400.	0.	0.	494.	0.	1411.	243.	1453.50
1.65	.00	6.89	.00	.000	.040	.000	.000	1442.00	9974.59
.002505	60.	60.	60.	2	0	8	.00	63.27	10037.86

FLOW DISTRIBUTION FOR SECNO= 23.56 CWSEL= 1452.64

STA= 9975. 10039.
PER Q= 100.0
AREA= 493.8
VEL= 6.9
DEPTH= 7.8

*SECNO 23.591
3280 CROSS SECTION 23.59 EXTENDED 1.15 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1480.00 ELREA= 1480.00

23.591	8.95	1453.15	.00	.00	1453.93	.78	.54	.01	1452.90
3400.	0.	3400.	0.	0.	478.	0.	1413.	243.	1453.80
1.66	.00	7.11	.00	.000	.040	.000	.000	1444.20	9968.00
.003292	100.	190.	210.	3	0	0	.00	75.49	10043.49

FLOW DISTRIBUTION FOR SECNO= 23.59 CWSEL= 1453.15

STA= 9968. 10045.
PER Q= 100.0
AREA= 478.5
VEL= 7.1
DEPTH= 6.3

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  SECNO    DEPTH    CWSEL    CRIWS    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 23.691

3301 HV CHANGED MORE THAN HVINS


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

  23.691     8.75  1455.15      .00      .00  1456.48     1.33     2.39      .16  1457.60
   3400.       0.    3400.       0.       0.     368.       0.    1418.     244.   1455.30
    1.67      .00     9.24      .00     .000     .040     .000     .000  1446.40  9970.39
 .006585     510.     528.     540.        2        0        0      .00    65.33 10035.72


FLOW DISTRIBUTION FOR SECNO=    23.69         CWSEL=   1455.15

STA=    9970.   10036.
  PER Q=    100.0
   AREA=    367.9
    VEL=      9.2
  DEPTH=      5.6

*SECNO 23.815

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

  23.815     9.33  1459.03      .00      .00  1460.15     1.12     3.65      .02  1458.90
   4450.       0.    4450.       0.       0.     523.       0.    1425.     245.   1457.80
    1.69      .00     8.51      .00     .000     .040     .000     .000  1449.70  9951.00
 .004958     650.     655.     680.        3        0        0      .00    86.00 10037.00


FLOW DISTRIBUTION FOR SECNO=    23.82         CWSEL=   1459.03

STA=    9951.   10037.
  PER Q=    100.0
   AREA=    522.9
    VEL=      8.5
  DEPTH=      6.1
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   SECNO    DEPTH    CWSEL    CRIWS    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 23.912
3280 CROSS SECTION     23.91 EXTENDED       .23 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.43


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1480.00 ELREA=      1480.00

   23.912    13.23  1461.13      .00      .00  1462.33     1.20     2.15      .02  1461.30
    5500.       0.    5500.       0.       0.     626.       0.    1431.     246.   1460.90
     1.71      .00     8.79      .00     .000     .040     .000     .000  1447.90  9967.27
  .003716     480.     512.     510.        3        0        0      .00    75.73 10043.00


FLOW DISTRIBUTION FOR SECNO=     23.91          CWSEL=   1461.13

STA=    9967.   10043.
  PER Q=    100.0
   AREA=    625.6
    VEL=      8.8
  DEPTH=      8.3

*SECNO 23.989

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42

   23.989    13.07  1462.77      .00      .00  1463.42      .65     1.03      .06  1465.60
    5500.       0.    5500.       0.       0.     851.       0.    1438.     247.   1465.80
     1.73      .00     6.46      .00     .000     .040     .000     .000  1449.70  9944.36
  .001839     400.     407.     410.        2        0        0      .00    99.59 10043.95


FLOW DISTRIBUTION FOR SECNO=     23.99          CWSEL=   1462.77

STA=    9944.   10049.
  PER Q=    100.0
   AREA=    850.8
    VEL=      6.5
  DEPTH=      8.5
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   SECNO    DEPTH    CWSEL    CRIWS    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    XLOB     XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .300 CEHV=     .500
*SECNO 24.086
   24.086    10.18  1463.78      .00      .00  1464.17      .39      .68      .08  1453.60
    5500.     368.    4041.    1091.      96.     733.     349.    1450.     248.   1453.60
     1.76     3.84     5.51     3.13     .035     .040     .050     .000  1453.60  9952.87
  .000997     450.     512.     560.        2        0        0      .00   165.50 10118.37


FLOW DISTRIBUTION FOR SECNO=     24.09         CWSEL=   1463.78

STA=    9953.    9955.    9972.   10052.   10064.   10091.   10108.   10118.
  PER Q=       .0      6.7      5.9      6.2      6.4      1.1       .1
   AREA=      1.0     94.9     77.1     94.0    131.8     38.8      7.2
    VEL=       .8      3.9      4.2      3.6      2.7      1.6       .7
  DEPTH=       .5      5.6      1.0      7.8      4.9      2.3       .7


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .90      1.56      3.00    100.00     71.60      3.00    590.00      .00   1453.60   1453.60

*SECNO 24.096
PRESSURE FLOW


 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                              AREA
   1465.89   1464.67      .02        0.     5500.      590.      590.     1462.20   1466.70        0.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1466.00 ELREA=     1466.00

   24.096    11.62  1465.22      .00      .00  1465.89      .67     1.71      .00  1453.60
    5500.       0.    5500.       0.       0.     837.       0.    1452.     248.   1453.60
     1.76      .00     6.57      .00     .000     .040     .000     .000  1453.60  9972.00
  .001190      56.      56.      56.        2        0        0      .00    72.00 10044.00


FLOW DISTRIBUTION FOR SECNO=     24.10         CWSEL=   1465.22
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   SECNO    DEPTH    CWSEL    CRIWS    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   IOC      ICONT    CORAR    TOPWID     ENDST


*SECNO 24.106
   24.106    11.52  1465.72      .00      .00  1466.04      .32      .05      .11  1464.10
    5500.       3.    5013.     484.       3.    1068.     214.    1453.     249.   1458.50
     1.76      .97     4.70     2.26     .035     .040     .050     .000  1454.20  9951.48
  .000786      80.      53.      20.        2        0        0      .00   172.36 10123.83


FLOW DISTRIBUTION FOR SECNO=     24.11         CWSEL=   1465.72

STA=    9951.    9955.   10064.   10091.   10108.   10123.
  PER Q=       .1     91.2      7.0      1.5       .2
   AREA=      2.9   1067.7    149.2     49.7     15.4
    VEL=      1.0      4.7      2.6      1.7       .8
  DEPTH=       .8      9.8      5.5      2.9      1.0

CCHV=     .100 CEHV=     .300
*SECNO 24.195

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45

   24.195    12.56  1466.16      .00      .00  1466.30      .14      .25      .02  1470.40
    5500.       0.    5500.       0.       0.    1800.       0.    1469.     251.   1466.40
     1.80      .00     3.06      .00     .000     .040     .000     .000  1453.60  9940.28
  .000372     470.     470.     460.        2        0        0      .00   200.25 10140.54


FLOW DISTRIBUTION FOR SECNO=     24.19         CWSEL=   1466.16

STA=    9940.   10142.
  PER Q=    100.0
   AREA=   1800.1
    VEL=      3.1
  DEPTH=      9.0

*SECNO 24.322

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.21

   24.322    14.77  1466.37      .00      .00  1466.41      .04      .10      .01  1463.50
    5500.      10.    4319.    1171.      21.    2460.    1146.    1511.     255.   1456.80
     1.92      .47     1.76     1.02     .035     .040     .050     .000  1451.60  9856.65
  .000076     640.     671.     630.        2        0        0      .00   371.98 10228.63
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   SECNO    DEPTH    CWSEL    CRIWS    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


FLOW DISTRIBUTION FOR SECNO=     24.32         CWSEL=   1466.37

STA=    9857.    9871.   10064.   10134.   10177.   10220.   10229.
  PER Q=       .2     78.5     13.2      6.1      2.0       .0
   AREA=     20.6   2459.6    638.4    332.0    170.7      5.0
    VEL=       .5      1.8      1.1      1.0       .6       .2
  DEPTH=      1.4     12.7      9.1      7.7      4.0       .6

*SECNO 24.444

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .35

   24.444     9.11  1466.41      .00      .00  1466.55      .14      .11      .03  1465.00
    5500.       1.    4345.    1154.       2.    1413.     443.    1550.     260.   1461.70
     1.98      .59     3.07     2.60     .045     .045     .045     .000  1457.30  9925.74
  .000625     640.     644.     600.        2        0        0      .00   280.34 10206.07


FLOW DISTRIBUTION FOR SECNO=     24.44         CWSEL=   1466.41

STA=    9926.    9928.   10122.   10142.   10166.   10180.   10206.
  PER Q=       .0     79.0      6.1      8.4      4.1      2.5
   AREA=      1.6   1413.1    122.2    158.6     82.7     79.6
    VEL=       .6      3.1      2.7      2.9      2.7      1.7
  DEPTH=       .7      7.3      6.1      6.6      5.9      3.1

*SECNO 24.542

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .29

   24.542     6.91  1466.71      .00      .00  1467.52      .82      .77      .20  1464.00
    5500.      35.    5465.       0.      11.     751.       0.    1566.     262.   1467.80
     2.00     3.31     7.28      .00     .045     .045     .000     .000  1459.80  9906.17
  .007245     470.     517.     530.        2        0        0      .00   185.63 10182.77
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       DLOSS   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


FLOW DISTRIBUTION FOR SECNO=     24.54         CWSEL=   1466.71

STA=    9906.    9914.   10187.
  PER Q=       .6     99.4
   AREA=     10.6    750.7
    VEL=      3.3      7.3
  DEPTH=      1.4      4.2

*SECNO 24.635

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   24.635     5.12  1471.92  1471.92      .00  1473.42     1.50     5.66      .21  1474.50
    5500.       0.    5500.       0.       0.     559.       0.    1573.     265.   1472.40
     2.01      .00     9.84      .00     .000     .045     .000     .000  1466.80  9912.87
  .021106     650.     491.     220.       11       19        0      .00   190.17 10103.04


FLOW DISTRIBUTION FOR SECNO=     24.64         CWSEL=   1471.92

STA=    9913.   10111.
  PER Q=    100.0
   AREA=    559.2
    VEL=      9.8
  DEPTH=      2.9
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T1      MIDDLE CAVE CREEK FLOODPLAIN DELINEATION STUDY, ACDC TO DEER VALLEY RD.
T2      FLOOD CONTROL DISTRICT OF MARICOPA COUNTY 1989 BY BURGESS & NIPLE
T3      CAVE CREEK WASH        FLOODWAY FOR "FUTURE COND" COE Q'S

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              3.                         0.0005

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15.                -1.
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   SECNO    DEPTH    CWSEL    CRIWS    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


*PROF 2

CCHV=     .100 CEHV=     .300
*SECNO 15.015
2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
   15.015    13.40  1219.09      .00      .00  1221.08     1.99      .00      .00  1228.30
   16000.       0.   16000.       0.       0.    1412.       0.       0.       0.   1206.79
      .00      .00    11.33      .22     .000     .015     .015     .000  1205.69  9945.04
  .000500       0.       0.       0.        0        0        4      .00   110.02 10055.06


*SECNO 15.109
   15.109    13.40  1219.34      .00      .00  1221.33     1.99      .25      .00  1228.55
   16000.       0.   16000.       0.       0.    1413.       0.      16.       1.   1207.04
      .01      .00    11.33      .22     .000     .015     .015     .000  1205.94  9945.04
  .000500     500.     500.     500.        0        0        0      .00   110.02 10055.06


*SECNO 15.204
   15.204    13.40  1219.59      .00      .00  1221.58     1.99      .25      .00  1228.80
   16000.       0.   16000.       0.       0.    1413.       0.      32.       3.   1207.29
      .02      .00    11.33      .22     .000     .015     .015     .000  1206.19  9945.04
  .000500     500.     500.     500.        0        0        0      .00   110.02 10055.06


*SECNO 15.310

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.310    12.69  1219.57  1219.57      .00  1225.73     6.17      .51     1.25  1229.50
   16000.       0.   16000.       0.       0.     803.       0.      47.       4.   1230.00
      .03      .00    19.93      .00     .000     .015     .000     .000  1206.88  9967.54
  .002154     560.     560.     560.       20        8        0      .00    65.01 10032.55


*SECNO 15.454

3301 HV CHANGED MORE THAN HVINS
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   SECNO    DEPTH    CWSEL    CRIWS    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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42

   15.454    15.99  1223.25      .00      .00  1227.09     3.84     1.12      .23  1229.88
   16000.       0.   16000.       0.       0.    1018.       0.      63.       5.   1230.38
      .05      .00    15.72      .00     .000     .015     .000     .000  1207.26  9967.53
  .001076     760.     760.     760.        4        0        0      .00    65.04 10032.57


*SECNO 15.530
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.530    10.66  1236.86  1236.86      .00  1241.12     4.26      .54      .13  1237.50
   16000.       0.   16000.       0.       0.     966.       0.      72.       6.   1238.45
      .05      .00    16.56      .00     .000     .015     .000     .000  1226.20  9942.79
  .001717     400.     400.     400.       20       14        0      .00   114.53 10057.31


*SECNO 15.680
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.680    10.66  1240.21  1240.21      .00  1244.47     4.26     1.36      .00  1240.85
   16000.       0.   16000.       0.       0.     966.       0.      89.       8.   1241.80
      .07      .00    16.56      .00     .000     .015     .000     .000  1229.55  9942.78
  .001715     792.     792.     792.       20        5        0      .00   114.54 10057.32


*SECNO 15.878
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   15.878    10.12  1243.99  1243.99      .00  1248.07     4.08     1.79      .02  1244.70
   16000.       0.   16000.       0.       0.     987.       0.     113.      11.   1244.71
      .08      .00    16.21      .00     .000     .015     .000     .000  1233.87  9939.42
  .001711    1045.    1045.    1045.       20        8        0      .00   121.15 10060.56


*SECNO 15.920
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO    DEPTH    CWSEL    CRIWS    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


15.920    10.09  1244.93  1244.93      .00  1249.04     4.11      .39      .01  1245.67
16000.       0.   16000.       0.       0.     984.       0.     118.      11.   1245.68
   .09      .00    16.27      .00     .000     .015     .000     .000  1234.84  9939.48
.001730    225.     225.     225.       20        5        0      .00   121.02 10060.50


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1243.33 , NOT    1244.93 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     .90     1.56     3.00    100.00    82.32     6.00  1447.00     1.84  1235.45  1235.07

*SECNO 15.940
3280 CROSS SECTION     15.94 EXTENDED     1.84 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1245.43 BRIDGE VELOCITY=     16.55     CALCULATED CHANNEL AREA=      945.

 EGPRS     EGLWC      H3       QWEIR     QLOW     BAREA   TRAPEZOID     ELLC     ELTRD    WEIRLN
                                                           AREA
  1247.89  1250.24     .00        0.   16000.    1447.    1448.    1249.60  1253.60       0.


  15.940    12.67  1247.89      .00      .00  1250.24     2.34     1.20      .00  1246.05
  16000.       0.   16000.       0.       0.    1303.       0.     120.      11.   1246.06
     .09      .00    12.28      .00     .000     .015     .000     .000  1235.22  9938.00
 .000729    100.     100.     100.        0        0        0      .00   124.00 10062.00


*SECNO 16.023

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARDB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


   16.023    12.60  1250.05  1250.05      .00  1254.70     4.65      .47      .69  1252.50
   16000.       0.   16000.       0.       0.     924.       0.     132.      13.   1251.95
      .10      .00    17.31      .00     .000     .015     .000     .000  1237.45  9949.72
  .001705     441.     441.     441.       20        5        0      .00   100.69 10050.42


*SECNO 16.148
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.148    12.61  1252.85  1252.85      .00  1257.49     4.64     1.12      .00  1255.29
   16000.       0.   16000.       0.       0.     926.       0.     146.      14.   1254.74
      .11      .00    17.29      .00     .000     .015     .000     .000  1240.24  9949.69
  .001698     660.     660.     660.       20        5        0      .00   100.75 10050.44


*SECNO 16.264
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.264    12.61  1255.44  1255.44      .00  1260.08     4.64     1.04      .00  1257.88
   16000.       0.   16000.       0.       0.     925.       0.     159.      16.   1257.33
      .12      .00    17.29      .00     .000     .015     .000     .000  1242.83  9949.70
  .001699     612.     612.     612.       20        5        0      .00   100.74 10050.44


*SECNO 16.373
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.373    12.61  1257.87  1257.87      .00  1262.51     4.64      .98      .00  1260.31
   16000.       0.   16000.       0.       0.     925.       0.     171.      17.   1259.76
      .13      .00    17.29      .00     .000     .015     .000     .000  1245.26  9949.70
  .001699     576.     576.     576.       20        5        0      .00   100.74 10050.44


*SECNO 16.481
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.481    11.91  1259.50  1259.50      .00  1264.03     4.53      .97      .01  1261.20
   16000.       0.   16000.       0.       0.     937.       0.     183.      18.   1259.70
      .14      .00    17.08      .00     .000     .015     .000     .000  1247.59  9947.21
  .001703     570.     570.     570.       20       11        0      .00   104.38 10051.60
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   SECNO     DEPTH     CWSEL     CRIWS     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 16.601
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.601    11.88  1262.14  1262.14      .00  1266.70     4.56     1.08      .01  1263.87
   16000.       0.   16000.       0.       0.     934.       0.     197.      20.   1262.37
      .15      .00    17.13      .00     .000     .015     .000     .000  1250.26  9947.26
  .001716     634.     634.     634.       20        5        0      .00   104.29 10051.55


*SECNO 16.694
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.694    11.19  1263.45  1263.45      .00  1267.84     4.39      .84      .02  1263.90
   16000.       0.   16000.       0.       0.     951.       0.     207.      21.   1264.42
      .15      .00    16.82      .00     .000     .015     .000     .000  1252.26  9945.37
  .001718     491.     491.     491.        4       11        0      .00   109.87 10055.24


*SECNO 16.823
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.823    11.20  1266.34  1266.34      .00  1270.72     4.38     1.17      .00  1266.78
   16000.       0.   16000.       0.       0.     953.       0.     222.      23.   1267.30
      .17      .00    16.80      .00     .000     .015     .000     .000  1255.14  9945.36
  .001711     681.     681.     681.       20        5        0      .00   109.89 10055.25


*SECNO 16.902
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.902    11.19  1267.38  1267.38      .00  1271.62     4.25      .72      .01  1268.80
   16000.       0.   16000.       0.       0.     967.       0.     231.      24.   1270.33
      .17      .00    16.54      .00     .000     .015     .000     .000  1256.19  9942.86
  .001727     417.     417.     417.        2        5        0      .00   115.24 10058.09


*SECNO 16.970
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   16.970    11.83  1268.19  1268.19      .00  1272.36     4.18      .62      .01  1269.30
   16000.       0.   16000.       0.       0.     976.       0.     239.      25.   1270.78
      .18      .00    16.40      .00     .000     .015     .000     .000  1256.36  9940.53
  .001755     359.     359.     359.        2        8        0      .00   118.98 10059.51
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SECNO	DEPTH	CWSEL	CRIWS	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

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 1266.61 , NOT 1268.19 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.56	3.00	100.00	82.57	6.00	1513.00	1.61	1258.71	1258.33

*SECNO 16.988
3280 CROSS SECTION 16.99 EXTENDED 1.43 FEET

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1268.78 BRIDGE VELOCITY= 16.75 CALCULATED CHANNEL AREA= 934.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	1273.47	.00	0.	16000.	1513.	1516.	1273.75	1277.80	0.

