

## Appendix 10

### Hydraulic Analyses

**HYDRAULIC ANALYSES  
FOR  
VISTA HACIENDA  
VESTING TENTATIVE SUBDIVISION MAP**

**(Planning Case Number P24-0141)**

**May 12, 2025**

**Per Professional Engineers Act  
will sign and stamp final approved version**

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### **APPENDICES**

- A. Hydraulic Data and Analyses

### **MAP POCKET**

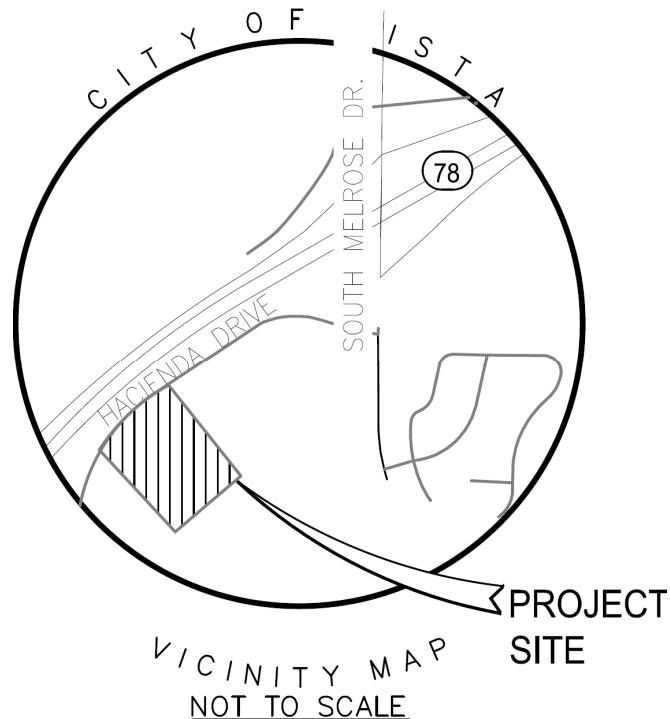
As-Built Drawing No. 1947B

County Floodplain Maps

HEC-RAS Work Map

## INTRODUCTION

The Vista Hacienda Vesting Tentative Subdivision Map proposes multi-family residential development on an undeveloped 4.7 acre parcel located south of Hacienda Drive (1160 Hacienda Drive) in the city of Vista (see the Vicinity Map). The site contains a hillside that slopes downward to the south. The elevations range from approximately 347 feet at the south to 278 feet at the north. The development will be primarily within the upper hillside at the southerly portion of the parcel. A private on-site road will provide access to the housing from Hacienda Drive. The Vesting Tentative Subdivision Map has been prepared by Fuscoe Engineering, Inc.



Buena Vista Creek flows in a westerly direction along the site. The Flood Insurance Rate Map (FIRM) encompassing the site is Map No. 06073C0759G, dated May 16, 2012 (see the FIRMette after this report text). The FIRM delineates a 1-percent annual chance (100-year) Zone AE floodplain, regulatory floodway, and 0.2-percent annual chance (500-year) shaded Zone X floodplain along the river. The floodplains and floodway extend slightly into the southerly portion of the site and within the proposed driveway and adjacent biofiltration basin. The effective mapping was created by a late 1970's study by the County of San Diego. Buena Vista Creek and the surrounding area have been altered since the County study was performed (see discussion in the Hydraulic Analyses section).

This report contains existing and proposed condition 100-year hydraulic analyses in support of the tentative map submittal (discretionary submittal). The City Engineering Department has commented that "If there is grading in the floodway, must provide a no rise certificate." The existing condition analysis updates the effective FEMA study to determine the current floodplain and floodway. The no-rise criteria is addressed based on the current floodplain and floodway.

## HYDRAULIC ANALYSES

### Effective and Duplicate Effective Conditions

The effective Buena Vista Creek hydraulic analysis is from a HEC-2 model prepared by George S. Nolte & Associates. The HEC-2 also serves as the duplicate effective model. The effective analysis is included in Appendix A and extends from El Camino Real to Lado De Loma Drive. The associated County Floodplain Map covering the site is included in the map pocket. The floodplain and floodway delineation on the Floodplain Map match the FIRM. A review of the HEC-2 model as well as comparison of the orthophoto on the Floodplain Map with current Google Earth imagery reveals that the effective study does not represent existing conditions along the site. For instance, Hacienda Drive has been widened, extended, and realigned since the effective study. Box culverts have been added crossing the Hacienda Drive. The HEC-2 model states that Hacienda Drive ends near the site and includes a bridge crossing. Therefore, the effective model is out of date.

### Corrected Effective Conditions

There are no known corrections in the effective/duplicate effective models, so a corrected effective model was not created.

### Pre-Project (Existing) Conditions

An existing conditions model was prepared using HEC-RAS. The HEC-RAS work map in the map pocket shows the cross-section locations and recent topographic mapping used to create the cross-sections. The project's 1-foot contour interval topographic mapping was used, where available. This was supplemented with SANGIS' 2-foot contour interval topographic mapping, as needed. A site visit was performed, which verified the accuracy of the two mapping sources. The project mapping is on NGVD 29, while the SANGIS' mapping is on NAVD 88. Per FEMA, NAVD 88 = NGVD 29 + 2.3 feet (see Appendix A). The analysis is on NGVD 29 to match the plans.

The additional hydraulic parameters are as follows. The downstream starting water surface elevation at cross-section 1 is 259.72 feet for the 100-year floodplain and 259.76 feet for the floodway. These elevations match the effective elevations at this location. Cross-section 1 coincides with effective HEC-2 cross-section 6.06 (FIRM cross-section AQ). The effective 100-year flow rate of 7,800 cubic feet per second (cfs) was used. This flow rate was obtained from the effective HEC-2 and applies from HEC-2 cross-section 5.670 to 6.555. The project is between effective cross-sections 6.060 and 6.413. Development in the watershed has not changed much since the FEMA study, so the 7,800 cfs is still representative of the current 100-year flow rate.

The surface cover along the study reach varies from pavement to mature vegetation (brush and trees). The associated roughness coefficients range from 0.020 to 0.075 based on the San Diego County *Hydraulic Design Manual* (see excerpts after this report text). The aerial photograph on the HEC-RAS work map shows Highway 78 and Hacienda Drive. These were assigned a roughness coefficient of 0.020 to reflect asphalt pavement. The value is slightly higher than the County roughness coefficient of 0.016 to account for potential roadway impediments and obstructions. The channel banks are densely vegetated, so a roughness of 0.075 was selected to

represent weeds, heavy brush on banks, and trees with branches submerged at high stage ( $0.060+0.015=0.075$ ). The channel bed supports a base flow, so contains minor vegetation and a roughness coefficient of 0.040 was used (see Figure 1). The aerial photograph indicates that significant portions of the overbank areas along the channel support moderate to heavy brush and weeds. These were assigned roughnesses of 0.050 to 0.060 depending on the medium to heavy vegetation density. Other overbank areas are bare or contain minimal vegetation, so have roughness coefficients of 0.030 to 0.035. Finally, landscaping areas have moderate vegetation and a roughness coefficient of 0.040.



**Figure 1. Base Flow and Minor Vegetation along Channel Bed**

There are triple 12-foot by 12-foot box culverts that cross Hacienda Drive between cross-sections 10 and 14. The capacity of the box culverts was determined using WSPGW. The culverts were modeled from as-built drawing number 1947B included in the map pocket. The WSPGW input and results are included in Appendix A. The Froude number is above 1.0, so the flow is supercritical and under upstream control. The results show that the culverts have capacity for approximately 7,400 cfs. Therefore, the HEC-RAS 100-year flow rate along the ground surface above the culvert at HEC-RAS cross-sections 11, 12, and 13 was set at 400 cfs ( $7,800 - 7,400 = 400$ ) to account for flow in the culverts.

The existing conditions HEC-RAS results are included in Appendix A and summarized in Table 1. The updated floodplain along the site is delineated on the HEC-RAS Work Map. An existing conditions floodway has been established based on the updated floodplain and is also on the

work map. The results and Table 1 show that the floodway meets the 0 to 1 foot surcharge requirement.

Cross-Section	Existing Conditions			Proposed Conditions			Pr. – Ex. Cond. Floodplain
	Floodplain	Floodway	FW-FP	Floodplain	Floodway	FW-FP	
18	281.08	281.53	0.45	281.07	281.25	0.18	-0.01
17	280.68	280.84	0.16	280.66	280.83	0.17	-0.02
16	280.41	280.56	0.15	280.39	280.51	0.12	-0.02
15	279.20	279.54	0.34	279.15	279.32	0.17	-0.05
14	278.89	279.31	0.42	278.85	279.07	0.22	-0.04
13	278.85	279.22	0.37	278.82	278.99	0.17	-0.03
12	277.28	277.29	0.01	277.28	277.28	0.00	0.00
11	276.59	277.21	0.62	276.59	277.28	0.69	0.00
10	274.59	275.52	0.93	274.59	275.40	0.81	0.00
9	273.94	274.13	0.19	273.94	274.13	0.19	0.00
8	271.55	271.91	0.36	271.55	271.91	0.36	0.00
7	268.38	269.21	0.83	268.38	269.21	0.83	0.00
6	263.90	264.43	0.53	263.90	264.43	0.53	0.00
5	263.20	263.85	0.65	263.20	263.85	0.65	0.00
4	262.52	263.29	0.77	262.52	263.29	0.77	0.00
3	262.26	263.08	0.82	262.26	263.08	0.82	0.00
2	261.50	262.50	1.00	261.50	262.50	1.00	0.00
1	259.72	259.76	0.04	259.72	259.76	0.04	0.00

Note: The existing and proposed condition HEC-RAS tie into the effective floodplain (259.72' NGVD 29) and floodway (259.76') elevations exactly at downstream cross-section 1. They tie into the effective floodplain (280.85' NGVD 29) and floodway (281.03') elevations within the FEMA-required 0.5-foot tolerance at upstream cross-section 18.

**Table 1. Summary of Existing and Proposed Condition HEC-RAS Results**

Post-Project (Proposed) Conditions

The HEC-RAS Work Map shows Fuscoe’s proposed site layout and grading. The proposed private road and biofiltration basin are outside of the existing condition 100-year floodplain and floodway, so the associated grading will not impact the floodplain or floodway. There is required Hacienda Drive street widening (north side) in the floodplain and floodway, but the widening will be near existing grades and replace a dirt surface with smoother pavement. The proposed project is modeled within cross-sections 11 to 14.

The proposed condition HEC-RAS results are included in Appendix A and summarized in Table 1. Table 1 also compares the existing and proposed condition floodplain results. Table 1 shows that the proposed condition water surface elevations are the same as existing conditions from cross-sections 1 to 12, so the floodplains are identical along these cross-sections. The proposed condition water surface elevations are 0.01 to 0.05 feet lower than existing conditions at cross-sections 13 to 18, so the no-rise condition is met for the floodway encroachment. Since the

elevations are nearly identical, the work map delineates a single floodplain for existing and proposed conditions.

The proposed condition floodway has the same encroachment stations as existing conditions, so the existing and proposed floodway delineations are identical. Table 1 shows that the proposed condition floodway meets the 0 to 1 foot surcharge requirement.

## **CONCLUSION**

Research has determined that FEMA's effective Buena Vista Creek floodplain and floodway along the Vista Hacienda project have not been updated since the late 1970's. As a result, the effective data does not represent current conditions. For instance, Hacienda Drive has been widened, extended, and realigned since the effective study, and box culverts have been added crossing the Hacienda Drive

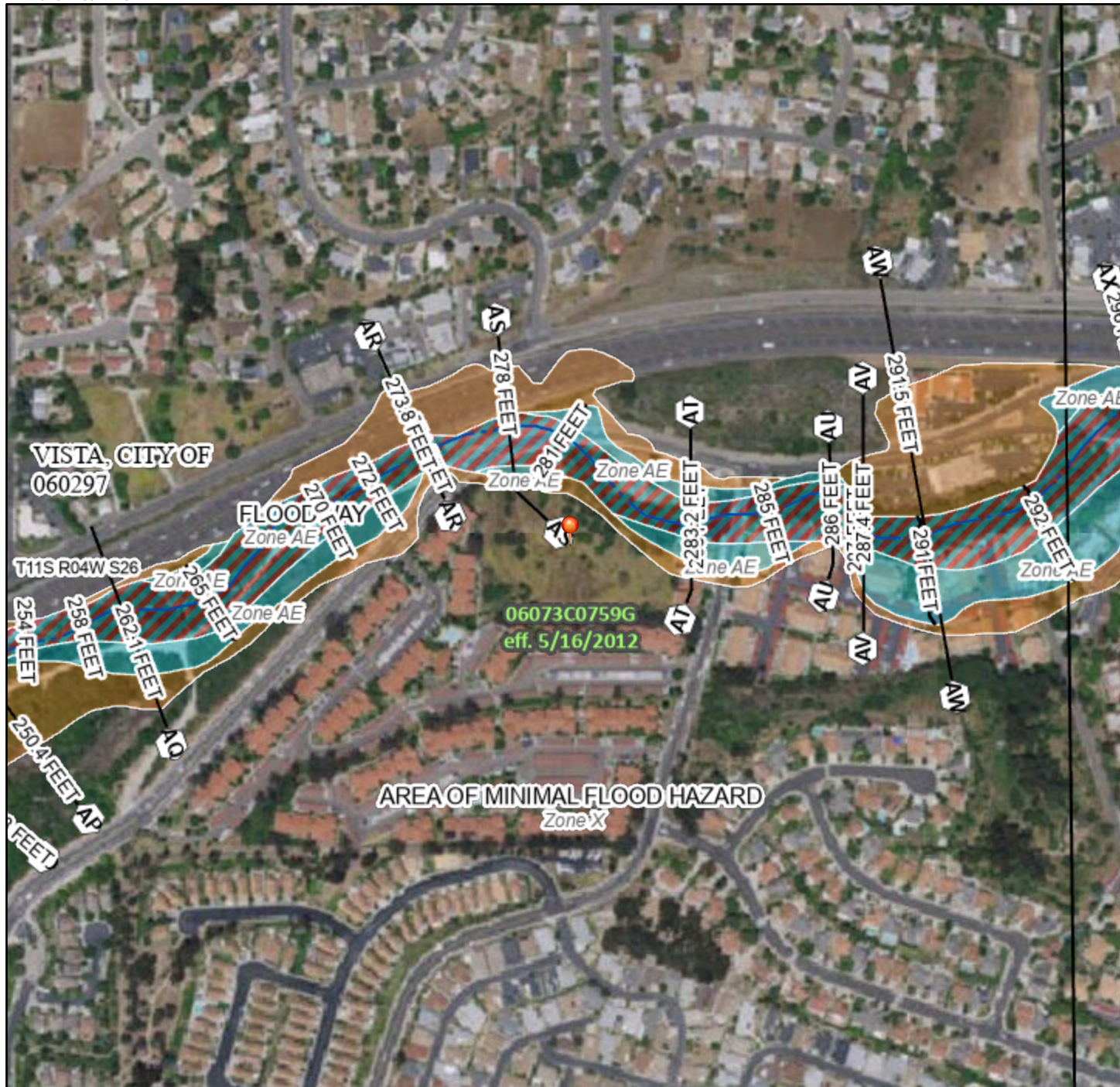
An up-to-date existing conditions analysis has been performed based on recent topography, the box culvert as-builts, and a site investigation. The pre-project floodplain and floodway have been delineated based on the current conditions. The HEC-RAS Work Map indicates that a portion of the current 100-year floodplain extends onto the Caltrans Highway 78 right-of-way. The project will not adversely affect the floodplain.

The primary grading associated with the project's private road and biofiltration basin will be outside the updated floodway. As a result, the on-site project area will meet the no-rise criteria. In addition, the public Hacienda Drive improvements will meet no-rise criteria. In fact, the project slightly lowers some water surface elevations. It is anticipated that a Conditional Letter of Map Revision and Letter of Map Revision will be prepared as the project moves towards final engineering.

# National Flood Hazard Layer FIRMette



117°16'15"W 33°11'49"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

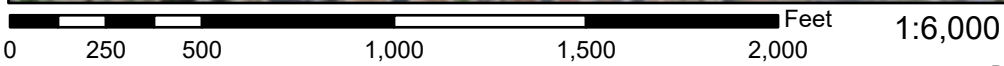
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/6/2025 at 11:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Basemap Imagery Source: USGS National Map 2023

117°15'38"W 33°11'18"N

**Table A-1 Average Manning Roughness Coefficients for Pavement and Gutters<sup>1</sup>**

Concrete Gutter <sup>2</sup> .....	0.015
Concrete Pavement	
Float Finish.....	0.014
Broom Finish .....	0.016
Concrete Gutter with Asphalt Pavement	
Smooth Finish .....	0.013
Rough Texture .....	0.015
Asphalt Pavement	
Smooth Finish .....	0.013
Rough Texture .....	0.016

*Based on FHWA HEC-22.*

<sup>1</sup> Based on materials and workmanship required by standard specifications.

<sup>2</sup> Increase roughness coefficient in gutters with mild slopes where sediment might accumulate by 0.020.

**Table A-2 Average Manning Roughness Coefficients for Closed Conduits<sup>3</sup>**

Reinforced Concrete Pipe (RCP) .....	0.013
Corrugated Metal Pipe and Pipe Arch	
2-3/8 x 1/2 inch Corrugations	
Unlined .....	0.024
Half Lined	
Full Flow .....	0.018
d/D ≥ 0.60 .....	0.016
d/D < 0.60 .....	0.013
Fully Lined .....	0.013
3 x 1 inch Corrugations .....	0.027
6 x 2 inch Corrugations .....	0.032
Spiral Rib Pipe .....	0.013
Helically Wound Pipe	
18-inch .....	0.015
24-inch .....	0.017
30-inch .....	0.019
36-inch .....	0.021
42-inch .....	0.022
48-inch .....	0.023
Plastic Pipe (HPDE and PVC)	
Smooth .....	0.013
Corrugated .....	0.024
Vitrified Clay Pipe .....	0.014
Cast-Iron Pipe (Uncoated) .....	0.013
Steel Pipe .....	0.011
Brick .....	0.017
Cast-In-Place Concrete Pipe	
Rough Wood Forms .....	0.017
Smooth Wood or Steel Forms .....	0.014

<sup>3</sup> Based on materials and workmanship required by standard specifications.

**Table A-3 Average Manning Roughness Coefficients for Small Open Channels Conveying Less than 50 cfs<sup>4</sup>**

Lining Type	Design Flow Depth		
	0 – 0.5 ft	0.5 – 2.0 ft	> 2.0 ft
Concrete (Poured)	0.015	0.013	0.013
Air Blown Concrete	0.023	0.019	0.016
Grouted Riprap	0.040	0.030	0.028
Stone Masonry	0.042	0.032	0.030
Soil Cement	0.025	0.022	0.020
Bare Soil	0.023	0.020	0.020
Rock Cut	0.045	0.035	0.025
Rock Riprap	Based on Rock Size (See Section 5.7.2)		

**Table A-4 Average Manning Roughness Coefficients for Larger Open Channels**

<b>Unlined Channels</b>	
Clay Loam .....	0.023
Sand .....	0.020
<b>Lined Channels</b>	
Grass Lined (Well-Maintained) .....	0.035
Grass Lined (Not Maintained) .....	0.045
Wetland-Bottom Channels (New Channel) .....	0.023
Wetland-Bottom Channels (Mature Channel) .....	See Table A-5
Riprap-Lined Channels .....	See Section 5.7.2
Concrete (Poured) .....	0.014
Air Blown Mortar (Gunitite or Shotcrete) <sup>5</sup> .....	0.016
Asphaltic Concrete or Bituminous Plant Mix .....	0.018

*For channels with revetments or multiple lining types, use composite Manning roughness coefficient based on component lining materials.*

<sup>4</sup> Based on materials and workmanship required by standard specifications.

<sup>5</sup> For air-blown concrete, use  $n=0.012$  (if troweled) and  $n=0.025$  if purposely roughened.