16.988	14.72	1271.13	.00	.00	1273.47	2.34	1.11	.00	1269.70
16000.	0.	16000.	0.	0.	1302.	0.	242.	25.	1270.17
.18	.00	12.29	.00	.000	.015	.000	.000	1256.41	9938.30
.000741	90.	90.	90.	0	0	0	.00	125.60	10063.90

*SECNO 17.061

3301 HV CHANGED MORE THAN HVINS

17.061	14.18	1270.79	.00	.00	1274.13	3.34	.36	.30	1271.30
16000.	0.	16000.	0.	0.	1091.	0.	252.	26.	1271.79
.19	.00	14.67	.00	.000	.015	.000	.000	1256.61	9939.31
.001278	380.	380.	380.	3	0	0	.00	123.21	10062.52

*SECNO 17.206

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   SECNO    DEPTH    CWSEL    CRIWS    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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.206     5.70  1272.70  1272.70      .00  1275.43     2.73     1.19      .06  1279.00
   16000.       0.   16000.       0.       0.    1207.       0.     272.      29.   1279.00
      .20      .00    13.26      .00     .000     .015     .000     .000  1267.00  9888.13
  .001922     769.     769.     769.        4       18        0      .00   223.73 10111.87


*SECNO 17.360
 WATER EL=X5 CARD=   1275.400

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO = 11.77

   17.360    18.70  1275.40      .00      .00  1275.42      .02      .04      .27  1282.20
   16000.       0.   16000.       0.       0.   13646.       0.     411.      39.   1281.80
      .40      .00     1.17      .00     .000     .030     .000     .000  1256.70  9522.77
  .000014     820.     813.     830.        0        0        0      .00   848.95 10371.72


*SECNO 17.494

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.494    10.46  1280.76  1280.76      .00  1282.72     1.96      .03      .58  1279.10
   14000.      73.   11397.    2530.      23.     950.     365.     533.      49.   1278.50
      .41     3.22    12.00     6.93     .030     .030     .030     .000  1270.30  9876.77
  .005411     750.     707.     670.       20       11        0      .00   376.72 10253.49


*SECNO 17.588

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.12
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SECNO    DEPTH    CWSEL    CRIWS    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


3470 ENCROACHMENT STATIONS=     9955.2   10193.0  TYPE=      1  TARGET=      237.800
   17.588    13.80  1283.40      .00  1283.34  1283.97      .57     1.11      .14  1278.10
   14000.     178.   13822.       0.      70.    2277.       0.     554.      53. 100000.00
      .44     2.55     6.07      .00     .040     .040     .000     .000  1269.60  9955.20
  .001199     440.     496.     560.        2        0        0      .00   237.80 10193.00


*SECNO 17.662

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .60


3470 ENCROACHMENT STATIONS=     9900.0   10150.0  TYPE=      1  TARGET=      250.000
   17.662    12.21  1283.81      .00  1283.47  1284.84     1.03      .73      .14  1276.40
   14000.    2017.   11934.      49.     278.    1442.      21.     572.      55.   1281.60
      .45     7.26     8.28     2.30     .040     .040     .040     .000  1271.60  9900.00
  .003350     380.     391.     400.        2        0        0      .00   249.14 10149.14


*SECNO 17.783

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9921.0   10064.0  TYPE=      1  TARGET=      143.000
   17.783    10.50  1285.90      .00  1285.25  1288.00     2.10     2.84      .32  1280.50
   14000.       0.   14000.       0.       0.    1203.       0.     593.      58. 100000.00
      .47      .00    11.64      .00     .000     .040     .000     .000  1275.40  9921.00
  .006345     540.     639.     500.        3        0        0      .00   143.00 10064.00


*SECNO 17.932

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9956.0   10066.0  TYPE=      1  TARGET=      110.000
   17.932    13.00  1290.90      .00  1290.53  1293.99     3.10     5.70      .30  1289.70
   14000.       0.   14000.       0.       0.     991.       0.     613.      60. 100000.00
      .48      .00    14.13      .00     .000     .040     .000     .000  1277.90  9956.00
  .008331     790.     787.     780.        3        0        0      .00   110.00 10066.00
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   SECNO    DEPTH    CWSEL    CRIWS    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


CCHV=     .300 CEHV=     .500
*SECNO 18.042

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.48


3470 ENCROACHMENT STATIONS=     9951.6   10048.4  TYPE=      1  TARGET=       96.780
   18.042    11.58  1293.88      .00  1293.80  1297.33     3.45     3.16      .18100000.00
   14000.       0.   14000.       0.       0.     939.       0.     626.      61. 100000.00
      .49      .00    14.91      .00     .000     .025     .000     .000  1282.30  9951.63
  .003823     620.     581.     550.        4        0        0      .00    96.72 10048.35



SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.05      1.56      3.00       .00     75.00      4.00   1059.00       .81   1280.20   1279.90

*SECNO 18.061
BTCARD  BRIDGE STENCL=    9951.50   STENCR=   10048.50
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1293.65 BRIDGE VELOCITY=      12.55     CALCULATED CHANNEL AREA=      1102.

 EGPRS      EGLWC      H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                              AREA
   1298.11   1298.19      .98        0.    14000.     1059.     1060.     1293.20   1301.60        0.


3470 ENCROACHMENT STATIONS=     9951.5   10048.5  TYPE=      1  TARGET=       97.000
   18.061    11.76  1294.86      .00  1294.82  1298.19     3.33      .86      .00100000.00
   14000.       0.   14000.       0.       0.     956.       0.     628.      61. 100000.00
      .49      .00    14.64      .00     .000     .025     .000     .000  1283.10  9951.62
  .003608      101.     101.     101.        0        0        0      .00    96.74 10048.36


*SECNO 18.081

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.20
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   SECNO    DEPTH    CWSEL    CRIWS    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


3470 ENCROACHMENT STATIONS=     9900.0   10085.0  TYPE=      1  TARGET=      185.000
   18.081    17.30  1298.40      .00  1298.39  1299.12      .72      .15      .78  1286.60
   14000.     966.   11715.    1319.     257.    1619.     309.     632.      62.   1284.90
      .50     3.76     7.23     4.27     .035     .035     .035     .000  1281.10  9900.00
  .000743      80.     106.     130.        3        0        0      .00   185.00 10085.00


CCHV=     .100 CEHV=     .300
*SECNO 18.174

3470 ENCROACHMENT STATIONS=     9857.0   10125.0  TYPE=      1  TARGET=      268.000
   18.174    17.29  1298.99      .00  1299.08  1299.45      .46      .31      .03  1288.70
   14000.    1540.   12165.     295.     402.    2142.     152.     660.      64.   1294.60
      .52     3.83     5.68     1.95     .035     .035     .035     .000  1281.70  9861.59
  .000548     500.     491.     490.        2        0        0      .00   263.41 10125.00


*SECNO 18.269

3470 ENCROACHMENT STATIONS=     9882.2   10110.0  TYPE=      1  TARGET=      227.800
   18.269    15.34  1299.14      .00  1299.10  1299.91      .77      .36      .09  1288.40
   14000.    1957.   11546.     497.     385.    1555.     150.     687.      67.   1292.40
      .54     5.08     7.42     3.31     .035     .035     .035     .000  1283.80  9885.80
  .000995     500.     502.     500.        2        0        0      .00   218.17 10103.98


*SECNO 18.362

3470 ENCROACHMENT STATIONS=     9895.6   10107.8  TYPE=      1  TARGET=      212.200
   18.362    14.26  1299.56      .00  1299.52  1300.54      .99      .57      .07  1290.00
   14000.     906.   12279.     815.     197.    1469.     194.     709.      69.   1290.60
      .56     4.60     8.36     4.19     .035     .035     .035     .000  1285.30  9900.17
  .001358     490.     491.     510.        2        0        0      .00   203.25 10103.42


*SECNO 18.445

3301 HV CHANGED MORE THAN HVINS

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


3470 ENCROACHMENT STATIONS=     9885.0   10140.0  TYPE=      1  TARGET=      255.000
   18.445    17.48  1304.78  1304.78  1305.03  1307.15     2.38     1.04      .42  1290.00
   14000.    4601.    3731.    5668.     506.     210.     561.     726.      72.   1290.00
      .57     9.10    17.79    10.11     .035     .035     .035     .000  1287.30  9889.17
  .004814     470.     440.     460.       20       12        0      .00   250.83 10140.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .90      2.34      3.00       .00      6.11      1.00     33.20       .00   1287.70   1287.40

*SECNO 18.456
BTCARD  BRIDGE STENCL=    9885.00   STENCR=   10140.00

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.74

PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape

 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                             AREA
   7765.93   1308.40     1.24    13669.     346.       33.      33.     1294.20   1299.50      255.


3470 ENCROACHMENT STATIONS=     9885.0   10140.0  TYPE=      1  TARGET=      255.000
   18.456    20.10  1307.80      .00  1307.05  1308.73      .94     1.58      .00  1290.40
   14000.    5093.    2755.    6152.     784.     244.     914.     728.      72.   1290.40
      .57     6.49    11.31     6.73     .035     .035     .035     .000  1287.70  9885.00
  .001591      60.      60.      60.        3        0        7      .00   255.00 10140.00

*SECNO 18.545

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.16
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   SECNO    DEPTH    CWSEL    CRIWS    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


3470 ENCROACHMENT STATIONS=    9881.4   10169.8  TYPE=      1  TARGET=      288.399
   18.545    19.43  1308.73      .00  1307.97  1309.09      .36      .29      .06  1294.10
   14000.    1646.   10121.    2233.     526.    1905.     732.     755.      75.   1293.80
      .60     3.13     5.31     3.05     .035     .035     .035     .000  1289.30  9881.40
  .000339     440.     466.     480.        2        0        0      .00   288.40 10169.80


*SECNO 18.575

3470 ENCROACHMENT STATIONS=    9880.7   10170.8  TYPE=      1  TARGET=      290.100
   18.575    19.53  1308.83      .00  1308.10  1309.14      .31      .05      .00  1291.50
   14000.    3297.    2823.    7880.     870.     522.    1801.     767.      76.   1289.70
      .61     3.79     5.40     4.38     .035     .035     .035     .000  1289.30  9880.70
  .000329     160.     160.     160.        2        0        0      .00   290.10 10170.80


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      3.00       .00    10.40      1.00     56.50      .00   1289.40   1289.30

*SECNO 18.583
BTCARD  BRIDGE STENCL=    9876.10   STENCR=   10177.20
PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape

 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                             AREA
   2796.13   1309.21      .06    13674.     334.      57.      56.     1295.40   1299.00      286.


3470 ENCROACHMENT STATIONS=    9876.1   10177.2  TYPE=      1  TARGET=      301.101
   18.583    19.99  1309.39      .00  1309.07  1309.68      .29      .54      .00  1291.60
   14000.    3341.    2779.    7880.     914.     535.    1882.     770.      76.   1289.80
      .61     3.65     5.19     4.19     .035     .035     .035     .000  1289.40  9876.41
  .000294      40.      40.      40.        2        0        8      .00   300.26 10176.67


*SECNO 18.640

3470 ENCROACHMENT STATIONS=    9879.6   10134.7  TYPE=      1  TARGET=      255.101
   18.640    19.14  1309.34      .00  1309.01  1309.88      .54      .12      .08  1294.60
   14000.    2120.    8985.    2895.     506.    1344.     701.     790.      78.   1293.40
      .63     4.19     6.69     4.13     .035     .035     .035     .000  1290.20  9880.04
  .000562     300.     301.     310.        2        0        0      .00   254.23 10134.27
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SECNO     DEPTH     CWSEL     CRIWS     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 18.734

3470 ENCROACHMENT STATIONS=     9883.2   10111.7  TYPE=      1  TARGET=      228.500
   18.734    17.15  1309.55      .00  1309.25  1310.27      .71      .34      .05  1298.60
   14000.    1173.   12300.     527.     297.    1732.     168.     817.      81.   1300.80
      .65     3.96     7.10     3.13     .035     .035     .035     .000  1292.40  9883.67
  .000845     490.     496.     500.        0        0        0      .00   227.68 10111.35


*SECNO 18.832

3470 ENCROACHMENT STATIONS=     9891.8   10107.0  TYPE=      1  TARGET=      215.200
   18.832    16.78  1309.98      .00  1309.73  1310.72      .73      .45      .01  1302.80
   14000.     380.   11825.    1795.     130.    1634.     385.     843.      84.   1297.10
      .67     2.91     7.24     4.66     .035     .035     .035     .000  1293.20  9892.71
  .000878     480.     517.     540.        2        0        0      .00   214.06 10106.78


*SECNO 18.925

3470 ENCROACHMENT STATIONS=     9887.7   10087.5  TYPE=      1  TARGET=      199.800
   18.925    15.77  1310.37      .00  1310.15  1311.21      .84      .46      .03  1297.60
   14000.    1528.   11680.     792.     334.    1496.     200.     867.      86.   1300.00
      .69     4.57     7.81     3.96     .035     .035     .035     .000  1294.60  9888.65
  .001016     480.     491.     500.        2        0        0      .00   197.88 10086.53


*SECNO 19.018

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62


3470 ENCROACHMENT STATIONS=     9866.3   10038.5  TYPE=      1  TARGET=      172.200
   19.018    13.01  1310.61      .00  1310.41  1312.19     1.59      .75      .22  1305.10
   14000.     408.   13573.      19.      96.    1326.      8.     886.      88.   1308.40
      .70     4.23    10.23     2.25     .035     .035     .035     .000  1297.60  9867.96
  .002609     460.     491.     520.        2        0        0      .00   169.62 10037.57
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SECNO    DEPTH    CWSEL    CRIWS    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 19.117

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=     9942.1   10061.9  TYPE=      1  TARGET=      119.801
   19.117    13.33  1311.93  1311.93  1311.86  1316.05     4.12     2.06      .76  1302.90
   14000.    1202.   11003.    1795.     132.     623.     179.     900.      90.   1301.50
      .71     9.12    17.67    10.05     .035     .035     .035     .000  1298.60  9943.80
  .006574     490.     523.     560.       20        5        0      .00   116.45 10060.25


*SECNO 19.210

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.59


3470 ENCROACHMENT STATIONS=     9923.1   10081.0  TYPE=      1  TARGET=      157.900
   19.210    16.28  1316.48      .00  1316.51  1318.22     1.73     1.93      .24  1312.00
   14000.     156.   13694.     150.      43.    1283.      41.     913.      91.   1312.00
      .72     3.65    10.67     3.64     .035     .035     .035     .000  1300.20  9925.94
  .002611     500.     491.     490.        3        0        0      .00   152.38 10078.32


CCHV=     .300 CEHV=     .500
*SECNO 19.283

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=     9948.0   10057.0  TYPE=      1  TARGET=      109.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1324.00 ELREA=     1324.00
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SECNO     DEPTH     CWSEL     CRIWS     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


19.283     7.99  1319.69  1319.69  1319.69  1323.70     4.02     1.76     1.14  1311.70
14000.       0.  14000.       0.       0.     871.       0.     923.      92. 100000.00
   .73     .00    16.08     .00     .000     .035     .000     .000  1311.70  9948.00
.009875    390.     386.     390.       20       11        0      .00   109.00 10057.00


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1318.52 , NOT    1319.69 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKDR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .90      1.56      3.00       .00    109.00      4.50   1304.00      .00   1311.70   1311.70

*SECNO 19.299
BTCARD  BRIDGE STENCL=    9948.00   STENCR=   10057.00

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1319.93 BRIDGE VELOCITY=      16.28     CALCULATED CHANNEL AREA=       860.

 EGPRS     EGLWC      H3       QWEIR     QLOW      BAREA   TRAPEZOID     ELLC     ELTRD     WEIRLN
                                                            AREA
  1322.48  1324.30     .00        0.    14000.     1304.     1306.    1324.20   1326.50       0.


3470 ENCROACHMENT STATIONS=     9948.0   10057.0  TYPE=      1  TARGET=      109.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1325.00 ELREA=     1325.00

19.299    10.07  1321.77      .00  1321.77  1324.30     2.53      .59      .00  1311.70
14000.       0.  14000.       0.       0.    1098.       0.     925.      93. 100000.00
   .73     .00    12.76     .00     .000     .035     .000     .000  1311.70  9948.00
.004669     86.     86.      86.        0        0        0      .00   109.00 10057.00


*SECNO 19.313
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   SECNO    DEPTH    CWSEL    CRIWS    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


3470 ENCROACHMENT STATIONS=     9944.4   10104.0  TYPE=      1  TARGET=      159.600
   19.313    11.24  1322.94      .00  1322.89  1324.82     1.88      .33      .19100000.00
   14000.       0.   14000.       0.       0.    1271.      0.     927.      93. 100000.00
      .74      .00    11.01      .00     .000     .035     .000     .000  1311.70  9945.35
  .004274      75.     74.      75.        3        0        0      .00   157.29 10102.64


CCHV=     .100 CEHV=     .300
*SECNO 19.418

3470 ENCROACHMENT STATIONS=     9955.1   10117.8  TYPE=      1  TARGET=      162.700
   19.418    12.34  1325.34      .00  1325.34  1327.13     1.79     2.31      .01100000.00
   14000.       0.   14000.       0.       0.    1303.      0.     943.      95. 100000.00
      .75      .00    10.75      .00     .000     .035     .000     .000  1313.00  9955.85
  .004054     570.    554.     530.        2        0        0      .00   160.86 10116.71


*SECNO 19.560

3470 ENCROACHMENT STATIONS=     9931.4   10061.0  TYPE=      1  TARGET=      129.600
   19.560    12.37  1327.97      .00  1327.97  1329.84     1.87     2.68      .02100000.00
   14000.       0.   14000.       0.       0.    1276.      0.     965.      97. 100000.00
      .77      .00    10.97      .00     .000     .035     .000     .000  1315.60  9931.76
  .003345     730.    729.     720.        3        0        0      .00   128.82 10060.58


CCHV=     .300 CEHV=     .500
*SECNO 19.625

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9965.0   10025.0  TYPE=      1  TARGET=       60.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1332.00 ELREA=      1332.00

   19.625    11.91  1329.51      .00  1329.44  1330.53     1.02      .44      .25  1317.60
    5800.       0.    5800.       0.       0.     714.      0.     973.      98. 100000.00
      .78      .00     8.12      .00     .000     .015     .000     .000  1317.60  9965.00
  .000314     580.     364.      70.        2        0        0      .00    60.00 10025.00
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SECNO    DEPTH    CWSEL    CRIWS    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


SPECIAL BRIDGE

SB  XK       XK3R     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     1.05     1.56     3.00   100.00    60.00     2.00   564.00      .00  1318.60  1317.60

*SECNO 19.691
PRESSURE FLOW


 EGPRS     EGLWC      H3      QWEIR     QPR      BAREA   TRAPEZOID     ELLC     ELTRD    WEIRLN
                                                          AREA
  1332.07  1330.80     .09       0.    5800.     564.     563.    1328.30  1334.80       0.



3470 ENCROACHMENT STATIONS=    9965.0   10025.0  TYPE=     1  TARGET=      60.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1333.00 ELREA=     1333.00

   19.691    12.55  1331.15     .00  1331.06  1332.07     .92     1.54     .00  1318.60
    5800.       0.    5800.      0.       0.     753.      0.     979.     99. 100000.00
      .79      .00     7.70     .00     .000     .015    .000     .000  1318.60  9965.00
  .000267     330.     350.    430.        2        0       0      .00    60.00 10025.00


*SECNO 19.742

3470 ENCROACHMENT STATIONS=    9953.0   10038.0  TYPE=     1  TARGET=      85.000
   19.742    12.53  1331.63     .00  1331.57  1332.22     .60      .06     .10100000.00
    5800.       0.    5800.      0.       0.     935.      0.     984.     99. 100000.00
      .81      .00     6.21     .00     .000     .015    .000     .000  1319.10  9953.00
  .000193      80.     269.    470.        2        0       0      .00    85.00 10038.00


CCHV=     .100 CEHV=     .300
*SECNO 19.847

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .36


3470 ENCROACHMENT STATIONS=    9957.0   10043.0  TYPE=     1  TARGET=      86.000
   19.847    12.95  1331.75     .00  1331.75  1332.50     .75      .23     .05100000.00
    5800.       0.    5800.      0.       0.     835.      0.     996.    100. 100000.00
      .83      .00     6.94     .00     .000     .035    .000     .000  1318.80  9957.00
  .001506     570.     554.    520.        0        0       0      .00    86.00 10043.00
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   SECNO    DEPTH    CWSEL    CRIWS    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


*SECNO 19.960

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9958.0   10031.0  TYPE=      1  TARGET=       73.000
   19.960     7.57  1332.17  1332.17  1332.26  1335.11     2.94     1.93      .66  1330.00
    5800.       0.    5800.       0.       0.     421.       0.    1004.     101. 100000.00
      .84      .00    13.76      .00     .000     .035     .000     .000  1324.60  9958.00
  .011209     640.     597.     560.        2       14        0      .00    73.00 10031.00


CCHV=     .300 CEHV=     .500
*SECNO 19.974

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.65


3470 ENCROACHMENT STATIONS=     9969.0   10020.0  TYPE=      1  TARGET=       51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1336.00 ELREA=     1336.00

   19.974    10.11  1333.91      .00  1333.48  1335.87     1.97      .47      .29  1323.80
    5800.       0.    5800.       0.       0.     515.       0.    1005.     101. 100000.00
      .84      .00    11.26      .00     .000     .035     .000     .000  1323.80  9969.00
  .004097     105.      74.      65.        3        0        0      .00    51.00 10020.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      3.00       .00     51.00      3.00    480.00       .00   1324.10   1323.80

*SECNO 19.986
BTCARD  BRIDGE STENCL=    9969.00   STENCR=   10020.00

3301 HV CHANGED MORE THAN HVINS
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SECNO	DEPTH	CWSEL	CRIWS	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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1337.44	1336.36	.75	0.	5800.	480.	480.	1334.10	1337.90	0.

3470 ENCROACHMENT STATIONS= 9969.0 10020.0 TYPE= 1 TARGET= 51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1337.00 ELREA= 1337.00

19.986	12.32	1336.12	.00	1335.56	1337.44	1.32	1.57	.00	1323.80
5800.	0.	5800.	0.	0.	628.	0.	1006.	101.	100000.00
.84	.00	9.23	.00	.000	.035	.000	.000	1323.80	9969.00
.002217	61.	61.	61.	3	0	0	.00	51.00	10020.00

*SECNO 20.049

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 9975.0 10025.0 TYPE= 1 TARGET= 50.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1340.00 ELREA= 100000.00

20.049	11.20	1338.30	1338.30	1338.46	1342.09	3.79	1.41	1.24	100000.00
5800.	0.	5800.	0.	0.	371.	0.	1010.	102.	100000.00
.85	.00	15.63	.00	.000	.035	.000	.000	1327.10	9975.00
.011167	305.	333.	345.	20	11	0	.00	50.00	10025.00

CCHV= .100 CEHV= .300
*SECNO 20.144

3301 HV CHANGED MORE THAN HVINS

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOE     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOE     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOSL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.73


3470 ENCROACHMENT STATIONS=     9972.0   10029.0  TYPE=      1  TARGET=       57.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1344.00 ELREA=      1340.80

   20.144    12.59  1343.49      .00  1343.59  1345.30     1.82     3.01      .20100000.00
    5800.       0.    5769.      31.       0.     532.      10.    1015.     102.   1340.80
      .86      .00    10.84     3.08     .000     .035     .040     .000  1330.90  9972.00
  .003736     490.     502.     500.        2        0        0      .00    57.00 10029.00


*SECNO 20.242

3470 ENCROACHMENT STATIONS=     9964.0   10035.0  TYPE=      1  TARGET=       71.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1348.00 ELREA=      1342.80

   20.242    12.32  1345.62      .00  1345.60  1347.28     1.66     1.97      .02100000.00
    5800.       0.    5742.      58.       0.     553.      16.    1022.     103.   1342.80
      .88      .00    10.38     3.54     .000     .035     .040     .000  1333.30  9964.00
  .003873     470.     517.     560.        3        0        0      .00    71.00 10035.00


*SECNO 20.335

3470 ENCROACHMENT STATIONS=     9963.0   10036.0  TYPE=      1  TARGET=       73.000
   20.335    10.34  1347.64      .00  1347.53  1348.91     1.27     1.59      .04100000.00
    5800.       0.    5770.      30.       0.     637.      11.    1028.     104.   1344.00
      .89      .00     9.06     2.80     .000     .035     .040     .000  1337.30  9963.00
  .002737     510.     491.     470.        2        0        0      .00    73.00 10036.00


CCHV=     .300 CEHV=     .500
*SECNO 20.347

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9970.0   10021.0  TYPE=      1  TARGET=       51.000
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SECNO    DEPTH    CWSEL    CRIWS    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


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1351.50 ELREA=     1351.50

  20.347    10.34  1347.54      .00  1347.32  1349.42     1.88      .20      .31  1337.20
   5800.       0.    5800.       0.       0.     527.       0.    1029.     104. 100000.00
     .89      .00    11.00      .00     .000     .035     .000     .000  1337.20  9970.00
 .003810       1.      63.     150.        2        0        0      .00    51.00 10021.00


SPECIAL BRIDGE

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
    1.25     1.56     3.00    100.00    51.00     3.00   576.00     .00   1337.70  1337.20

*SECNO 20.366
PRESSURE FLOW


 EGPRS     EGLWC     H3       QWEIR     QPR      BAREA   TRAPEZOID     ELLC     ELTRD    WEIRLN
                                                            AREA
  1349.99  1349.88     .68        0.    5800.     576.     576.    1349.70  1354.50       0.


3470 ENCROACHMENT STATIONS=    9970.0   10021.0  TYPE=     1  TARGET=      51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1352.50 ELREA=     1352.50

  20.366    11.19  1348.39      .00  1348.08  1349.99     1.60      .58      .00  1337.20
   5800.       0.    5800.       0.       0.     571.       0.    1031.     104. 100000.00
     .90      .00    10.16      .00     .000     .035     .000     .000  1337.20  9970.00
 .002979     100.     100.     100.        3        0        0      .00    51.00 10021.00


*SECNO 20.423

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=    9958.0   10072.0  TYPE=     1  TARGET=     114.000
  20.423    12.00  1350.00      .00  1349.71  1350.86      .86      .65      .22  1345.00
   5800.     124.    5304.     372.      45.     686.      99.    1035.     105.  1344.30
     .91     2.77     7.73     3.77     .040     .035     .040     .000  1338.00  9958.00
 .001645     415.     301.     205.        2        0        0      .00   114.00 10072.00
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SECNO	DEPTH	CWSEL	CRIWS	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	IOC	ICONT	CORAR	TOPWID	ENDST

*SECNO 20.430

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .65

3470 ENCROACHMENT STATIONS= 9985.0 10036.0 TYPE= 1 TARGET= 51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1352.50 ELREA= 1352.50

20.430	10.27	1349.57	.00	1349.26	1351.47	1.90	.09	.52	1339.30
5800.	0.	5800.	0.	0.	524.	0.	1036.	105.	100000.00
.91	.00	11.07	.00	.000	.035	.000	.000	1339.30	9985.00
.003886	1.	37.	65.	2	0	0	.00	51.00	10036.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.56	3.00	100.00	51.00	3.00	576.00	.00	1339.30	1339.30

*SECNO 20.444
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1352.03	1351.94	.70	0.	5800.	576.	576.	1351.30	1355.50	0.

3470 ENCROACHMENT STATIONS= 9985.0 10036.0 TYPE= 1 TARGET= 51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 1353.50 ELREA= 1353.50

20.444	11.10	1350.40	.00	1350.06	1352.03	1.63	.55	.00	1339.30
5800.	0.	5800.	0.	0.	566.	0.	1037.	105.	100000.00
.91	.00	10.25	.00	.000	.035	.000	.000	1339.30	9985.00
.003059	70.	70.	70.	3	0	0	.00	51.00	10036.00

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   SECNO    DEPTH    CWSEL    CRIWS    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 20.529

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9930.0   10069.0  TYPE=      1  TARGET=      139.000
   20.529     9.63  1352.63      .00  1352.40  1353.33      .70     1.02      .28  1350.20
    5800.      99.    5629.      71.      39.     826.      30.    1044.     106.   1350.40
      .93     2.52     6.82     2.37     .040     .035     .040     .000  1343.00  9930.00
  .001764     545.     449.     375.        2        0        0      .00   139.00 10069.00


CCHV=     .100 CEHV=     .300
*SECNO 20.628

3470 ENCROACHMENT STATIONS=     9935.0   10065.0  TYPE=      1  TARGET=      130.000
   20.628    10.30  1353.60      .00  1353.42  1354.03      .44      .68      .03100000.00
    5800.       0.    5800.       0.       0.    1092.       0.    1056.     108. 100000.00
      .96      .00     5.31      .00     .000     .035     .000     .000  1343.30  9935.00
  .000990     530.     523.     520.        2        0        0      .00   130.00 10065.00


*SECNO 20.725

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=     9962.0   10026.0  TYPE=      1  TARGET=       64.000
   20.725     8.81  1356.01  1356.01  1356.12  1359.23     3.22     1.20      .83100000.00
    5800.       0.    5800.       0.       0.     403.       0.    1065.     109. 100000.00
      .97      .00    14.40      .00     .000     .035     .000     .000  1347.20  9962.00
  .011035     510.     512.     520.       20       15        0      .00    64.00 10026.00


CCHV=     .300 CEHV=     .500
*SECNO 20.737
3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO    DEPTH    CWSEL    CRIWS    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


3470 ENCROACHMENT STATIONS=    9968.0   10019.0  TYPE=      1  TARGET=      51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1363.00 ELREA=     1363.00

  20.737     7.38  1358.28  1358.28  1358.25  1361.97     3.69      .88      .23  1350.90
   5800.       0.    5800.       0.       0.     376.       0.    1066.     109. 100000.00
     .97      .00    15.41      .00     .000     .035     .000     .000  1350.90  9968.00
 .010981      80.      80.      80.       20       11        0      .00    51.00 10019.00


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1357.00 , NOT    1358.28 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
    1.25     1.56     3.00   100.00    51.00     3.00   576.00      .00   1351.00  1350.90

*SECNO 20.750

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1358.63 BRIDGE VELOCITY=     15.73    CALCULATED CHANNEL AREA=      366.

 EGPRS     EGLWC      H3      QWEIR     QLOW     BAREA   TRAPEZOID     ELLC     ELTRD    WEIRLN
                                                           AREA
     .00  1362.84     .00        0.    5800.     576.     576.    1363.00  1366.00        0.


3470 ENCROACHMENT STATIONS=    9968.0   10019.0  TYPE=      1  TARGET=      51.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1364.00 ELREA=     1364.00

  20.750     9.71  1360.71      .00  1360.71  1362.84     2.13      .87      .00  1351.00
   5800.       0.    5800.       0.       0.     495.       0.    1067.     109. 100000.00
     .97      .00    11.71      .00     .000     .035     .000     .000  1351.00  9968.00
 .004634      71.      71.      71.        0        0        0      .00    51.00 10019.00
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SECNO    DEPTH    CWSEL    CRIWS    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 20.819

3470 ENCROACHMENT STATIONS=     9965.0   10043.0  TYPE=      1  TARGET=       78.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1366.90 ELREA=      1366.90

  20.819     6.30  1362.80      .00  1362.47  1364.96     2.16     2.11      .02  1356.50
   5800.       0.    5800.       0.       0.     491.       0.    1071.     109. 100000.00
     .98      .00    11.81      .00     .000     .035     .000     .000  1356.50  9965.00
 .007374     375.     365.     345.        4        0        0      .00    78.00 10043.00



SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1361.25 , NOT    1362.80 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.05      1.56      3.00    100.00     77.30      3.30    655.00       .00   1357.40   1356.50

*SECNO 20.841
CLASS B LOW FLOW

3420 BRIDGE W.S.=    1362.71 BRIDGE VELOCITY=      13.62     CALCULATED CHANNEL AREA=       393.

 EGPRS     EGLWC      H3       QWEIR     QLOW      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                            AREA
  1364.70   1366.18      .00        0.     5800.     655.     592.     1365.40   1369.90        0.


3470 ENCROACHMENT STATIONS=     9965.0   10043.0  TYPE=      1  TARGET=       78.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1367.90 ELREA=      1367.90

  20.841     7.06  1364.46      .00  1364.46  1366.18     1.72     1.22      .00  1357.40
   5800.       0.    5800.       0.       0.     551.       0.    1072.     110. 100000.00
     .98      .00    10.53      .00     .000     .035     .000     .000  1357.40  9965.00
 .005089     115.     115.     115.        0        0        0      .00    78.00 10043.00


*SECNO 20.860

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.61


3470 ENCROACHMENT STATIONS=     9904.0   10060.0  TYPE=      1  TARGET=      156.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1365.30 ELREA=     1367.60

  20.860     9.76  1366.06      .00  1366.09  1366.78      .72      .30      .30  1365.30
   5800.      36.    5764.       0.      27.     843.       0.    1074.     110. 100000.00
     .98     1.31     6.84      .00     .040     .035     .000     .000  1356.30  9904.00
 .001959      90.     100.     110.        3        0        0      .00   156.00 10060.00


CCHV=     .100 CEHV=     .300
*SECNO 20.942

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66


3470 ENCROACHMENT STATIONS=     9860.0   10110.0  TYPE=      1  TARGET=      250.000
  20.942     7.71  1367.31      .00  1367.37  1368.03      .72     1.25      .00100000.00
   5800.       0.    4804.     996.       0.     673.     200.    1083.     112.   1366.50
    1.00      .00     7.13     4.97     .000     .035     .035     .000  1359.60  9860.00
 .004542     530.     433.     490.        2        0        0      .00   250.00 10110.00


*SECNO 21.036

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=     9810.0   10060.0  TYPE=      1  TARGET=      250.000
  21.036     8.03  1371.53  1371.53  1372.01  1373.15     1.62     2.79      .27  1370.70
   5800.     132.    5619.      49.      59.     542.      22.    1091.     115.   1370.40
    1.02     2.25    10.37     2.25     .040     .035     .040     .000  1363.50  9810.00
 .007193     490.     496.     490.       20        8        0      .00   250.00 10060.00
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       DLOSS   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 21.127

3470 ENCROACHMENT STATIONS=     9900.0   10060.0  TYPE=      1  TARGET=      160.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1374.00 ELREA=    100000.00

   21.127     7.96  1374.66  1374.33  1374.78  1376.50     1.84     3.29      .07  1374.20
    5800.     141.    5659.       0.      56.     514.       0.    1097.     117. 100000.00
     1.03     2.51    11.01      .00     .040     .035     .000     .000  1366.70  9900.00
  .006573     400.     480.     500.        4        8        0      .00   160.00 10060.00


*SECNO 21.230

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9900.0   10125.0  TYPE=      1  TARGET=      225.000
   21.230     8.40  1380.40  1380.40  1380.49  1381.94     1.54     3.94      .03  1379.30
    5800.     264.    4336.    1200.      74.     394.     191.    1105.     119.   1380.60
     1.04     3.57    11.00     6.29     .040     .035     .040     .000  1372.00  9900.00
  .008146     560.     544.     500.        2        8        0      .00   222.17 10125.00


*SECNO 21.363
3280 CROSS SECTION     21.36 EXTENDED       .65 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.27


3470 ENCROACHMENT STATIONS=     9939.0   10105.0  TYPE=      1  TARGET=      166.000
   21.363     9.54  1383.64      .00  1383.36  1384.17      .54     2.14      .10100000.00
    5800.       0.    5782.      18.       0.     982.      14.    1118.     122.   1382.10
     1.08      .00     5.89     1.29     .000     .035     .040     .000  1374.10  9939.00
  .001579     740.     702.     700.        3        0        0      .00   166.00 10105.00
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   SECNO    DEPTH    CWSEL    CRIWS    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 21.484

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 ENCROACHMENT STATIONS=     9852.0   10077.0  TYPE=      1  TARGET=      225.000
   21.484     8.64  1387.14  1387.14  1386.54  1388.60     1.46     1.90      .28  1386.90
    5800.     996.    4739.      65.     173.     456.      27.    1131.     125.   1386.50
     1.10     5.75    10.38     2.38     .040     .035     .040     .000  1378.50  9852.00
  .007532     650.     639.     520.       20       10        0      .00   215.98 10077.00


*SECNO 21.576

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.40


3470 ENCROACHMENT STATIONS=     9940.0   10165.0  TYPE=      1  TARGET=      225.000
   21.576     8.12  1390.22      .00  1389.26  1391.12      .90     2.46      .06  1390.00
    5800.      20.    4795.     986.      15.     592.     217.    1138.     127.   1388.30
     1.11     1.32     8.10     4.54     .040     .035     .040     .000  1382.10  9940.00
  .003842     320.     486.     480.        2        0        0      .00   225.00 10165.00


*SECNO 21.669
3280 CROSS SECTION     21.67 EXTENDED       .53 FEET


3301 HV CHANGED MORE THAN HVINS

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


3470 ENCROACHMENT STATIONS=     9890.0   10115.0  TYPE=      1  TARGET=      225.000
   21.669     9.83  1393.83  1393.83  1393.39  1395.30     1.46     2.55      .17  1393.80
    5600.     625.     4041.     934.     128.     369.     176.    1147.     130.   1392.00
     1.13     4.89     10.96     5.30     .040     .035     .040     .000  1384.00  9890.00
  .007748     440.      491.     470.       20        8        0      .00   225.00 10115.00


*SECNO 21.742

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.67


3470 ENCROACHMENT STATIONS=     9940.0   10140.0  TYPE=      1  TARGET=      200.000
   21.742     9.86  1396.26      .00  1395.28  1397.05      .79     1.68      .07  1394.70
    5600.      98.     5197.     305.      44.     708.      99.    1154.     132.   1394.20
     1.14     2.23      7.34     3.06     .040     .035     .040     .000  1386.40  9940.00
  .002767     430.      385.     390.        2        0        0      .00   200.00 10140.00


*SECNO 21.840

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .68


3470 ENCROACHMENT STATIONS=     9900.0   10100.0  TYPE=      1  TARGET=      200.000
   21.840     6.87  1397.97      .00  1398.02  1399.15     1.18     1.98      .12  1396.20
    5600.     644.     4770.     186.     122.     518.      57.    1162.     134.   1397.00
     1.16     5.30      9.21     3.25     .040     .035     .040     .000  1391.10  9900.00
  .005937     430.      517.     430.        2        0        0      .00   200.00 10100.00


*SECNO 21.895

3470 ENCROACHMENT STATIONS=     9835.0   10080.0  TYPE=      1  TARGET=      245.000
   21.895     7.86  1399.76      .00  1399.70  1401.09     1.33     1.89      .05  1398.00
    5600.    1942.     3463.     195.     339.     317.      56.    1167.     135.   1397.70
     1.17     5.72     10.94     3.48     .040     .035     .040     .000  1391.90  9835.00
  .006870     330.      290.     220.        3        0        0      .00   245.00 10080.00
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SECNO    DEPTH    CWSEL    CRIWS    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   IOC      ICONT    CORAR    TOPWID     ENDST

*SECNO 21.933

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.29

3470 ENCROACHMENT STATIONS=     9650.0   10070.0  TYPE=      1  TARGET=      420.000
   21.933     4.73  1401.53      .00  1400.89  1401.73      .20      .53      .11  1398.00
    5600.    2165.    3435.       0.     718.     866.       0.    1173.     137. 100000.00
     1.18     3.01     3.96      .00     .040     .035     .000     .000  1396.80  9650.00
  .001311     210.     210.     210.        2        0        0      .00   420.00 10070.00

*SECNO 21.953

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .40

3470 ENCROACHMENT STATIONS=     9630.0   10051.0  TYPE=      1  TARGET=      421.000
   21.953     7.25  1401.25      .00  1401.09  1402.14      .89      .20      .20  1400.20
    5600.    2479.    2959.     162.     466.     325.      36.    1175.     138.   1398.30
     1.19     5.32     9.11     4.47     .045     .045     .045     .000  1394.00  9630.00
  .008245      75.      74.      75.        3        0        0      .00   311.33 10051.00

*SECNO 22.065

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.48
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   SECNO    DEPTH    CWSEL    CRIWS    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    XLCBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     9620.0   10030.0  TYPE=      1  TARGET=      410.000
   22.065     8.71  1404.51      .00  1404.11  1404.87      .37     2.69      .05  1404.10
    5600.    3771.    1818.      11.     851.     323.       5.    1186.     142.   1402.00
     1.22     4.43     5.63     2.17     .045     .045     .045     .000  1395.80  9620.00
  .003752     430.     591.     630.        3        0        0      .00   398.21 10030.00


*SECNO 22.165

3265 DIVIDED FLOW

3280 CROSS SECTION     22.17 EXTENDED       .41 FEET


3470 ENCROACHMENT STATIONS=     9620.0   10020.0  TYPE=      1  TARGET=      400.000
   22.165    11.10  1406.10      .00  1405.28  1406.47      .36     1.59      .00  1400.90
    5600.    3713.    1879.       8.     968.     296.       5.    1201.     146.   1403.70
     1.25     3.84     6.35     1.74     .045     .045     .045     .000  1395.00  9620.00
  .002462     530.     528.     530.        3        0        0      .00   384.53 10020.00


*SECNO 22.273

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69


3470 ENCROACHMENT STATIONS=     9650.0   10027.0  TYPE=      1  TARGET=      377.000
   22.273     8.25  1407.65      .00  1406.70  1408.37      .72     1.80      .11  1404.10
    5600.    1486.    4114.       0.     345.     547.       0.    1213.     150. 100000.00
     1.27     4.31     7.52      .00     .045     .045     .000     .000  1399.40  9650.00
  .005131     470.     570.     580.        2        0        0      .00   292.96 10027.00


*SECNO 22.410

3265 DIVIDED FLOW
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   SECNO    DEPTH    CWSEL    CRIWS    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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9860.0   10040.0  TYPE=      1  TARGET=      180.000
   22.410    10.14  1414.14  1414.14  1414.29  1416.08     1.93     5.00      .36  1410.70
    5600.     753.    4731.     116.     148.     396.      25.    1226.     154.   1411.30
     1.29     5.09    11.94     4.71     .045     .045     .045     .000  1404.00  9860.00
  .009660     750.     723.     630.        5       11        0      .00   160.06 10040.00


*SECNO 22.483

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.11


3470 ENCROACHMENT STATIONS=     9890.0   10050.0  TYPE=      1  TARGET=      160.000
   22.483    11.31  1416.81      .00  1416.52  1417.12      .31      .88      .16  1411.10
    5600.     523.    5077.       0.     198.    1106.       0.    1234.     155. 100000.00
     1.31     2.63     4.59      .00     .045     .045     .000     .000  1405.50  9890.00
  .001000     380.     385.     390.        3        0        0      .00   160.00 10050.00


*SECNO 22.578

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .56


3470 ENCROACHMENT STATIONS=     9968.0   10064.0  TYPE=      1  TARGET=       96.000
   22.578    10.59  1417.29      .00  1416.40  1418.09      .80      .83      .15  1416.60
    5600.       0.    5600.       0.       0.     780.       0.    1246.     157. 100000.00
     1.33      .00     7.18      .00     .000     .045     .000     .000  1406.70  9968.00
  .003169     540.     502.     490.        3        0        0      .00    96.00 10064.00


*SECNO 22.675
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SECNO     DEPTH     CWSEL     CRIWS     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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.69


3470 ENCROACHMENT STATIONS=     9830.0   10028.0  TYPE=      1  TARGET=      198.000
   22.675     9.10  1418.80      .00  1418.08  1419.04      .24      .89      .06100000.00
    5600.       0.    5600.       0.       0.    1424.       0.    1259.     159. 100000.00
     1.37      .00     3.93      .00     .000     .045     .000     .000  1409.70  9830.00
  .001104     570.     512.     480.        2        0        0      .00   198.00 10028.00


*SECNO 22.794

3470 ENCROACHMENT STATIONS=     9977.0   10160.0  TYPE=      1  TARGET=      183.000
   22.794     8.88  1419.58      .00  1418.63  1419.93      .35      .85      .03  1417.80
    5600.      11.    5589.       0.       7.    1183.       0.    1278.     161. 100000.00
     1.40     1.44     4.72      .00     .045     .045     .000     .000  1410.70  9977.00
  .001700     460.     628.     500.        2        0        0      .00   183.00 10160.00


*SECNO 22.880

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .52


3470 ENCROACHMENT STATIONS=     9951.0   10120.0  TYPE=      1  TARGET=      169.000
   22.880     7.60  1420.60      .00  1420.11  1421.39      .78     1.33      .13100000.00
    5600.       0.    5600.       0.       0.     788.       0.    1288.     163. 100000.00
     1.42      .00     7.11      .00     .000     .045     .000     .000  1413.00  9951.00
  .006203     440.     454.     480.        2        0        0      .00   169.00 10120.00


*SECNO 22.990

3470 ENCROACHMENT STATIONS=     9890.0   10026.0  TYPE=      1  TARGET=      136.000
   22.990     6.78  1424.68      .00  1423.67  1425.84     1.16     4.34      .11100000.00
    5600.       0.    5600.       0.       0.     648.       0.    1298.     165. 100000.00
     1.44      .00     8.64      .00     .000     .045     .000     .000  1417.90  9890.00
  .009149     480.     581.     530.        2        0        0      .00   136.00 10026.00
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   SECNO    DEPTH    CWSEL    CRIWS    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   IOC      ICONT    CORAR    TOPWID     ENDST


*SECNO 23.097

3470 ENCROACHMENT STATIONS=     9958.0   10090.0  TYPE=      1  TARGET=      132.000
   23.097     5.56  1430.66      .00  1429.92  1432.17     1.51     6.22      .11100000.00
    5600.       0.    5600.       0.       0.     568.       0.    1306.     167. 100000.00
     1.46      .00     9.86      .00     .000     .045     .000     .000  1425.10  9958.00
  .013523     640.     565.     490.        3        0        0      .00   132.00 10090.00


*SECNO 23.168

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.41


3470 ENCROACHMENT STATIONS=     9830.0   10140.0  TYPE=      1  TARGET=      310.000
   23.168     4.85  1433.75      .00  1433.10  1434.02      .27     1.73      .12100000.00
    5600.       0.    5360.     240.       0.    1265.      76.    1314.     169.   1430.30
     1.48      .00     4.24     3.17     .000     .045     .045     .000  1428.90  9830.00
  .002322     330.     375.     300.        3        0        0      .00   310.00 10140.00


*SECNO 23.253

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=     9978.5   10023.2  TYPE=      1  TARGET=       44.700
   23.253     9.28  1434.48  1434.48  1434.53  1437.36     2.88     1.80      .78100000.00
    3400.       0.    3400.       0.       0.     250.       0.    1322.     171. 100000.00
     1.49      .00    13.61      .00     .000     .040     .000     .000  1425.20  9978.53
  .015281     470.     459.     450.       20       17        0      .00    44.57 10023.10


*SECNO 23.334

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42


3470 ENCROACHMENT STATIONS=     9969.0   10036.0  TYPE=      1  TARGET=       67.000
   23.334     7.82  1440.42      .00  1440.40  1441.84     1.42     4.34      .15100000.00
    3400.       0.    3400.       0.       0.     355.       0.    1325.     171. 100000.00
     1.50      .00     9.57      .00     .000     .040     .000     .000  1432.60  9969.01
  .007528     400.     417.     420.        2        0        0      .00    66.99 10036.00


*SECNO 23.416

3470 ENCROACHMENT STATIONS=     9981.0   10040.0  TYPE=      1  TARGET=       59.000
   23.416     7.32  1443.82      .00  1443.82  1445.59     1.78     3.65      .11100000.00
    3400.       0.    3400.       0.       0.     318.       0.    1328.     172. 100000.00
     1.51      .00    10.70      .00     .000     .040     .000     .000  1436.50  9981.00
  .009483     400.     433.     430.        3        0        0      .00    59.00 10040.00


*SECNO 23.514
   23.514     8.51  1448.11      .00  1448.11  1449.46     1.35     3.82      .04  1451.40
    3400.       0.    3400.       0.       0.     365.       0.    1332.     172.   1451.10
     1.53      .00     9.31      .00     .000     .040     .000     .000  1439.60  9977.53
  .005926     560.     517.     470.        2        0        0      .00    57.48 10035.02


*SECNO 23.544

3301 HV CHANGED MORE THAN HVINS

   23.544     7.52  1448.92      .00  1448.91  1450.79     1.87     1.17      .16  1453.20
    3400.       0.    3400.       0.       0.     310.       0.    1334.     173.   1452.90
     1.53      .00    10.99      .00     .000     .040     .000     .000  1441.40  9978.90
  .009542     190.     158.     150.        2        0        0      .00    54.80 10033.70


SPECIAL BRIDGE
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SECNO    DEPTH    CWSEL    CRIWS    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

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
    1.25     2.48     3.20      .00     5.70     1.00    14.10     .00   1442.00  1441.40

*SECNO 23.555

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.95

PRESSURE AND WEIR FLOW,  Weir Submergence Based on TRAPEZOIDAL Shape

 EGPRS     EGLWC      H3      QWEIR     QPR      BAREA   TRAPEZOID     ELLC     ELTRD    WEIRLN
                                                           AREA
  3688.08  1453.58    2.79    3249.     152.      14.      14.     1445.00  1449.00     140.