## Table A-5

**Table A-5 Average Manning Roughness Coefficients for Natural Channels**

**Minor Streams (Surface Width at Flood Stage < 100 ft)**

Fairly Regular Section	
(A) Some Grass and Weeds, Little or No Brush.....	0.030
(B) Dense Growth of Weeds, Depth of Flow Materially Greater Than Weed Height.....	0.040
(C) Some Weeds, Light Brush on Banks .....	0.040
(D) Some Weeds, Heavy Brush on Banks.....	0.060
(E) For Trees within Channel with Branches Submerged at High Stage, Increase All Above Values By.....	0.015
Irregular Section, with Pools, Slight Channel Meander	
Channels (A) to (E) Above, Increase All Values By .....	0.015
Mountain Streams; No Vegetation in Channel, Banks Usually Steep, Trees and Brush along Banks Submerged at High Stage	
(A) Bottom, Gravel, Cobbles and Few Boulders .....	0.050
(B) Bottom, Cobbles with Large Boulders .....	0.060

**Flood Plains (Adjacent To Natural Streams)**

Pasture, No Brush	
(A) Short Grass.....	0.030
(B) High Grass.....	0.040
Cultivated Areas	
(A) No Crop.....	0.040
(B) Mature Row Crops.....	0.040
(C) Mature Field Crops .....	0.050
Heavy Weeds, Scattered Brush.....	0.050
Light Brush and Trees.....	0.060
Medium To Dense Brush .....	0.090
Dense Willows.....	0.170
Cleared Land with Tree Stumps, 100-150 Per Acre .....	0.060
Heavy Stand of Timber, Little Undergrowth	
(A) Flood Depth below Branches .....	0.110
(B) Flood Depth Reaches Branches.....	0.140

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# **APPENDIX A**

## **HYDRAULIC DATA AND RESULTS**

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*****
* HEC-2 WATER SURFACE PROFILES *
* *
* Version 4.6.2; May 1991 *
* *
* RUN DATE 26JUL12 TIME 22:10:05 *
*****
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*****
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET, SUITE D *
* DAVIS, CALIFORNIA 95616-4687 *
* (916) 756-1104 *
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X X XXXXXXXX XXXXX XXXXX
X X X X X X X X
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XXXXXXXX XXXX X XXXXX XXXXX
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THIS RUN EXECUTED 26JUL12 22:10:05

\*\*\*\*\*  
 HEC-2 WATER SURFACE PROFILES

Version 4.6.2; May 1991

\*\*\*\*\*

T1 SAN DIEGO FLOOD PLAIN MAPPING STUDY JOB: 8190-75 FN:BVCREEKU.HC2  
 T2 GEORGE S. NOLTE & ASSOC. 8333 CLAIREMONT MESA BLVD. PH 714-278-9  
 T3 BUENA VISTA CREEK, EL CAMINO REAL TO LADO DE LOMA 10 YEAR FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	3.					-1.		187.4	
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.0		-1.0							
NC	0.04	0.03	0.015	0.300	0.600					
QT	05.000	8000.000	8000.000	1700.000	5100.000	18000.00				
ET		9.1							452.6	541.9
X1	4.727	28.	452.6	541.9	218.	200.	218.			
GR	205.1		200.7	99.1	199.1	217.3	200.7	220.3	198.	236.8
GR	193.5	250.8	193.	290.9	187.1	356.9	183.9	382.5	183.3	452.6
GR	183.6	482.1	178.4	488.2	177.5	508.3	178.2	524.8	181.6	528.8
GR	187.3	541.9	188.1	559.3	190.5	642.1	194.3	734.9	196.4	802.
GR	196.9	830.5	196.3	921.5	198.	929.1	198.8	985.6	192.4	993.9
GR	199.9	1020.9	200.8	1039.1	205.	1066.				
ET		9.1							571.3	608.7
	VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.									
	UPSTREAM REACH PART 2 OF 2									
	BRIDGE AT THUNDER DRIVE									
X1	4.728	27.	571.3	608.7	5.	5.	5.			
GR	205.1	0.	200.5	128.7	196.7	263.4	193.4	404.8	191.5	497.9
GR	191.5	541.4	191.2	571.3	184.2	571.4	177.2	571.5	177.2	590.
GR	177.2	608.5	184.2	608.6	191.2	608.7	191.8	632.7	192.9	744.3
GR	195.	830.9	196.	905.7	197.	941.5	197.6	971.7	195.8	1011.
GR	199.5	1018.	199.7	1061.9	194.2	1071.9	195.4	1081.7	202.7	1103.2
GR	203.4	1124.5	205.	1140.2						
ET		9.1							571.3	608.7
SB	1.25	1.6	2.		45.	9.	242.		177.2	177.2
X1	4.739	0.	571.3	608.7	54.	54.	54.			
X2			1.	184.2	191.2					
BT	27.	0.	205.1	205.1	128.7	200.5	200.5	263.4	196.7	196.7
BT	404.8	193.4	193.4	497.9	191.5	191.5	541.4	191.5	191.5	571.3
BT	191.2	184.2	571.4	191.2	184.2	571.5	191.2	184.2	590.	191.2
BT	184.2	608.5	191.2	184.2	608.6	191.2	184.2	608.7	191.2	184.2
BT	632.7	191.8	191.8	744.3	192.9	192.9	830.9	195.	195.	905.7
BT	196.	196.	941.5	197.	197.	971.7	197.6	197.6	1011.	195.8



ET	04.829	0009.100	0009.100	0009.100	0009.100	0009.100			0779.500	0916.000
X1	4.829	23.	806.9	855.6	74.	74.	74.			
GR	210.0	0.	206.2	3.0	204.7	117.1	202.0	217.2	200.0	317.4
GR	197.7	435.5	195.6	535.2	193.4	642.3	194.2	656.8	193.2	755.0
GR	194.6	798.2	191.4	806.9	183.8	820.5	183.7	831.5	183.8	841.6
GR	190.7	855.6	192.7	943.7	195.0	1044.5	194.7	1109.5	196.9	1137.7
GR	199.5	1167.4	204.7	1195.9	210.0	1211.9				
ET	04.876	0009.100	0009.100	0009.100	0009.100	0009.100			0754.500	0891.000
X1	4.876	30.	782.8	829.5	250.	250.	250.			
GR	210.0	0.	206.6	10.0	205.4	132.3	204.9	217.6	203.7	227.1
GR	204.0	286.4	202.8	300.4	202.6	325.0	202.8	356.6	201.6	366.4
GR	201.0	434.2	200.3	442.9	200.6	478.0	198.1	506.2	198.3	569.5
GR	195.4	580.1	194.4	668.0	194.1	717.2	192.1	755.1	192.4	782.8
GR	185.8	796.7	185.2	807.3	185.6	817.3	192.2	829.5	194.9	925.9
GR	196.5	1006.0	198.6	1070.2	201.2	1117.2	207.8	1140.9	210.1	1149.0
ET	04.923	0009.100	0009.100	0009.100	0009.100	0009.100			0799.500	0936.000
X1	4.923	27.	830.	879.6	250.	250.	250.			
GR	215.0	0.	214.7	86.6	212.1	154.9	211.8	187.4	205.2	195.9
GR	205.1	298.2	203.2	376.3	204.1	451.4	199.6	461.0	200.6	534.2
GR	200.5	598.8	197.1	618.8	195.8	682.0	196.0	744.8	195.2	791.3
GR	193.5	812.0	194.2	830.0	186.6	843.5	186.5	853.8	186.9	865.2
GR	194.6	879.6	195.6	941.8	197.7	974.7	198.9	1040.3	201.2	1072.0
GR	205.6	1106.9	210.0	1137.8						
ET	04.971	0009.100	0009.100	0009.100	0009.100	0009.100			0620.500	0694.000
X1	4.971	24.	649.6	725.8	251.	251.	251.			
GR	215.0	0.	211.3	74.4	210.9	107.9	206.2	115.9	206.1	191.5
GR	204.7	256.1	204.4	314.2	201.6	323.9	202.6	379.9	202.3	434.3
GR	198.0	448.2	197.1	507.5	197.6	585.3	195.3	629.8	195.7	649.6
GR	188.5	661.4	188.2	673.7	188.7	689.2	192.4	725.8	205.2	743.7
GR	205.3	832.5	206.1	932.3	207.5	998.8	215.1	1016.8		
NC	.05	.05	.05							
ET	05.018	0009.100	0007.100		0007.100		0667.400	0758.900	0667.000	0759.000
X1	5.018	23.	667.4	758.9	250.	230.	246.			
GR	220.0	0.	214.0	95.5	210.6	192.4	206.5	291.8	202.9	364.4
GR	203.0	445.6	203.1	576.5	199.3	601.5	199.3	617.3	203.5	624.5
GR	203.2	667.4	190.2	681.8	189.4	711.4	191.1	731.2	202.2	748.6
GR	202.7	758.9	207.4	769.7	206.3	857.5	208.7	934.8	213.2	946.1
GR	213.1	1046.0	217.5	1127.9	220.0	1132.0				
ET	05.065	0009.100	0007.100		0007.100		0669.600	0845.100	0726.000	0845.000
X1	5.065	20.	726.9	845.1	250.	240.	247.			
GR	220.0	0.	216.5	80.0	211.2	168.6	210.4	223.6	205.7	323.8
GR	204.7	411.1	204.6	520.6	204.2	578.5	205.9	669.6	204.7	726.9
GR	197.1	760.0	190.0	777.7	192.7	821.1	208.7	845.1	208.7	934.0
GR	208.8	999.5	215.3	1013.6	214.4	1105.9	218.7	1118.2	220.0	1167.0

ET	05.113	0009.10	007.100		0007.100		0765.900	0873.600	0765.000	0859.000
X1	5.113	18.	765.9	858.4	230.	280.	254.			
GR	220.0	0.	215.5	117.6	211.7	233.7	207.9	357.6	206.2	441.1
GR	205.9	576.2	205.6	667.1	207.5	765.9	194.3	800.3	193.3	830.1
GR	190.6	839.2	202.8	858.4	210.4	873.6	209.7	961.3	211.3	1026.9
GR	217.4	1036.5	218.0	1129.4	221.7	1208.6				
ET		9.1							727.	840.
X1	5.160	19.	727.3	839.5	240.	270.	258.			
GR	220.0	0.	216.8	128.7	212.0	249.8	210.5	361.5	209.0	373.6
GR	211.0	386.1	208.7	516.7	208.6	643.6	208.4	727.3	195.7	763.2
GR	191.7	783.4	198.7	812.3	211.6	839.5	211.1	935.1	212.0	1000.0
GR	214.0	1007.6	214.2	1102.0	215.5	1179.4	220.0	1201.2		
ET		9.1							712.	797.
X1	5.207	20.	711.5	799.9	242.	242.	242.			
GR	220.0	0.	216.4	124.8	216.2	158.6	214.2	162.2	215.9	177.2
GR	214.3	289.9	212.4	431.4	210.6	546.2	209.5	614.5	211.0	711.5
GR	196.9	738.2	193.2	748.7	199.3	773.5	209.9	799.9	213.3	823.2
GR	212.0	916.1	212.8	1029.8	213.9	1104.3	216.4	1177.1	220.0	1234.0
ET		9.1							497.	578.
X1	5.258	19.	497.2	595.5	264.	264.	264.			
GR	220.0	0.	218.0	138.4	217.3	280.2	216.7	360.8	217.1	410.7
GR	226.1	415.7	226.1	453.3	215.3	460.0	215.5	497.2	198.5	532.3
GR	195.2	552.8	206.1	570.6	212.9	580.8	212.8	695.5	213.2	789.6
GR	213.9	875.3	215.4	917.5	218.9	934.8	220.0	999.3		
ET		9.1							519.	583.
X1	5.267	22.	503.7	579.4	49.	49.	49.			
GR	225.0	0.	224.1	87.0	222.8	180.3	220.7	249.7	218.7	314.2
GR	218.0	374.0	216.3	461.4	216.2	503.7	204.5	518.5	195.6	554.3
GR	201.4	566.7	212.9	579.4	212.9	692.3	213.0	789.7	214.7	896.2
GR	216.5	934.8	219.4	943.3	220.5	994.6	223.8	1047.3	233.7	1053.4
GR	233.7	1078.2	225.0	1082.1						
NC			.02	.35	.55					
ET		9.1							482.8	517.2
	SUNSET DRIVE BRIDGE									
X1	5.271	20.	482.8	517.2	21.	21.	21.			
GR	225.0	0.	222.7	99.5	222.0	150.8	221.1	187.4	219.8	230.7
GR	218.5	295.9	217.4	410.7	217.	482.8	213.6	482.9	195.6	483.
GR	195.6	500.	195.6	517.	213.6	517.1	217.	517.2	217.	588.4
GR	217.1	666.1	217.2	765.9	218.3	865.1	220.5	936.9	225.	1008.
ET		9.1							482.8	517.2
SB	1.25	1.91	2.8	34.4	42.	5.25	661.5		195.6	195.6
X1	5.276	0.	482.8	517.2	24.	24.	24.			
X2			1.	213.6	217.5					
BT	20.	0.	225.	225.	99.5	222.7	222.7	150.8	222.	222.
BT	187.4	221.1	221.1	230.7	219.8	219.8	295.9	218.5	218.5	410.7
BT	217.4	217.4	482.8	217.	213.6	482.9	217.	213.6	483.	217.
BT	213.6	500.	217.	213.6	517.	217.	213.6	517.1	217.	213.6

BT	517.2	217.	213.6	588.4	217.	217.	666.1	217.1	217.1	765.9
BT	217.2	217.2	865.1	218.3	218.3	936.9	220.5	220.5	1008.	225.
BT	225.									
NC	00.045	0000.045	0000.045	0000.000	0000.000	0000.000	0000.000	0000.000	0000.000	0000.000
ET	05.278	0009.10	07.100		0007.100		0000.100	0664.000	0576.000	0657.000
XI	5.278	18.	586.8	671.3	19.	19.	19.			
GR	225.1	0.	223.4	113.9	221.2	229.2	218.8	318.6	218.1	381.0
GR	218.3	458.7	216.7	543.4	216.3	586.8	202.0	606.7	197.5	624.6
GR	208.5	650.1	214.1	671.3	214.1	776.2	214.7	870.8	215.8	991.3
GR	219.0	1079.1	223.5	1151.9	225.0	1176.0				
ET	5.302	9.1	7.1				0.1	966.3	529	630
XI	5.302	19.	539.9	629.	130.	110.	124.			
GR	225.0	0.	224.7	77.6	224.2	175.6	223.4	274.3	222.3	381.4
GR	220.5	472.1	219.0	511.8	219.9	539.9	200.5	569.8	198.7	585.8
GR	204.4	609.5	213.5	629.0	215.1	745.8	214.7	881.5	215.4	966.3
GR	217.3	1037.3	219.5	1092.3	222.8	1152.3	225.0	1185.2		
ET		9.1							275.	539.
XI	5.349	18.	315.3	364.5	245.	245.	245.			
GR	230.0	0.	227.6	90.9	226.0	157.4	223.4	201.3	224.6	221.1
GR	220.0	258.3	220.5	281.7	216.1	315.3	202.0	339.7	215.6	364.5
GR	215.5	478.1	216.4	578.6	217.2	677.7	218.0	766.5	219.3	809.3
GR	221.3	856.4	225.6	902.0	230.1	937.4				
ET		9.1							23.8	258.
XI	5.397	14.	43.9	93.2	245.	245.	245.			
GR	230.1	0.	222.7	11.0	218.6	43.9	205.9	65.8	203.5	75.2
GR	217.3	93.2	217.5	175.6	217.4	270.4	217.8	362.4	218.5	448.3
GR	220.0	524.3	221.1	570.3	224.6	611.7	230.1	656.3		
ET	05.435	0009.100		0007.100			0021.700	0164.000	0021.000	0164.100
ET	05.435		0007.100		0007.100		0000.100	0251.000		
XI	05.435	0019.000	0021.700	0164.000	0215.000	0203.000	0204.000	0000.000	0000.000	0000.000
GR	230.0	0.	220.3	21.7	218.7	77.6	216.2	86.7	209.2	97.4
GR	206.8	108.3	215.6	123.5	222.0	164.0	221.7	192.8	216.8	211.7
GR	221.4	232.4	228.8	251.0	219.7	275.2	219.0	373.1	219.8	467.2
GR	220.8	544.1	222.9	592.2	225.5	633.8	230.1	670.9		
ET	05.463	0009.100		0007.100			0591.900	0672.700	0495.000	0673.000
ET	05.463		0007.100		0007.100		0526.000	0864.100		
XI	5.463	34.	591.9	672.7	150.	150.	157.			
GR	240.0	0.	236.4	18.2	237.4	69.9	236.1	121.7	239.9	156.8
GR	242.9	187.2	242.5	232.1	240.7	275.8	237.6	328.2	233.7	359.5
GR	235.4	414.6	234.8	463.1	226.4	482.1	223.3	526.0	216.3	552.7
GR	219.8	569.3	220.3	591.9	209.7	601.5	206.8	625.8	212.4	651.2
GR	220.5	672.7	221.9	731.6	222.4	807.6	217.1	828.7	223.1	847.6
GR	230.0	864.1	220.7	890.5	222.1	966.9	224.1	1015.8	228.0	1072.5
GR	231.1	1125.0	235.8	1137.9	233.0	1146.4	240.0	1181.2		

ET	05.491	0009.100		0007.100			0469.900	0689.500	0460.500	0690.800
ET	05.491		0007.100		0007.100		0446.200	0718.000		
XI	5.491	31.	600.5	637.5	149.	149.	149.			
GR	240.0	0.	235.0	18.0	236.7	73.0	235.4	129.0	237.6	165.2
GR	236.8	226.5	234.4	270.4	231.2	304.1	233.1	360.8	232.6	402.7
GR	231.4	446.2	225.5	469.9	224.3	532.0	222.6	600.5	219.2	619.5
GR	222.3	637.5	225.6	689.5	230.4	703.8	236.8	718.0	236.0	726.5
GR	224.4	759.2	223.9	805.6	228.9	832.2	236.9	853.1	235.9	868.7
GR	225.1	899.2	227.0	954.1	227.7	1031.0	229.1	1054.4	234.5	1089.1
GR	240.0	1113.9								
NC	.04	.04	.04							
ET	05.539	0009.100		0007.100			0566.700	0678.300	0450.700	0678.300
ET	05.539		0007.100		0007.100		0442.800	0691.100		
XI	5.539	28.	566.7	678.3	253.	253.	253.			
GR	245.0	0.	236.9	37.9	232.6	51.7	235.2	123.2	234.9	169.9
GR	232.8	219.1	230.7	238.3	231.7	285.7	232.3	368.5	235.0	442.8
GR	234.8	484.6	232.5	543.3	229.7	566.7	229.0	609.2	222.3	623.7
GR	227.3	632.3	229.4	678.3	236.6	691.1	236.6	701.3	228.3	718.7
GR	225.8	790.2	226.7	890.7	228.4	997.3	229.4	1092.4	237.7	1119.0
GR	238.0	1154.4	242.0	1171.1	245.0	1200.4				
ET	05.586	0009.100	0007.100	0007.100	0007.100		0772.000	0900.000	0650.500	0900.000
XI	5.586	36.	772.	900.	250.	230.	242.			
GR	245.0	0.	242.7	12.4	243.0	88.6	243.5	132.5	240.8	161.2
GR	242.2	230.5	240.9	251.2	242.0	293.6	237.0	306.4	238.0	343.3
GR	238.5	406.9	237.5	470.1	235.1	497.2	236.7	546.0	239.5	553.9
GR	235.9	626.1	235.7	724.6	234.0	772.0	230.0	801.7	230.9	852.4
GR	226.4	860.9	226.3	867.9	226.5	875.3	233.0	883.9	234.2	900.0
GR	238.3	911.1	238.2	923.2	229.7	944.0	228.4	984.4	227.9	1067.1
GR	229.1	1171.6	230.2	1245.8	230.0	1349.5	233.2	1404.9	239.5	1417.7
GR	245.0	1426.6								
ET	05.598	0009.100	0007.100	0007.100	0007.100		0926.000	1280.900	1000.000	1264.000
XI	5.598	35.	1217.3	1263.7	60.	60.	59.			
GR	245.0	0.	242.3	141.4	241.8	250.6	243.9	291.0	242.8	386.2
GR	242.8	465.9	242.7	560.4	242.7	611.0	241.6	630.6	242.1	673.0
GR	237.9	682.6	239.6	778.0	238.1	840.5	236.0	862.6	237.7	878.1
GR	237.3	918.5	239.8	926.0	236.1	988.8	235.9	1082.7	233.3	1142.6
GR	232.3	1160.1	232.0	1217.3	228.9	1224.8	228.9	1235.1	229.1	1241.6
GR	233.6	1250.2	235.2	1263.7	240.3	1280.9	239.9	1306.8	240.1	1399.5
GR	240.9	1503.6	240.6	1612.1	241.2	1708.3	242.1	1766.2	245.0	1796.5
ET	05.634	0009.100		0007.100			1202.600	1271.000	1030.000	1435.000
ET	05.634		0007.100		0007.100		0935.100	1271.000		
XI	5.634	32.	1202.6	1241.7	190.	190.	190.			
GR	245.0	0.	244.0	79.2	241.5	219.0	240.8	324.6	241.1	423.5
GR	241.1	520.8	241.4	630.0	242.7	702.9	239.1	716.5	240.8	795.6
GR	239.8	855.0	241.5	893.3	242.3	935.1	236.6	947.6	235.6	986.1
GR	233.3	1027.6	233.7	1108.3	234.7	1202.6	229.9	1217.6	229.8	1228.3
GR	230.2	1233.6	236.4	1241.7	237.3	1257.4	240.1	1271.0	233.6	1294.9
GR	231.7	1385.7	231.2	1492.7	231.8	1579.2	233.4	1695.7	233.9	1781.5
GR	241.5	1798.3	245.0	1808.2						