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

  23.555   10.64  1452.64     .00  1452.64  1453.37     .74     2.58     .00  1453.80
   3400.      0.    3400.      0.       0.     494.      0.    1334.    173.  1453.50
    1.54     .00     6.89     .00     .000     .040    .000     .000  1442.00  9974.59
 .002505     60.      60.     60.        2        0       8      .00    63.27 10037.86


*SECNO 23.591
3280 CROSS SECTION    23.59 EXTENDED     1.15 FEET


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

  23.591    8.95  1453.15     .00  1453.15  1453.93     .78      .54     .01  1452.90
   3400.      0.    3400.      0.       0.     478.      0.    1336.    173.  1453.80
    1.54     .00     7.11     .00     .000     .040    .000     .000  1444.20  9968.00
 .003293    100.     190.    210.        3        0       0      .00    75.49 10043.49


*SECNO 23.691

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=    9970.4   10035.7  TYPE=     1  TARGET=      65.330
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   SECNO    DEPTH    CWSEL    CRIWS    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


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

   23.691     8.75  1455.15      .00  1455.15  1456.48     1.33     2.39      .16100000.00
    3400.       0.    3400.       0.       0.     368.       0.    1341.     174. 100000.00
     1.56      .00     9.24      .00     .000     .040     .000     .000  1446.40  9970.39
  .006584     510.     528.     540.        2        0        0      .00    65.33 10035.71


*SECNO 23.815

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.50


3470 ENCROACHMENT STATIONS=     9951.0   10037.0  TYPE=      1  TARGET=      86.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

   23.815     9.35  1459.05      .00  1459.03  1460.17     1.12     3.67      .02  1458.90
    4450.       0.    4450.       0.       0.     525.       0.    1348.     175. 100000.00
     1.58      .00     8.48      .00     .000     .040     .000     .000  1449.70  9951.00
  .004987     650.     655.     680.        3        0        0      .00    86.00 10037.00


*SECNO 23.912
3280 CROSS SECTION     23.91 EXTENDED       .25 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.44


3470 ENCROACHMENT STATIONS=     9967.4   10043.0  TYPE=      1  TARGET=      75.590

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1480.00 ELREA=     1480.00

   23.912    13.25  1461.15      .00  1461.13  1462.34     1.20     2.15      .02100000.00
    5500.       0.    5500.       0.       0.     627.       0.    1355.     176. 100000.00
     1.60      .00     8.78      .00     .000     .040     .000     .000  1447.90  9967.41
  .003689     480.     512.     510.        3        0        0      .00    75.59 10043.00


*SECNO 23.989
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SECNO    DEPTH    CWSEL    CRIWS    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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42


3470 ENCROACHMENT STATIONS=     9944.8   10043.7  TYPE=      1  TARGET=       98.910
   23.989    13.07  1462.77      .00  1462.77  1463.42      .65     1.02      .05100000.00
    5500.       0.    5500.       0.       0.     851.       0.    1362.     177. 100000.00
     1.62      .00     6.46      .00     .000     .040     .000     .000  1449.70  9944.77
  .001827     400.     407.     410.        2        0        0      .00    98.91 10043.68


CCHV=     .300 CEHV=     .500
*SECNO 24.086

3470 ENCROACHMENT STATIONS=     9972.0   10044.0  TYPE=      1  TARGET=       72.000
   24.086    10.16  1463.76      .00  1463.78  1464.64      .88     1.11      .11  1453.60
    5500.       0.    5500.       0.       0.     732.       0.    1371.     178. 100000.00
     1.63      .00     7.52      .00     .000     .040     .000     .000  1453.60  9972.00
  .002591     450.     512.     560.        2        0        0      .00    72.00 10044.00


SPECIAL BRIDGE

SB  XK        XKDR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .90      1.56      3.00     100.00     71.60      3.00    590.00      .00   1453.60   1453.60

*SECNO 24.096
3280 CROSS SECTION     24.10 EXTENDED       .40 FEET

PRESSURE FLOW


 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                             AREA
  1465.87   1464.70      .08        0.     5500.      590.      590.     1462.20   1466.70        0.


3470 ENCROACHMENT STATIONS=     9972.0   10044.0  TYPE=      1  TARGET=       72.000
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   SECNO    DEPTH    CWSEL    CRIWS    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


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=     1466.00 ELREA=     1466.00

   24.096    11.59  1465.19      .00  1465.22  1465.87      .67     1.23      .00  1453.60
    5500.       0.    5500.       0.       0.     835.       0.    1372.     178. 100000.00
     1.64      .00     6.59      .00     .000     .040     .000     .000  1453.60  9972.00
  .001461      56.      56.      56.        2        0        0      .00    72.00 10044.00


*SECNO 24.106

3470 ENCROACHMENT STATIONS=     9955.0   10055.0  TYPE=      1  TARGET=      100.000
   24.106    11.30  1465.50      .00  1465.72  1465.99      .50      .07      .05  1464.10
    5500.       0.    5500.       0.       0.     971.       0.    1373.     178. 100000.00
     1.64      .00     5.66      .00     .000     .040     .000     .000  1454.20  9955.00
  .001313      80.      53.      20.        2        0        0      .00   100.00 10055.00


CCHV=     .100 CEHV=     .300
*SECNO 24.195

3470 ENCROACHMENT STATIONS=     9950.0   10050.0  TYPE=      1  TARGET=      100.000
   24.195    12.52  1466.12      .00  1466.16  1466.46      .34      .45      .02100000.00
    5500.       0.    5500.       0.       0.    1181.       0.    1385.     179. 100000.00
     1.67      .00     4.66      .00     .000     .040     .000     .000  1453.60  9950.00
  .000731     470.     470.     460.        1        0        0      .00   100.00 10050.00


*SECNO 24.322

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.70


3470 ENCROACHMENT STATIONS=     9940.0   10080.0  TYPE=      1  TARGET=      140.000
   24.322    15.00  1466.60      .00  1466.37  1466.75      .15      .27      .02100000.00
    5500.       0.    5256.     244.       0.    1682.     155.    1408.     181.   1456.80
     1.73      .00     3.12     1.57     .000     .040     .050     .000  1451.60  9940.00
  .000253     640.     671.     630.        2        0        0      .00   140.00 10080.00


*SECNO 24.444
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SECNO    DEPTH    CWSEL    CRIWS    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


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44


3470 ENCROACHMENT STATIONS=     9927.0   10080.0  TYPE=      1  TARGET=      153.000
   24.444     9.49  1466.79      .00  1466.41  1467.11      .32      .31      .05  1465.00
    5500.       1.    5499.       0.       1.    1208.       0.    1431.     183. 100000.00
     1.77      .87     4.55      .00     .045     .045     .000     .000  1457.30  9927.00
  .001297     640.     644.     600.        2        0        0      .00   153.00 10080.00


*SECNO 24.542

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44


3470 ENCROACHMENT STATIONS=     9950.0   10160.0  TYPE=      1  TARGET=      210.000
   24.542     7.82  1467.62      .00  1466.71  1468.61     1.00     1.30      .20100000.00
    5500.       0.    5500.       0.       0.     686.       0.    1442.     185. 100000.00
     1.79      .00     8.02      .00     .000     .045     .000     .000  1459.80  9950.00
  .006745     470.     517.     530.        2        0        0      .00   123.51 10160.00