QT	5	7800	7800	1650	4970	17600					
ET	05.670	0009.100		0007.100			1326.600	1361.400	1173.000	1569.000	
ET	05.670		0007.100		0007.100		1127.500	1395.300			
X1	5.670	42.	1323.6	1361.4	186.	186.	186.				
GR	250.1	0.	247.4	142.4	244.5	267.4	243.3	387.8	243.4	510.0	
GR	243.9	598.2	243.2	687.5	243.3	710.8	254.2	716.7	254.2	781.4	
GR	242.9	784.1	242.3	803.0	239.8	808.7	243.5	819.4	243.9	862.3	
GR	241.7	874.8	242.3	937.9	240.4	1001.1	239.3	1028.3	235.7	1053.3	
GR	242.7	1076.8	242.9	1127.5	235.0	1146.9	234.4	1246.5	234.8	1308.0	
GR	237.9	1323.6	230.5	1338.0	230.1	1347.5	230.5	1350.0	237.3	1361.4	
GR	241.6	1395.3	234.6	1434.6	234.1	1523.8	234.4	1642.5	234.1	1738.5	
GR	235.1	1801.7	236.4	1824.3	241.1	1838.6	243.1	1881.2	244.7	1931.7	
GR	248.3	1950.0	250.1	1972.2							
ET	05.675	0009.100		0007.100			1291.900	1345.300	1144.000	1545.000	
ET	05.675		0007.100		0007.100		1116.700	1393.400			
X1	5.675	37.	1291.9	1345.3	26.	26.	26.				
GR	250.0	0.	248.1	124.4	245.7	207.0	244.1	321.3	243.8	480.9	
GR	244.3	633.2	243.3	730.5	244.1	796.9	244.7	838.2	242.3	851.9	
GR	243.5	913.6	242.2	972.2	240.3	997.2	236.9	1020.4	236.0	1037.0	
GR	238.7	1050.0	242.8	1064.1	243.7	1116.7	235.8	1133.9	235.2	1230.1	
GR	235.5	1276.9	238.9	1291.9	230.6	1310.6	230.4	1322.3	231.0	1328.8	
GR	237.2	1345.3	240.8	1393.4	241.5	1453.9	241.6	1533.1	241.7	1623.1	
GR	242.1	1694.5	241.6	1765.8	240.0	1805.5	244.0	1828.7	245.5	1872.4	
GR	248.9	1898.7	250.1	1912.9							
ET	05.681	0009.100		0007.100			1250.300	1303.600	1125.000	1587.000	
ET	05.681		0007.100		0007.100		1250.300	1817.300			
X1	5.681	35.	1250.3	1303.6	33.	33.	33.				
GR	250.0	0.	246.8	113.4	245.4	193.4	244.0	267.3	244.3	371.4	
GR	244.2	456.4	243.6	561.4	244.0	668.5	244.3	759.5	245.1	801.9	
GR	242.5	812.5	244.1	873.6	243.2	932.3	240.8	958.5	236.8	987.3	
GR	236.2	1016.5	242.5	1044.4	242.9	1097.2	235.9	1116.5	235.5	1194.5	
GR	235.6	1232.8	239.3	1250.3	230.8	1270.1	230.7	1277.2	230.9	1283.7	
GR	236.6	1303.6	235.2	1385.9	234.8	1471.2	234.5	1556.1	235.9	1643.9	
GR	235.9	1704.8	238.3	1750.3	241.5	1768.1	248.4	1787.5	250.0	1817.3	
ET	05.728	0009.400		0007.100			1409.900	1525.700	1410.000	1526.000	
ET	05.728		0007.100		0007.100		1409.900	1984.800			
X1	5.728	45.	1460.6	1525.7	254.	254.	254.				
GR	255.0	0.	252.4	74.5	251.0	124.6	251.0	151.3	255.4	170.2	
GR	252.0	193.6	251.7	212.6	247.2	253.0	248.8	282.4	248.4	365.2	
GR	248.0	453.0	245.9	539.2	245.0	628.5	244.3	708.0	244.9	746.7	
GR	245.9	791.2	245.8	842.6	245.0	931.1	244.5	1015.6	243.1	1024.5	
GR	245.8	1032.0	246.2	1074.2	244.8	1089.1	245.9	1140.7	244.9	1204.6	
GR	241.1	1226.7	241.6	1306.8	240.3	1345.8	238.3	1354.8	239.0	1397.7	
GR	240.0	1409.9	236.9	1460.6	235.8	1496.3	232.5	1506.1	232.6	1516.8	
GR	232.4	1518.3	237.7	1525.7	236.8	1613.3	236.8	1703.8	236.6	1801.8	
GR	236.5	1870.5	238.2	1909.8	240.9	1943.1	244.9	1972.7	250.1	1984.8	



ET		9.1		7.1			0.1	336.3	220.06	422.
X1	6.012	18.	289.3	336.3	250.	250.	250.			
GR	265.0	0.	262.8	42.6	264.0	87.5	258.9	104.9	261.0	158.4
GR	260.2	201.1	254.4	227.1	250.4	289.3	245.4	304.0	253.9	336.3
GR	253.1	430.7	254.6	493.6	256.0	540.4	264.0	568.6	260.5	637.3
GR	261.6	687.2	264.0	705.8	265.0	711.1				
ET		4.4		7.1			0.1	219.8	141.	220.
X1	6.060	16.	161.0	219.8	250.	240.	243.			
GR	270.0	0.	268.7	8.4	269.2	50.6	268.3	95.6	259.3	126.5
GR	256.5	161.0	254.1	186.2	247.7	197.2	257.5	219.8	256.1	315.7
GR	257.2	352.6	259.1	385.8	262.0	404.9	261.0	481.6	265.0	499.4
GR	270.0	516.8								
ET		4.4							186.	388.
X1	6.107	16.	234.3	284.1	200.	240.	244.			
GR	275.0	0.	270.7	13.4	272.1	58.1	271.1	103.2	266.1	117.2
GR	261.5	172.8	259.6	234.3	255.9	255.0	249.7	268.1	260.3	284.1
GR	260.1	356.7	261.8	410.0	266.3	446.1	272.4	476.0	273.0	487.1
GR	275.0	503.7								
ET		4.4								
X1	6.154	15.	104.8	171.1	250.	270.	258.			
GR	280.0	0.	272.7	14.9	273.4	61.2	271.4	104.8	264.2	130.3
GR	253.3	147.8	253.3	153.7	254.2	161.6	262.4	171.1	263.9	243.2
GR	264.3	328.5	264.8	358.3	271.8	389.5	275.9	413.7	280.0	443.9
ET		4.4								
X1	6.202	17.	175.4	240.3	250.	230.	251.			
GR	280.0	0.	279.4	6.3	280.2	48.9	277.7	75.3	270.7	91.5
GR	271.5	132.2	269.7	175.4	264.2	201.3	254.1	218.6	254.1	223.8
GR	254.6	230.9	265.0	240.3	266.5	314.4	267.8	387.1	269.1	413.7
GR	276.0	446.4	280.0	462.1						
ET		9.1							170.5	265.
X1	6.249	14.	170.5	239.6	252.	252.	252.			
GR	285.0	0.	275.8	17.4	276.8	70.5	273.4	81.6	272.8	127.6
GR	270.8	170.5	265.9	196.2	256.0	214.1	256.0	216.6	269.0	239.6
GR	269.5	269.9	274.3	275.0	281.2	303.5	285.0	335.0		
ET		4.4								
X1	6.296	20.	206.6	276.2	320.	200.	248.			
GR	290.0	0.	286.2	5.7	286.0	32.7	280.4	42.8	280.3	100.9
GR	278.5	112.4	277.4	159.5	275.8	206.6	271.4	229.8	266.4	239.3
GR	260.2	250.7	263.4	263.7	269.7	276.2	269.4	332.4	272.4	383.0
GR	275.0	399.0	280.5	412.0	280.7	426.6	286.1	431.6	290.0	444.1
NC			.015							
ET		9.1							231.	374.







NC			.015	.35	.6						
ET	06.779	0009.100	0007.100		0007.100		0188.200	0796.300	0360.000	0420.000	
	FRONTAGE ROAD (HACIENDA DR ) BRIDGE										
	VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED										
	FLOW FOR THE 100 YR. OCCURANCE.										
X1	6.779	28.	369.8	420.2	22.	22.	22.				
GR	305.0	0.	302.4	23.0	302.0	51.0	299.4	66.6	300.3	112.1	
GR	296.1	130.1	296.7	188.2	296.6	247.2	293.0	266.8	294.9	311.8	
GR	295.3	335.4	294.3	369.8	290.3	369.9	281.3	370.	281.3	395.	
GR	281.3	420.	290.3	420.1	294.3	420.2	294.7	466.2	296.1	525.2	
GR	297.9	590.9	298.8	666.2	299.1	705.7	302.9	733.2	299.1	748.3	
GR	304.0	766.8	303.8	788.8	305.0	796.3					
NC	0.045	0.045	0.05								
SB	1.25	1.9	1.5		68.	18.	450.		281.3	281.3	
ET	06.799	0009.100	0007.100		0007.100		0260.000	0405.000	0340.000	0480.000	
X1	6.799	0.	369.8	420.2	100.	100.	100.				
X2			1.	290.3	294.3						
BT	28.	0.	305.	305.	23.	302.4	302.4	51.	302.	302.	
BT	66.6	299.4	299.4	112.1	300.3	300.3	130.1	296.1	296.1	188.2	
BT	296.7	296.7	247.2	296.6	296.6	266.8	293.	293.	311.8	294.9	
BT	294.9	335.4	295.3	295.3	369.8	294.3	290.3	369.9	294.3	290.3	
BT	370.	294.3	290.3	395.	294.3	290.3	420.	294.3	290.3	420.1	
BT	294.3	290.3	420.2	294.3	290.3	466.2	294.7	294.7	525.2	296.1	
BT	296.1	590.9	297.9	297.9	666.2	298.8	298.8	705.7	299.1	299.1	
BT	733.2	302.9	302.9	748.3	299.1	299.1	766.8	304.	304.	788.8	
BT	303.8	303.8	796.3	305.	305.						
ET	06.803	0009.100	0007.100		0007.100		0259.100	0650.100	0254.000	0452.000	
X1	6.803	25.	324.8	405.4	120.	20.	70.				
GR	310.0	0.	304.8	38.5	302.5	67.5	303.2	115.0	297.1	132.1	
GR	299.3	191.6	299.1	226.1	300.9	259.1	291.3	281.3	290.6	324.8	
GR	284.9	341.2	284.1	366.8	282.3	375.8	284.2	385.4	295.3	405.4	
GR	295.7	443.9	297.2	495.0	297.8	572.1	298.9	650.1	298.6	665.5	
GR	305.9	694.6	299.8	715.6	305.0	733.1	305.2	760.1	310.1	772.8	
ET	06.822	0009.100	0007.100		0007.100		0236.600	0640.700	0280.000	0456.000	
X1	6.822	25.	291.6	400.6	98.	98.	98.				
GR	310.0	0.	305.3	34.0	305.1	80.0	299.7	96.5	301.5	162.5	
GR	302.4	200.0	303.7	236.6	293.2	265.1	292.8	291.6	286.4	306.6	
GR	285.2	325.6	282.5	340.6	286.8	372.1	294.6	400.6	295.3	456.1	
GR	297.0	474.1	297.8	548.7	299.2	640.7	298.4	668.2	296.5	678.8	
GR	305.7	697.8	306.5	721.3	300.7	733.9	308.9	756.4	310.1	787.5	
ET	06.836	0009.100	0007.100		0007.100		0225.000	0770.000	0277.000	0486.000	
X1	6.836	23.	277.8	393.7	70.	70.	73.				
GR	310.1	0.	307.8	9.1	306.5	23.0	307.0	63.5	301.5	80.0	
GR	303.8	151.0	304.4	198.1	306.4	232.6	299.0	250.8	292.3	266.3	
GR	292.7	277.8	286.8	297.3	286.4	316.3	282.6	327.6	286.5	356.7	
GR	294.9	393.7	295.3	434.7	295.9	496.2	297.5	561.4	298.7	621.6	
GR	302.4	679.4	305.1	735.3	310.1	774.9					

ET		9.1							239.	377.
X1	6.884	22.	239.1	346.7	245.	260.	250.			
GR	310.1	0.	306.0	14.0	306.5	44.7	307.1	51.2	309.4	87.4
GR	308.0	103.5	309.5	122.5	310.1	158.5	308.6	178.1	308.1	210.6
GR	294.5	239.1	286.8	264.1	287.0	286.1	283.6	297.1	288.2	322.2
GR	295.4	346.7	295.7	396.3	297.9	464.8	299.5	546.8	301.8	626.3
GR	305.0	691.8	310.1	750.9						

ET		9.1							536.	635.
X1	6.931	25.	536.2	634.4	250.	250.	250.			
GR	315.1	0.	314.1	135.7	312.3	205.0	311.8	240.6	306.6	256.8
GR	308.2	298.9	314.1	312.0	315.1	354.2	312.9	373.2	316.1	399.5
GR	314.4	432.5	306.6	470.0	305.9	500.2	295.7	522.7	295.8	536.2
GR	289.2	555.3	288.0	579.8	285.0	586.3	288.2	596.9	288.7	614.9
GR	296.8	634.4	296.3	685.4	303.2	700.4	310.1	737.9	315.1	746.9

ET	06.978	0009.100	0007.100		0007.100		0000.100	0607.500	0460.000	0608.000
X1	6.978	27.	460.7	607.5	240.	245.	245.			
GR	315.0	0.	314.1	74.9	311.6	102.6	312.8	136.0	307.9	150.5
GR	309.7	219.1	319.0	244.3	320.1	290.5	317.8	307.7	320.6	325.1
GR	320.3	352.2	319.5	381.2	311.1	407.7	303.8	433.2	303.1	460.7
GR	298.5	476.7	296.3	493.7	291.5	508.7	289.0	539.2	286.5	547.3
GR	289.1	557.9	289.9	574.0	295.8	595.5	301.0	607.5	299.8	645.5
GR	305.2	653.1	315.0	664.2						

ET	07.026	0009.100	0007.100		0007.100		0000.100	0825.000	0656.000	0825.000
X1	7.026	27.	655.9	825.	251.	251.	251.			
GR	315.1	0.	311.7	103.7	309.3	183.4	310.8	252.3	310.1	270.5
GR	308.0	277.2	308.2	310.3	310.1	394.7	317.4	415.2	322.5	437.0
GR	323.4	484.4	321.3	501.0	324.0	518.7	322.0	595.9	310.7	626.9
GR	301.8	655.9	300.5	685.9	295.8	718.5	291.6	729.0	291.2	752.5
GR	289.2	757.0	291.6	787.5	297.4	817.0	301.6	825.0	299.4	866.0
GR	310.1	877.6	315.1	885.6						

NC			0.015	0.5	0.7					
ET	07.071	0009.100	0007.100	0007.100	0007.100		0854.800	0905.200	0765.000	0905.000
ET	7.071					7.1	700.0	1718.0		

VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUNINDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.

X1	7.071	49.	854.8	905.2	232.	232.	232.			
GR	315.0	0.	310.8	29.7	308.8	116.9	309.4	218.8	308.1	237.9
GR	309.2	308.0	309.2	334.2	307.5	341.4	308.7	383.5	309.3	410.0
GR	307.5	476.3	309.2	489.2	316.0	512.3	317.3	538.6	324.5	544.4
GR	325.1	583.6	317.7	588.3	317.7	615.4	325.2	620.2	324.7	658.8
GR	317.3	664.9	317.7	680.5	325.2	686.8	324.5	711.7	316.1	717.4
GR	311.8	740.7	303.9	768.9	303.	815.5	303.	854.8	299.	854.9
GR	290.	855.	290.	880.	290.	905.	299.	905.0999	301.	905.2
GR	303.	905.3	303.5	944.2	304.	1012.5	305.	1042.1	306.	1120.6
GR	307.	1226.1	308.	1282.4	309.	1318.6	310.	1408.3	311.	1497.
GR	312.	1596.5	313.	1684.1	314.	1708.9	315.	1718.4		

SB	1.25	1.89	1.5		68.	18.	450.		290.	290.
ET	7.088	0009.100	0007.100		0007.100		0800.000	1050.000	0765.000	0905.000
ET	7.088					7.1	700.0	1718.0		
X1	7.088	0.	854.8	905.2	90.	90.	90.			
X2			1.	299.	303.					
ET	49.		315.	315.	29.7	310.8	310.8	116.9	308.8	308.8
ET	218.8	309.4	309.4	237.9	308.1	308.1	308.	309.2	309.2	334.2
ET	309.2	309.2	341.4	307.5	307.5	383.5	308.7	308.7	410.	309.3
ET	309.3	476.3	307.5	307.5	489.2	309.2	309.2	512.3	316.	316.
ET	538.6	317.3	317.3	544.0	324.5	324.5	583.6	325.1	325.1	588.3
ET	317.7	317.7	615.4	317.7	317.7	620.2	325.2	325.2	658.8	324.7
ET	324.7	664.9	317.3	317.3	680.5	317.7	317.7	686.8	325.2	325.2
ET	711.7	324.5	324.5	717.4	316.1	316.1	740.7	311.8	311.8	768.9
ET	303.9	303.9	815.5	303.	303.	854.8	303.	299.	854.9	303.
ET	299.	855.	303.	299.	880.	303.	299.	905.	303.	299.
ET	905.1	303.	299.	905.2	303.	299.	905.3	303.	303.	944.2
ET	303.5	303.5	1012.5	304.	304.	1042.1	305.	305.	1120.6	306.
ET	306.	1226.1	307.	307.	1282.4	308.	308.	1318.6	309.	309.
ET	1408.3	310.	310.	1497.	311.	311.	1596.5	312.	312.	1684.1
ET	313.	313.	1708.9	314.	314.	1718.4	315.	315.		
NC	.04	.04	.035							
ET	07.091	0009.100	0007.100		0007.100		2050.000	2350.000	1540.000	2264.000
ET	7.091					7.1	2060.0	2850.0		
X1	7.091	67.	2132.1	2264.8	24.	24.	24.			
GR	315.1	0.	313.7	37.6	312.4	87.3	312.0	126.9	306.4	193.6
GR	305.9	282.4	305.2	357.3	306.1	459.8	305.6	587.6	304.7	630.8
GR	307.0	634.9	307.0	645.0	304.1	654.0	303.2	739.2	303.0	816.2
GR	303.7	886.5	307.3	892.8	307.3	921.7	302.8	935.7	302.9	986.9
GR	302.9	1016.1	307.0	1022.8	306.9	1036.5	302.6	1044.3	302.2	1132.3
GR	301.6	1197.3	301.7	1279.3	301.2	1372.1	301.2	1437.7	301.2	1480.9
GR	307.9	1574.9	308.8	1667.2	307.3	1747.9	305.9	1780.7	308.5	1804.0
GR	313.4	1820.1	317.5	1846.1	324.7	1849.3	324.7	1889.8	317.7	1895.4
GR	317.8	1921.8	325.5	1926.8	325.5	1966.4	317.1	1972.9	317.0	1997.5
GR	326.0	2003.1	325.6	2028.1	317.2	2035.5	312.0	2061.0	303.6	2081.2
GR	302.3	2132.1	300.7	2150.9	292.7	2179.2	292.1	2206.9	293.2	2233.1
GR	297.4	2249.3	302.1	2264.8	301.4	2358.9	301.4	2467.9	300.9	2537.8
GR	302.9	2560.9	304.0	2652.1	306.0	2750.4	305.9	2787.8	309.7	2803.7
GR	313.4	2808.0	315.1	2877.9						
ET		9.1							720.	930.
ET	7.138					7.1	660.0	1350.0		
X1	7.138	43.	719.9	827.8	270.	200.	243.			
GR	315.0	0.	313.2	9.6	313.8	38.2	312.5	52.4	311.7	94.6
GR	310.8	165.6	312.5	197.8	348.6	204.9	348.6	244.1	348.6	286.9
GR	314.1	293.4	312.2	318.9	308.6	326.0	308.2	340.5	318.7	359.5
GR	319.5	385.5	321.4	407.1	321.0	449.6	319.0	464.1	321.9	482.1
GR	320.2	524.6	324.7	553.1	328.1	577.7	326.9	614.7	321.0	631.2
GR	321.5	663.3	312.0	681.8	302.4	698.8	302.2	719.9	294.1	741.4
GR	294.0	767.9	292.0	773.5	294.8	804.3	302.9	827.8	302.5	898.8
GR	300.1	905.8	300.6	985.9	300.9	1046.9	304.0	1058.4	304.8	1158.0
GR	306.2	1282.6	306.7	1336.1	315.1	1352.1				

ET	07.186	0009.100	0007.100		0007.100		0000.100	1120.000	0766.000	0980.000
X1	7.186	50.	766.3	914.6	230.	270.	252.			
GR	320.0	0.	318.6	6.5	318.9	31.3	314.5	51.5	314.8	101.1
GR	313.5	173.8	313.8	194.8	325.3	197.7	325.4	268.1	313.4	272.2
GR	314.0	334.2	314.6	359.9	313.8	401.6	312.3	409.1	311.1	423.6
GR	320.1	441.8	319.3	470.4	317.1	501.0	315.1	521.0	316.9	544.5
GR	314.6	581.6	320.8	604.9	328.9	637.9	329.9	650.9	331.4	678.5
GR	334.8	699.1	322.0	724.3	309.5	751.6	302.5	766.3	301.0	790.2
GR	294.5	812.3	294.0	832.2	292.4	843.4	294.3	867.0	301.9	891.7
GR	303.0	914.6	302.5	950.8	301.6	963.5	301.9	1000.3	305.7	1103.2
GR	317.3	1106.7	317.3	1150.4	305.6	1158.0	307.4	1222.6	305.3	1235.5
GR	308.1	1250.4	309.2	1356.0	311.2	1409.7	315.5	1480.0	320.0	1550.0
ET		9.1							757.	864.
X1	7.233	38.	757.	863.9	260.	290.	247.			
GR	320.0	0.	317.9	12.3	318.1	55.0	318.2	100.5	315.9	122.2
GR	319.4	145.7	317.4	159.3	318.9	174.8	331.3	181.7	331.3	251.6
GR	331.3	382.0	317.6	387.6	314.3	453.6	313.4	476.2	316.9	485.2
GR	315.1	534.3	312.7	554.3	313.8	578.9	311.6	615.9	337.0	622.0
GR	337.0	643.0	339.5	656.9	335.5	662.3	333.6	681.9	313.7	715.0
GR	302.9	741.4	302.7	757.0	295.4	769.8	295.5	790.9	293.6	798.4
GR	296.3	808.5	295.6	830.2	302.5	863.9	313.6	881.3	312.1	938.9
GR	310.3	952.9	316.5	981.8	320.0	991.8				
NC	.03	.03	.015	.5	.7					
ET		9.1							54.	175.
X1	7.263	19.	104.8	155.2	157.	157.	157.			
GR	325.	0.	316.1	21.3	315.9	43.7	310.8	99.	310.9	104.7
GR	310.9	104.8	304.9	104.9	295.9	105.	295.9	130.	295.9	155.
GR	304.9	155.1	310.9	155.2	312.8	167.7	314.5	231.9	316.	327.7
GR	318.7	415.5	321.2	513.3	324.6	625.3	325.1	633.4		
SB	1.25	2.11	2.5		68.	18.	450.		295.9	295.9
NC	.04	.04	.015							
ET		9.1							54.	175.
X1	7.3	0.	104.8	155.2	200.	200.	200.			
X2			1.	304.9	310.9					
BT	19.	0.	325.	325.	21.3	316.1	316.1	43.7	315.9	315.9
BT	99.	310.8	310.8	104.7	310.9	310.9	104.8	310.9	304.9	104.9
BT	310.9	304.9	105.	310.9	304.9	130.	310.9	304.9	155.	310.9
BT	304.9	155.1	310.9	304.9	155.2	310.9	304.9	167.7	312.8	312.8
BT	231.9	314.5	314.5	327.7	316.	316.	415.5	318.7	318.7	513.3
BT	321.2	321.2	625.3	324.6	324.6	633.4	325.1	325.1		
ET		9.1							57.	180.
X1	7.304	19.	57.6	179.8	40.	40.	33.			
GR	325.0	0.	307.3	34.3	309.6	41.6	309.8	57.6	299.5	84.8
GR	295.3	97.6	295.3	119.0	295.3	146.3	299.5	154.8	301.0	169.8
GR	308.2	179.8	308.7	203.5	318.5	229.3	318.8	285.2	320.4	361.8
GR	321.5	455.9	322.8	532.9	324.1	605.3	325.1	638.6		

ET	07.351	0009.100	0007.100		0007.100		0605.000	1100.000	0645.000	0743.000
X1	7.351	32.	645.5	742.9	260.	90.	248.			
GR	325.1	0.	322.3	58.7	320.8	88.9	320.8	168.0	320.8	204.5
GR	318.3	215.4	318.7	308.1	319.6	378.1	320.0	404.2	325.8	415.8
GR	327.7	445.5	323.9	457.7	315.0	479.7	309.0	494.8	314.7	508.7
GR	317.1	554.3	319.5	607.3	309.6	629.6	308.6	645.5	298.8	665.7
GR	298.1	679.1	295.3	685.5	295.3	698.0	295.3	709.6	299.3	716.7
GR	309.0	742.9	319.7	769.0	321.5	853.9	322.7	939.5	323.7	1022.3
GR	324.6	1117.4	325.1	1143.2						
ET		9.1							529.	615.
X1	7.375	23.	529.0	614.7	140.	100.	121.			
GR	325.1	0.	321.8	91.6	321.8	127.6	319.8	135.5	319.6	222.3
GR	320.4	233.7	319.0	297.3	318.3	338.4	320.7	378.2	322.8	435.4
GR	323.3	488.5	315.8	509.5	309.0	529.0	308.4	548.7	295.6	568.9
GR	295.5	585.2	295.5	594.0	309.4	614.7	308.1	630.5	321.9	661.4
GR	324.2	739.6	324.7	861.2	325.1	973.3				

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*PROF 1  
0

OCHV= .300 CEHV= .600

\*SECNO 4.727

4.727	9.90	187.40	.00	187.40	189.46	2.06	.00	.00	183.30
8000.0	994.8	7005.2	.0	315.5	571.7	.1	.0	.0	187.30
.00	3.15	12.25	.25	.040	.015	.030	.000	177.50	353.54
.001372	218.	218.	200.	0	0	0	.00	190.53	544.07

\*SECNO 4.728

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.