*SECNO 24.635

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .61


3470 ENCROACHMENT STATIONS=     9940.0   10060.0  TYPE=      1  TARGET=      120.000
   24.635     5.27  1472.07  1471.95  1471.92  1473.98     1.91     5.09      .27100000.00
    5500.       0.    5500.       0.       0.     496.       0.    1448.     186. 100000.00
     1.80      .00    11.09      .00     .000     .045     .000     .000  1466.80  9940.00
  .017978     650.     491.     220.        6       14        0      .00   120.00 10060.00
```

THIS RUN EXECUTED 3/13/90 9:48:34

****
HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989

ERROR CORR - 01,02,03
MODIFICATION -
****

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

CAVE CREEK WASH

SUMMARY PRINTOUT

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
	15.015	1205.69	1219.09	9945.04	10055.06	110.02	13.40	16000.00	1.99	.00	.00	.00	.00
	15.015	1205.69	1219.09	9945.04	10055.06	110.02	13.40	16000.00	1.99	.00	.00	.00	.00
	15.109	1205.94	1219.34	9945.04	10055.06	110.02	13.40	16000.00	1.99	.25	.00	.00	.00
	15.109	1205.94	1219.34	9945.04	10055.06	110.02	13.40	16000.00	1.99	.25	.00	.00	.00
	15.204	1206.19	1219.59	9945.04	10055.06	110.02	13.40	16000.00	1.99	.25	.00	.00	.00
	15.204	1206.19	1219.59	9945.04	10055.06	110.02	13.40	16000.00	1.99	.25	.00	.00	.00
*	15.310	1206.88	1219.57	9967.54	10032.55	65.01	12.69	16000.00	6.17	-.02	.00	.00	.00
*	15.310	1206.88	1219.57	9967.54	10032.55	65.01	12.69	16000.00	6.17	-.02	.00	.00	.00
*	15.454	1207.26	1223.25	9967.53	10032.57	65.04	15.99	16000.00	3.84	3.68	.00	.00	.00
*	15.454	1207.26	1223.25	9967.53	10032.57	65.04	15.99	16000.00	3.84	3.68	.00	.00	.00
*	15.530	1226.20	1236.86	9942.79	10057.31	114.53	10.66	16000.00	4.26	13.61	.00	.00	.00
*	15.530	1226.20	1236.86	9942.79	10057.31	114.53	10.66	16000.00	4.26	13.61	.00	.00	.00
*	15.680	1229.55	1240.21	9942.78	10057.32	114.54	10.66	16000.00	4.26	3.35	.00	.00	.00
*	15.680	1229.55	1240.21	9942.78	10057.32	114.54	10.66	16000.00	4.26	3.35	.00	.00	.00
*	15.878	1233.87	1243.99	9939.42	10060.56	121.15	10.12	16000.00	4.08	3.78	.00	.00	.00
*	15.878	1233.87	1243.99	9939.42	10060.56	121.15	10.12	16000.00	4.08	3.78	.00	.00	.00
*	15.920	1234.84	1244.93	9939.48	10060.50	121.02	10.09	16000.00	4.11	.94	.00	.00	.00
*	15.920	1234.84	1244.93	9939.48	10060.50	121.02	10.09	16000.00	4.11	.94	.00	.00	.00
*	15.940	1235.22	1247.89	9938.00	10062.00	124.00	12.67	16000.00	2.34	2.96	.00	1253.60	1249.60
*	15.940	1235.22	1247.89	9938.00	10062.00	124.00	12.67	16000.00	2.34	2.96	.00	1253.60	1249.60
*	16.023	1237.45	1250.05	9949.72	10050.42	100.69	12.60	16000.00	4.65	2.16	.00	.00	.00
*	16.023	1237.45	1250.05	9949.72	10050.42	100.69	12.60	16000.00	4.65	2.16	.00	.00	.00

	SECND	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
*	16.148	1240.24	1252.85	9949.69	10050.44	100.75	12.61	16000.00	4.64	2.80	.00	.00	.00
*	16.148	1240.24	1252.85	9949.69	10050.44	100.75	12.61	16000.00	4.64	2.80	.00	.00	.00
*	16.264	1242.83	1255.44	9949.70	10050.44	100.74	12.61	16000.00	4.64	2.59	.00	.00	.00
*	16.264	1242.83	1255.44	9949.70	10050.44	100.74	12.61	16000.00	4.64	2.59	.00	.00	.00
*	16.373	1245.26	1257.87	9949.70	10050.44	100.74	12.61	16000.00	4.64	2.43	.00	.00	.00
*	16.373	1245.26	1257.87	9949.70	10050.44	100.74	12.61	16000.00	4.64	2.43	.00	.00	.00
*	16.481	1247.59	1259.50	9947.21	10051.60	104.38	11.91	16000.00	4.53	1.62	.00	.00	.00
*	16.481	1247.59	1259.50	9947.21	10051.60	104.38	11.91	16000.00	4.53	1.62	.00	.00	.00
*	16.601	1250.26	1262.14	9947.26	10051.55	104.29	11.88	16000.00	4.56	2.65	.00	.00	.00
*	16.601	1250.26	1262.14	9947.26	10051.55	104.29	11.88	16000.00	4.56	2.65	.00	.00	.00
*	16.694	1252.26	1263.45	9945.37	10055.24	109.87	11.19	16000.00	4.39	1.30	.00	.00	.00
*	16.694	1252.26	1263.45	9945.37	10055.24	109.87	11.19	16000.00	4.39	1.30	.00	.00	.00
*	16.823	1255.14	1266.34	9945.36	10055.25	109.89	11.20	16000.00	4.38	2.89	.00	.00	.00
*	16.823	1255.14	1266.34	9945.36	10055.25	109.89	11.20	16000.00	4.38	2.89	.00	.00	.00
*	16.902	1256.19	1267.38	9942.86	10058.09	115.24	11.19	16000.00	4.25	1.04	.00	.00	.00
*	16.902	1256.19	1267.38	9942.86	10058.09	115.24	11.19	16000.00	4.25	1.04	.00	.00	.00
*	16.970	1256.36	1268.19	9940.53	10059.51	118.98	11.83	16000.00	4.18	.81	.00	.00	.00
*	16.970	1256.36	1268.19	9940.53	10059.51	118.98	11.83	16000.00	4.18	.81	.00	.00	.00
*	16.988	1256.41	1271.13	9938.30	10063.90	125.60	14.72	16000.00	2.34	2.94	.00	1277.80	1273.75
*	16.988	1256.41	1271.13	9938.30	10063.90	125.60	14.72	16000.00	2.34	2.94	.00	1277.80	1273.75
	17.061	1256.61	1270.79	9939.31	10062.52	123.21	14.18	16000.00	3.34	-.33	.00	.00	.00
	17.061	1256.61	1270.79	9939.31	10062.52	123.21	14.18	16000.00	3.34	-.33	.00	.00	.00
*	17.206	1267.00	1272.70	9888.13	10111.87	223.73	5.70	16000.00	2.73	1.90	.00	.00	.00
*	17.206	1267.00	1272.70	9888.13	10111.87	223.73	5.70	16000.00	2.73	1.90	.00	.00	.00
*	17.360	1256.70	1275.40	9522.77	10371.72	848.95	18.70	16000.00	.02	2.70	.00	.00	.00
*	17.360	1256.70	1275.40	9522.77	10371.72	848.95	18.70	16000.00	.02	2.70	.00	.00	.00
*	17.494	1270.30	1280.76	9876.77	10253.49	376.72	10.46	14000.00	1.96	5.36	.00	.00	.00
*	17.494	1270.30	1280.76	9876.77	10253.49	376.72	10.46	14000.00	1.96	5.36	.00	.00	.00
*	17.588	1269.60	1283.34	9779.63	10227.93	448.30	13.74	14000.00	.30	2.57	.00	.00	.00
*	17.588	1269.60	1283.40	9955.20	10193.00	237.80	13.80	14000.00	.57	2.64	.00	.00	.00
*	17.662	1271.60	1283.47	9831.17	10146.14	314.97	11.87	14000.00	.82	.14	.00	.00	.00
*	17.662	1271.60	1283.81	9900.00	10149.14	249.14	12.21	14000.00	1.03	.41	.00	.00	.00
*	17.783	1275.40	1285.25	9901.70	10100.13	198.44	9.85	14000.00	2.09	1.78	.00	.00	.00
	17.783	1275.40	1285.90	9921.00	10064.00	143.00	10.50	14000.00	2.10	2.08	.00	.00	.00

	SECND	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
	17.932	1277.90	1290.53	9933.27	10080.18	146.91	12.63	14000.00	3.35	5.28	.00	.00	.00
	17.932	1277.90	1290.90	9956.00	10066.00	110.00	13.00	14000.00	3.10	5.00	.00	.00	.00
*	18.042	1282.30	1293.80	9951.63	10048.35	96.72	11.50	14000.00	3.51	3.27	.00	.00	.00
*	18.042	1282.30	1293.88	9951.63	10048.35	96.72	11.58	14000.00	3.45	2.98	.00	.00	.00
	18.061	1283.10	1294.82	9951.62	10048.36	96.74	11.72	14000.00	3.35	1.02	.00	1301.60	1293.20
	18.061	1283.10	1294.86	9951.62	10048.36	96.74	11.76	14000.00	3.33	.98	.00	1301.60	1293.20
*	18.081	1281.10	1298.39	9895.90	10097.00	201.10	17.29	14000.00	.72	3.57	.00	.00	.00
*	18.081	1281.10	1298.40	9900.00	10085.00	185.00	17.30	14000.00	.72	3.54	.00	.00	.00
	18.174	1281.70	1299.08	9861.25	10424.64	524.56	17.38	14000.00	.34	.69	.00	.00	.00
	18.174	1281.70	1298.99	9861.59	10125.00	263.41	17.29	14000.00	.46	.60	.00	.00	.00
*	18.269	1283.80	1299.10	9885.96	10103.72	217.76	15.30	14000.00	.77	.02	.00	.00	.00
	18.269	1283.80	1299.14	9885.80	10103.98	218.17	15.34	14000.00	.77	.15	.00	.00	.00
	18.362	1285.30	1299.52	9900.34	10103.25	202.91	14.22	14000.00	1.00	.42	.00	.00	.00
	18.362	1285.30	1299.56	9900.17	10103.42	203.25	14.26	14000.00	.99	.41	.00	.00	.00
*	18.445	1287.30	1305.03	9887.57	10204.77	317.19	17.73	14000.00	2.07	5.51	.00	.00	.00
*	18.445	1287.30	1304.78	9889.17	10140.00	250.83	17.48	14000.00	2.38	5.22	.00	.00	.00
*	18.456	1287.70	1307.05	9875.70	10315.56	439.86	19.35	14000.00	.93	2.03	13709.37	1299.50	1294.20
*	18.456	1287.70	1307.80	9885.00	10140.00	255.00	20.10	14000.00	.94	3.02	13668.63	1299.50	1294.20
*	18.545	1289.30	1307.97	9882.82	10167.92	285.11	18.67	14000.00	.41	.92	.00	.00	.00
*	18.545	1289.30	1308.73	9881.40	10169.80	288.40	19.43	14000.00	.36	.93	.00	.00	.00
	18.575	1289.30	1308.10	9882.20	10168.76	286.56	18.80	14000.00	.36	.13	.00	.00	.00
	18.575	1289.30	1308.83	9880.70	10170.80	290.10	19.53	14000.00	.31	.10	.00	.00	.00
	18.583	1289.40	1309.07	9877.96	10174.55	296.60	19.67	14000.00	.30	.97	13587.48	1299.00	1295.40
	18.583	1289.40	1309.39	9876.41	10176.67	300.26	19.99	14000.00	.29	.56	13673.72	1299.00	1295.40
	18.640	1290.20	1309.01	9882.44	10132.09	249.64	18.81	14000.00	.58	-.06	.00	.00	.00
	18.640	1290.20	1309.34	9880.04	10134.27	254.23	19.14	14000.00	.54	-.06	.00	.00	.00
	18.734	1292.40	1309.25	9885.20	10110.22	225.02	16.85	14000.00	.76	.24	.00	.00	.00
	18.734	1292.40	1309.55	9883.67	10111.35	227.68	17.15	14000.00	.71	.22	.00	.00	.00
	18.832	1293.20	1309.73	9894.00	10105.46	211.45	16.53	14000.00	.77	.47	.00	.00	.00
	18.832	1293.20	1309.98	9892.71	10106.78	214.06	16.78	14000.00	.73	.43	.00	.00	.00
	18.925	1294.60	1310.15	9889.56	10085.70	196.14	15.55	14000.00	.88	.42	.00	.00	.00
	18.925	1294.60	1310.37	9888.65	10086.53	197.88	15.77	14000.00	.84	.39	.00	.00	.00
*	19.018	1297.60	1310.41	9869.21	10036.90	167.69	12.81	14000.00	1.66	.26	.00	.00	.00
*	19.018	1297.60	1310.61	9867.96	10037.57	169.62	13.01	14000.00	1.59	.23	.00	.00	.00

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
*	19.117	1298.60	1311.86	9944.03	10060.02	115.99	13.26	14000.00	4.19	1.45	.00	.00	.00
*	19.117	1298.60	1311.93	9943.80	10060.25	116.45	13.33	14000.00	4.12	1.32	.00	.00	.00
*	19.210	1300.20	1316.51	9925.83	10078.42	152.59	16.31	14000.00	1.73	4.65	.00	.00	.00
*	19.210	1300.20	1316.48	9925.94	10078.32	152.38	16.28	14000.00	1.73	4.55	.00	.00	.00
*	19.283	1311.70	1319.69	9948.00	10057.00	109.00	7.99	14000.00	4.01	3.18	.00	.00	.00
*	19.283	1311.70	1319.69	9948.00	10057.00	109.00	7.99	14000.00	4.02	3.20	.00	.00	.00
*	19.299	1311.70	1321.77	9948.00	10057.00	109.00	10.07	14000.00	2.53	2.08	.00	1326.50	1324.20
*	19.299	1311.70	1321.77	9948.00	10057.00	109.00	10.07	14000.00	2.53	2.08	.00	1326.50	1324.20
	19.313	1311.70	1322.89	9945.47	10102.47	157.00	11.19	14000.00	1.90	1.12	.00	.00	.00
	19.313	1311.70	1322.94	9945.35	10102.64	157.29	11.24	14000.00	1.88	1.17	.00	.00	.00
	19.418	1313.00	1325.34	9955.86	10116.70	160.84	12.34	14000.00	1.79	2.45	.00	.00	.00
	19.418	1313.00	1325.34	9955.85	10116.71	160.86	12.34	14000.00	1.79	2.40	.00	.00	.00
	19.560	1315.60	1327.97	9931.76	10060.58	128.82	12.37	14000.00	1.87	2.63	.00	.00	.00
	19.560	1315.60	1327.97	9931.76	10060.58	128.82	12.37	14000.00	1.87	2.63	.00	.00	.00
*	19.625	1317.60	1329.44	9965.00	10025.00	60.00	11.84	5800.00	1.04	1.47	.00	.00	.00
	19.625	1317.60	1329.51	9965.00	10025.00	60.00	11.91	5800.00	1.02	1.54	.00	.00	.00
	19.691	1318.60	1331.06	9965.00	10025.00	60.00	12.46	5800.00	.93	1.63	.00	1334.80	1328.30
	19.691	1318.60	1331.15	9965.00	10025.00	60.00	12.55	5800.00	.92	1.64	.00	1334.80	1328.30
	19.742	1319.10	1331.57	9948.04	10042.91	94.88	12.47	5800.00	.58	.51	.00	.00	.00
	19.742	1319.10	1331.63	9953.00	10038.00	85.00	12.53	5800.00	.60	.48	.00	.00	.00
*	19.847	1318.80	1331.75	9941.73	10049.26	107.54	12.95	5800.00	.67	.17	.00	.00	.00
*	19.847	1318.80	1331.75	9957.00	10043.00	86.00	12.95	5800.00	.75	.13	.00	.00	.00
*	19.960	1324.60	1332.26	9950.77	10036.98	86.21	7.66	5800.00	2.76	.52	.00	.00	.00
*	19.960	1324.60	1332.17	9958.00	10031.00	73.00	7.57	5800.00	2.94	.42	.00	.00	.00
*	19.974	1323.80	1333.48	9969.00	10020.00	51.00	9.68	5800.00	2.15	1.21	.00	.00	.00
*	19.974	1323.80	1333.91	9969.00	10020.00	51.00	10.11	5800.00	1.97	1.74	.00	.00	.00
	19.986	1323.80	1335.56	9969.00	10020.00	51.00	11.76	5800.00	1.45	2.08	.00	1337.90	1334.10
	19.986	1323.80	1336.12	9969.00	10020.00	51.00	12.32	5800.00	1.32	2.21	.00	1337.90	1334.10
*	20.049	1327.10	1338.46	9971.38	10025.37	53.99	11.36	5800.00	3.56	2.90	.00	.00	.00
*	20.049	1327.10	1338.30	9975.00	10025.00	50.00	11.20	5800.00	3.79	2.18	.00	.00	.00
*	20.144	1330.90	1343.59	9960.03	10044.90	84.87	12.69	5800.00	1.59	5.14	.00	.00	.00
*	20.144	1330.90	1343.49	9972.00	10029.00	57.00	12.59	5800.00	1.82	5.19	.00	.00	.00
	20.242	1333.30	1345.60	9960.78	10050.41	89.63	12.30	5800.00	1.58	2.00	.00	.00	.00
	20.242	1333.30	1345.62	9964.00	10035.00	71.00	12.32	5800.00	1.66	2.14	.00	.00	.00

	SECND	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
	20.335	1337.30	1347.53	9950.36	10039.06	88.70	10.23	5800.00	1.18	1.94	.00	.00	.00
	20.335	1337.30	1347.64	9963.00	10036.00	73.00	10.34	5800.00	1.27	2.02	.00	.00	.00
	20.347	1337.20	1347.32	9970.00	10021.00	51.00	10.12	5800.00	1.96	-.21	.00	.00	.00
	20.347	1337.20	1347.54	9970.00	10021.00	51.00	10.34	5800.00	1.88	-.10	.00	.00	.00
	20.366	1337.20	1348.08	9970.00	10021.00	51.00	10.88	5800.00	1.70	.76	.00	1354.50	1349.70
	20.366	1337.20	1348.39	9970.00	10021.00	51.00	11.19	5800.00	1.60	.85	.00	1354.50	1349.70
	20.423	1338.00	1349.71	9958.19	10072.01	113.82	11.71	5800.00	.94	1.63	.00	.00	.00
	20.423	1338.00	1350.00	9958.00	10072.00	114.00	12.00	5800.00	.86	1.61	.00	.00	.00
	20.430	1339.30	1349.26	9985.00	10036.00	51.00	9.96	5800.00	2.02	-.45	.00	.00	.00
*	20.430	1339.30	1349.57	9985.00	10036.00	51.00	10.27	5800.00	1.90	-.43	.00	.00	.00
	20.444	1339.30	1350.06	9985.00	10036.00	51.00	10.76	5800.00	1.74	.80	.00	1355.50	1351.30
	20.444	1339.30	1350.40	9985.00	10036.00	51.00	11.10	5800.00	1.63	.83	.00	1355.50	1351.30
	20.529	1343.00	1352.40	9904.90	10095.71	190.81	9.40	5800.00	.69	2.34	.00	.00	.00
	20.529	1343.00	1352.63	9930.00	10069.00	139.00	9.63	5800.00	.70	2.23	.00	.00	.00
	20.628	1343.30	1353.42	9917.54	10068.69	151.15	10.12	5800.00	.43	1.02	.00	.00	.00
	20.628	1343.30	1353.60	9935.00	10065.00	130.00	10.30	5800.00	.44	.97	.00	.00	.00
*	20.725	1347.20	1356.12	9959.14	10026.66	67.52	8.92	5800.00	3.08	2.69	.00	.00	.00
*	20.725	1347.20	1356.01	9962.00	10026.00	64.00	8.81	5800.00	3.22	2.42	.00	.00	.00
*	20.737	1350.90	1358.25	9968.00	10019.00	51.00	7.35	5800.00	3.72	2.13	.00	.00	.00
*	20.737	1350.90	1358.28	9968.00	10019.00	51.00	7.38	5800.00	3.69	2.27	.00	.00	.00
*	20.750	1351.00	1360.71	9968.00	10019.00	51.00	9.71	5800.00	2.13	2.46	.00	1366.00	1363.00
*	20.750	1351.00	1360.71	9968.00	10019.00	51.00	9.71	5800.00	2.13	2.43	.00	1366.00	1363.00
*	20.819	1356.50	1362.47	9965.00	10043.00	78.00	5.97	5800.00	2.41	1.76	.00	.00	.00
	20.819	1356.50	1362.80	9965.00	10043.00	78.00	6.30	5800.00	2.16	2.09	.00	.00	.00
*	20.841	1357.40	1364.46	9965.00	10043.00	78.00	7.06	5800.00	1.72	1.99	.00	1369.90	1365.40
*	20.841	1357.40	1364.46	9965.00	10043.00	78.00	7.06	5800.00	1.72	1.67	.00	1369.90	1365.40
*	20.860	1356.30	1366.09	9800.87	10062.29	261.42	9.79	5800.00	.69	1.62	.00	.00	.00
*	20.860	1356.30	1366.06	9904.00	10060.00	156.00	9.76	5800.00	.72	1.60	.00	.00	.00
	20.942	1359.60	1367.37	9629.64	10168.50	314.44	7.77	5800.00	.43	1.28	.00	.00	.00
*	20.942	1359.60	1367.31	9860.00	10110.00	250.00	7.71	5800.00	.72	1.25	.00	.00	.00
*	21.036	1363.50	1372.01	9540.98	10089.03	548.05	8.51	5800.00	1.10	4.64	.00	.00	.00
*	21.036	1363.50	1371.53	9810.00	10060.00	250.00	8.03	5800.00	1.62	4.22	.00	.00	.00
*	21.127	1366.70	1374.78	9631.56	10066.13	434.58	8.08	5800.00	1.00	2.77	.00	.00	.00
	21.127	1366.70	1374.66	9900.00	10060.00	160.00	7.96	5800.00	1.84	3.13	.00	.00	.00

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
*	21.230	1372.00	1380.49	9816.25	10126.37	308.65	8.49	5800.00	1.21	5.72	.00	.00	.00
*	21.230	1372.00	1380.40	9900.00	10125.00	222.17	8.40	5800.00	1.54	5.73	.00	.00	.00
*	21.363	1374.10	1383.36	9556.03	10337.00	368.53	9.26	5800.00	.55	2.86	.00	.00	.00
*	21.363	1374.10	1383.64	9939.00	10105.00	166.00	9.54	5800.00	.54	3.24	.00	.00	.00
*	21.484	1378.50	1386.54	9497.28	10076.86	520.92	8.04	5800.00	.93	3.18	.00	.00	.00
*	21.484	1378.50	1387.14	9852.00	10077.00	215.98	8.64	5800.00	1.46	3.50	.00	.00	.00
*	21.576	1382.10	1389.26	9388.00	10340.87	872.76	7.16	5800.00	.78	2.72	.00	.00	.00
*	21.576	1382.10	1390.22	9940.00	10165.00	225.00	8.12	5800.00	.90	3.08	.00	.00	.00
*	21.669	1384.00	1393.39	9392.00	10414.00	981.92	9.39	5600.00	.61	4.13	.00	.00	.00
*	21.669	1384.00	1393.83	9890.00	10115.00	225.00	9.83	5600.00	1.46	3.61	.00	.00	.00
*	21.742	1386.40	1395.28	9743.25	10364.86	566.72	8.88	5600.00	1.14	1.89	.00	.00	.00
*	21.742	1386.40	1396.26	9940.00	10140.00	200.00	9.86	5600.00	.79	2.43	.00	.00	.00
	21.840	1391.10	1398.02	9857.30	10293.96	436.66	6.92	5600.00	.84	2.74	.00	.00	.00
*	21.840	1391.10	1397.97	9900.00	10100.00	200.00	6.87	5600.00	1.18	1.71	.00	.00	.00
*	21.895	1391.90	1399.70	9834.67	10431.57	596.90	7.80	5600.00	.80	1.68	.00	.00	.00
	21.895	1391.90	1399.76	9835.00	10080.00	245.00	7.86	5600.00	1.33	1.79	.00	.00	.00
*	21.933	1396.80	1400.89	9308.97	10285.15	976.18	4.09	5600.00	.14	1.19	.00	.00	.00
*	21.933	1396.80	1401.53	9650.00	10070.00	420.00	4.73	5600.00	.20	1.77	.00	.00	.00
*	21.953	1394.00	1401.09	9420.76	10053.29	468.31	7.09	5600.00	.94	.21	.00	.00	.00
*	21.953	1394.00	1401.25	9630.00	10051.00	311.33	7.25	5600.00	.89	-.28	.00	.00	.00
*	22.065	1395.80	1404.11	9239.21	10049.79	782.57	8.31	5600.00	.17	3.01	.00	.00	.00
*	22.065	1395.80	1404.51	9620.00	10030.00	398.21	8.71	5600.00	.37	3.26	.00	.00	.00
	22.165	1395.00	1405.28	9137.16	10060.84	841.22	10.28	5600.00	.21	1.17	.00	.00	.00
	22.165	1395.00	1406.10	9620.00	10020.00	384.53	11.10	5600.00	.36	1.60	.00	.00	.00
*	22.273	1399.40	1406.70	9320.61	10027.51	425.37	7.30	5600.00	.72	1.42	.00	.00	.00
*	22.273	1399.40	1407.65	9650.00	10027.00	292.96	8.25	5600.00	.72	1.55	.00	.00	.00
*	22.410	1404.00	1414.29	9853.97	10068.33	196.44	10.29	5600.00	1.76	7.59	.00	.00	.00
*	22.410	1404.00	1414.14	9860.00	10040.00	160.06	10.14	5600.00	1.93	6.49	.00	.00	.00
*	22.483	1405.50	1416.52	9874.42	10200.14	325.72	11.02	5600.00	.12	2.23	.00	.00	.00
*	22.483	1405.50	1416.81	9890.00	10050.00	160.00	11.31	5600.00	.31	2.67	.00	.00	.00
*	22.578	1406.70	1416.40	9957.99	10064.29	96.02	9.70	5600.00	1.01	-.12	.00	.00	.00
*	22.578	1406.70	1417.29	9968.00	10064.00	96.00	10.59	5600.00	.80	.48	.00	.00	.00
*	22.675	1409.70	1418.08	9740.30	10028.53	288.23	8.38	5600.00	.14	1.68	.00	.00	.00
*	22.675	1409.70	1418.80	9830.00	10028.00	198.00	9.10	5600.00	.24	1.51	.00	.00	.00

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
*	22.794	1410.70	1418.63	9978.56	10194.99	216.43	7.93	5600.00	.42	.54	.00	.00	.00
	22.794	1410.70	1419.58	9977.00	10160.00	183.00	8.88	5600.00	.35	.78	.00	.00	.00
	22.880	1413.00	1420.11	9951.91	10163.95	212.04	7.11	5600.00	.58	1.48	.00	.00	.00
*	22.880	1413.00	1420.60	9951.00	10120.00	169.00	7.60	5600.00	.78	1.02	.00	.00	.00
	22.990	1417.90	1423.67	9753.61	10026.21	272.60	5.77	5600.00	.63	3.57	.00	.00	.00
	22.990	1417.90	1424.68	9890.00	10026.00	136.00	6.78	5600.00	1.16	4.07	.00	.00	.00
*	23.097	1425.10	1429.92	9898.96	10117.55	187.42	4.82	5600.00	1.59	6.24	.00	.00	.00
	23.097	1425.10	1430.66	9958.00	10090.00	132.00	5.56	5600.00	1.51	5.98	.00	.00	.00
*	23.168	1428.90	1433.10	9602.32	10214.92	612.60	4.20	5600.00	.17	3.18	.00	.00	.00
*	23.168	1428.90	1433.75	9830.00	10140.00	310.00	4.85	5600.00	.27	3.09	.00	.00	.00
*	23.253	1425.20	1434.53	9978.45	10023.17	44.72	9.33	3400.00	2.83	1.43	.00	.00	.00
*	23.253	1425.20	1434.48	9978.53	10023.10	44.57	9.28	3400.00	2.88	.73	.00	.00	.00
*	23.334	1432.60	1440.40	9969.06	10035.99	66.93	7.80	3400.00	1.43	5.87	.00	.00	.00
*	23.334	1432.60	1440.42	9969.01	10036.00	66.99	7.82	3400.00	1.42	5.94	.00	.00	.00
	23.416	1436.50	1443.82	9980.93	10040.07	59.13	7.32	3400.00	1.77	3.43	.00	.00	.00
	23.416	1436.50	1443.82	9981.00	10040.00	59.00	7.32	3400.00	1.78	3.40	.00	.00	.00
	23.514	1439.60	1448.11	9977.54	10035.01	57.47	8.51	3400.00	1.35	4.29	.00	.00	.00
	23.514	1439.60	1448.11	9977.53	10035.02	57.48	8.51	3400.00	1.35	4.30	.00	.00	.00
	23.544	1441.40	1448.91	9978.90	10033.70	54.80	7.51	3400.00	1.88	.80	.00	.00	.00
	23.544	1441.40	1448.92	9978.90	10033.70	54.80	7.52	3400.00	1.87	.80	.00	.00	.00
*	23.555	1442.00	1452.64	9974.59	10037.86	63.27	10.64	3400.00	.74	3.72	3249.50	1449.00	1445.00
*	23.555	1442.00	1452.64	9974.59	10037.86	63.27	10.64	3400.00	.74	3.72	3249.50	1449.00	1445.00
	23.591	1444.20	1453.15	9968.00	10043.49	75.49	8.95	3400.00	.78	.51	.00	.00	.00
	23.591	1444.20	1453.15	9968.00	10043.49	75.49	8.95	3400.00	.78	.51	.00	.00	.00
	23.691	1446.40	1455.15	9970.39	10035.72	65.33	8.75	3400.00	1.33	2.01	.00	.00	.00
	23.691	1446.40	1455.15	9970.39	10035.71	65.33	8.75	3400.00	1.33	2.01	.00	.00	.00
*	23.815	1449.70	1459.03	9951.00	10037.00	86.00	9.33	4450.00	1.12	3.88	.00	.00	.00
*	23.815	1449.70	1459.05	9951.00	10037.00	86.00	9.35	4450.00	1.12	3.90	.00	.00	.00
*	23.912	1447.90	1461.13	9967.27	10043.00	75.73	13.23	5500.00	1.20	2.10	.00	.00	.00
*	23.912	1447.90	1461.15	9967.41	10043.00	75.59	13.25	5500.00	1.20	2.09	.00	.00	.00
*	23.989	1449.70	1462.77	9944.36	10043.95	99.59	13.07	5500.00	.65	1.64	.00	.00	.00
*	23.989	1449.70	1462.77	9944.77	10043.68	98.91	13.07	5500.00	.65	1.63	.00	.00	.00
	24.086	1453.60	1463.78	9952.87	10118.37	165.50	10.18	5500.00	.39	1.01	.00	.00	.00
	24.086	1453.60	1463.76	9972.00	10044.00	72.00	10.16	5500.00	.88	.99	.00	.00	.00

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
	24.096	1453.60	1465.22	9972.00	10044.00	72.00	11.62	5500.00	.67	1.43	.00	1466.70	1462.20
	24.096	1453.60	1465.19	9972.00	10044.00	72.00	11.59	5500.00	.67	1.43	.00	1466.70	1462.20
	24.106	1454.20	1465.72	9951.48	10123.83	172.36	11.52	5500.00	.32	.51	.00	.00	.00
	24.106	1454.20	1465.50	9955.00	10055.00	100.00	11.30	5500.00	.50	.30	.00	.00	.00
*	24.195	1453.60	1466.16	9940.28	10140.54	200.25	12.56	5500.00	.14	.44	.00	.00	.00
	24.195	1453.60	1466.12	9950.00	10050.00	100.00	12.52	5500.00	.34	.63	.00	.00	.00
*	24.322	1451.60	1466.37	9856.65	10228.63	371.98	14.77	5500.00	.04	.21	.00	.00	.00
*	24.322	1451.60	1466.60	9940.00	10080.00	140.00	15.00	5500.00	.15	.48	.00	.00	.00
*	24.444	1457.30	1466.41	9925.74	10206.07	280.34	9.11	5500.00	.14	.04	.00	.00	.00
*	24.444	1457.30	1466.79	9927.00	10080.00	153.00	9.49	5500.00	.32	.19	.00	.00	.00
*	24.542	1459.80	1466.71	9906.17	10182.77	185.63	6.91	5500.00	.82	.30	.00	.00	.00
*	24.542	1459.80	1467.62	9950.00	10160.00	123.51	7.82	5500.00	1.00	.82	.00	.00	.00
*	24.635	1466.80	1471.92	9912.87	10103.04	190.17	5.12	5500.00	1.50	5.21	.00	.00	.00
*	24.635	1466.80	1472.07	9940.00	10060.00	120.00	5.27	5500.00	1.91	4.46	.00	.00	.00

CAVE CREEK WASH

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	15.015	1219.09	.00	1221.08	110.02	.00	15999.92	.08	.00	.00	9945.00	10055.00	.00
	15.015	1219.09	.00	1221.08	110.02	.00	15999.92	.08	.00	.00	9945.00	10055.00	.00
	15.109	1219.34	.00	1221.33	110.02	.00	15999.92	.08	.00	.00	9945.00	10055.00	.00
	15.109	1219.34	.00	1221.33	110.02	.00	15999.92	.08	.00	.00	9945.00	10055.00	.00
	15.204	1219.59	.00	1221.58	110.02	.00	15999.92	.08	.00	.00	9945.00	10055.00	.00
	15.204	1219.59	.00	1221.58	110.02	.00	15999.92	.08	.00	.00	9945.00	10055.00	.00
*	15.310	1219.57	.00	1225.73	65.01	.00	16000.00	.00	.00	.00	9967.50	10032.60	.00
*	15.310	1219.57	.00	1225.73	65.01	.00	16000.00	.00	.00	.00	9967.50	10032.60	.00
*	15.454	1223.25	.00	1227.09	65.04	.00	16000.00	.00	.00	.00	9967.50	10032.60	.00
*	15.454	1223.25	.00	1227.09	65.04	.00	16000.00	.00	.00	.00	9967.50	10032.60	.00
*	15.530	1236.86	.00	1241.12	114.53	.00	16000.00	.00	.00	.00	9941.50	10060.50	.00
*	15.530	1236.86	.00	1241.12	114.53	.00	16000.00	.00	.00	.00	9941.50	10060.50	.00
*	15.680	1240.21	.00	1244.47	114.54	.00	16000.00	.00	.00	.00	9941.50	10060.50	.00
*	15.680	1240.21	.00	1244.47	114.54	.00	16000.00	.00	.00	.00	9941.50	10060.50	.00
*	15.878	1243.99	.00	1248.07	121.15	.00	16000.00	.00	.00	.00	9938.00	10062.00	.00
*	15.878	1243.99	.00	1248.07	121.15	.00	16000.00	.00	.00	.00	9938.00	10062.00	.00
*	15.920	1244.93	.00	1249.04	121.02	.00	16000.00	.00	.00	.00	9938.00	10062.00	.00
*	15.920	1244.93	.00	1249.04	121.02	.00	16000.00	.00	.00	.00	9938.00	10062.00	.00
*	15.940	1247.89	.00	1250.24	124.00	.00	16000.00	.00	.00	.00	9938.00	10062.00	.00
*	15.940	1247.89	.00	1250.24	124.00	.00	16000.00	.00	.00	.00	9938.00	10062.00	.00
*	16.023	1250.05	.00	1254.70	100.69	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.023	1250.05	.00	1254.70	100.69	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.148	1252.85	.00	1257.49	100.75	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.148	1252.85	.00	1257.49	100.75	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.264	1255.44	.00	1260.08	100.74	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.264	1255.44	.00	1260.08	100.74	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.373	1257.87	.00	1262.51	100.74	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.373	1257.87	.00	1262.51	100.74	.00	16000.00	.00	.00	.00	9946.00	10053.00	.00
*	16.481	1259.50	.00	1264.03	104.38	.00	16000.00	.00	.00	.00	9945.00	10052.00	.00
*	16.481	1259.50	.00	1264.03	104.38	.00	16000.00	.00	.00	.00	9945.00	10052.00	.00
*	16.601	1262.14	.00	1266.70	104.29	.00	16000.00	.00	.00	.00	9945.00	10052.00	.00
*	16.601	1262.14	.00	1266.70	104.29	.00	16000.00	.00	.00	.00	9945.00	10052.00	.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	16.694	1263.45	.00	1267.84	109.87	.00	16000.00	.00	.00	.00	9945.00	10056.00	.00
*	16.694	1263.45	.00	1267.84	109.87	.00	16000.00	.00	.00	.00	9945.00	10056.00	.00
*	16.823	1266.34	.00	1270.72	109.89	.00	16000.00	.00	.00	.00	9945.00	10056.00	.00
*	16.823	1266.34	.00	1270.72	109.89	.00	16000.00	.00	.00	.00	9945.00	10056.00	.00
*	16.902	1267.38	.00	1271.62	115.24	.00	16000.00	.00	.00	.00	9940.00	10063.00	.00
*	16.902	1267.38	.00	1271.62	115.24	.00	16000.00	.00	.00	.00	9940.00	10063.00	.00
*	16.970	1268.19	.00	1272.36	118.98	.00	16000.00	.00	.00	.00	9938.30	10064.70	.00
*	16.970	1268.19	.00	1272.36	118.98	.00	16000.00	.00	.00	.00	9938.30	10064.70	.00
*	16.988	1271.13	.00	1273.47	125.60	.00	16000.00	.00	.00	.00	9938.30	10063.90	.00
*	16.988	1271.13	.00	1273.47	125.60	.00	16000.00	.00	.00	.00	9938.30	10063.90	.00
	17.061	1270.79	.00	1274.13	123.21	.00	16000.00	.00	.00	.00	9938.30	10064.70	.00
	17.061	1270.79	.00	1274.13	123.21	.00	16000.00	.00	.00	.00	9938.30	10064.70	.00
*	17.206	1272.70	.00	1275.43	223.73	.00	16000.00	.00	.00	.00	9875.00	10125.00	.00
*	17.206	1272.70	.00	1275.43	223.73	.00	16000.00	.00	.00	.00	9875.00	10125.00	.00
*	17.360	1275.40	.00	1275.42	848.95	.00	16000.00	.00	.00	.00	9480.00	10427.00	.00
*	17.360	1275.40	.00	1275.42	848.95	.00	16000.00	.00	.00	.00	9480.00	10427.00	.00
*	17.494	1280.76	.00	1282.72	376.72	72.84	11397.17	2530.00	.00	.00	9904.00	10062.00	.00
*	17.494	1280.76	.00	1282.72	376.72	72.84	11397.17	2530.00	.00	.00	9904.00	10062.00	.00
*	17.588	1283.34	.00	1283.64	448.30	2997.49	10731.84	270.67	.00	.00	9982.00	10193.00	.00
*	17.588	1283.40	.06	1283.97	237.80	177.60	13822.40	.00	237.80	9955.20	9982.00	10193.00	10193.00
*	17.662	1283.47	.00	1284.29	314.97	3560.83	10409.93	29.25	.00	.00	9941.00	10130.00	.00
*	17.662	1283.81	.34	1284.84	249.14	2017.37	11933.77	48.86	250.00	9900.00	9941.00	10130.00	10150.00
*	17.783	1285.25	.00	1287.34	198.44	243.18	13164.29	592.52	.00	.00	9921.00	10064.00	.00
	17.783	1285.90	.64	1288.00	143.00	.00	14000.00	.00	143.00	9921.00	9921.00	10064.00	10064.00
	17.932	1290.53	.00	1293.88	146.91	18.95	13978.48	2.57	.00	.00	9956.00	10066.00	.00
	17.932	1290.90	.36	1293.99	110.00	.00	14000.00	.00	110.00	9956.00	9956.00	10066.00	10066.00
*	18.042	1293.80	.00	1297.31	96.72	.00	14000.00	.00	.00	.00	9951.00	10049.00	.00
*	18.042	1293.88	.07	1297.33	96.72	.00	14000.00	.00	96.78	9951.60	9951.00	10049.00	10048.38
	18.061	1294.82	.00	1298.17	96.74	.00	14000.00	.00	.00	.00	9951.00	10049.00	.00
	18.061	1294.86	.04	1298.19	96.74	.00	14000.00	.00	97.00	9951.50	9951.00	10049.00	10048.50
*	18.081	1298.39	.00	1299.11	201.10	959.61	11709.59	1330.80	.00	.00	9942.00	10045.00	.00
*	18.081	1298.40	.00	1299.12	185.00	966.34	11715.04	1318.63	185.00	9900.00	9942.00	10045.00	10085.00
	18.174	1299.08	.00	1299.43	524.56	1401.84	11002.46	1595.70	.00	.00	9919.00	10073.00	.00
	18.174	1298.99	-.09	1299.45	263.41	1540.18	12164.67	295.15	268.00	9857.00	9919.00	10073.00	10125.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	18.269	1299.10	.00	1299.88	217.76	1953.12	11554.97	491.91	.00	.00	9942.00	10060.00	.00
	18.269	1299.14	.04	1299.91	218.17	1957.15	11546.18	496.66	227.80	9882.20	9942.00	10060.00	10110.00
	18.362	1299.52	.00	1300.52	202.91	900.44	12288.70	810.86	.00	.00	9942.00	10060.00	.00
	18.362	1299.56	.03	1300.54	203.25	905.72	12279.40	814.88	212.20	9895.60	9942.00	10060.00	10107.80
*	18.445	1305.03	.00	1307.09	317.19	4648.15	3602.12	5749.73	.00	.00	9992.00	10005.00	.00
*	18.445	1304.78	-.25	1307.15	250.83	4601.49	3730.56	5667.96	255.00	9885.00	9992.00	10005.00	10140.00
*	18.456	1307.05	.00	1307.98	439.86	4707.49	2811.49	6481.02	.00	.00	9992.00	10005.00	.00
*	18.456	1307.80	.74	1308.73	255.00	5092.72	2755.42	6151.86	255.00	9885.00	9992.00	10005.00	10140.00
*	18.545	1307.97	.00	1308.39	285.11	1543.08	10378.97	2077.95	.00	.00	9951.00	10058.00	.00
*	18.545	1308.73	.76	1309.09	288.40	1645.65	10120.96	2233.39	288.40	9881.40	9951.00	10058.00	10169.80
	18.575	1308.10	.00	1308.46	286.56	3224.52	2900.26	7875.23	.00	.00	9972.00	10000.00	.00
	18.575	1308.83	.73	1309.14	290.10	3297.02	2823.23	7879.75	290.10	9880.70	9972.00	10000.00	10170.80
	18.583	1309.07	.00	1309.38	296.60	3311.62	2810.38	7878.00	.00	.00	9972.00	10000.00	.00
	18.583	1309.39	.32	1309.68	300.26	3341.06	2779.27	7879.67	301.10	9876.10	9972.00	10000.00	10177.20
	18.640	1309.01	.00	1309.59	249.64	2075.16	9093.99	2830.85	.00	.00	9955.00	10033.00	.00
	18.640	1309.34	.32	1309.88	254.23	2119.88	8985.34	2894.78	255.10	9879.60	9955.00	10033.00	10134.70
	18.734	1309.25	.00	1310.01	225.02	1123.03	12391.73	485.23	.00	.00	9938.00	10062.00	.00
	18.734	1309.55	.30	1310.27	227.68	1173.44	12299.95	526.61	228.50	9883.20	9938.00	10062.00	10111.70
	18.832	1309.73	.00	1310.50	211.45	357.33	11888.85	1753.82	.00	.00	9929.00	10046.00	.00
	18.832	1309.98	.26	1310.72	214.06	379.63	11825.15	1795.22	215.20	9891.80	9929.00	10046.00	10107.00
	18.925	1310.15	.00	1311.03	196.14	1503.61	11725.76	770.63	.00	.00	9941.00	10048.00	.00
	18.925	1310.37	.22	1311.21	197.88	1528.20	11679.93	791.87	199.80	9887.70	9941.00	10048.00	10087.50
*	19.018	1310.41	.00	1312.07	167.69	382.72	13602.09	15.18	.00	.00	9903.00	10030.00	.00
*	19.018	1310.61	.20	1312.19	169.62	407.75	13573.41	18.83	172.20	9866.30	9903.00	10030.00	10038.50
*	19.117	1311.86	.00	1316.05	115.99	1191.48	11024.40	1784.12	.00	.00	9973.00	10026.00	.00
*	19.117	1311.93	.07	1316.05	116.45	1202.14	11002.88	1794.99	119.80	9942.10	9973.00	10026.00	10061.90
*	19.210	1316.51	.00	1318.23	152.59	157.68	13691.00	151.32	.00	.00	9945.00	10060.00	.00
*	19.210	1316.48	-.03	1318.22	152.38	155.90	13694.49	149.61	157.90	9923.10	9945.00	10060.00	10081.00
*	19.283	1319.69	.00	1323.70	109.00	.00	14000.00	.00	.00	.00	9948.00	10057.00	.00
*	19.283	1319.69	-.00	1323.70	109.00	.00	14000.00	.00	109.00	9948.00	9948.00	10057.00	10057.00
*	19.299	1321.77	.00	1324.30	109.00	.00	14000.00	.00	.00	.00	9948.00	10057.00	.00
*	19.299	1321.77	.00	1324.30	109.00	.00	14000.00	.00	109.00	9948.00	9948.00	10057.00	10057.00
	19.313	1322.89	.00	1324.80	157.00	.00	14000.00	.00	.00	.00	9932.00	10112.00	.00
	19.313	1322.94	.04	1324.82	157.29	.00	14000.00	.00	159.60	9944.40	9932.00	10112.00	10104.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	19.418	1325.34	.00	1327.13	160.84	.00	14000.00	.00	.00	.00	9948.00	10120.00	.00
	19.418	1325.34	.00	1327.13	160.86	.00	14000.00	.00	162.70	9955.10	9948.00	10120.00	10117.80
	19.560	1327.97	.00	1329.83	128.82	.00	14000.00	.00	.00	.00	9929.00	10065.00	.00
	19.560	1327.97	.00	1329.84	128.82	.00	14000.00	.00	129.60	9931.40	9929.00	10065.00	10061.00
*	19.625	1329.44	.00	1330.47	60.00	.00	5800.00	.00	.00	.00	9965.00	10025.00	.00
	19.625	1329.51	.07	1330.53	60.00	.00	5800.00	.00	60.00	9965.00	9965.00	10025.00	10025.00
	19.691	1331.06	.00	1332.00	60.00	.00	5800.00	.00	.00	.00	9965.00	10025.00	.00
	19.691	1331.15	.08	1332.07	60.00	.00	5800.00	.00	60.00	9965.00	9965.00	10025.00	10025.00
	19.742	1331.57	.00	1332.16	94.88	.00	5799.94	.06	.00	.00	9948.00	10042.00	.00
	19.742	1331.63	.05	1332.22	85.00	.00	5800.00	.00	85.00	9953.00	9948.00	10042.00	10038.00
*	19.847	1331.75	.00	1332.42	107.54	.00	5800.00	.00	.00	.00	9929.00	10062.00	.00
*	19.847	1331.75	.01	1332.50	86.00	.00	5800.00	.00	86.00	9957.00	9929.00	10062.00	10043.00
*	19.960	1332.26	.00	1335.02	86.21	35.91	5734.79	29.30	.00	.00	9958.00	10031.00	.00
*	19.960	1332.17	-.09	1335.11	73.00	.00	5800.00	.00	73.00	9958.00	9958.00	10031.00	10031.00
*	19.974	1333.48	.00	1335.62	51.00	.00	5800.00	.00	.00	.00	9969.00	10020.00	.00
*	19.974	1333.91	.43	1335.87	51.00	.00	5800.00	.00	51.00	9969.00	9969.00	10020.00	10020.00
	19.986	1335.56	.00	1337.01	51.00	.00	5800.00	.00	.00	.00	9969.00	10020.00	.00
	19.986	1336.12	.56	1337.44	51.00	.00	5800.00	.00	51.00	9969.00	9969.00	10020.00	10020.00
*	20.049	1338.46	.00	1342.02	53.99	.00	5800.00	.00	.00	.00	9954.00	10027.00	.00
*	20.049	1338.30	-.16	1342.09	50.00	.00	5800.00	.00	50.00	9975.00	9954.00	10027.00	10025.00
*	20.144	1343.59	.00	1345.18	84.87	.00	5677.50	122.50	.00	.00	9955.00	10025.00	.00
*	20.144	1343.49	-.11	1345.30	57.00	.00	5769.25	30.75	57.00	9972.00	9955.00	10025.00	10029.00
	20.242	1345.60	.00	1347.17	89.63	.00	5633.77	166.23	.00	.00	9953.00	10029.00	.00
	20.242	1345.62	.03	1347.28	71.00	.00	5742.12	57.88	71.00	9964.00	9953.00	10029.00	10035.00
	20.335	1347.53	.00	1348.72	88.70	34.07	5734.72	31.21	.00	.00	9958.00	10032.00	.00
	20.335	1347.64	.11	1348.91	73.00	.00	5770.44	29.56	73.00	9963.00	9958.00	10032.00	10036.00
	20.347	1347.32	.00	1349.28	51.00	.00	5800.00	.00	.00	.00	9970.00	10021.00	.00
	20.347	1347.54	.22	1349.42	51.00	.00	5800.00	.00	51.00	9970.00	9970.00	10021.00	10021.00
	20.366	1348.08	.00	1349.78	51.00	.00	5800.00	.00	.00	.00	9970.00	10021.00	.00
	20.366	1348.39	.31	1349.99	51.00	.00	5800.00	.00	51.00	9970.00	9970.00	10021.00	10021.00
	20.423	1349.71	.00	1350.65	113.82	109.08	5342.78	348.14	.00	.00	9975.00	10045.00	.00
	20.423	1350.00	.29	1350.86	114.00	123.66	5304.06	372.28	114.00	9958.00	9975.00	10045.00	10072.00
	20.430	1349.26	.00	1351.28	51.00	.00	5800.00	.00	.00	.00	9985.00	10036.00	.00
*	20.430	1349.57	.32	1351.47	51.00	.00	5800.00	.00	51.00	9985.00	9985.00	10036.00	10036.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	20.444	1350.06	.00	1351.79	51.00	.00	5800.00	.00	.00	.00	9985.00	10036.00	.00
	20.444	1350.40	.34	1352.03	51.00	.00	5800.00	.00	51.00	9985.00	9985.00	10036.00	10036.00
	20.529	1352.40	.00	1353.09	190.81	185.34	5460.09	154.57	.00	.00	9947.00	10055.00	.00
	20.529	1352.63	.23	1353.33	139.00	99.27	5629.23	71.49	139.00	9930.00	9947.00	10055.00	10069.00
	20.628	1353.42	.00	1353.85	151.15	.00	5800.00	.00	.00	.00	9909.00	10076.00	.00
	20.628	1353.60	.17	1354.03	130.00	.00	5800.00	.00	130.00	9935.00	9909.00	10076.00	10065.00
*	20.725	1356.12	.00	1359.20	67.52	.00	5800.00	.00	.00	.00	9951.00	10036.00	.00
*	20.725	1356.01	-.10	1359.23	64.00	.00	5800.00	.00	64.00	9962.00	9951.00	10036.00	10026.00
*	20.737	1358.25	.00	1361.97	51.00	.00	5800.00	.00	.00	.00	9968.00	10019.00	.00
*	20.737	1358.28	.03	1361.97	51.00	.00	5800.00	.00	51.00	9968.00	9968.00	10019.00	10019.00
*	20.750	1360.71	.00	1362.84	51.00	.00	5800.00	.00	.00	.00	9968.00	10019.00	.00
*	20.750	1360.71	.00	1362.84	51.00	.00	5800.00	.00	51.00	9968.00	9968.00	10019.00	10019.00
*	20.819	1362.47	.00	1364.88	78.00	.00	5800.00	.00	.00	.00	9965.00	10043.00	.00
	20.819	1362.80	.33	1364.96	78.00	.00	5800.00	.00	78.00	9965.00	9965.00	10043.00	10043.00
*	20.841	1364.46	.00	1366.18	78.00	.00	5800.00	.00	.00	.00	9965.00	10043.00	.00
*	20.841	1364.46	.00	1366.18	78.00	.00	5800.00	.00	78.00	9965.00	9965.00	10043.00	10043.00
*	20.860	1366.09	.00	1366.78	261.42	113.32	5686.68	.00	.00	.00	9942.00	10066.00	.00
*	20.860	1366.06	-.03	1366.78	156.00	35.75	5764.25	.00	156.00	9904.00	9942.00	10066.00	10060.00
	20.942	1367.37	.00	1367.80	314.44	.05	3776.57	2023.38	.00	.00	9854.00	10024.00	.00
*	20.942	1367.31	-.06	1368.03	250.00	.00	4804.48	995.52	250.00	9860.00	9854.00	10024.00	10110.00
*	21.036	1372.01	.00	1373.11	548.05	419.33	5236.63	144.03	.00	.00	9912.00	10020.00	.00
*	21.036	1371.53	-.47	1373.15	250.00	131.68	5619.48	48.84	250.00	9810.00	9912.00	10020.00	10060.00
*	21.127	1374.78	.00	1375.78	434.58	1127.64	4672.36	.00	.00	.00	9974.00	10067.00	.00
	21.127	1374.66	-.11	1376.50	160.00	141.47	5658.53	.00	160.00	9900.00	9974.00	10067.00	10060.00
*	21.230	1380.49	.00	1381.70	308.65	589.59	4020.64	1189.77	.00	.00	9967.00	10048.00	.00
*	21.230	1380.40	-.10	1381.94	222.17	263.85	4336.31	1199.84	225.00	9900.00	9967.00	10048.00	10125.00
*	21.363	1383.36	.00	1383.91	368.53	100.22	5662.91	36.87	.00	.00	9928.00	10088.00	.00
*	21.363	1383.64	.28	1384.17	166.00	.00	5781.93	18.07	166.00	9939.00	9928.00	10088.00	10105.00
*	21.484	1386.54	.00	1387.48	520.92	2096.89	3696.15	6.96	.00	.00	9932.00	10026.00	.00
*	21.484	1387.14	.60	1388.60	215.98	996.19	4739.16	64.64	225.00	9852.00	9932.00	10026.00	10077.00
*	21.576	1389.26	.00	1390.04	872.76	756.66	4047.22	996.12	.00	.00	9980.00	10087.00	.00
*	21.576	1390.22	.96	1391.12	225.00	19.57	4794.58	985.85	225.00	9940.00	9980.00	10087.00	10165.00
*	21.669	1393.39	.00	1394.00	981.92	936.50	2815.46	1848.04	.00	.00	9962.00	10031.00	.00
*	21.669	1393.83	.44	1395.30	225.00	624.98	4040.57	934.45	225.00	9890.00	9962.00	10031.00	10115.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	21.742	1395.28	.00	1396.42	566.72	52.41	5248.87	298.72	.00	.00	9975.00	10091.00	.00
*	21.742	1396.26	.98	1397.05	200.00	98.26	5197.14	304.60	200.00	9940.00	9975.00	10091.00	10140.00
	21.840	1398.02	.00	1398.86	436.66	959.51	4248.69	391.79	.00	.00	9946.00	10054.00	.00
*	21.840	1397.97	-.05	1399.15	200.00	644.30	4770.06	185.64	200.00	9900.00	9946.00	10054.00	10100.00
*	21.895	1399.70	.00	1400.50	596.90	1584.65	2883.33	1132.02	.00	.00	9975.00	10031.00	.00
	21.895	1399.76	.06	1401.09	245.00	1941.74	3463.18	195.07	245.00	9835.00	9975.00	10031.00	10080.00
*	21.933	1400.89	.00	1401.02	976.18	1780.45	3276.51	543.04	.00	.00	9865.00	10140.00	.00
*	21.933	1401.53	.64	1401.73	420.00	2164.82	3435.18	.00	420.00	9650.00	9865.00	10140.00	10070.00
*	21.953	1401.09	.00	1402.04	468.31	2441.63	3010.11	148.25	.00	.00	9969.00	10029.00	.00
*	21.953	1401.25	.16	1402.14	311.33	2479.19	2958.66	162.15	421.00	9630.00	9969.00	10029.00	10051.00
*	22.065	1404.11	.00	1404.28	782.57	4240.01	1286.54	73.45	.00	.00	9961.00	10028.00	.00
*	22.065	1404.51	.40	1404.87	398.21	3771.47	1817.80	10.73	410.00	9620.00	9961.00	10028.00	10030.00
	22.165	1405.28	.00	1405.49	841.22	4120.87	1444.68	34.45	.00	.00	9983.00	10018.00	.00
	22.165	1406.10	.83	1406.47	384.53	3712.66	1879.16	8.17	400.00	9620.00	9983.00	10018.00	10020.00
*	22.273	1406.70	.00	1407.42	425.37	2028.97	3571.02	.00	.00	.00	9933.00	10028.00	.00
*	22.273	1407.65	.96	1408.37	292.96	1486.50	4113.50	.00	377.00	9650.00	9933.00	10028.00	10027.00
*	22.410	1414.29	.00	1416.04	196.44	807.06	4635.88	157.05	.00	.00	9973.00	10027.00	.00
*	22.410	1414.14	-.14	1416.08	160.06	753.22	4731.11	115.67	180.00	9860.00	9973.00	10027.00	10040.00
*	22.483	1416.52	.00	1416.64	325.72	311.52	4622.19	666.29	.00	.00	9941.00	10105.00	.00
*	22.483	1416.81	.29	1417.12	160.00	522.65	5077.35	.00	160.00	9890.00	9941.00	10105.00	10050.00
*	22.578	1416.40	.00	1417.41	96.02	.00	5600.00	.00	.00	.00	9968.00	10072.00	.00
*	22.578	1417.29	.89	1418.09	96.00	.00	5600.00	.00	96.00	9968.00	9968.00	10072.00	10064.00
*	22.675	1418.08	.00	1418.22	288.23	.00	5600.00	.00	.00	.00	9736.00	10032.00	.00
*	22.675	1418.80	.72	1419.04	198.00	.00	5600.00	.00	198.00	9830.00	9736.00	10032.00	10028.00
*	22.794	1418.63	.00	1419.05	216.43	1.70	5488.14	110.16	.00	.00	9983.00	10169.00	.00
	22.794	1419.58	.95	1419.93	183.00	10.51	5589.49	.00	183.00	9977.00	9983.00	10169.00	10160.00
	22.880	1420.11	.00	1420.69	212.04	.00	5600.00	.00	.00	.00	9927.00	10167.00	.00
*	22.880	1420.60	.50	1421.39	169.00	.00	5600.00	.00	169.00	9951.00	9927.00	10167.00	10120.00
	22.990	1423.67	.00	1424.30	272.60	.00	5600.00	.00	.00	.00	9739.00	10034.00	.00
	22.990	1424.68	1.00	1425.84	136.00	.00	5600.00	.00	136.00	9890.00	9739.00	10034.00	10026.00
*	23.097	1429.92	.00	1431.51	187.42	42.80	5557.20	.00	.00	.00	9951.00	10121.00	.00
	23.097	1430.66	.74	1432.17	132.00	.00	5600.00	.00	132.00	9958.00	9951.00	10121.00	10090.00
*	23.168	1433.10	.00	1433.27	612.60	786.42	4501.15	312.43	.00	.00	9777.00	10116.00	.00
*	23.168	1433.75	.65	1434.02	310.00	.00	5360.20	239.80	310.00	9830.00	9777.00	10116.00	10140.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	23.253	1434.53	.00	1437.36	44.72	.00	3400.00	.00	.00	.00	9973.00	10038.00	.00
*	23.253	1434.48	-.04	1437.36	44.57	.00	3400.00	.00	44.70	9978.50	9973.00	10038.00	10023.20
*	23.334	1440.40	.00	1441.83	66.93	.00	3400.00	.00	.00	.00	9962.00	10055.00	.00
*	23.334	1440.42	.02	1441.84	66.99	.00	3400.00	.00	67.00	9969.00	9962.00	10055.00	10036.00
	23.416	1443.82	.00	1445.60	59.13	.00	3400.00	.00	.00	.00	9974.00	10053.00	.00
	23.416	1443.82	-.01	1445.59	59.00	.00	3400.00	.00	59.00	9981.00	9974.00	10053.00	10040.00
	23.514	1448.11	.00	1449.46	57.47	.00	3400.00	.00	.00	.00	9973.00	10039.00	.00
	23.514	1448.11	.00	1449.46	57.48	.00	3400.00	.00	.00	.00	9973.00	10039.00	.00
	23.544	1448.91	.00	1450.79	54.80	.00	3400.00	.00	.00	.00	9973.00	10039.00	.00
	23.544	1448.92	.00	1450.79	54.80	.00	3400.00	.00	.00	.00	9973.00	10039.00	.00
*	23.555	1452.64	.00	1453.37	63.27	.00	3400.00	.00	.00	.00	9973.00	10039.00	.00
*	23.555	1452.64	.00	1453.37	63.27	.00	3400.00	.00	.00	.00	9973.00	10039.00	.00
	23.591	1453.15	.00	1453.93	75.49	.00	3400.00	.00	.00	.00	9968.00	10045.00	.00
	23.591	1453.15	.00	1453.93	75.49	.00	3400.00	.00	.00	.00	9968.00	10045.00	.00
	23.691	1455.15	.00	1456.48	65.33	.00	3400.00	.00	.00	.00	9965.00	10036.00	.00
	23.691	1455.15	.00	1456.48	65.33	.00	3400.00	.00	65.33	9970.39	9965.00	10036.00	10035.72
*	23.815	1459.03	.00	1460.15	86.00	.00	4450.00	.00	.00	.00	9951.00	10037.00	.00
*	23.815	1459.05	.02	1460.17	86.00	.00	4450.00	.00	86.00	9951.00	9951.00	10037.00	10037.00
*	23.912	1461.13	.00	1462.33	75.73	.00	5500.00	.00	.00	.00	9967.00	10043.00	.00
*	23.912	1461.15	.02	1462.34	75.59	.00	5500.00	.00	75.59	9967.41	9967.00	10043.00	10043.00
*	23.989	1462.77	.00	1463.42	99.59	.00	5500.00	.00	.00	.00	9937.00	10049.00	.00
*	23.989	1462.77	.00	1463.42	98.91	.00	5500.00	.00	98.91	9944.77	9937.00	10049.00	10043.68
	24.086	1463.78	.00	1464.17	165.50	368.41	4040.76	1090.83	.00	.00	9972.00	10044.00	.00
	24.086	1463.76	-.02	1464.64	72.00	.00	5500.00	.00	72.00	9972.00	9972.00	10044.00	10044.00
	24.096	1465.22	.00	1465.89	72.00	.00	5500.00	.00	.00	.00	9972.00	10044.00	.00
	24.096	1465.19	-.02	1465.87	72.00	.00	5500.00	.00	72.00	9972.00	9972.00	10044.00	10044.00
	24.106	1465.72	.00	1466.04	172.36	2.78	5013.39	483.83	.00	.00	9955.00	10064.00	.00
	24.106	1465.50	-.23	1465.99	100.00	.00	5500.00	.00	100.00	9955.00	9955.00	10064.00	10055.00
*	24.195	1466.16	.00	1466.30	200.25	.00	5500.00	.00	.00	.00	9933.00	10142.00	.00
	24.195	1466.12	-.04	1466.46	100.00	.00	5500.00	.00	100.00	9950.00	9933.00	10142.00	10050.00
*	24.322	1466.37	.00	1466.41	371.98	9.59	4319.29	1171.11	.00	.00	9871.00	10064.00	.00
*	24.322	1466.60	.23	1466.75	140.00	.00	5255.88	244.12	140.00	9940.00	9871.00	10064.00	10080.00
*	24.444	1466.41	.00	1466.55	280.34	.93	4345.15	1153.92	.00	.00	9928.00	10122.00	.00
*	24.444	1466.79	.38	1467.11	153.00	1.30	5498.70	.00	153.00	9927.00	9928.00	10122.00	10080.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	24.542	1466.71	.00	1467.52	185.63	35.10	5464.90	.00	.00	.00	9914.00	10187.00	.00
*	24.542	1467.62	.91	1468.61	123.51	.00	5500.00	.00	210.00	9950.00	9914.00	10187.00	10160.00
*	24.635	1471.92	.00	1473.42	190.17	.00	5500.00	.00	.00	.00	9876.00	10111.00	.00
*	24.635	1472.07	.16	1473.98	120.00	.00	5500.00	.00	120.00	9940.00	9876.00	10111.00	10060.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=    15.310  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    15.310  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    15.310  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    15.310  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    15.310  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    15.310  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    15.454  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    15.454  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    15.530  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    15.530  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    15.530  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    15.530  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    15.530  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    15.530  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    15.680  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    15.680  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    15.878  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    15.878  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    15.878  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    15.878  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    15.920  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    15.920  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    15.920  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    15.920  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    15.940  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    15.940  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    15.940  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    15.940  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO=    16.023  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.023  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.023  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    16.023  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.023  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    16.148  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.148  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.148  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.148  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    16.148  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.148  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    16.264  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.264  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.264  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    16.373  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.373  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.373  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    16.481  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.481  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.481  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    16.601  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.601  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.601  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    16.694  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.823  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    16.823  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.823  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    16.823  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    16.823  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.823  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    16.902  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    16.902  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.970  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.970  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    16.970  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=    16.988  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    16.988  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    16.988  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    16.988  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    17.206  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    17.206  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    17.206  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    17.206  PROFILE=  2  MINIMUM SPECIFIC ENERGY

NOTE    SECNO=    17.360  PROFILE=  1  WSEL BASED ON X5 CARD
WARNING SECNO=    17.360  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
NOTE    SECNO=    17.360  PROFILE=  2  WSEL BASED ON X5 CARD
WARNING SECNO=    17.360  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    17.494  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    17.494  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    17.494  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    17.494  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    17.494  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    17.494  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    17.588  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    17.588  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    17.662  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    17.662  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    17.783  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    18.042  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    18.042  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    18.081  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    18.081  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    18.269  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    18.445  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    18.445  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    18.445  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    18.445  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    18.445  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    18.456  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    18.456  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    18.545  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    18.545  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    19.018  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=    19.018  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    19.117  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    19.117  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    19.117  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    19.117  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    19.117  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    19.117  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    19.210  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    19.210  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    19.283  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    19.283  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    19.283  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    19.283  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    19.283  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    19.283  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    19.299  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    19.299  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    19.299  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    19.299  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    19.625  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    19.847  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    19.847  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    19.960  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    19.960  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    19.960  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    19.960  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    19.974  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    19.974  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO=    20.049  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    20.049  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    20.049  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    20.049  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    20.049  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    20.144  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=    20.430  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    20.725  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    20.725  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    20.725  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    20.725  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    20.725  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION SECNO=    20.725  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    20.737  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    20.737  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    20.737  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    20.737  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    20.737  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    20.750  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=    20.750  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=    20.750  PROFILE=  2  HYDRAULIC JUMP D.S.
WARNING SECNO=    20.750  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    20.819  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    20.841  PROFILE=  1  HYDRAULIC JUMP D.S.
CAUTION SECNO=    20.841  PROFILE=  2  HYDRAULIC JUMP D.S.

WARNING SECNO=    20.860  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    20.860  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    20.942  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO=    21.036  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    21.036  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    21.036  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

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CAUTION SECNO=    21.230  PROFILE=  1  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=    21.230  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION SECNO=    21.230  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    21.363  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    21.363  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    21.484  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.484  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    21.484  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION SECNO=    21.484  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    21.576  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.576  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    21.576  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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CAUTION SECNO=    21.669  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    21.669  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    21.669  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.669  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    21.669  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    21.742  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.742  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    21.742  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    21.840  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    21.895  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    21.895  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    21.933  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    21.933  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

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CAUTION SECNO=    21.953  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    21.953  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
WARNING SECNO=    21.953  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    22.065  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.065  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    22.273  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.273  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    22.410  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.410  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    22.410  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    22.410  PROFILE=  2  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    22.483  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.483  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    22.578  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.578  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    22.675  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    22.675  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    22.794  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    22.880  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    23.097  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    23.097  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    23.168  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    23.168  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