UPSTREAM REACH PART 2 OF 2

BRIDGE AT THUNDER DRIVE

4.728	11.29	188.49	188.49	.00	194.14	5.64	.01	2.15	191.20
8000.0	.0	8000.0	.0	.0	419.6	.0	.1	.0	191.20
.00	.00	19.06	.00	.000	.015	.000	.000	177.20	571.34
.002743	5.	5.	5.	20	8	0	.00	37.32	608.66

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 184.22 , NOT 188.49 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.60	2.00	.00	45.00	9.00	242.00	.00	177.20	177.20

\*SECNO 4.739

3301 HV CHANGED MORE THAN HVINS

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

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELITRD	WEIRLN
215.64	199.63	.00	4067.	3944.	242.	252.	184.20	191.20	514.
4.739	14.49	191.69	.00	.00	195.09	3.40	.96	.00	191.20
8000.0	10.9	7985.6	3.5	19.6	539.3	4.9	.7	.1	191.20
.00	.56	14.81	.71	.040	.015	.030	.000	177.20	488.40
.001330	54.	54.	54.	5	0	0	.00	140.06	628.46

CCHV= .300 CEHV= .600  
 \*SECNO 4.744

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	863.5	921.5	TYPE=	1	TARGET=	58.000			
4.744	11.74	191.74	191.74	.00	196.08	4.34	.06	.56	192.60
8000.0	.0	7995.7	4.3	.0	478.4	1.8	1.2	.2	188.20
.00	.00	16.71	2.45	.000	.015	.015	.000	180.00	865.03
.001834	30.	39.	50.	3	15	0	.00	56.47	921.50

\*SECNO 4.758  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	864.5	922.5	TYPE=	1	TARGET=	58.000			
4.758	11.53	192.13	192.13	.00	196.50	4.37	.13	.02	100000.00
8000.0	.0	7929.8	70.2	.0	470.9	11.6	1.9	.3	189.40
.00	.00	16.84	6.07	.000	.015	.015	.000	180.60	864.50
.001902	69.	69.	69.	2	5	0	.00	58.00	922.50

\*SECNO 4.767  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 953.5 1011.5 TYPE= 1 TARGET= 58.000

4.767	11.91	192.91	192.91	.00	197.36	4.46	.08	.05	189.40
8000.0	164.4	7741.1	94.6	23.2	450.7	15.0	2.4	.4	189.60
.00	7.08	17.18	6.29	.015	.015	.015	.000	181.00	953.50
.001689	47.	47.	47.	3	8	0	.00	58.00	1011.50

\*SECNO 4.814

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 801.5 938.0 TYPE= 1 TARGET= 136.500

4.814	11.69	194.79	194.79	.00	197.39	2.59	.35	.56	191.20
8000.0	221.1	6119.0	1659.9	46.9	430.9	216.3	5.8	.9	190.80
.01	4.72	14.20	7.68	.015	.015	.015	.000	183.10	801.50
.001182	247.	247.	247.	20	5	0	.00	136.50	938.00

\*SECNO 4.829

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 779.5 916.0 TYPE= 1 TARGET= 136.500

4.829	11.24	194.94	194.94	.00	197.53	2.59	.09	.00	191.40
8000.0	114.6	6244.5	1640.8	28.9	443.7	214.8	7.0	1.1	190.70
.01	3.96	14.08	7.64	.015	.015	.015	.000	183.70	779.50
.001166	74.	74.	74.	2	11	0	.00	136.50	916.00

\*SECNO 4.876

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 754.5 891.0 TYPE= 1 TARGET= 136.500

4.876	11.11	196.31	196.31	.00	198.59	2.28	.29	.09	192.40
8000.0	954.2	5629.3	1416.5	115.1	414.5	200.0	11.0	1.9	192.20
.02	8.29	13.58	7.08	.015	.015	.015	.000	185.20	754.50
.001117	250.	250.	250.	20	6	0	.00	136.50	891.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 4.923

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

3470 ENCROACHMENT STATIONS=	799.5	936.0	TYPE=	1	TARGET=	136.500			
4.923	11.28	197.78	197.78	.00	200.21	2.43	.28	.09	194.20
8000.0	920.4	6096.8	982.9	117.8	442.7	153.7	15.2	2.7	194.60
.02	7.82	13.77	6.40	.015	.015	.015	.000	186.50	799.50
.001155	250.	250.	250.	20	5	0	.00	136.50	936.00

\*SECNO 4.971

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	620.5	694.0	TYPE=	1	TARGET=	73.500			
4.971	11.06	199.26	199.26	.00	202.91	3.66	.35	.74	195.70
8000.0	1014.6	6985.4	.0	109.0	435.6	.0	18.8	3.3	100000.00
.03	9.31	16.04	.00	.015	.015	.000	.000	188.20	620.50
.001721	251.	251.	251.	20	5	0	.00	73.50	694.00

\*SECNO 5.018

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	667.4	758.9	TYPE=	1	TARGET=	91.500			
5.018	13.51	202.91	.00	.00	204.31	1.40	.72	.68	203.20
8000.0	.0	8000.0	.0	.0	842.3	.0	22.7	3.8	100000.00
.03	.00	9.50	.00	.000	.050	.000	.000	189.40	667.72
.005929	250.	246.	230.	5	0	0	.00	91.18	758.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 5.065

3470 ENCROACHMENT STATIONS=	669.6	845.1	TYPE=	1	TARGET=	175.500			
5.065	14.66	204.66	.00	.00	205.64	.98	1.21	.13	204.70
8000.0	.0	8000.0	.0	.0	1005.9	.0	28.0	4.4	10000.00
.04	.00	7.95	.00	.000	.050	.000	.000	190.00	727.08
.004106	250.	247.	240.	3	0	0	.00	111.96	839.04

\*SECNO 5.113

3470 ENCROACHMENT STATIONS=	765.9	873.6	TYPE=	1	TARGET=	107.700			
5.113	15.11	205.71	.00	.00	207.17	1.46	1.24	.28	207.50
8000.0	.0	7977.0	23.0	.0	822.7	8.5	33.3	5.0	202.80
.05	.00	9.70	2.72	.000	.050	.050	.000	190.60	770.57
.005893	230.	254.	280.	2	0	0	.00	93.65	864.22

\*SECNO 5.160

5.160	15.73	207.43	.00	.00	208.64	1.21	1.40	.07	208.40
8000.0	.0	8000.0	.0	.0	906.3	.0	38.5	5.5	211.60
.06	.00	8.83	.00	.000	.050	.000	.000	191.70	730.02
.005039	240.	258.	270.	2	0	0	.00	100.70	830.72

\*SECNO 5.207

3301 HV CHANGED MORE THAN HVINS

5.207	15.52	208.72	.00	.00	210.77	2.05	1.63	.51	211.00
8000.0	.0	8000.0	.0	.0	695.7	.0	42.9	6.0	209.90
.06	.00	11.50	.00	.000	.050	.000	.000	193.20	715.82
.009401	242.	242.	242.	2	0	0	.00	81.15	796.96

\*SECNO 5.258

5.258	15.96	211.16	.00	.00	213.41	2.24	2.52	.11	215.50
8000.0	.0	8000.0	.0	.0	665.4	.0	47.0	6.5	212.90
.07	.00	12.02	.00	.000	.050	.000	.000	195.20	506.15
.009682	264.	264.	264.	2	0	0	.00	72.04	578.20

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

\*SECNO 5.267

5.267	16.05	211.65	.00	.00	213.87	2.23	.46	.00	216.20
8000.0	.0	8000.0	.0	.0	667.8	.0	47.8	6.6	212.90
.07	.00	11.98	.00	.000	.050	.000	.000	195.60	509.47
.009172	49.	49.	49.	1	0	0	.00	68.53	578.00

CCHV= .350 CEHV= .550

\*SECNO 5.271

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.91

SUNSET DRIVE BRIDGE

5.271	15.55	211.15	.00	.00	214.68	3.54	.09	.72	217.00
8000.0	.0	8000.0	.0	.0	530.2	.0	48.1	6.6	217.00
.07	.00	15.09	.00	.000	.020	.000	.000	195.60	482.91
.002517	21.	21.	21.	2	0	0	.00	34.17	517.09

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.91	2.80	34.40	42.00	5.25	661.50	.00	195.60	195.60

\*SECNO 5.276

3301 HV CHANGED MORE THAN HVINS

CLASS A LOW FLOW

3420 BRIDGE W.S.= 209.68 BRIDGE VELOCITY= 15.46 CALCULATED CHANNEL AREA= 518.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
215.49	216.87	3.33	0.	8000.	662.	662.	213.60	217.50	0.
5.276	18.87	214.47	.00	.00	216.87	2.40	2.19	.00	217.00
8000.0	.0	8000.0	.0	.0	643.7	.0	48.4	6.6	217.00
.07	.00	12.43	.00	.000	.020	.000	.000	195.60	482.87
.001501	24.	24.	24.	0	0	0	.00	34.25	517.13

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 5.278

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .58

3470 ENCROACHMENT STATIONS=		.1	664.0	TYPE=	1	TARGET=	663.900		
5.278	18.25	215.75	.00	.00	217.24	1.49	.05	.32	216.30
8000.0	.0	8000.0	.0	.0	818.0	.0	48.7	6.6	100000.00
.07	.00	9.78	.00	.000	.045	.000	.000	197.50	587.57
.004470	19.	19.	19.	3	0	0	.00	76.43	664.00

\*SECNO 5.302

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.97

3470 ENCROACHMENT STATIONS=		.1	966.3	TYPE=	1	TARGET=	966.200		
5.302	18.78	217.48	.00	.00	217.87	.39	.25	.38	219.90
8000.0	.0	5945.6	2054.4	.0	1052.3	928.2	52.6	7.3	213.50
.08	.00	5.65	2.21	.000	.045	.045	.000	198.70	543.63
.001156	130.	124.	110.	4	0	0	.00	422.67	966.30

\*SECNO 5.349

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

5.349	16.20	218.20	218.20	.00	219.38	1.17	.56	.43	216.10
8000.0	45.8	4845.6	3108.6	16.9	456.6	721.4	61.5	9.8	215.60
.09	2.71	10.61	4.31	.045	.045	.045	.000	202.00	299.24
.006364	245.	245.	245.	20	9	0	.00	473.97	773.21

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

\*SECNO 5.397

5.397	16.41	219.91	.00	.00	220.83	.92	1.37	.09	218.60
8000.0	12.3	4617.4	3370.3	7.0	482.5	858.8	68.6	12.5	217.30
.10	1.75	9.57	3.92	.045	.045	.045	.000	203.50	33.30
.004949	245.	245.	245.	2	0	0	.00	487.00	520.30

\*SECNO 5.435

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	.1	251.0	TYPE=	1	TARGET=	250.900			
5.435	14.37	221.17	221.17	.00	223.34	2.16	1.77	.68	220.30
8000.0	2.1	7392.6	605.3	.9	611.7	80.0	73.4	14.1	222.00
.10	2.48	12.09	7.57	.045	.045	.045	.000	206.80	19.74
.019214	215.	204.	203.	2	9	0	.00	175.59	231.38

\*SECNO 5.463

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.90

3470 ENCROACHMENT STATIONS=	526.0	864.1	TYPE=	1	TARGET=	338.100			
5.463	17.20	224.00	.00	.00	224.44	.44	.50	.60	220.30
8000.0	967.8	5917.5	1114.7	300.5	997.6	470.8	77.8	15.0	220.50
.11	3.22	5.93	2.37	.045	.045	.045	.000	206.80	526.00
.001262	150.	157.	150.	2	0	0	.00	323.76	849.76

\*SECNO 5.491

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	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

3470 ENCROACHMENT STATIONS=	446.2	718.0	TYPE=	1	TARGET=	271.800			
5.491	8.17	227.37	227.37	.00	228.94	1.56	.43	.62	222.60
8000.0	3471.5	3046.8	1481.7	429.5	242.2	182.7	82.3	15.9	222.30
.12	8.08	12.58	8.11	.045	.045	.045	.000	219.20	462.37
.012085	149.	149.	149.	20	13	0	.00	232.41	694.79

\*SECNO 5.539

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	442.8	691.1	TYPE=	1	TARGET=	248.300			
5.539	11.19	233.49	233.49	.00	235.77	2.28	3.08	.39	229.70
8000.0	442.3	7467.7	90.0	68.6	601.1	14.9	86.7	17.1	229.40
.12	6.45	12.42	6.05	.040	.040	.040	.000	222.30	517.97
.012253	253.	253.	253.	20	14	0	.00	167.61	685.57

\*SECNO 5.586

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	772.0	900.0	TYPE=	1	TARGET=	128.000			
5.586	10.35	236.65	.00	.00	238.29	1.65	2.30	.22	234.00
8000.0	.0	8000.0	.0	.0	776.6	.0	90.8	17.9	100000.00
.13	.00	10.30	.00	.000	.040	.000	.000	226.30	772.00
.007586	250.	242.	230.	2	0	0	.00	128.00	900.00

\*SECNO 5.598

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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

3470 ENCROACHMENT STATIONS=		926.0	1280.9	TYPE=	1	TARGET=	354.900		
5.598	9.36	238.26	.00	.00	238.93	.68	.30	.34	232.00
8000.0	5340.4	2614.2	45.4	915.0	326.5	15.7	92.2	18.2	235.20
.13	5.84	8.01	2.89	.040	.040	.040	.000	228.90	952.21
.003625	60.	59.	60.	5	0	0	.00	321.80	1274.01

\*SECNO 5.634

3470 ENCROACHMENT STATIONS=		935.1	1271.0	TYPE=	1	TARGET=	335.900		
5.634	9.31	239.11	.00	.00	239.54	.42	.51	.09	234.70
8000.0	6031.7	1852.1	116.3	1233.2	296.8	43.6	98.4	19.6	236.40
.14	4.89	6.24	2.67	.040	.040	.040	.000	229.80	942.08
.002079	190.	190.	190.	2	0	0	.00	324.13	1266.21

\*SECNO 5.670

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

3470 ENCROACHMENT STATIONS=		1127.5	1395.3	TYPE=	1	TARGET=	267.800		
5.670	9.39	239.49	.00	.00	240.27	.78	.53	.20	237.90
7800.0	5740.6	2011.0	48.4	851.1	250.1	18.9	104.1	20.8	237.30
.15	6.74	8.04	2.56	.040	.040	.040	.000	230.10	1135.88
.004272	186.	186.	186.	2	0	0	.00	242.77	1378.65

\*SECNO 5.675

3470 ENCROACHMENT STATIONS=		1116.7	1393.4	TYPE=	1	TARGET=	276.700		
5.675	9.11	239.51	.00	.00	240.53	1.03	.13	.14	238.90
7800.0	4450.7	3237.7	111.6	629.4	340.8	35.5	104.7	21.0	237.20
.15	7.07	9.50	3.14	.040	.040	.040	.000	230.40	1125.83
.005932	26.	26.	26.	2	0	0	.00	250.28	1376.11

\*SECNO 5.681

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	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 = 3.18

3470 ENCROACHMENT STATIONS=	1250.3	1817.3	TYPE=	1	TARGET=	567.000			
5.681	10.07	240.77	.00	.00	240.89	.12	.04	.32	239.30
7800.0	.0	1253.7	6546.3	.0	388.9	2381.8	106.2	21.3	236.60
.15	.00	3.22	2.75	.000	.040	.040	.000	230.70	1250.30
.000586	33.	33.	33.	3	0	0	.00	513.74	1764.04

\*SECNO 5.728

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .63

3470 ENCROACHMENT STATIONS=	1409.9	1984.8	TYPE=	1	TARGET=	574.900			
5.728	8.55	240.95	.00	.00	241.17	.22	.22	.05	236.90
7800.0	329.2	1698.2	5772.6	126.8	377.1	1607.0	120.4	24.3	237.70
.17	2.60	4.50	3.59	.040	.040	.040	.000	232.40	1409.90
.001478	254.	254.	254.	2	0	0	.00	533.58	1943.48

\*SECNO 5.776

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .59

3470 ENCROACHMENT STATIONS=	1320.3	1908.6	TYPE=	1	TARGET=	588.300			
5.776	8.67	241.37	.00	.00	241.93	.56	.57	.18	239.00
7800.0	322.6	1711.7	5765.8	115.2	214.2	1067.4	130.3	27.1	239.20
.18	2.80	7.99	5.40	.040	.040	.040	.000	232.70	1434.84
.004232	245.	245.	245.	2	0	0	.00	471.81	1906.64

\*SECNO 5.823

5.823	8.46	242.66	.00	.00	243.40	.75	1.37	.10	240.90
7800.0	39.3	1595.4	6165.3	13.5	213.5	906.7	137.5	29.6	241.90
.19	2.91	7.47	6.80	.040	.040	.040	.000	234.20	1325.31
.007360	250.	250.	250.	2	0	0	.00	377.35	1702.66

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 5.870

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

5.870	8.60	244.90	244.90	.00	246.15	1.25	2.30	.28	241.90
7800.0	193.8	2285.4	5320.9	38.0	190.4	713.4	143.7	31.7	242.30
.20	5.09	12.00	7.46	.040	.040	.040	.000	236.30	893.14
.011053	250.	252.	260.	3	5	0	.00	331.87	1225.01

\*SECNO 5.918

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	350.9	490.0	TYPE=	1	TARGET=	139.100			
5.918	11.24	250.54	250.54	.00	252.86	2.32	2.86	.59	247.10
7800.0	883.8	6916.2	.0	112.1	546.0	.0	148.1	33.0	100000.00
.21	7.88	12.67	.00	.040	.040	.000	.000	239.30	350.90
.012809	270.	244.	230.	20	11	0	.00	139.10	490.00

\*SECNO 5.965

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.19

3470 ENCROACHMENT STATIONS=	.1	573.4	TYPE=	1	TARGET=	573.300			
5.965	14.21	254.11	.00	.00	254.71	.60	1.25	.60	250.40
7800.0	2647.3	3172.7	1980.0	638.6	400.8	376.4	154.0	34.6	249.30
.22	4.15	7.92	5.26	.040	.040	.040	.000	239.90	100.72
.002668	248.	248.	248.	2	0	0	.00	435.92	536.64

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 6.012

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.012	10.49	255.89	255.89	.00	257.38	1.49	1.11	.49	250.40
7800.0	1745.8	3864.6	2189.7	222.1	319.1	382.0	160.7	36.8	253.90
.22	7.86	12.11	5.73	.040	.040	.040	.000	245.40	220.41
.008724	250.	250.	250.	20	16	0	.00	316.35	536.77

\*SECNO 6.060

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.060	12.02	259.72	259.72	.00	261.22	1.50	2.19	.01	256.50
7800.0	334.1	4311.3	3154.5	63.0	369.2	446.4	165.7	38.4	257.50
.23	5.30	11.68	7.07	.040	.040	.040	.000	247.70	125.06
.009285	250.	243.	240.	2	12	0	.00	264.81	389.87

\*SECNO 6.107

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.107	13.57	263.27	263.27	.00	264.74	1.47	1.97	.01	259.60
7800.0	1095.8	4487.5	2216.8	186.3	383.8	355.3	170.6	39.8	260.30
.24	5.88	11.69	6.24	.040	.040	.040	.000	249.70	151.40
.007378	200.	244.	240.	0	8	0	.00	270.40	421.80

\*SECNO 6.154

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.154	13.25	266.55	266.55	.00	268.00	1.45	1.85	.01	271.40
7800.0	.0	4633.0	3167.0	.0	404.0	520.7	176.2	41.4	262.40
.25	.00	11.47	6.08	.000	.040	.040	.000	253.30	121.98
.006782	250.	258.	270.	20	6	0	.00	244.13	366.10

\*SECNO 6.202

7185 MINIMUM SPECIFIC ENERGY

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

3720 CRITICAL DEPTH ASSUMED

6.202	14.69	268.79	268.79	.00	270.54	1.75	1.75	.17	269.70
7800.0	.0	5704.7	2095.3	.0	479.9	354.8	181.1	42.6	265.00
.25	.00	11.89	5.90	.000	.040	.040	.000	254.10	179.68
.007633	250.	251.	230.	2	8	0	.00	227.72	407.40

\*SECNO 6.249

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.249	15.54	271.54	271.54	.00	274.48	2.94	2.30	.66	270.80
7800.0	11.6	7311.5	476.9	5.8	518.0	71.5	185.2	43.6	269.00
.26	2.01	14.11	6.67	.040	.040	.040	.000	256.00	154.72
.011078	252.	252.	252.	2	8	0	.00	117.34	272.06

\*SECNO 6.296

3301 HV CHANGED MORE THAN HVINS

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

6.296	15.50	275.70	.00	.00	276.41	.71	1.16	.78	275.80
7800.0	.0	4084.6	3715.4	.0	549.8	621.1	189.8	44.5	269.70
.27	.00	7.43	5.98	.000	.040	.040	.000	260.20	207.13
.002767	320.	248.	200.	3	0	0	.00	193.53	400.65

\*SECNO 6.311

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.311	13.91	275.01	275.01	.00	277.63	2.62	.12	1.05	275.30
7800.0	.0	6391.1	1408.9	.0	448.4	415.4	191.2	44.7	271.60
.27	.00	14.25	3.39	.000	.015	.040	.000	261.10	251.81
.001351	50.	79.	35.	3	10	0	.00	161.76	413.56

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

OCHV= .500 CEHV= .700  
 \*SECNO 6.313  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 250.5 478.3 TYPE= 1 TARGET= 227.800  
 END OF HACIENDA DRIVE -PRIVATE ROAD  
 VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED  
 FLOW FOR THE 100 YR. OCCURANCE.