```
CAUTION SECNO=    23.253  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    23.253  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    23.253  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=    23.253  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    23.253  PROFILE=  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    23.253  PROFILE=  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    23.334  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    23.334  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    23.555  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    23.555  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    23.815  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    23.815  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    23.912  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    23.912  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    23.989  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    23.989  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    24.195  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    24.322  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    24.322  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    24.444  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    24.444  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    24.542  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    24.542  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    24.635  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    24.635  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=    24.635  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
```

FLOODWAY DATA, CAVE CREEK WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
15.015	110.	1413.	11.3	1219.1	1219.1	.0
15.109	110.	1413.	11.3	1219.3	1219.3	.0
15.204	110.	1413.	11.3	1219.6	1219.6	.0
15.310	65.	803.	19.9	1219.6	1219.6	.0
15.454	65.	1018.	15.7	1223.2	1223.2	.0
15.530	115.	966.	16.6	1236.9	1236.9	.0
15.680	115.	966.	16.6	1240.2	1240.2	.0
15.878	121.	987.	16.2	1244.0	1244.0	.0
15.920	121.	984.	16.3	1244.9	1244.9	.0
15.940	124.	1303.	12.3	1247.9	1247.9	.0
16.023	101.	924.	17.3	1250.1	1250.1	.0
16.148	101.	926.	17.3	1252.9	1252.9	.0
16.264	101.	925.	17.3	1255.4	1255.4	.0
16.373	101.	925.	17.3	1257.9	1257.9	.0
16.481	104.	937.	17.1	1259.5	1259.5	.0
16.601	104.	934.	17.1	1262.1	1262.1	.0
16.694	110.	951.	16.8	1263.4	1263.4	.0
16.823	110.	953.	16.8	1266.3	1266.3	.0
16.902	115.	967.	16.5	1267.4	1267.4	.0
16.970	119.	976.	16.4	1268.2	1268.2	.0
16.988	126.	1302.	12.3	1271.1	1271.1	.0
17.061	123.	1091.	14.7	1270.8	1270.8	.0
17.206	224.	1207.	13.3	1272.7	1272.7	.0
17.360	849.	13646.	1.2	1275.4	1275.4	.0
17.494	377.	1338.	10.5	1280.8	1280.8	.0
17.588	238.	2347.	6.0	1283.4	1283.3	.1
17.662	249.	1741.	8.0	1283.8	1283.5	.3
17.783	143.	1203.	11.6	1285.9	1285.3	.6
17.932	110.	991.	14.1	1290.9	1290.5	.4
18.042	97.	939.	14.9	1293.9	1293.8	.1
18.061	97.	956.	14.6	1294.9	1294.8	.1
18.081	185.	2185.	6.4	1298.4	1298.4	.0
18.174	263.	2695.	5.2	1299.0	1299.1	-.1
18.269	218.	2091.	6.7	1299.1	1299.1	.0
18.362	203.	1861.	7.5	1299.6	1299.5	.1
18.445	251.	1276.	11.0	1304.8	1305.0	-.2
18.456	255.	1942.	7.2	1307.8	1307.1	.7
18.545	288.	3163.	4.4	1308.7	1308.0	.7
18.575	290.	3194.	4.4	1308.8	1308.1	.7
18.583	300.	3332.	4.2	1309.4	1309.1	.3
18.640	254.	2551.	5.5	1309.3	1309.0	.3
18.734	228.	2197.	6.4	1309.6	1309.3	.3

FLOODWAY DATA, CAVE CREEK WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
18.832	214.	2149.	6.5	1310.0	1309.7	.3
18.925	198.	2030.	6.9	1310.4	1310.2	.2
19.018	170.	1431.	9.8	1310.6	1310.4	.2
19.117	116.	933.	15.0	1311.9	1311.9	.0
19.210	152.	1367.	10.2	1316.5	1316.5	.0
19.283	109.	871.	16.1	1319.7	1319.7	.0
19.299	109.	1098.	12.8	1321.8	1321.8	.0
19.313	157.	1271.	11.0	1322.9	1322.9	.0
19.418	161.	1303.	10.7	1325.3	1325.3	.0
19.560	129.	1276.	11.0	1328.0	1328.0	.0
19.625	60.	714.	8.1	1329.5	1329.4	.1
19.691	60.	753.	7.7	1331.1	1331.1	.0
19.742	85.	935.	6.2	1331.6	1331.6	.0
19.847	86.	835.	6.9	1331.8	1331.7	.1
19.960	73.	421.	13.8	1332.2	1332.3	-.1
19.974	51.	515.	11.3	1333.9	1333.5	.4
19.986	51.	628.	9.2	1336.1	1335.6	.5
20.049	50.	371.	15.6	1338.3	1338.5	-.2
20.144	57.	542.	10.7	1343.5	1343.6	-.1
20.242	71.	569.	10.2	1345.6	1345.6	.0
20.335	73.	648.	9.0	1347.6	1347.5	.1
20.347	51.	527.	11.0	1347.5	1347.3	.2
20.366	51.	571.	10.2	1348.4	1348.1	.3
20.423	114.	830.	7.0	1350.0	1349.7	.3
20.430	51.	524.	11.1	1349.6	1349.3	.3
20.444	51.	566.	10.2	1350.4	1350.1	.3
20.529	139.	895.	6.5	1352.6	1352.4	.2
20.628	130.	1092.	5.3	1353.6	1353.4	.2
20.725	64.	403.	14.4	1356.0	1356.1	-.1
20.737	51.	376.	15.4	1358.3	1358.3	.0
20.750	51.	495.	11.7	1360.7	1360.7	.0
20.819	78.	491.	11.8	1362.8	1362.5	.3
20.841	78.	551.	10.5	1364.5	1364.5	.0
20.860	156.	870.	6.7	1366.1	1366.1	.0
20.942	250.	874.	6.6	1367.3	1367.4	-.1
21.036	250.	622.	9.3	1371.5	1372.0	-.5
21.127	160.	570.	10.2	1374.7	1374.8	-.1
21.230	225.	659.	8.8	1380.4	1380.5	-.1
21.363	166.	996.	5.8	1383.6	1383.4	.2
21.484	225.	657.	8.8	1387.1	1386.5	.6
21.576	225.	824.	7.0	1390.2	1389.3	.9
21.669	225.	673.	8.3	1393.8	1393.4	.4

FLOODWAY DATA, CAVE CREEK WASH
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
21.742	200.	852.	6.6	1396.3	1395.3	1.0
21.840	200.	697.	8.0	1398.0	1398.0	.0
21.895	245.	712.	7.9	1399.8	1399.7	.1
21.933	420.	1585.	3.5	1401.5	1400.9	.6
21.953	421.	827.	6.8	1401.3	1401.1	.2
22.065	410.	1179.	4.8	1404.5	1404.1	.4
22.165	400.	1268.	4.4	1406.1	1405.3	.8
22.273	377.	892.	6.3	1407.7	1406.7	1.0
22.410	180.	569.	9.8	1414.1	1414.3	-.2
22.483	160.	1304.	4.3	1416.8	1416.5	.3
22.578	96.	780.	7.2	1417.3	1416.4	.9
22.675	198.	1424.	3.9	1418.8	1418.1	.7
22.794	183.	1191.	4.7	1419.6	1418.6	1.0
22.880	169.	788.	7.1	1420.6	1420.1	.5
22.990	136.	648.	8.6	1424.7	1423.7	1.0
23.097	132.	568.	9.9	1430.7	1429.9	.8
23.168	310.	1340.	4.2	1433.7	1433.1	.6
23.253	45.	250.	13.6	1434.5	1434.5	.0
23.334	67.	355.	9.6	1440.4	1440.4	.0
23.416	59.	318.	10.7	1443.8	1443.8	.0
23.514	57.	365.	9.3	1448.1	1448.1	.0
23.544	55.	310.	11.0	1448.9	1448.9	.0
23.555	63.	494.	6.9	1452.6	1452.6	.0
23.591	75.	478.	7.1	1453.1	1453.1	.0
23.691	65.	368.	9.2	1455.2	1455.2	.0
23.815	86.	525.	8.5	1459.1	1459.0	.1
23.912	76.	627.	8.8	1461.1	1461.1	.0
23.989	99.	851.	6.5	1462.8	1462.8	.0
24.086	72.	732.	7.5	1463.8	1463.8	.0
24.096	72.	835.	6.6	1465.2	1465.2	.0
24.106	100.	971.	5.7	1465.5	1465.7	-.2
24.195	100.	1181.	4.7	1466.1	1466.2	-.1
24.322	140.	1837.	3.0	1466.6	1466.4	.2
24.444	153.	1209.	4.5	1466.8	1466.4	.4
24.542	210.	686.	8.0	1467.6	1466.7	.9
24.635	120.	496.	11.1	1472.1	1471.9	.2

APPENDIX "B"

SUPERCRITICAL 100 YEAR HEC-2 PROFILE OUTPUT, ACDC TO SEDIMENT BASIN

```
****************************************************
*  WATER SURFACE PROFILES                          *
*  DEVELOPED BY THE COE                            *
*  VERSION OF SEPTEMBER 1988                       *
*  ERROR: 01,02,03                                 *
*  RUN DATE     3/13/90   TIME   15:10:18          *
****************************************************
```

```
*************************************
*  DODSON & ASSOCIATES, INC.        *
*  HYDROLOGIST AND CIVIL ENGINEERS  *
*  5629 FM 1960 WEST SUITE 314      *
*  HOUSTON, TEXAS  77069            *
*  (713) 440-3787 Fax (713) 440-4742 *
*************************************
```

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

END OF BANNER

THIS RUN EXECUTED 3/13/90 15:10:18

```
**************************************************
 HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989


 ERROR CORR -  01,02,03
 MODIFICATION -
**************************************************


T1      MIDDLE CAVE CREEK FLOODPLAIN DELINEATION STUDY, ACDC TO DAM
T2      FLOOD CONTROL DISTRICT OF MARICOPA CO. 1989 BY BURGESS & NIPLE
T3      CAVE CREEK WASH        CORPS OF ENGINEERS "FUTURE CONDITION" 100 YEAR Q

        FILE LAST MODIFIED 1/28/90

        SUPERCRITICAL   FROM ACDC TO SPILLWAY OF SEDIMENENT BASIN
        FOR SECTIONS 17.206 TO 16.988 AND 15.204 TO 15.015, REFER
        TO SUBCRITICAL RUN


      ***********************************************
      *       NOTE:  THIS IS NOT THE CURRENT        *
      *       CONDITION 100 YEAR FLOOD.  THIS       *
      *       RUN REPRESENTS PREVIOUSLY COMPU-      *
      *       TED 100 YEAR DISCHARGES FOR A         *
      *       "FUTURE CONDITION" FLOOD.  THESE      *
      *       FLOOD ELEVATIONS ARE LESS THAN        *
      *       CURRENTLY COMPUTED 100 YEAR ELE-      *
      *       VATIONS FOR EXISTING CONDITIONS.      *
      ***********************************************



J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

              2.                 1.      -1.                                1271.