6.313	14.71	275.91	275.91	.00	278.70	2.79	.02	.12	271.20
7800.0	141.7	5037.4	2620.9	47.1	308.4	569.0	191.4	44.7	271.20
.27	3.01	16.33	4.61	.040	.015	.040	.000	261.20	255.56
.001850	10.	10.	10.	5	8	0	.00	170.60	426.16

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 269.35 , NOT 275.91 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.53	2.00	.00	32.00	8.67	164.00	.00	261.20	261.20

\*SECNO 6.316  
 6870 D.S. ENERGY OF 278.70 IS HIGHER THAN COMPUTED ENERGY OF 278.35  
 PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
329.65	286.94	.00	6173.	1664.	164.	210.	270.20	271.50	231.
6.316	15.05	276.25	.00	.00	278.70	2.45	.00	.00	271.20
7800.0	161.0	4904.4	2734.6	55.1	316.8	611.8	191.7	44.8	271.20
.27	2.92	15.48	4.47	.040	.015	.040	.000	261.20	253.61
.001603	16.	16.	16.	5	0	6	.00	174.08	427.69

\*SECNO 6.324

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 206.0 476.3 TYPE= 1 TARGET= 270.300

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

6.324	16.67	279.07	.00	.00	279.69	.62	.07	.92	277.50
7800.0	112.2	3877.0	3810.8	57.1	559.4	666.6	192.5	44.9	271.90
.27	1.97	6.93	5.72	.050	.050	.050	.000	262.40	238.46
.002912	80.	41.	20.	5	0	0	.00	206.62	445.08

\*SECNO 6.366

6.366	12.59	279.89	.00	.00	280.88	.99	.93	.26	273.10
7800.0	2826.2	4973.8	.0	476.6	554.8	.0	199.4	46.2	285.70
.28	5.93	8.97	.00	.050	.050	.000	.000	267.30	141.17
.004937	450.	223.	160.	2	0	0	.00	175.24	316.41

\*SECNO 6.413

6.413	10.05	280.85	.00	.00	282.11	1.26	1.05	.18	275.40
7800.0	3443.7	4051.1	305.2	448.8	395.9	84.0	202.7	46.9	277.90
.29	7.67	10.23	3.63	.050	.050	.050	.000	270.80	141.17
.008906	30.	243.	430.	2	0	0	.00	221.54	362.70

\*SECNO 6.460

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

6.460	11.20	283.10	.00	.00	283.86	.76	1.50	.25	275.50
7800.0	1400.7	2228.1	4171.2	224.2	262.8	659.8	208.8	48.2	276.00
.30	6.25	8.48	6.32	.050	.050	.050	.000	271.90	117.71
.004382	160.	243.	350.	2	0	0	.00	207.73	325.44

\*SECNO 6.494

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 89.0 332.4 TYPE= 1 TARGET= 243.400

6.494	10.42	283.72	.00	.00	284.98	1.27	.77	.35	287.20
7800.0	.0	1928.9	5871.1	.0	219.2	645.0	211.6	48.7	278.90
.30	.00	8.80	9.10	.000	.050	.050	.000	273.30	98.82
.010457	240.	174.	80.	2	0	0	.00	170.73	269.55

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

\*SECNO 6.522

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

6.522	10.57	285.07	.00	.00	285.72	.65	.42	.31	282.60
7800.0	33.0	3794.6	3972.4	15.3	522.7	710.6	213.2	49.0	277.90
.30	2.16	7.26	5.59	.050	.050	.050	.000	274.50	174.73
.004091	90.	151.	20.	3	0	0	.00	237.10	411.83

\*SECNO 6.523

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.523	10.57	285.07	285.07	.00	287.68	2.62	.04	1.38	282.70
7800.0	113.7	6492.8	1193.5	26.6	473.7	135.6	213.3	49.0	279.40
.30	4.27	13.71	8.80	.050	.050	.050	.000	274.50	165.52
.015829	30.	8.	0.	3	5	0	.00	126.97	292.49

\*SECNO 6.555

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.87

3470 ENCROACHMENT STATIONS=	371.6	1500.0	TYPE=	1	TARGET=	1128.400			
6.555	14.19	289.19	.00	.00	289.43	.24	.55	1.19	282.70
7800.0	87.7	3267.8	4444.4	44.4	707.0	1322.4	220.5	50.2	280.00
.32	1.98	4.62	3.36	.050	.050	.050	.000	275.00	381.59
.001055	85.	157.	300.	2	0	0	.00	315.68	697.27

\*SECNO 6.602

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .53

3470 ENCROACHMENT STATIONS=	647.8	1013.3	TYPE=	1	TARGET=	365.500			
6.602	13.52	289.52	.00	.00	289.98	.46	.40	.16	286.80
7300.0	16.0	2037.2	5246.8	8.1	307.3	1063.8	229.8	51.8	284.20
.33	1.97	6.63	4.93	.050	.050	.050	.000	276.00	661.13
.003284	190.	250.	230.	2	0	0	.00	285.13	946.25

\*SECNO 6.650

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

3470 ENCROACHMENT STATIONS=	779.0	998.1	TYPE=	1	TARGET=	219.100			
6.650	13.69	290.89	.00	.00	292.73	1.84	1.78	.96	293.30
7300.0	.0	5172.1	2127.9	.0	422.8	327.3	238.3	53.8	285.30
.34	.00	12.23	6.50	.000	.050	.050	.000	277.20	782.76
.010813	45.	251.	400.	3	0	0	.00	190.02	972.78

\*SECNO 6.697

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	561.5	759.0	TYPE=	1	TARGET=	197.500			
6.697	15.23	293.73	.00	.00	294.96	1.24	1.94	.30	293.40
7300.0	.0	5200.0	2100.0	.0	518.3	400.6	242.2	54.6	289.70
.35	.00	10.03	5.24	.000	.050	.050	.000	278.50	561.50
.007473	410.	245.	150.	4	0	0	.00	197.50	759.00

\*SECNO 6.725

3470 ENCROACHMENT STATIONS=	306.4	541.4	TYPE=	1	TARGET=	235.000			
6.725	15.72	295.02	.00	.00	295.90	.88	.76	.18	293.00
7300.0	.0	5692.1	1607.9	.0	701.2	322.1	245.1	55.1	289.00
.35	.00	8.12	4.99	.000	.050	.050	.000	279.30	306.40
.004425	200.	150.	90.	2	0	0	.00	172.46	478.86

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 6.744

3470 ENCROACHMENT STATIONS=	731.8	903.3	TYPE=	1	TARGET=	171.500			
6.744	16.14	295.44	.00	.00	296.38	.94	.44	.04	293.30
7300.0	.0	6954.0	346.0	.0	873.6	113.8	247.3	55.5	292.80
.35	.00	7.96	3.04	.000	.050	.050	.000	279.30	731.80
.004405	110.	100.	90.	2	0	0	.00	161.59	893.39

OCHV= .200 CEHV= .400

\*SECNO 6.747

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

3470 ENCROACHMENT STATIONS=	439.0	569.5	TYPE=	1	TARGET=	130.500			
BREEZE HILL DRIVE BRIDGE									
VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.									
6.747	19.41	295.71	.00	.00	296.45	.75	.03	.04	290.30
7300.0	.0	6636.2	663.8	.0	922.1	202.1	247.6	55.5	290.30
.35	.00	7.20	3.28	.000	.050	.050	.000	276.30	439.00
.002164	11.	11.	11.	2	0	0	.00	120.12	559.12

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.79	1.50	.00	28.00	10.00	432.00	1.50	276.30	276.30	

\*SECNO 6.750

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
303.64	296.82	.37	4679.	2679.	432.	432.	288.30	290.30	395.

3470 ENCROACHMENT STATIONS=	439.0	503.0	TYPE=	1	TARGET=	64.000			
6.750	19.52	295.82	.00	.00	296.78	.96	.32	.00	290.30
7300.0	.0	7300.0	.0	.0	929.6	.0	248.0	55.5	100000.00
.35	.00	7.85	.00	.000	.050	.000	.000	276.30	439.00
.002800	18.	18.	18.	2	0	3	.00	64.00	503.00

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

\*SECNO 6.775

3265 DIVIDED FLOW

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

3470 ENCROACHMENT STATIONS=	364.0	671.8	TYPE=	1	TARGET=	307.800			
6.775	17.48	296.08	.00	.00	297.46	1.38	.51	.17	294.20
7300.0	195.4	6934.6	170.0	66.0	717.4	75.6	250.7	55.9	294.40
.36	2.96	9.67	2.25	.050	.050	.050	.000	278.60	364.00
.006230	110.	128.	140.	2	0	0	.00	222.65	612.00

OCHV= .350 CEHV= .600

\*SECNO 6.779

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.81

3470 ENCROACHMENT STATIONS=	188.2	796.3	TYPE=	1	TARGET=	608.100			
FRONTAGE ROAD (HACIENDA DR ) BRIDGE									
VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED									
FLOW FOR THE 100 YR. OCCURANCE.									
6.779	14.88	296.18	.00	.00	297.50	1.33	.02	.02	294.30
7300.0	180.2	7029.0	90.7	200.3	746.6	122.9	251.1	56.1	294.30
.36	.90	9.41	.74	.050	.015	.050	.000	281.30	249.51
.000429	22.	22.	22.	0	0	0	.00	278.45	527.96

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.90	1.50	.00	68.00	18.00	450.00	.00	281.30	281.30

\*SECNO 6.799

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .22

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
303.94	299.23	1.73	3484.	3817.	450.	450.	290.30	294.30	504.

3470 ENCROACHMENT STATIONS=	260.0	405.0	TYPE=	1	TARGET=	145.000			
6.799	15.21	296.51	.00	.00	298.30	1.79	.80	.00	294.30
7300.0	1159.6	6140.4	.0	227.9	534.2	.0	253.3	56.6	100000.00
.36	5.09	11.50	.00	.045	.050	.000	.000	281.30	260.00
.008693	100.	100.	100.	4	0	4	.00	145.00	405.00

\*SECNO 6.803

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.84

3470 ENCROACHMENT STATIONS=	259.1	650.1	TYPE=	1	TARGET=	391.000			
6.803	16.36	298.66	.00	.00	298.99	.34	.18	.51	290.60
7300.0	1572.1	5114.9	613.0	397.7	1006.3	349.0	255.4	56.9	295.30
.37	3.95	5.08	1.76	.045	.050	.045	.000	282.30	264.29
.001081	120.	70.	20.	3	0	0	.00	368.40	632.70

\*SECNO 6.822

3470 ENCROACHMENT STATIONS=	236.6	640.7	TYPE=	1	TARGET=	404.100			
6.822	16.32	298.82	.00	.00	299.11	.28	.10	.02	292.80
7300.0	583.8	5933.7	782.5	197.3	1288.6	404.1	259.5	57.8	294.60
.37	2.96	4.60	1.94	.045	.050	.045	.000	282.50	249.83
.000923	98.	98.	98.	2	0	0	.00	366.23	616.06

\*SECNO 6.836

3470 ENCROACHMENT STATIONS=	225.0	770.0	TYPE=	1	TARGET=	545.000			
6.836	16.32	298.92	.00	.00	299.18	.26	.07	.01	292.70
7300.0	363.9	5801.1	1135.0	124.5	1298.2	555.4	262.7	58.4	294.90
.38	2.92	4.47	2.04	.045	.050	.045	.000	282.60	250.98
.000930	70.	73.	70.	2	0	0	.00	374.06	625.04

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

\*SECNO 6.884

6.884	15.55	299.15	.00	.00	299.57	.42	.29	.09	294.50
7300.0	47.8	6307.9	944.3	22.7	1147.4	380.2	272.9	60.3	295.40
.39	2.11	5.50	2.48	.045	.050	.045	.000	283.60	229.35
.001514	245.	250.	260.	0	0	0	.00	299.70	529.05

\*SECNO 6.931

6.931	14.55	299.55	.00	.00	300.20	.65	.49	.14	295.80
7300.0	251.4	6485.5	563.1	67.6	957.1	164.3	280.8	61.7	296.80
.40	3.72	6.78	3.43	.045	.050	.045	.000	285.00	514.21
.002629	250.	250.	250.	2	0	0	.00	178.24	692.46

\*SECNO 6.978

3470 ENCROACHMENT STATIONS= .1 607.5 TYPE= 1 TARGET= 607.400

6.978	13.77	300.27	.00	.00	301.03	.76	.76	.06	303.10
7300.0	.0	7300.0	.0	.0	1044.8	.0	287.1	62.6	100000.00
.41	.00	6.99	.00	.000	.050	.000	.000	286.50	470.55
.003751	240.	245.	245.	2	0	0	.00	135.26	605.81

\*SECNO 7.026

3470 ENCROACHMENT STATIONS= .1 825.0 TYPE= 1 TARGET= 824.900

7.026	12.13	301.33	.00	.00	302.11	.79	1.07	.02	301.80
7300.0	.0	7300.0	.0	.0	1024.1	.0	293.0	63.4	100000.00
.42	.00	7.13	.00	.000	.050	.000	.000	289.20	666.84
.004875	251.	251.	251.	2	0	0	.00	157.63	824.48

CCHV= .500 CEHV= .700

\*SECNO 7.071

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.10

3470 ENCROACHMENT STATIONS= 854.8 905.2 TYPE= 1 TARGET= 50.400  
 VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUNINDICATED SUBMERGED

FLOW FOR THE 100 YR. OCCURANCE.

7.071	11.25	301.25	.00	.00	303.85	2.60	.47	1.27	303.00
7300.0	.0	7300.0	.0	.0	564.4	.0	297.3	64.0	10000.00
.43	.00	12.93	.00	.000	.015	.000	.000	290.00	854.84
.001105	232.	232.	232.	2	0	0	.00	50.36	905.20

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 294.74 , NOT 301.25 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.89	1.50	.00	68.00	18.00	450.00	.00	290.00	290.00

\*SECNO 7.088

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.52

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGERS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
308.98	305.77	.00	1642.	5673.	450.	450.	299.00	303.00	352.

3470 ENCROACHMENT STATIONS= 800.0 1050.0 TYPE= 1 TARGET= 250.000

7.088	14.42	304.42	.00	.00	305.92	1.50	2.07	.00	303.00
7300.0	66.8	7170.6	62.5	75.5	723.8	94.2	298.8	64.3	301.00
.43	.89	9.91	.66	.045	.015	.045	.000	290.00	800.00
.000478	90.	90.	90.	3	0	2	.00	224.94	1024.94

\*SECNO 7.091

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 2050.0 2350.0 TYPE= 1 TARGET= 300.000

7.091	14.17	306.27	.00	.00	306.54	.27	.01	.61	302.30
7300.0	319.4	6150.6	830.0	177.5	1380.1	382.1	299.6	64.4	302.10
.43	1.80	4.46	2.17	.040	.035	.040	.000	292.10	2074.78
.000497	24.	24.	24.	3	0	0	.00	275.22	2350.00

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

\*SECNO 7.138

7.138	14.55	306.55	.00	.00	306.70	.14	.09	.06	302.20
7300.0	172.5	4313.0	2814.6	105.0	1174.1	1560.9	312.0	66.7	302.90
.45	1.64	3.67	1.80	.040	.035	.040	.000	292.00	691.44
.000323	270.	243.	200.	2	0	0	.00	628.97	1320.42

\*SECNO 7.186

3470 ENCROACHMENT STATIONS= .1 1120.0 TYPE= 1 TARGET= 1119.900

7.186	14.23	306.63	.00	.00	306.88	.25	.11	.08	302.50
7300.0	24.4	5832.2	1443.4	17.9	1329.5	669.5	326.5	69.6	303.00
.47	1.36	4.39	2.16	.040	.035	.040	.000	292.40	757.63
.000585	230.	252.	270.	2	0	0	.00	345.85	1103.48

\*SECNO 7.233

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

7.233	13.11	306.71	.00	.00	307.40	.69	.21	.31	302.70
7300.0	235.8	7037.1	27.1	78.7	1037.0	13.9	335.8	71.1	302.50
.48	3.00	6.79	1.95	.040	.035	.040	.000	293.60	732.09
.001285	260.	247.	290.	2	0	0	.00	138.40	870.50

CCHV= .500 CEHV= .700

\*SECNO 7.263

3301 HV CHANGED MORE THAN HVINS

7.263	10.30	306.20	.00	.00	309.30	3.10	.21	1.69	310.90
7300.0	.0	7300.0	.0	.0	516.3	.0	338.7	71.5	310.90
.49	.00	14.14	.00	.000	.015	.000	.000	295.90	104.88
.001435	157.	157.	157.	2	0	0	.00	50.24	155.12

SPECIAL BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

5227 DOWNSTREAM ELEV IS 300.64 , NOT 306.20 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.11	2.50	.00	68.00	18.00	450.00	.00	295.90	295.90

\*SECNO 7.300

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 AREA	ELLC	ELTRD	WEIRLN
314.82	310.97	.00	664.	6612.	450.	450.	304.90	310.90	113.
7.300	16.11	312.01	.00	.00	313.27	1.26	3.97	.00	310.90
7300.0	9.6	7288.4	2.0	14.8	809.1	4.1	341.8	71.7	310.90
.49	.65	9.01	.49	.040	.015	.040	.000	295.90	85.78
.000378	200.	200.	200.	2	0	2	.00	76.79	162.56

\*SECNO 7.304

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.74

7.304	18.23	313.53	.00	.00	313.78	.25	.00	.51	309.80
7300.0	87.4	7104.6	108.0	136.5	1763.1	151.6	342.9	71.9	308.20
.49	.64	4.03	.71	.040	.015	.040	.000	295.30	22.20
.000050	40.	33.	40.	2	0	0	.00	194.05	216.25

\*SECNO 7.351

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

3470 ENCROACHMENT STATIONS= 605.0 1100.0 TYPE= 1 TARGET= 495.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
7.351	18.18	313.48	.00	.00	313.95	.47	.02	.16	308.60
7300.0	80.6	7204.1	15.2	86.7	1304.3	24.5	352.5	72.7	309.00
.51	.93	5.52	.62	.040	.015	.040	.000	295.30	620.85
.000105	260.	248.	90.	2	0	0	.00	132.99	753.84

\*SECNO 7.375

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

7.375	17.91	313.41	.00	.00	314.18	.77	.02	.21	309.00
7300.0	25.1	7130.1	144.7	27.9	999.0	105.2	356.1	73.1	309.40
.51	.90	7.14	1.38	.040	.015	.040	.000	295.50	516.35
.000221	140.	121.	100.	2	0	0	.00	126.04	642.39

T1 SAN DIEGO FLOOD PLAIN MAPPING STUDY JOB: 8190-75  
T2 GEORGE S. NOLTE & ASSOC. 8333 CLAIREMONT MESA BLVD. PH 714-278-9293  
T3 BUENA VISTA CREEK FLOODWAY

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	2.					-1.		187.73	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.0		-1.0							

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*PROF 2  
0

OCHV= .300 CEHV= .600  
\*SECNO 4.727

3470 ENCROACHMENT STATIONS=	452.6	541.9	TYPE=	1	TARGET=	89.300			
4.727	10.23	187.73	.00	187.40	190.48	2.75	.00	.00	183.30
8000.0	.0	8000.0	.0	.0	601.2	.0	.0	.0	100000.00
.00	.00	13.31	.00	.000	.015	.000	.000	177.50	452.60
.001618	218.	218.	200.	0	0	0	.00	89.30	541.90

\*SECNO 4.728

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	571.3	608.7	TYPE=	1	TARGET=	37.400			
VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.									
UPSTREAM REACH PART 2 OF 2 BRIDGE AT THUNDER DRIVE									
4.728	11.28	188.48	188.48	188.49	194.14	5.66	.01	1.75	191.20
8000.0	.0	8000.0	.0	.0	419.1	.0	.1	.0	100000.00
.00	.00	19.09	.00	.000	.015	.000	.000	177.20	571.34
.002754	5.	5.	5.	20	8	0	.00	37.32	608.66

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 184.22 , NOT 188.48 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.60	2.00	.00	45.00	9.00	242.00	.00	177.20	177.20

\*SECNO 4.739

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
215.63	199.65	.00	4063.	3948.	242.	252.	184.20	191.20	514.

3470 ENCROACHMENT STATIONS=		571.3	608.7	TYPE=	1	TARGET=	37.400		
4.739	14.45	191.65	.00	191.69	195.09	3.44	.95	.00	191.20
8000.0	.0	8000.0	.0	.0	537.8	.0	.7	.1	100000.00
.00	.00	14.88	.00	.000	.015	.000	.000	177.20	571.30
.001373	54.	54.	54.	4	0	6	.00	37.40	608.70

OCHV= .300 CEHV= .600  
 \*SECNO 4.744

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		863.5	921.5	TYPE=	1	TARGET=	58.000		
4.744	11.74	191.74	191.74	191.74	196.08	4.34	.06	.54	192.60
8000.0	.0	7995.7	4.3	.0	478.4	1.8	1.1	.1	188.20
.00	.00	16.71	2.45	.000	.015	.015	.000	180.00	865.03
.001834	30.	39.	50.	3	15	0	.00	56.47	921.50

\*SECNO 4.758  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		864.5	922.5	TYPE=	1	TARGET=	58.000		
4.758	11.53	192.13	192.13	192.13	196.50	4.37	.13	.02	100000.00
8000.0	.0	7929.8	70.2	.0	470.9	11.6	1.9	.2	189.40
.00	.00	16.84	6.07	.000	.015	.015	.000	180.60	864.50
.001902	69.	69.	69.	2	5	0	.00	58.00	922.50

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

\*SECNO 4.767

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		953.5	1011.5	TYPE=	1	TARGET=	58.000		
4.767	11.91	192.91	192.91	192.91	197.36	4.46	.08	.05	189.40
8000.0	164.4	7741.1	94.6	23.2	450.7	15.0	2.4	.2	189.60
.00	7.08	17.18	6.29	.015	.015	.015	.000	181.00	953.50
.001689	47.	47.	47.	3	8	0	.00	58.00	1011.50

\*SECNO 4.814

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		801.5	938.0	TYPE=	1	TARGET=	136.500		
4.814	11.69	194.79	194.79	194.79	197.39	2.59	.35	.56	191.20
8000.0	221.1	6119.0	1659.9	46.9	430.9	216.3	5.7	.8	190.80
.01	4.72	14.20	7.68	.015	.015	.015	.000	183.10	801.50
.001182	247.	247.	247.	20	5	0	.00	136.50	938.00

\*SECNO 4.829

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		779.5	916.0	TYPE=	1	TARGET=	136.500		
4.829	11.24	194.94	194.94	194.94	197.53	2.59	.09	.00	191.40
8000.0	114.6	6244.5	1640.8	28.9	443.7	214.8	6.9	1.0	190.70
.01	3.96	14.08	7.64	.015	.015	.015	.000	183.70	779.50
.001166	74.	74.	74.	2	11	0	.00	136.50	916.00

\*SECNO 4.876

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

3470 ENCROACHMENT STATIONS=		754.5	891.0	TYPE=	1	TARGET=	136.500		
4.876	11.11	196.31	196.31	196.31	198.59	2.28	.29	.09	192.40
8000.0	954.2	5629.3	1416.5	115.1	414.5	200.0	11.0	1.8	192.20
.02	8.29	13.58	7.08	.015	.015	.015	.000	185.20	754.50
.001117	250.	250.	250.	20	6	0	.00	136.50	891.00

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 4.923

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

3470 ENCROACHMENT STATIONS=	799.5	936.0	TYPE=	1	TARGET=	136.500			
4.923	11.28	197.78	197.78	200.21	2.43	.28	.09	194.20	
8000.0	920.4	6096.8	982.9	117.8	442.7	153.7	15.1	2.6	194.60
.02	7.82	13.77	6.40	.015	.015	.015	.000	186.50	799.50
.001155	250.	250.	250.	20	5	0	.00	136.50	936.00

\*SECNO 4.971

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	620.5	694.0	TYPE=	1	TARGET=	73.500			
4.971	11.06	199.26	199.26	202.91	3.66	.35	.74	195.70	
8000.0	1014.6	6985.4	.0	109.0	435.6	.0	18.8	3.2	100000.00
.03	9.31	16.04	.00	.015	.015	.000	.000	188.20	620.50
.001721	251.	251.	251.	20	5	0	.00	73.50	694.00

\*SECNO 5.018

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	667.0	759.0	TYPE=	1	TARGET=	92.000			
5.018	13.51	202.91	.00	202.91	204.31	1.40	.72	.68	203.20
8000.0	.0	8000.0	.0	.0	842.3	.0	22.7	3.7	202.70
.03	.00	9.50	.02	.000	.050	.050	.000	189.40	667.72
.005911	250.	246.	230.	5	0	0	.00	91.28	759.00

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

\*SECNO 5.065

3470 ENCROACHMENT STATIONS=	726.0	845.0	TYPE=	1	TARGET=	119.000			
5.065	14.66	204.66	.00	204.66	205.64	.98	1.21	.13	204.70
8000.0	.0	8000.0	.0	.0	1005.6	.0	27.9	4.2	10000.00
.04	.00	7.96	.00	.000	.050	.000	.000	190.00	727.09
.004109	250.	247.	240.	3	0	0	.00	111.94	839.03

\*SECNO 5.113

3470 ENCROACHMENT STATIONS=	765.0	859.0	TYPE=	1	TARGET=	94.000			
5.113	15.11	205.71	.00	205.71	207.17	1.47	1.24	.29	207.50
8000.0	.0	7997.6	2.4	.0	822.4	1.7	33.3	4.8	202.80
.05	.00	9.72	1.45	.000	.050	.050	.000	190.60	770.58
.005929	230.	254.	280.	2	0	0	.00	88.42	859.00

\*SECNO 5.160

3470 ENCROACHMENT STATIONS=	727.0	840.0	TYPE=	1	TARGET=	113.000			
5.160	15.75	207.45	.00	207.43	208.66	1.20	1.40	.08	208.40
8000.0	.0	8000.0	.0	.0	908.3	.0	38.4	5.4	211.60
.06	.00	8.81	.00	.000	.050	.000	.000	191.70	729.97
.005009	240.	258.	270.	2	0	0	.00	100.80	830.76

\*SECNO 5.207

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	712.0	797.0	TYPE=	1	TARGET=	85.000			
5.207	15.53	208.73	.00	208.72	210.78	2.05	1.62	.51	10000.00
8000.0	.0	8000.0	.0	.0	696.6	.0	42.8	5.9	10000.00
.06	.00	11.48	.00	.000	.050	.000	.000	193.20	715.79
.009368	242.	242.	242.	2	0	0	.00	81.20	796.99

\*SECNO 5.258

3470 ENCROACHMENT STATIONS=	497.0	578.0	TYPE=	1	TARGET=	81.000			
5.258	15.96	211.16	.00	211.16	213.41	2.24	2.51	.12	215.50
8000.0	.0	8000.0	.0	.0	665.6	.0	47.0	6.4	10000.00
.07	.00	12.02	.00	.000	.050	.000	.000	195.20	506.15
.009654	264.	264.	264.	2	0	0	.00	71.85	578.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 5.267

3470 ENCROACHMENT STATIONS=	519.0	583.0	TYPE=	1	TARGET=	64.000			
5.267	15.94	211.54	.00	211.65	214.07	2.53	.49	.17	100000.00
8000.0	.0	8000.0	.0	.0	626.2	.0	47.7	6.4	212.90
.07	.00	12.78	.00	.000	.050	.000	.000	195.60	519.00
.010393	49.	49.	49.	2	0	0	.00	58.90	577.90

CCHV= .350 CEHV= .550

\*SECNO 5.271

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.04

3470 ENCROACHMENT STATIONS=	482.8	517.2	TYPE=	1	TARGET=	34.400			
SUNSET DRIVE BRIDGE									
5.271	15.59	211.19	.00	211.15	214.71	3.52	.09	.54	217.00
8000.0	.0	8000.0	.0	.0	531.6	.0	48.0	6.5	100000.00
.07	.00	15.05	.00	.000	.020	.000	.000	195.60	482.91
.002500	21.	21.	21.	2	0	0	.00	34.17	517.09

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.91	2.80	34.40	42.00	5.25	661.50	.00	195.60	195.60

\*SECNO 5.276

3301 HV CHANGED MORE THAN HVINS

CLASS A LOW FLOW

3420 BRIDGE W.S.=	209.75	BRIDGE VELOCITY=	15.39	CALCULATED CHANNEL AREA=	520.				
EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
215.53	216.88	3.29	0.	8000.	662.	662.	213.60	217.50	0.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 482.8 517.2 TYPE= 1 TARGET= 34.400  
 5.276 18.88 214.48 .00 214.47 216.88 2.40 2.17 .00 217.00  
 8000.0 .0 8000.0 .0 .0 643.9 .0 48.3 6.5 100000.00  
 .07 .00 12.42 .00 .000 .020 .000 .000 195.60 482.87  
 .001500 24. 24. 24. 0 0 0 .00 34.25 517.13

\*SECNO 5.278

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .55

3470 ENCROACHMENT STATIONS= 576.0 657.0 TYPE= 1 TARGET= 81.000  
 5.278 17.99 215.49 .00 215.75 217.17 1.68 .05 .25 216.30  
 8000.0 .0 8000.0 .0 .0 768.7 .0 48.6 6.5 100000.00  
 .07 .00 10.41 .00 .000 .045 .000 .000 197.50 587.93  
 .004995 19. 19. 19. 3 0 0 .00 69.07 657.00

\*SECNO 5.302

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 529.0 630.0 TYPE= 1 TARGET= 101.000  
 5.302 18.14 216.84 .00 217.48 217.83 1.00 .42 .24 219.90  
 8000.0 .0 7995.4 4.6 .0 997.6 3.3 51.1 6.7 213.50  
 .08 .00 8.01 1.37 .000 .045 .045 .000 198.70 544.62  
 .002455 130. 124. 110. 3 0 0 .00 85.38 630.00

\*SECNO 5.349

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	275.0	539.0	TYPE=	1	TARGET=	264.000			
5.349	16.15	218.15	218.15	218.20	219.87	1.71	1.01	.39	216.10
8000.0	49.2	5498.4	2452.3	16.1	454.2	441.0	56.5	7.6	215.60
.08	3.05	12.11	5.56	.045	.045	.045	.000	202.00	299.61
.008340	245.	245.	245.	20	13	0	.00	239.39	539.00

\*SECNO 5.397

3470 ENCROACHMENT STATIONS=	23.8	258.0	TYPE=	1	TARGET=	234.200			
5.397	16.80	220.30	.00	219.91	221.72	1.42	1.75	.10	218.60
8000.0	27.0	5510.6	2462.4	11.6	501.2	473.5	61.8	8.9	217.30
.09	2.32	10.99	5.20	.045	.045	.045	.000	203.50	30.24
.006207	245.	245.	245.	2	0	0	.00	227.75	258.00

\*SECNO 5.435

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	21.0	164.1	TYPE=	1	TARGET=	143.100			
5.435	15.09	221.89	.00	221.17	223.85	1.96	1.83	.30	220.30
8000.0	2.5	7997.5	.0	1.0	711.4	.0	65.8	9.8	222.00
.10	2.45	11.24	.00	.045	.045	.000	.000	206.80	21.00
.014178	215.	204.	203.	2	0	0	.00	142.30	163.30

\*SECNO 5.463

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.01

3470 ENCROACHMENT STATIONS=	495.0	673.0	TYPE=	1	TARGET=	178.000			
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SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5.463	17.45	224.25	.00	224.00	224.87	.62	.55	.47	220.30
8000.0	1187.3	6812.0	.6	323.3	1017.7	1.1	69.5	10.4	220.50
.10	3.67	6.69	.56	.045	.045	.045	.000	206.80	512.50
.001565	150.	157.	150.	2	0	0	.00	160.50	673.00

\*SECNO 5.491

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	460.5	690.8	TYPE=	1	TARGET=	230.300			
5.491	8.18	227.38	227.38	227.37	228.95	1.57	.50	.52	222.60
8000.0	3478.1	3046.8	1475.1	430.5	242.5	180.5	73.2	11.0	222.30
.11	8.08	12.56	8.17	.045	.045	.045	.000	219.20	462.34
.012039	149.	149.	149.	20	13	0	.00	228.46	690.80

\*SECNO 5.539

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	450.7	678.3	TYPE=	1	TARGET=	227.600			
5.539	11.22	233.52	233.52	233.49	235.84	2.32	3.15	.41	229.70
8000.0	463.2	7536.8	.0	69.8	603.9	.0	77.7	12.1	100000.00
.11	6.64	12.48	.00	.040	.040	.000	.000	222.30	517.32
.012880	253.	253.	253.	20	14	0	.00	160.98	678.30

\*SECNO 5.586

3301 HV CHANGED MORE THAN HVINS

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

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

3470 ENCROACHMENT STATIONS= 650.5 900.0 TYPE= 1 TARGET= 249.500  
 5.586 10.69 236.99 .00 236.65 238.12 1.13 1.87 .42 234.00  
 8000.0 719.2 7280.8 .0 191.9 820.9 .0 82.4 13.3 100000.00  
 .12 3.75 8.87 .00 .040 .040 .000 .000 226.30 650.50  
 .005106 250. 242. 230. 2 0 0 .00 249.50 900.00

\*SECNO 5.598

3470 ENCROACHMENT STATIONS= 1000.0 1264.0 TYPE= 1 TARGET= 264.000  
 5.598 8.41 237.31 .00 238.26 238.54 1.24 .37 .06 232.00  
 8000.0 5010.2 2989.0 .8 644.2 282.3 .6 83.7 13.7 235.20  
 .12 7.78 10.59 1.34 .040 .040 .040 .000 228.90 1000.00  
 .007697 60. 59. 60. 3 0 0 .00 264.00 1264.00

\*SECNO 5.634

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.93

3470 ENCROACHMENT STATIONS= 1030.0 1435.0 TYPE= 1 TARGET= 405.000  
 5.634 9.28 239.08 .00 239.11 239.29 .20 .38 .36 234.70  
 8000.0 2927.6 1206.3 3866.0 897.1 295.5 1051.8 90.6 15.1 236.40  
 .14 3.26 4.08 3.68 .040 .040 .040 .000 229.80 1030.00  
 .000895 190. 190. 190. 2 0 0 .00 396.32 1435.00

\*SECNO 5.670

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .64

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

3470 ENCROACHMENT STATIONS=			1173.0	1569.0	TYPE=	1	TARGET=	396.000	
5.670	9.16	239.26	.00	239.49	239.61	.35	.24	.08	237.90
7800.0	3052.5	1322.4	3425.2	673.2	241.5	745.0	99.0	16.7	237.30
.15	4.53	5.47	4.60	.040	.040	.040	.000	230.10	1173.00
.002074	186.	186.	186.	2	0	0	.00	364.43	1569.00

\*SECNO 5.675

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=			1144.0	1545.0	TYPE=	1	TARGET=	401.000	
5.675	8.48	238.88	238.88	239.51	240.48	1.61	.10	.69	238.90
7800.0	4087.4	3648.6	64.0	483.9	307.2	18.8	99.7	16.9	237.20
.15	8.45	11.88	3.40	.040	.040	.040	.000	230.40	1144.00
.010624	26.	26.	26.	3	10	0	.00	223.59	1367.73

\*SECNO 5.681

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.18

3470 ENCROACHMENT STATIONS=			1125.0	1587.0	TYPE=	1	TARGET=	462.000	
5.681	10.22	240.92	.00	240.77	241.05	.14	.05	.51	239.30
7800.0	1661.3	1342.0	4796.7	630.2	396.7	1640.2	101.0	17.2	236.60
.15	2.64	3.38	2.92	.040	.040	.040	.000	230.70	1125.00
.000607	33.	33.	33.	3	0	0	.00	462.00	1587.00

\*SECNO 5.728

2800 NAT Q1= 2029.02 WSELK= 240.95 ENC Q1= 2029.02 WSEL= 241.85 RATIO= .0000  
 NAT Q1= 2987. RATIOS LOB, CH, ROB= .1043 .1881 .7076 WSEL= 241.85

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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

3470 ENCROACHMENT STATIONS=	1460.6	1804.0	TYPE=	4	TARGET=	.321			
5.728	8.67	241.07	.00	240.95	241.48	.40	.28	.15	236.90
7800.0	.0	2206.2	5593.8	.0	385.6	1162.1	113.3	19.5	237.70
.17	.00	5.72	4.81	.000	.040	.040	.000	232.40	1460.60
.002511	254.	254.	254.	0	0	0	.00	343.40	1804.00

\*SECNO 5.776

2800 NAT Q1= 1199.04 WSELK= 241.37 ENC Q1= 1199.04 WSEL= 242.17 RATIO= .0000  
 NAT Q1= 1979. RATIOS LOB, CH, ROB= .0605 .1598 .7797 WSEL= 242.17

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	1546.4	1781.5	TYPE=	4	TARGET=	.394			
5.776	9.04	241.74	.00	241.37	242.66	.93	.90	.29	239.00
7800.0	.0	2093.1	5706.9	.0	225.7	806.7	120.6	21.1	239.20
.18	.00	9.28	7.07	.000	.040	.040	.000	232.70	1546.40
.005871	245.	245.	245.	2	0	0	.00	235.11	1781.51

\*SECNO 5.823

2800 NAT Q1= 909.21 WSELK= 242.66 ENC Q1= 909.21 WSEL= 243.36 RATIO= .0000  
 NAT Q1= 1269. RATIOS LOB, CH, ROB= .0088 .1946 .7966 WSEL= 243.36

3470 ENCROACHMENT STATIONS=	1340.7	1596.9	TYPE=	4	TARGET=	.283			
5.823	9.17	243.37	.00	242.66	244.32	.96	1.64	.02	240.90
7800.0	.0	2078.3	5721.7	.0	253.7	741.6	126.4	22.5	241.90
.18	.00	8.19	7.72	.000	.040	.040	.000	234.20	1340.70
.007416	250.	250.	250.	2	0	0	.00	256.17	1596.87

\*SECNO 5.870

2800 NAT Q1= 741.90 WSELK= 244.90 ENC Q1= 741.90 WSEL= 245.30 RATIO= .0000  
 NAT Q1= 911. RATIOS LOB, CH, ROB= .0297 .2671 .7032 WSEL= 245.30

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

3470 ENCROACHMENT STATIONS= 918.5 1151.6 TYPE= 4 TARGET= .185

5.870	9.12	245.42	.00	244.90	246.80	1.37	2.24	.23	241.90
7800.0	.0	2402.4	5397.6	.0	207.8	653.1	131.9	24.0	242.30
.19	.00	11.56	8.26	.000	.040	.040	.000	236.30	918.50
.010355	250.	252.	260.	2	0	0	.00	233.13	1151.63

\*SECNO 5.918  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 388.0 580.0 TYPE= 1 TARGET= 192.000

5.918	10.25	249.55	249.55	250.54	251.41	1.85	2.81	.26	247.10
7800.0	64.5	5301.1	2434.4	10.9	450.2	273.7	136.2	25.1	247.20
.20	5.91	11.78	8.89	.040	.040	.040	.000	239.30	388.00
.013712	270.	244.	230.	11	8	0	.00	192.00	580.00

\*SECNO 5.965  
 2800 NAT Q1= 1510.13 WSELK= 254.11 ENC Q1= 1510.13 WSEL= 254.41 RATIO= .0000  
 NAT Q1= 1812. RATIOS LOB, CH, ROB= .3318 .3573 .3109 WSEL= 254.41  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 272.3 510.3 TYPE= 4 TARGET= .167

5.965	12.73	252.63	252.63	254.11	254.34	1.71	2.66	.05	250.40
7800.0	1637.7	4251.3	1911.0	259.6	336.3	247.0	140.7	26.4	249.30
.20	6.31	12.64	7.74	.040	.040	.040	.000	239.90	272.27
.008600	248.	248.	248.	3	11	0	.00	238.04	510.32

\*SECNO 6.012  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 220.1 422.0 TYPE= 1 TARGET= 201.940

6.012	10.69	256.09	256.09	255.89	257.99	1.89	2.29	.10	250.40
7800.0	2034.3	4294.9	1470.8	236.1	328.5	219.1	145.4	27.6	253.90
.21	8.62	13.07	6.71	.040	.040	.040	.000	245.40	220.06
.009773	250.	250.	250.	3	9	0	.00	201.94	422.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 6.060