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    -1.                -1.


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38.      42.       1.       53.      54.       4.       8.       43.      10.      51.
    46.      40.      41.
```

```
NC    0.015     0.015     0.015       0.1       0.3
QT       1.    16000.

       UPSTREAM EDGE OF SEDIMENT BASIN SPILLWAY, CRITICAL DEPTH ASSUMED
       USE CGE RATING CURVE FOR ELEV. IN BASIN - SEE SUBCRITICAL RUN

X1   17.206        4.     9875.    10125.      769.      769.      769.
GR    1279.     9875.     1267.     9900.     1267.    10100.     1279.    10125.

X1   17.061        8.    9938.3   10064.7      385.      385.      385.
GR   1271.3    9938.3    1261.1    9958.7   1260.51    9988.2   1256.61     9996.   1256.61    10004.
GR   1260.5   10011.8    1261.1   10041.3   1271.79   10064.7

       CACTUS ROAD (SPECIAL BRIDGE)


X1   16.988        8.    9938.3   10063.9       90.       90.       90.
GR   1269.7    9938.3   1259.48    9958.7   1258.83    9991.1   1256.41     9996.   1256.41    10004.
GR   1258.8   10008.9   1259.48   10041.3   1270.17   10063.9

SB     0.9       1.56        3.      100.     82.57        6.     1513.      1.61   1258.71   1258.33
X1   16.971        8.    9938.3   10064.7      364.      364.      364.
       ELTRD IS 1275.25 + 2.6 HV = 1277.8
X2                          1.   1273.75    1277.8
GR   1269.3    9938.3   1259.09    9958.7   1258.43    9991.2   1256.36     9996.   1256.36    10004.
GR   1258.4   10007.9   1259.09   10041.3   1270.78   10064.7

X1   16.902        9.     9940.    10063.      417.      417.      417.
GR   1268.8     9940.   1257.58    9962.5   1256.93    9994.5   1256.19     9996.   1256.19    10004.
GR   1256.9   10005.5   1257.58   10037.5   1269.33   10062.2   1270.33    10063.

X1   16.823        7.     9945.    10056.      681.      681.      681.               2.88
GR   1263.9     9945.   1262.92    9945.8   1252.92     9967.   1252.26    10000.   1252.92    10033.
GR   1263.4   10055.2   1264.42    10056.

X1   16.694                                   491.      491.      491.              -2.88

X1   16.601        7.     9945.    10052.      634.      634.      634.               2.67
GR   1261.2     9945.   1260.17    9945.8   1248.17     9971.   1247.59    10000.   1248.17    10029.
GR   1259.7    10052.    1261.3    10087.

X1   16.481        6.     9945.    10052.      570.      570.      570.
GR   1261.2     9945.   1260.17    9945.8   1248.17     9971.   1247.59    10000.   1248.17    10029.
GR   1259.7    10052.

X1   16.373        7.     9946.    10053.      576.      576.      576.               7.81
GR   1252.5     9946.   1251.45    9946.8   1237.95     9975.   1237.45    10000.   1237.95    10025.
GR   1250.9   10052.2   1251.95    10053.
```

```
X1   16.264                                   612.      612.      612.                -2.43

X1   16.148                                   660.      660.      660.                -2.59

X1   16.023                                   444.      444.      444.                -2.79
       PEORIA ROAD (SPECIAL BRIDGE)

X1   15.939        5.      9938.    10062.      90.       90.       90.                 1.35
GR   1244.7     9938.   1234.71     9958.  1233.87    10000.  1234.71    10042.   1244.71    10062.

SB     0.9      1.56        3.      100.   82.32        6.     1447.      1.84   1235.45   1235.07
X1   15.921                                   227.      227.      227.                -0.38
       ELTRD IS 1251.1 + 2.5 HV = 1253.6
X2                            1.    1249.6  1253.6                          1.33

X1   15.878                                  1045.     1045.     1045.                -0.97

X1   15.680        5.    9941.5   10060.5     792.      792.      792.                 3.35
GR   1237.5    9941.5   1226.98    9962.5  1226.2    10000.  1226.95   10037.5   1238.45   10060.5

X1   15.530                                   400.      400.      400.                -3.35

X1   15.454        5.    9967.5   10032.6     762.      762.      762.                 0.38
GR   1229.5    9967.5   1207.53    9967.6  1206.88    10000.  1207.53   10032.5    1230.   10032.6

X1   15.310                                   560.      560.      560.                -0.38
       SECTION 15.310 IS THE LAST IN CAVE CREEK CHANNEL.  THE CONFLUENCE
       OCCURS AT RM 15.263.  THE FOLLOWING SECTIONS ARE IN THE ACDC

X1   15.204        5.     9945.   10055.     500.      500.      500.                  0.5
GR   1228.3     9945.   1206.79    9945.1  1205.69    10000.  1206.79    10055.   1226.29   10055.1

X1   15.109                                   500.      500.      500.                -0.25

X1   15.015                                                                           -0.25
```

```
   SECNO    DEPTH    CWSEL    CRIWS    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


*PROF 1
0

CCHV=     .100 CEHV=     .300
*SECNO 17.206
3720 CRITICAL DEPTH ASSUMED
   17.206     5.71  1272.71  1272.71  1271.00  1275.43     2.72      .00      .00  1279.00
   16000.       0.   16000.       0.       0.    1210.       0.       0.       0.   1279.00
      .00      .00    13.22      .00     .000     .015     .000     .000  1267.00  9888.11
  .001907       0.       0.       0.        0       10        0      .00   223.79 10111.89


*SECNO 17.061

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   17.061    13.24  1269.85  1269.85      .00  1274.02     4.17     1.41      .22  1271.30
   16000.       0.   16000.       0.       0.     976.       0.      19.       3.   1271.79
      .01      .00    16.39      .00     .000     .015     .000     .000  1256.61  9941.20
  .001768     769.     769.     769.       20       20        0      .00   119.25 10060.45


*SECNO 16.988

3301 HV CHANGED MORE THAN HVINS

   16.988    10.85  1267.26  1268.50      .00  1273.01     5.75      .85      .16  1269.70
   16000.       0.   16000.       0.       0.     831.       0.      27.       4.   1270.17
      .02      .00    19.25      .00     .000     .015     .000     .000  1256.41  9943.17
  .002837     385.     385.     385.        6       11        0      .00   114.57 10057.74


SPECIAL BRIDGE

5290 UPSTREAM ELEV IS    1271.32 ,NOT    1267.26 NEW BACKWATER REQUIRED
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SECNO    DEPTH    CWSEL    CRIWS    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


SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     .90      1.56      3.00    100.00     82.57      6.00   1513.00      1.61   1258.71   1258.33

*SECNO 16.971

3301 HV CHANGED MORE THAN HVINS

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1268.78 BRIDGE VELOCITY=      16.75     CALCULATED CHANNEL AREA=      934.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                                 AREA
      .00   1272.93      .00        0.    16000.     1513.     1516.     1273.75   1277.80        0.


   16.971    10.25  1266.61      .00      .00  1272.93     6.31      .09      .00  1269.30
   16000.       0.   16000.       0.       0.     794.       0.      29.       4.   1270.78
      .02      .00    20.16      .00     .000     .015     .000     .000  1256.36  9943.67
  .003232      90.      90.      90.        0        0        0      .00   112.70 10056.36


*SECNO 16.902

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3710 WSEL ASSUMED BASED ON MIN DIFF
   16.902    10.74  1266.93  1267.38      .00  1271.66     4.74      .92      .26  1268.80
   16000.       0.   16000.       0.       0.     916.       0.      36.       5.   1270.33
      .03      .00    17.46      .00     .000     .015     .000     .000  1256.19  9943.75
  .002022     364.     364.     364.       20        8        0      .00   113.40 10057.15


*SECNO 16.823
   16.823    10.62  1265.76  1266.33      .00  1270.78     5.02      .86      .03  1266.78
   16000.       0.   16000.       0.       0.     890.       0.      45.       6.   1267.30
      .03      .00    17.98      .00     .000     .015     .000     .000  1255.14  9945.87
  .002094     417.     417.     417.        5        8        0      .00   108.24 10054.11


*SECNO 16.694

3301 HV CHANGED MORE THAN HVINS
```

SECNO	DEPTH	CWSEL	CRIWS	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
16.694	9.19	1261.45	1263.45	.00	1268.72	7.27	1.83	.23	1263.90
16000.	0.	16000.	0.	0.	739.	0.	57.	8.	1264.42
.04	.00	21.64	.00	.000	.015	.000	.000	1252.26	9948.91
.003579	681.	681.	681.	8	8	0	.00	102.17	10051.08

*SECNO 16.601

3301 HV CHANGED MORE THAN HVINS

16.601	11.15	1261.41	1262.13	.00	1266.81	5.40	1.35	.56	1263.87
16000.	0.	16000.	0.	0.	858.	0.	66.	9.	1262.37
.05	.00	18.64	.00	.000	.015	.000	.000	1250.26	9948.81
.002182	491.	491.	491.	9	11	0	.00	101.27	10050.08

*SECNO 16.481

3301 HV CHANGED MORE THAN HVINS

16.481	9.85	1257.44	1259.50	.00	1264.88	7.45	1.72	.21	1261.20
16000.	0.	16000.	0.	0.	731.	0.	78.	11.	1259.70
.06	.00	21.90	.00	.000	.015	.000	.000	1247.59	9951.53
.003460	634.	634.	634.	9	8	0	.00	95.96	10047.49

*SECNO 16.373

3301 HV CHANGED MORE THAN HVINS

16.373	11.26	1256.52	1257.86	.00	1262.84	6.31	1.71	.34	1260.31
16000.	0.	16000.	0.	0.	793.	0.	88.	12.	1259.76
.06	.00	20.17	.00	.000	.015	.000	.000	1245.26	9952.51
.002617	570.	570.	570.	11	11	0	.00	95.09	10047.61

*SECNO 16.264

3301 HV CHANGED MORE THAN HVINS

16.264	10.46	1253.29	1255.45	.00	1260.98	7.68	1.72	.14	1257.88
16000.	0.	16000.	0.	0.	719.	0.	98.	13.	1257.33
.07	.00	22.24	.00	.000	.015	.000	.000	1242.83	9954.17
.003452	576.	576.	576.	9	8	0	.00	91.77	10045.94

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SECNO    DEPTH    CWSEL    CRIWS    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 16.148

3301 HV CHANGED MORE THAN HVINS

  16.148    10.19  1250.43  1252.84      .00  1258.69     8.27     2.22      .06  1255.29
  16000.       0.   16000.       0.       0.     693.       0.     108.      14.   1254.74
     .08      .00    23.08      .00     .000     .015     .000     .000  1240.24  9954.77
 .003831     612.     612.     612.        7       11        0      .00    90.58 10045.34

*SECNO 16.023
  16.023    10.05  1247.50  1250.05      .00  1256.07     8.57     2.59      .03  1252.50
  16000.       0.   16000.       0.       0.     681.       0.     118.      16.   1251.95
     .09      .00    23.50      .00     .000     .015     .000     .000  1237.45  9955.05
 .004032     660.     660.     660.        7       11        0      .00    90.00 10045.06

*SECNO 15.939

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41

  15.939     6.63  1241.85  1245.32      .00  1253.33    11.48     2.45      .29  1246.05
  16000.       0.   16000.       0.       0.     589.       0.     125.      17.   1246.06
     .09      .00    27.19      .00     .000     .015     .000     .000  1235.22  9946.41
 .008040     444.     444.     444.        8        5        0      .00   107.16 10053.58


SPECIAL BRIDGE

SB  XK       XKOR     CDFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     .90      1.56     3.00   100.00    82.32     6.00  1447.00     1.84  1235.45  1235.07

*SECNO 15.921

3301 HV CHANGED MORE THAN HVINS

CLASS C LOW FLOW

3420 BRIDGE W.S.=    1242.83 BRIDGE VELOCITY=     23.42    CALCULATED CHANNEL AREA=      663.
```

SECNO	DEPTH	CWSEL	CRIWS	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

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
1244.81	1251.49	.00	0.	16000.	1447.	1448.	1249.60	1253.60	0.

15.921	7.17	1242.01	.00	.00	1251.49	9.48	1.83	.00	1245.67
16000.	0.	16000.	0.	0.	648.	0.	126.	17.	1245.68
.09	.00	24.71	.00	.000	.015	.000	.000	1234.84	9945.32
.006020	90.	90.	90.	0	0	0	.00	109.34	10054.67

*SECNO 15.878

3301 HV CHANGED MORE THAN HVINS

15.878	7.45	1241.32	1243.98	.00	1249.97	8.65	1.27	.25	1244.70
16000.	0.	16000.	0.	0.	678.	0.	130.	17.	1244.71
.09	.00	23.61	.00	.000	.015	.000	.000	1233.87	9944.77
.005246	227.	227.	227.	12	11	0	.00	110.45	10055.22

*SECNO 15.680

3301 HV CHANGED MORE THAN HVINS

15.680	8.95	1238.50	1240.23	.00	1245.09	6.59	4.26	.62	1240.85
16000.	0.	16000.	0.	0.	776.	0.	147.	20.	1241.80
.11	.00	20.61	.00	.000	.015	.000	.000	1229.55	9946.19
.003257	1045.	1045.	1045.	7	11	0	.00	107.71	10053.90

*SECNO 15.530

3301 HV CHANGED MORE THAN HVINS

15.530	8.51	1234.71	1236.85	.00	1242.18	7.47	2.82	.09	1237.50
16000.	0.	16000.	0.	0.	729.	0.	161.	22.	1238.45
.12	.00	21.94	.00	.000	.015	.000	.000	1226.20	9947.07
.003919	792.	792.	792.	7	11	0	.00	105.95	10053.02

SECNO	DEPTH	CWSEL	CRIWS	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 15.454

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.07

15.454	6.62	1213.88	1219.94	.00	1237.69	23.82	2.85	1.63	1229.88
16000.	0.	16000.	0.	0.	409.	0.	166.	23.	1230.38
.12	.00	39.16	.00	.000	.015	.000	.000	1207.26	9967.57
.016842	400.	400.	400.	11	11	0	.00	64.95	10032.53

*SECNO 15.310

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

15.310	9.63	1216.51	1219.54	.00	1227.39	10.88	6.42	3.88	1229.50
16000.	0.	16000.	0.	0.	605.	0.	175.	24.	1230.00
.13	.00	26.47	.00	.000	.015	.000	.000	1206.88	9967.56
.005045	762.	762.	762.	6	14	0	.00	64.98	10032.54

*SECNO 15.204

3301 HV CHANGED MORE THAN HVINS

15.204	5.87	1212.06	1215.44	.00	1223.68	11.62	3.64	.07	1228.80
16000.	0.	16000.	0.	0.	585.	0.	182.	25.	1207.29
.14	.00	27.35	.09	.000	.015	.015	.000	1206.19	9945.08
.008682	560.	560.	560.	8	8	0	.00	109.95	10055.02

*SECNO 15.109

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .54

SECNO	DEPTH	CWSEL	CRIWS	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
15.109	8.34	1214.28	1215.15	.00	1219.70	5.42	2.12	1.86	1228.55
16000.	0.	16000.	0.	0.	856.	0.	191.	26.	1207.04
.14	.00	18.68	.35	.000	.015	.015	.000	1205.94	9945.07
.002506	500.	500.	500.	5	14	0	.00	109.97	10055.04

*SECNO 15.015

3301 HV CHANGED MORE THAN HVINS

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

15.015	9.22	1214.91	1214.91	.00	1219.29	4.37	1.05	.31	1228.30
16000.	0.	16000.	0.	0.	953.	0.	201.	28.	1206.79
.15	.00	16.78	.31	.000	.015	.015	.000	1205.69	9945.06
.001771	500.	500.	500.	20	8	0	.00	109.98	10055.04

THIS RUN EXECUTED 3/13/90 15:10:26

****
HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989

ERROR CORR - 01,02,03
MODIFICATION -
****

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

CAVE CREEK WASH

SUMMARY PRINTOUT

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
*	17.206	1267.00	1272.71	9888.11	10111.89	223.79	5.71	16000.00	2.72	.00	.00	.00	.00
*	17.061	1256.61	1269.85	9941.20	10060.45	119.25	13.24	16000.00	4.17	-2.86	.00	.00	.00
	16.988	1256.41	1267.26	9943.17	10057.74	114.57	10.85	16000.00	5.75	-2.59	.00	.00	.00
*	16.971	1256.36	1266.61	9943.67	10056.36	112.70	10.25	16000.00	6.31	-.64	.00	1277.80	1273.75
*	16.902	1256.19	1266.93	9943.75	10057.15	113.40	10.74	16000.00	4.74	.32	.00	.00	.00
	16.823	1255.14	1265.76	9945.87	10054.11	108.24	10.62	16000.00	5.02	-1.17	.00	.00	.00
	16.694	1252.26	1261.45	9948.91	10051.08	102.17	9.19	16000.00	7.27	-4.31	.00	.00	.00
	16.601	1250.26	1261.41	9948.81	10050.08	101.27	11.15	16000.00	5.40	-.04	.00	.00	.00
	16.481	1247.59	1257.44	9951.53	10047.49	95.96	9.85	16000.00	7.45	-3.98	.00	.00	.00
	16.373	1245.26	1256.52	9952.51	10047.61	95.09	11.26	16000.00	6.31	-.91	.00	.00	.00
	16.264	1242.83	1253.29	9954.17	10045.94	91.77	10.46	16000.00	7.68	-3.23	.00	.00	.00
	16.148	1240.24	1250.43	9954.77	10045.34	90.58	10.19	16000.00	8.27	-2.87	.00	.00	.00
	16.023	1237.45	1247.50	9955.05	10045.06	90.00	10.05	16000.00	8.57	-2.93	.00	.00	.00
*	15.939	1235.22	1241.85	9946.41	10053.58	107.16	6.63	16000.00	11.48	-5.65	.00	.00	.00
	15.921	1234.84	1242.01	9945.32	10054.67	109.34	7.17	16000.00	9.48	.16	.00	1253.60	1249.60
	15.878	1233.87	1241.32	9944.77	10055.22	110.45	7.45	16000.00	8.65	-.70	.00	.00	.00
	15.680	1229.55	1238.50	9946.19	10053.90	107.71	8.95	16000.00	6.59	-2.82	.00	.00	.00

	SECNO	ELMIN	CWSEL	SSTA	ENDST	TOPWID	DEPTH	Q	HV	DIFWSX	QWEIR	ELTRD	ELLC
	15.530	1226.20	1234.71	9947.07	10053.02	105.95	8.51	16000.00	7.47	-3.79	.00	.00	.00
*	15.454	1207.26	1213.88	9967.57	10032.53	64.95	6.62	16000.00	23.82	-20.83	.00	.00	.00
*	15.310	1206.88	1216.51	9967.56	10032.54	64.98	9.63	16000.00	10.88	2.64	.00	.00	.00
	15.204	1206.19	1212.06	9945.08	10055.02	109.95	5.87	16000.00	11.62	-4.45	.00	.00	.00
*	15.109	1205.94	1214.28	9945.07	10055.04	109.97	8.34	16000.00	5.42	2.22	.00	.00	.00
*	15.015	1205.69	1214.91	9945.06	10055.04	109.98	9.22	16000.00	4.37	.64	.00	.00	.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=    17.206  PROFILE=  1  CRITICAL DEPTH ASSUMED

CAUTION SECNO=    17.061  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    17.061  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    17.061  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO=    16.971  PROFILE=  1  BRIDGE DROWNS U.S. PROFILE
                                       NEW BACKWATER REQUIRED

CAUTION SECNO=    16.902  PROFILE=  1  WSEL ASSUMED BASED ON MIN DIFF
CAUTION SECNO=    16.902  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL

WARNING SECNO=    15.939  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    15.454  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    15.310  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=    15.109  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    15.015  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    15.015  PROFILE=  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    15.015  PROFILE=  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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