2800 NAT Q1= 809.46 WSELK= 259.72 ENC Q1= 809.46 WSEL= 260.12 RATIO= .0000  
 NAT Q1= 955. RATIOS LOB, CH, ROB= .0508 .5192 .4300 WSEL= 260.12  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	161.0	332.5	TYPE=	4	TARGET=	.153			
6.060	12.06	259.76	259.76	259.72	261.87	2.11	2.68	.12	256.50
7800.0	.0	4890.7	2909.3	.0	371.5	340.8	149.5	28.7	257.50
.22	.00	13.17	8.54	.000	.040	.040	.000	247.70	161.00
.012527	250.	243.	240.	4	11	0	.00	171.53	332.53

\*SECNO 6.107

2800 NAT Q1= 908.10 WSELK= 263.27 ENC Q1= 908.10 WSEL= 263.67 RATIO= .0000  
 NAT Q1= 1056. RATIOS LOB, CH, ROB= .1547 .5381 .3072 WSEL= 263.67  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	204.0	370.7	TYPE=	4	TARGET=	.140			
6.107	13.61	263.31	263.31	263.27	265.36	2.05	2.58	.02	259.60
7800.0	726.4	5075.7	1997.9	98.3	385.8	267.8	153.6	29.6	260.30
.22	7.39	13.16	7.46	.040	.040	.040	.000	249.70	204.00
.009277	200.	244.	240.	3	12	0	.00	166.74	370.74

\*SECNO 6.154

2800 NAT Q1= 947.13 WSELK= 266.55 ENC Q1= 947.13 WSEL= 266.95 RATIO= .0000  
 NAT Q1= 1080. RATIOS LOB, CH, ROB= .0000 .5546 .4454 WSEL= 266.95  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	104.8	289.7	TYPE=	4	TARGET=	.123			
6.154	13.38	266.68	266.68	266.55	268.52	1.84	2.23	.07	271.40
7800.0	.0	5095.2	2704.8	.0	410.3	378.7	158.2	30.6	262.40
.23	.00	12.42	7.14	.000	.040	.040	.000	253.30	121.52
.007876	250.	258.	270.	4	6	0	.00	168.20	289.72

\*SECNO 6.202

2800 NAT Q1= 892.81 WSELK= 268.79 ENC Q1= 892.81 WSEL= 269.19 RATIO= .0000  
 NAT Q1= 1007. RATIOS LOB, CH, ROB= .0000 .6916 .3084 WSEL= 269.19

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	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=	175.4	307.3	TYPE=	4	TARGET=	.114			
6.202	14.52	268.62	268.62	268.79	271.08	2.46	2.17	.34	269.70
7800.0	.0	6334.4	1465.6	.0	469.4	196.9	162.3	31.4	265.00
.24	.00	13.49	7.44	.000	.040	.040	.000	254.10	180.50
.009965	250.	251.	230.	2	8	0	.00	126.80	307.30

\*SECNO 6.249

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY  
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	170.5	265.0	TYPE=	1	TARGET=	94.500			
6.249	15.41	271.41	271.41	271.54	274.59	3.18	2.78	.40	270.80
7800.0	.0	7430.6	369.4	.0	509.3	55.9	165.8	32.0	269.00
.24	.00	14.59	6.61	.000	.040	.040	.000	256.00	170.50
.012236	252.	252.	252.	1	8	0	.00	94.50	265.00

\*SECNO 6.296

2800 NAT Q1= 1482.75 WSELK= 275.70 ENC Q1= 1482.75 WSEL= 276.10 RATIO= .0000  
NAT Q1= 1637. RATIOS LOB, CH, ROB= .0001 .5126 .4873 WSEL= 276.10

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.98

3470 ENCROACHMENT STATIONS=	206.6	358.2	TYPE=	4	TARGET=	.094			
6.296	15.65	275.85	.00	275.70	276.70	.86	1.30	.81	275.80
7800.0	.0	4441.3	3358.7	.0	559.9	500.2	170.1	32.7	269.70
.25	.00	7.93	6.71	.000	.040	.040	.000	260.20	206.60
.003110	320.	248.	200.	4	0	0	.00	151.56	358.16

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

\*SECNO 6.311

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	231.0	374.0	TYPE=	1	TARGET=	143.000			
6.311	13.93	275.03	275.03	275.01	278.11	3.08	.14	1.22	275.30
7800.0	.0	6768.9	1031.1	.0	449.6	290.6	171.4	32.9	271.60
.25	.00	15.06	3.55	.000	.015	.040	.000	261.10	251.77
.001504	50.	79.	35.	3	14	0	.00	122.23	374.00

CCHV= .500 CEHV= .700

\*SECNO 6.313

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	252.0	387.8	TYPE=	1	TARGET=	135.800			
END OF HACIENDA DRIVE -PRIVATE ROAD									
VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED									
FLOW FOR THE 100 YR. OCCURANCE.									
6.313	14.88	276.08	276.08	275.91	279.28	3.20	.02	.08	271.20
7800.0	162.3	5329.5	2308.2	51.0	312.6	466.8	171.5	32.9	271.20
.25	3.18	17.05	4.94	.040	.015	.040	.000	261.20	254.58
.001979	10.	10.	10.	20	8	0	.00	133.22	387.80

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 269.35 , NOT 276.08 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.53	2.00	.00	32.00	8.67	164.00	.00	261.20	261.20

\*SECNO 6.316

6870 D.S. ENERGY OF 279.28 IS HIGHER THAN COMPUTED ENERGY OF 278.39

3301 HV CHANGED MORE THAN HVINS



SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	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 = .65

3470 ENCROACHMENT STATIONS=	187.0	306.0	TYPE=	1	TARGET=	119.000			
6.413	10.23	281.03	.00	280.85	282.79	1.76	1.11	.53	275.40
7800.0	3118.6	4680.7	.6	340.2	405.5	.6	181.9	34.2	277.90
.27	9.17	11.54	1.02	.050	.050	.050	.000	270.80	187.00
.010974	30.	243.	430.	2	0	0	.00	119.00	306.00

\*SECNO 6.460

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	134.0	280.0	TYPE=	1	TARGET=	146.000			
6.460	12.02	283.92	.00	283.10	284.74	.81	1.47	.47	275.50
7800.0	1600.7	2394.5	3804.9	246.7	286.1	562.4	187.2	35.0	276.00
.27	6.49	8.37	6.77	.050	.050	.050	.000	271.90	134.00
.003812	160.	243.	350.	2	0	0	.00	146.00	280.00

\*SECNO 6.494

3470 ENCROACHMENT STATIONS=	89.0	265.0	TYPE=	1	TARGET=	176.000			
6.494	11.18	284.48	.00	283.72	285.45	.97	.61	.11	287.20
7800.0	.0	1871.3	5928.7	.0	250.1	738.6	190.1	35.4	278.90
.28	.00	7.48	8.03	.000	.050	.050	.000	273.30	96.66
.006782	240.	174.	80.	3	0	0	.00	168.34	265.00

\*SECNO 6.522

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 187.0 300.0 TYPE= 1 TARGET= 113.000  
 6.522 10.43 284.93 .00 285.07 286.50 1.57 .62 .42 282.60  
 7800.0 .1 5384.4 2415.5 .2 512.8 267.8 191.7 35.6 277.90  
 .28 .58 10.50 9.02 .050 .050 .050 .000 274.50 187.00  
 .008780 90. 151. 20. 2 0 0 .00 113.00 300.00

\*SECNO 6.523

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 166.0 285.0 TYPE= 1 TARGET= 119.000  
 6.523 10.58 285.08 285.08 285.07 287.76 2.68 .07 .77 282.70  
 7800.0 118.3 6559.9 1121.8 27.0 474.7 125.3 191.8 35.6 279.40  
 .28 4.39 13.82 8.95 .050 .050 .050 .000 274.50 166.00  
 .016040 30. 8. 0. 3 5 0 .00 119.00 285.00

\*SECNO 6.555

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.06

3470 ENCROACHMENT STATIONS= 395.0 556.0 TYPE= 1 TARGET= 161.000  
 6.555 14.19 289.19 .00 289.19 289.65 .45 .78 1.11 282.70  
 7800.0 1.0 4164.9 3634.1 1.9 707.8 755.5 196.9 36.3 280.00  
 .29 .54 5.88 4.81 .050 .050 .050 .000 275.00 395.00  
 .001708 85. 157. 300. 2 0 0 .00 161.00 556.00

\*SECNO 6.602

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

3470 ENCROACHMENT STATIONS= 577.0 823.0 TYPE= 1 TARGET= 246.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6.602	13.72	289.72	.00	289.52	290.50	.78	.62	.23	286.80
7300.0	23.1	2527.6	4749.3	9.4	314.3	725.1	203.8	37.2	284.20
.30	2.46	8.04	6.55	.050	.050	.050	.000	276.00	660.69
.004690	190.	250.	230.	2	0	0	.00	162.31	823.00

\*SECNO 6.650

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	750.0	904.0	TYPE=	1	TARGET=	154.000			
6.650	14.27	291.47	.00	290.89	293.10	1.63	2.00	.60	293.30
7300.0	.0	5103.7	2196.3	.0	451.5	303.7	210.8	38.4	285.30
.31	.00	11.30	7.23	.000	.050	.050	.000	277.20	781.85
.008687	45.	251.	400.	3	0	0	.00	122.15	904.00

\*SECNO 6.697

3470 ENCROACHMENT STATIONS=	530.0	690.0	TYPE=	1	TARGET=	160.000			
6.697	15.02	293.52	.00	293.73	295.37	1.85	2.12	.15	293.40
7300.0	48.1	5934.2	1317.7	21.2	506.3	209.5	214.4	39.1	289.70
.32	2.27	11.72	6.29	.050	.050	.050	.000	278.50	530.00
.010457	410.	245.	150.	2	0	0	.00	160.00	690.00

\*SECNO 6.725

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	300.0	423.0	TYPE=	1	TARGET=	123.000			
6.725	16.47	295.77	.00	295.02	296.66	.89	.81	.48	293.00
7300.0	49.7	6037.2	1213.1	17.8	760.3	224.4	217.1	39.5	289.00
.32	2.80	7.94	5.41	.050	.050	.050	.000	279.30	300.00
.003681	200.	150.	90.	3	0	0	.00	123.00	423.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 6.744

3470 ENCROACHMENT STATIONS=	735.0	832.8	TYPE=	1	TARGET=	97.800			
6.744	16.83	296.13	.00	295.44	297.08	.95	.38	.04	100000.00
7300.0	.0	7300.0	.0	.0	933.4	.0	219.3	39.7	100000.00
.32	.00	7.82	.00	.000	.050	.000	.000	279.30	735.00
.003964	110.	100.	90.	2	0	0	.00	97.80	832.80

CCHV= .200 CEHV= .400

\*SECNO 6.747

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

3470 ENCROACHMENT STATIONS=	409.0	503.0	TYPE=	1	TARGET=	94.000			
BREEZE HILL DRIVE BRIDGE									
VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.									
6.747	20.18	296.48	.00	295.71	297.16	.69	.03	.05	290.30
7300.0	628.6	6671.4	.0	170.9	971.4	.0	219.6	39.8	100000.00
.33	3.68	6.87	.00	.050	.050	.000	.000	276.30	409.00
.001863	11.	11.	11.	2	0	0	.00	94.00	503.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.79	1.50	.00	28.00	10.00	432.00	1.50	276.30	276.30	

\*SECNO 6.750

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
304.41	297.48	.31	5161.	2152.	432.	432.	288.30	290.30	419.

3470 ENCROACHMENT STATIONS=	439.0	503.0	TYPE=	1	TARGET=	64.000			
6.750	19.97	296.27	.00	295.82	297.17	.90	.00	.00	290.30
7300.0	.0	7300.0	.0	.0	958.1	.0	220.0	39.8	100000.00
.33	.00	7.62	.00	.000	.050	.000	.000	276.30	439.00
.002568	18.	18.	18.	2	0	4	.00	64.00	503.00

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

\*SECNO 6.775

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	410.0	490.0	TYPE=	1	TARGET=	80.000			
6.775	17.79	296.39	.00	296.08	297.89	1.50	.49	.24	294.20
7300.0	1.0	7297.4	1.7	.9	742.3	1.2	222.5	40.0	294.40
.33	1.13	9.83	1.39	.050	.050	.050	.000	278.60	410.00
.006156	110.	128.	140.	2	0	0	.00	80.00	490.00

OCHV= .350 CEHV= .600

\*SECNO 6.779

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.72

3470 ENCROACHMENT STATIONS=	360.0	420.0	TYPE=	1	TARGET=	60.000			
FRONTAGE ROAD (HACIENDA DR ) BRIDGE									
VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED									
FLOW FOR THE 100 YR. OCCOURANCE.									
6.779	15.24	296.54	.00	296.18	297.95	1.41	.02	.03	294.30
7300.0	18.7	7281.3	.0	20.5	763.4	.0	222.9	40.0	100000.00
.33	.91	9.54	.00	.050	.015	.000	.000	281.30	360.00
.000444	22.	22.	22.	2	0	0	.00	60.00	420.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.90	1.50	.00	68.00	18.00	450.00	.00	281.30	281.30

\*SECNO 6.799

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .39

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

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
304.30	299.82	1.88	3704.	3598.	450.	450.	290.30	294.30	515.

3470 ENCROACHMENT STATIONS=	340.0	480.0	TYPE=	1	TARGET=	140.000			
6.799	16.28	297.58	.00	296.51	298.42	.85	.48	.00	294.30
7300.0	287.1	6364.9	648.0	84.8	817.4	179.1	225.1	40.3	294.30
.33	3.39	7.79	3.62	.045	.050	.045	.000	281.30	340.00
.002891	100.	100.	100.	3	0	4	.00	140.00	480.00

\*SECNO 6.803

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

3470 ENCROACHMENT STATIONS=	254.0	452.0	TYPE=	1	TARGET=	198.000			
6.803	16.00	298.30	.00	298.66	298.71	.42	.14	.15	290.60
7300.0	1602.8	5401.7	295.4	376.6	978.0	128.1	227.2	40.5	295.30
.34	4.26	5.52	2.31	.045	.050	.045	.000	282.30	265.10
.001326	120.	70.	20.	2	0	0	.00	186.89	452.00

\*SECNO 6.822

3470 ENCROACHMENT STATIONS=	280.0	456.0	TYPE=	1	TARGET=	176.000			
6.822	15.94	298.44	.00	298.82	298.84	.41	.13	.00	292.80
7300.0	184.4	6609.2	506.4	64.4	1246.5	193.3	230.6	40.9	294.60
.34	2.86	5.30	2.62	.045	.050	.045	.000	282.50	280.00
.001280	98.	98.	98.	2	0	0	.00	176.00	456.00

\*SECNO 6.836

3470 ENCROACHMENT STATIONS=	277.0	486.0	TYPE=	1	TARGET=	209.000			
6.836	15.96	298.56	.00	298.92	298.95	.39	.09	.01	292.70
7300.0	4.4	6534.7	760.9	4.7	1256.3	296.2	233.1	41.2	294.90
.35	.95	5.20	2.57	.045	.050	.045	.000	282.60	277.00
.001316	70.	73.	70.	2	0	0	.00	209.00	486.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 6.884

3470 ENCROACHMENT STATIONS=	239.0	377.0	TYPE=	1	TARGET=	138.000			
6.884	15.28	298.88	.00	299.15	299.47	.58	.40	.12	294.50
7300.0	.1	6978.3	321.5	.4	1118.6	102.8	241.1	42.3	295.40
.36	.32	6.24	3.13	.045	.050	.045	.000	283.60	239.00
.002017	245.	250.	260.	0	0	0	.00	138.00	377.00

\*SECNO 6.931

3470 ENCROACHMENT STATIONS=	536.0	635.0	TYPE=	1	TARGET=	99.000			
6.931	14.40	299.40	.00	299.55	300.33	.93	.65	.21	295.80
7300.0	.5	7297.7	1.9	.7	942.5	1.6	247.4	42.9	296.80
.37	.64	7.74	1.21	.045	.050	.045	.000	285.00	536.00
.003504	250.	250.	250.	2	0	0	.00	99.00	635.00

\*SECNO 6.978

3470 ENCROACHMENT STATIONS=	460.0	608.0	TYPE=	1	TARGET=	148.000			
6.978	14.05	300.55	.00	300.27	301.25	.71	.84	.08	303.10
7300.0	.0	7300.0	.0	.0	1083.0	.0	253.1	43.6	301.00
.38	.00	6.74	.00	.000	.050	.000	.000	286.50	469.57
.003383	240.	245.	245.	2	0	0	.00	136.89	606.46

\*SECNO 7.026

3470 ENCROACHMENT STATIONS=	656.0	825.0	TYPE=	1	TARGET=	169.000			
7.026	12.31	301.51	.00	301.33	302.26	.74	.98	.02	100000.00
7300.0	.0	7300.0	.0	.0	1054.2	.0	259.2	44.5	100000.00
.39	.00	6.92	.00	.000	.050	.000	.000	289.20	662.50
.004601	251.	251.	251.	2	0	0	.00	162.34	824.84

CCHV= .500 CEHV= .700

\*SECNO 7.071

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRISW	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.08

3470 ENCROACHMENT STATIONS= 765.0 905.0 TYPE= 1 TARGET= 140.000  
 VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUNINDICATED SUBMERGED  
 FLOW FOR THE 100 YR. OCCURANCE.

7.071	11.43	301.43	.00	301.25	303.95	2.53	.45	1.25	303.00
7300.0	.0	7300.0	.0	.0	572.4	.0	263.6	45.0	100000.00
.39	.00	12.75	.00	.000	.015	.000	.000	290.00	854.84
.001061	232.	232.	232.	2	0	0	.00	50.16	905.00

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 294.74 , NOT 301.43 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.89	1.50	.00	68.00	18.00	450.00	.00	290.00	290.00

\*SECNO 7.088

3301 HV CHANGED MORE THAN HVINS

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

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
309.15	305.70	.00	1713.	5605.	450.	450.	299.00	303.00	358.

3470 ENCROACHMENT STATIONS= 765.0 905.0 TYPE= 1 TARGET= 140.000

7.088	14.47	304.47	.00	304.42	305.98	1.52	2.03	.00	303.00
7300.0	91.5	7208.5	.0	105.6	724.6	.0	265.0	45.2	100000.00
.40	.87	9.95	.00	.045	.015	.000	.000	290.00	766.88
.000512	90.	90.	90.	3	0	2	.00	138.12	905.00

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

\*SECNO 7.091

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	1540.0	2264.0	TYPE=	1	TARGET=	724.000			
7.091	14.08	306.18	.00	306.27	306.56	.39	.01	.57	302.30
7300.0	358.4	6941.6	.0	177.5	1364.5	.0	265.7	45.3	100000.00
.40	2.02	5.09	.00	.040	.035	.000	.000	292.10	1540.00
.000680	24.	24.	24.	3	0	0	.00	208.65	2264.00

\*SECNO 7.138

3470 ENCROACHMENT STATIONS=	720.0	930.0	TYPE=	1	TARGET=	210.000			
7.138	14.35	306.35	.00	306.55	306.74	.39	.17	.00	100000.00
7300.0	.0	6145.8	1154.2	.0	1151.3	443.6	274.2	46.5	302.90
.41	.00	5.34	2.60	.000	.035	.040	.000	292.00	720.00
.000735	270.	243.	200.	2	0	0	.00	210.00	930.00

\*SECNO 7.186

3470 ENCROACHMENT STATIONS=	766.0	980.0	TYPE=	1	TARGET=	214.000			
7.186	14.18	306.58	.00	306.63	306.94	.36	.19	.02	302.50
7300.0	.5	6587.8	711.6	1.2	1322.6	277.5	283.6	47.7	303.00
.43	.44	4.98	2.56	.040	.035	.040	.000	292.40	766.00
.000760	230.	252.	270.	2	0	0	.00	214.00	980.00

\*SECNO 7.233

3470 ENCROACHMENT STATIONS=	757.0	864.0	TYPE=	1	TARGET=	107.000			
7.233	13.12	306.72	.00	306.71	307.48	.77	.25	.29	302.70
7300.0	.0	7299.9	.1	.0	1037.8	.4	291.3	48.7	302.50
.44	.00	7.03	.30	.000	.035	.040	.000	293.60	757.00
.001446	260.	247.	290.	2	0	0	.00	107.00	864.00

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

OCHV= .500 CEHV= .700  
 \*SECNO 7.263

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	54.0	175.0	TYPE=	1	TARGET=	121.000				
7.263	10.35	306.25	.00	306.20	309.32	3.07	.22	1.61	310.90	
7300.0	.0	7300.0	.0	.0	518.8	.0	294.1	48.9	310.90	
.44	.00	14.07	.00	.000	.015	.000	.000	295.90	104.88	
.001415	157.	157.	157.	2	0	0	.00	50.25	155.12	

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 300.64 , NOT 306.25 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.11	2.50	.00	68.00	18.00	450.00	.00	295.90	295.90

\*SECNO 7.300

3301 HV CHANGED MORE THAN HVINS

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

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
314.87	310.97	.00	676.	6599.	450.	450.	304.90	310.90	114.

3470 ENCROACHMENT STATIONS=	54.0	175.0	TYPE=	1	TARGET=	121.000				
7.300	16.14	312.04	.00	312.01	313.29	1.25	3.97	.00	310.90	
7300.0	10.1	7287.8	2.1	15.4	810.6	4.3	297.2	49.2	310.90	
.44	.65	8.99	.49	.040	.015	.040	.000	295.90	85.46	
.000376	200.	200.	200.	2	0	2	.00	77.29	162.75	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 7.304

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.66

3470 ENCROACHMENT STATIONS=	57.0	180.0	TYPE=	1	TARGET=	123.000			
7.304	18.22	313.52	.00	313.53	313.79	.27	.00	.49	309.80
7300.0	.4	7299.5	.1	2.2	1761.7	1.1	298.1	49.3	308.20
.45	.17	4.14	.09	.040	.015	.040	.000	295.30	57.00
.000053	40.	33.	40.	2	0	0	.00	123.00	180.00

\*SECNO 7.351

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .70

3470 ENCROACHMENT STATIONS=	645.0	743.0	TYPE=	1	TARGET=	98.000			
7.351	18.18	313.48	.00	313.48	313.96	.49	.02	.15	308.60
7300.0	.6	7299.4	.0	2.4	1303.5	.4	306.9	49.9	309.00
.46	.23	5.60	.08	.040	.015	.040	.000	295.30	645.00
.000108	260.	248.	90.	2	0	0	.00	98.00	743.00

\*SECNO 7.375

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

3470 ENCROACHMENT STATIONS=	529.0	615.0	TYPE=	1	TARGET=	86.000			
7.375	17.89	313.39	.00	313.41	314.22	.83	.02	.24	309.00
7300.0	.0	7299.7	.3	.0	997.3	1.2	310.1	50.2	309.40
.46	.00	7.32	.25	.000	.015	.040	.000	295.50	529.00
.000248	140.	121.	100.	2	0	0	.00	86.00	615.00

T1 SAN DIEGO FLOOD PLAIN MAPPING STUDY JOB: 8190-75  
T2 GEORGE S. NOLTE & ASSOC. 8333 CLAIREMONT MESA BLVD. PH 714-278-9  
T3 BUENA VISTA CREEK 10 YR FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	4.					-1.		181.84	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.0		-1.0							

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*PROF 3  
0

OCHV= .300 CEHV= .600

\*SECNO 4.727

3720 CRITICAL DEPTH ASSUMED

4.727	4.34	181.84	181.84	181.84	183.62	1.78	.00	.00	183.30
1700.0	.0	1700.0	.0	.0	159.0	.0	.0	.0	187.30
.00	.00	10.69	.00	.000	.015	.000	.000	177.50	484.16
.002347	218.	218.	200.	0	4	0	.00	45.20	529.36

\*SECNO 4.728

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.56

VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.  
UPSTREAM REACH PART 2 OF 2  
BRIDGE AT THUNDER DRIVE

4.728	5.61	182.81	.00	.00	183.85	1.04	.01	.22	191.20
1700.0	.0	1700.0	.0	.0	208.1	.0	.0	.0	191.20
.00	.00	8.17	.00	.000	.015	.000	.000	177.20	571.42
.000967	5.	5.	5.	5	0	0	.00	37.16	608.58

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.60	2.00	.00	45.00	9.00	242.00	.00	177.20	177.20

\*SECNO 4.739

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

CLASS A LOW FLOW

3420 BRIDGE W.S.= 181.81 BRIDGE VELOCITY= 10.25 CALCULATED CHANNEL AREA= 166.

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
184.04	184.91	1.45	0.	1700.	242.	252.	184.20	191.20	0.
4.739	7.06	184.26	.00	.00	184.91	.65	1.07	.00	191.20
1700.0	.0	1700.0	.0	.0	261.9	.0	.3	.1	191.20
.00	.00	6.49	.00	.000	.015	.000	.000	177.20	571.40
.000486	54.	54.	54.	0	0	0	.00	37.20	608.60

OCHV= .300 CEHV= .600  
 \*SECNO 4.744

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	863.5	921.5	TYPE=	1	TARGET=	58.000			
4.744	5.09	185.09	185.09	191.74	187.05	1.95	.04	.78	192.60
1700.0	.0	1700.0	.0	.0	151.6	.0	.5	.1	188.20
.00	.00	11.22	.00	.000	.015	.000	.000	180.00	876.11
.002311	30.	39.	50.	20	19	0	.00	39.39	915.50

\*SECNO 4.758  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	864.5	922.5	TYPE=	1	TARGET=	58.000			
4.758	4.99	185.59	185.59	192.13	187.58	1.98	.16	.02	100000.00
1700.0	.0	1700.0	.0	.0	150.5	.0	.7	.1	189.40
.01	.00	11.30	.00	.000	.015	.000	.000	180.60	873.95
.002342	69.	69.	69.	3	5	0	.00	38.89	912.85

\*SECNO 4.767  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 953.5 1011.5 TYPE= 1 TARGET= 58.000  
 4.767 5.09 186.09 186.09 192.91 188.12 2.03 .11 .03 189.40  
 1700.0 .0 1700.0 .0 .0 148.8 .0 .9 .2 189.60  
 .01 .00 11.42 .00 .000 .015 .000 .000 181.00 965.22  
 .002296 47. 47. 47. 3 5 0 .00 36.75 1001.97

\*SECNO 4.814  
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL  
 3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 801.5 938.0 TYPE= 1 TARGET= 136.500  
 4.814 5.45 188.55 188.55 194.79 190.54 2.00 .57 .01 191.20  
 1700.0 .0 1700.0 .0 .0 150.0 .0 1.7 .4 190.80  
 .01 .00 11.34 .00 .000 .015 .000 .000 183.10 835.33  
 .002304 247. 247. 247. 20 8 0 .00 38.15 873.48

\*SECNO 4.829  
 3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 779.5 916.0 TYPE= 1 TARGET= 136.500  
 4.829 5.91 189.61 .00 194.94 190.88 1.27 .12 .22 191.40  
 1700.0 .0 1700.0 .0 .0 187.7 .0 2.0 .5 190.70  
 .01 .00 9.05 .00 .000 .015 .000 .000 183.70 810.12  
 .001285 74. 74. 74. 6 0 0 .00 43.25 853.37

\*SECNO 4.876  
 3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS= 754.5 891.0 TYPE= 1 TARGET= 136.500  
 4.876 5.37 190.57 190.57 196.31 192.51 1.94 .42 .40 192.40  
 1700.0 .0 1700.0 .0 .0 152.1 .0 3.0 .7 192.20  
 .02 .00 11.18 .00 .000 .015 .000 .000 185.20 786.66  
 .002302 250. 250. 250. 20 11 0 .00 39.82 826.48

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

\*SECNO 4.923  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		799.5	936.0	TYPE=	1	TARGET=	136.500		
4.923	5.14	191.64	191.64	197.78	193.57	1.93	.57	.00	194.20
1700.0	.0	1700.0	.0	.0	152.5	.0	3.9	.9	194.60
.03	.00	11.15	.00	.000	.015	.000	.000	186.50	834.54
.002273	250.	250.	250.	2	8	0	.00	39.53	874.07

\*SECNO 4.971  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		620.5	694.0	TYPE=	1	TARGET=	73.500		
4.971	4.50	192.70	192.70	199.26	194.65	1.94	.59	.01	195.70
1700.0	.0	1700.0	.0	.0	152.0	.0	4.8	1.2	100000.00
.03	.00	11.19	.00	.000	.015	.000	.000	188.20	654.51
.002458	251.	251.	251.	2	11	0	.00	39.49	694.00

\*SECNO 5.018  
 3301 HV CHANGED MORE THAN HVINS

5.018	6.00	195.40	.00	202.91	195.91	.51	.83	.43	203.20
1700.0	.0	1700.0	.0	.0	296.8	.0	6.0	1.4	202.70
.05	.00	5.73	.00	.000	.050	.000	.000	189.40	676.05
.004926	250.	246.	230.	4	0	0	.00	61.88	737.93

\*SECNO 5.065

5.065	6.65	196.65	.00	204.66	197.16	.51	1.26	.00	204.70
1700.0	.0	1700.0	.0	.0	296.9	.0	7.7	1.8	208.70
.06	.00	5.73	.00	.000	.050	.000	.000	190.00	761.12
.005248	250.	247.	240.	2	0	0	.00	65.91	827.03

\*SECNO 5.113

5.113	7.62	198.22	.00	205.71	198.91	.69	1.64	.11	207.50
1700.0	.0	1700.0	.0	.0	254.3	.0	9.3	2.2	202.80
.07	.00	6.69	.00	.000	.050	.000	.000	190.60	790.09
.008116	230.	254.	280.	2	0	0	.00	61.09	851.19

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 5.160

5.160	8.38	200.08	.00	207.43	200.58	.50	1.61	.06	208.40
1700.0	.0	1700.0	.0	.0	298.9	.0	11.0	2.6	211.60
.08	.00	5.69	.00	.000	.050	.000	.000	191.70	750.83
.004955	240.	258.	270.	2	0	0	.00	64.38	815.20

\*SECNO 5.207

5.207	8.32	201.52	.00	208.72	202.41	.88	1.60	.23	211.00
1700.0	.0	1700.0	.0	.0	225.2	.0	12.4	2.9	209.90
.09	.00	7.55	.00	.000	.050	.000	.000	193.20	729.44
.009264	242.	242.	242.	2	0	0	.00	49.60	779.04

\*SECNO 5.258

5.258	8.62	203.82	.00	211.16	204.65	.83	2.22	.02	215.50
1700.0	.0	1700.0	.0	.0	232.7	.0	13.8	3.2	212.90
.10	.00	7.31	.00	.000	.050	.000	.000	195.20	521.32
.007669	264.	264.	264.	3	0	0	.00	45.55	566.87

\*SECNO 5.267

5.267	8.61	204.21	.00	211.65	205.10	.89	.42	.04	216.20
1700.0	.0	1700.0	.0	.0	224.4	.0	14.1	3.2	212.90
.10	.00	7.58	.00	.000	.050	.000	.000	195.60	519.66
.009627	49.	49.	49.	2	0	0	.00	50.15	569.81

CCHV= .350 CEHV= .550

\*SECNO 5.271

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 4.45

SUNSET DRIVE BRIDGE

5.271	9.23	204.83	.00	211.15	205.28	.45	.03	.15	217.00
1700.0	.0	1700.0	.0	.0	314.4	.0	14.2	3.2	217.00
.10	.00	5.41	.00	.000	.020	.000	.000	195.60	482.95
.000487	21.	21.	21.	2	0	0	.00	34.10	517.05

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	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	1.91	2.80	34.40	42.00	5.25	661.50	.00	195.60	195.60

\*SECNO 5.276

CLASS A LOW FLOW

3420 BRIDGE W.S.= 204.72 BRIDGE VELOCITY= 5.07 CALCULATED CHANNEL AREA= 335.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	205.43	.17	0.	1700.	662.	662.	213.60	217.50	0.
5.276	9.40	205.00	.00	214.47	205.43	.44	.15	.00	217.00
1700.0	.0	1700.0	.0	.0	320.0	.0	14.4	3.3	217.00
.10	.00	5.31	.00	.000	.020	.000	.000	195.60	482.95
.000463	24.	24.	24.	0	0	0	.00	34.10	517.05

\*SECNO 5.278

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

5.278	7.08	204.58	204.58	215.75	206.60	2.02	.03	.87	216.30
1700.0	.0	1700.0	.0	.0	149.1	.0	14.5	3.3	214.10
.10	.00	11.40	.00	.000	.045	.000	.000	197.50	603.11
.021150	19.	19.	19.	4	19	0	.00	37.89	641.01

\*SECNO 5.302

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.66

5.302	8.77	207.47	.00	217.48	207.93	.46	.78	.55	219.90
1700.0	.0	1700.0	.0	.0	313.9	.0	15.1	3.4	213.50
.11	.00	5.42	.00	.000	.045	.000	.000	198.70	559.05
.002997	130.	124.	110.	2	0	0	.00	57.03	616.08

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 5.349

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

3693 PROBABLE MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

5.349	8.93	210.93	210.93	218.20	213.16	2.24	1.56	.98	216.10
1700.0	.0	1700.0	.0	.0	141.6	.0	16.4	3.7	215.60
.12	.00	12.00	.00	.000	.045	.000	.000	202.00	324.25
.021593	245.	245.	245.	20	5	0	.00	31.73	355.98

\*SECNO 5.397

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.25

5.397	11.51	215.01	.00	219.91	215.70	.69	2.00	.54	218.60
1700.0	.0	1700.0	.0	.0	255.0	.0	17.5	3.9	217.30
.13	.00	6.67	.00	.000	.045	.000	.000	203.50	50.08
.004248	245.	245.	245.	3	0	0	.00	40.13	90.22

\*SECNO 5.435

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

3470 ENCROACHMENT STATIONS=	21.7	164.0	TYPE=	1	TARGET=	142.300			
5.435	9.23	216.03	.00	221.17	217.19	1.15	1.23	.25	220.30
1700.0	.0	1700.0	.0	.0	197.3	.0	18.6	4.0	100000.00
.13	.00	8.62	.00	.000	.045	.000	.000	206.80	86.95
.009198	215.	204.	203.	3	0	0	.00	39.29	126.24

\*SECNO 5.463

3301 HV CHANGED MORE THAN HVINS

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

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.26

3470 ENCROACHMENT STATIONS=	591.9	672.7	TYPE=	1	TARGET=	80.800			
5.463	10.87	217.67	.00	224.00	217.85	.18	.32	.34	220.30
1700.0	.0	1700.0	.0	.0	499.2	.0	19.8	4.2	100000.00
.15	.00	3.41	.00	.000	.045	.000	.000	206.80	594.29
.000867	150.	157.	150.	2	0	0	.00	70.89	665.17

\*SECNO 5.491

3301 HV CHANGED MORE THAN HVINS

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

3470 ENCROACHMENT STATIONS=	469.9	689.5	TYPE=	1	TARGET=	219.600			
5.491	5.46	224.66	224.66	227.37	225.51	.85	.32	.37	222.60
1700.0	332.2	1197.1	170.7	86.5	141.9	44.0	21.2	4.6	222.30
.15	3.84	8.43	3.88	.045	.045	.045	.000	219.20	513.22
.011087	149.	149.	149.	20	8	0	.00	161.51	674.73

\*SECNO 5.539

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	566.7	678.3	TYPE=	1	TARGET=	111.600			
5.539	7.64	229.94	229.94	233.49	231.01	1.07	3.92	.12	229.70
1700.0	.0	1700.0	.0	.0	204.9	.0	22.5	5.4	100000.00
.16	.00	8.30	.00	.000	.040	.000	.000	222.30	566.70
.023176	253.	253.	253.	5	11	0	.00	111.60	678.30

\*SECNO 5.586

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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

3470 ENCROACHMENT STATIONS=	772.0	900.0	TYPE=	1	TARGET=	128.000			
5.586	6.68	232.98	.00	236.65	233.41	.44	2.18	.22	234.00
1700.0	.0	1700.0	.0	.0	320.8	.0	24.0	6.0	100000.00
.17	.00	5.30	.00	.000	.040	.000	.000	226.30	779.58
.004753	250.	242.	230.	4	0	0	.00	104.29	883.87

\*SECNO 5.598  
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL  
 3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	926.0	1280.9	TYPE=	1	TARGET=	354.900			
5.598	4.96	233.86	233.86	238.26	234.73	.87	.39	.24	232.00
1700.0	589.8	1110.2	.0	119.8	130.0	.0	24.4	6.2	235.20
.17	4.93	8.54	.00	.040	.040	.000	.000	228.90	1129.75
.009815	60.	59.	60.	20	16	0	.00	122.62	1252.37

\*SECNO 5.634

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=	1202.6	1271.0	TYPE=	1	TARGET=	68.400			
5.634	5.83	235.63	.00	239.11	237.36	1.73	2.16	.48	234.70
1700.0	.0	1700.0	.0	.0	160.9	.0	25.3	6.5	236.40
.18	.00	10.57	.00	.000	.040	.000	.000	229.80	1202.60
.013336	190.	190.	190.	2	0	0	.00	38.09	1240.69

\*SECNO 5.670

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.41

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1326.6 1361.4 TYPE= 1 TARGET= 34.800  
 5.670 8.04 238.14 .00 239.49 239.24 1.10 1.65 .22 100000.00  
 1650.0 .0 1650.0 .0 .0 196.4 .0 26.0 6.7 100000.00  
 .19 .00 8.40 .00 .000 .040 .000 .000 230.10 1326.60  
 .006288 186. 186. 186. 2 0 0 .00 34.80 1361.40

\*SECNO 5.675

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.79

3470 ENCROACHMENT STATIONS= 1291.9 1345.3 TYPE= 1 TARGET= 53.400  
 5.675 8.76 239.16 .00 239.51 239.57 .41 .08 .24 238.90  
 1650.0 .0 1650.0 .0 .0 322.1 .0 26.2 6.7 100000.00  
 .19 .00 5.12 .00 .000 .040 .000 .000 230.40 1291.90  
 .001956 26. 26. 26. 3 0 0 .00 53.40 1345.30

\*SECNO 5.681

3470 ENCROACHMENT STATIONS= 1250.3 1303.6 TYPE= 1 TARGET= 53.300  
 5.681 8.51 239.21 .00 240.77 239.66 .45 .07 .02 239.30  
 1650.0 .0 1650.0 .0 .0 305.6 .0 26.4 6.8 100000.00  
 .19 .00 5.40 .00 .000 .040 .000 .000 230.70 1250.52  
 .002315 33. 33. 33. 2 0 0 .00 53.08 1303.60

\*SECNO 5.728

3470 ENCROACHMENT STATIONS= 1409.9 1525.7 TYPE= 1 TARGET= 115.800  
 5.728 7.56 239.96 .00 240.95 240.28 .32 .57 .05 236.90  
 1650.0 176.0 1474.0 .0 76.6 312.7 .0 28.5 7.2 100000.00  
 .20 2.30 4.71 .00 .040 .040 .000 .000 232.40 1410.53  
 .002173 254. 254. 254. 2 0 0 .00 115.16 1525.70

\*SECNO 5.776

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	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 = .55

3470 ENCROACHMENT STATIONS= 1546.4 1577.7 TYPE= 1 TARGET= 31.300

5.776	7.73	240.43	.00	241.37	241.67	1.24	.88	.51	239.00
1650.0	.0	1650.0	.0	.0	184.7	.0	30.1	7.7	100000.00
.21	.00	8.94	.00	.000	.040	.000	.000	232.70	1546.40
.007100	245.	245.	245.	2	0	0	.00	31.30	1577.70

\*SECNO 5.823

3470 ENCROACHMENT STATIONS= 1279.0 1397.3 TYPE= 1 TARGET= 118.300

5.823	8.56	242.76	.00	242.66	243.57	.81	1.75	.15	240.90
1650.0	44.6	1605.4	.0	15.2	219.5	.0	31.3	8.0	100000.00
.22	2.93	7.31	.00	.040	.040	.000	.000	234.20	1324.38
.006922	250.	250.	250.	3	0	0	.00	72.92	1397.30

\*SECNO 5.870

3470 ENCROACHMENT STATIONS= 854.4 951.8 TYPE= 1 TARGET= 97.400

5.870	8.10	244.40	.00	244.90	245.58	1.18	1.81	.20	241.90
1650.0	98.2	1551.8	.0	26.5	173.8	.0	32.5	8.3	100000.00
.23	3.71	8.93	.00	.040	.040	.000	.000	236.30	897.35
.007456	250.	252.	260.	2	0	0	.00	54.45	951.80

\*SECNO 5.918

3470 ENCROACHMENT STATIONS= 350.9 490.0 TYPE= 1 TARGET= 139.100

5.918	7.95	247.25	.00	250.54	248.07	.82	2.37	.12	247.10
1650.0	.3	1649.7	.0	.4	226.6	.0	33.7	8.8	100000.00
.24	.79	7.28	.00	.040	.040	.000	.000	239.30	388.16
.013091	270.	244.	230.	3	0	0	.00	101.84	490.00

\*SECNO 5.965

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

3470 ENCROACHMENT STATIONS= 392.5 573.4 TYPE= 1 TARGET= 180.900

5.965	9.53	249.43	.00	254.11	250.44	1.00	2.26	.10	250.40
1650.0	.0	1612.1	37.9	.0	198.2	23.7	35.0	9.4	249.30
.25	.00	8.13	1.60	.000	.040	.040	.000	239.90	394.70
.006726	248.	248.	248.	3	0	0	.00	103.58	498.28

\*SECNO 6.012  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= .1 336.3 TYPE= 1 TARGET= 336.200

6.012	6.91	252.31	252.31	255.89	253.74	1.43	2.25	.23	250.40
1650.0	114.0	1536.0	.0	28.2	155.4	.0	36.2	9.9	100000.00
.26	4.04	9.89	.00	.040	.040	.000	.000	245.40	259.66
.012636	250.	250.	250.	2	19	0	.00	70.58	330.24

\*SECNO 6.060  
 7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= .1 219.8 TYPE= 1 TARGET= 219.700

6.060	8.45	256.15	256.15	259.72	257.76	1.60	3.63	.10	256.50
1650.0	.0	1650.0	.0	.0	162.4	.0	37.2	10.2	100000.00
.26	.00	10.16	.00	.000	.040	.000	.000	247.70	164.62
.017938	250.	243.	240.	3	11	0	.00	52.07	216.70

\*SECNO 6.107  
 3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.53

6.107	10.02	259.72	.00	263.27	260.71	.99	2.73	.21	259.60
1650.0	.1	1649.9	.0	.2	206.6	.0	38.2	10.5	260.30
.27	.46	7.99	.00	.040	.040	.000	.000	249.70	230.81
.007652	200.	244.	240.	2	0	0	.00	52.40	283.21

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

\*SECNO 6.154

6.154	8.17	261.47	.00	266.55	262.60	1.13	1.82	.08	271.40
1650.0	.0	1650.0	.0	.0	193.5	.0	39.4	10.8	262.40
.28	.00	8.53	.00	.000	.040	.000	.000	253.30	134.68
.006531	250.	258.	270.	4	0	0	.00	35.35	170.03

\*SECNO 6.202

6.202	9.06	263.16	.00	268.79	264.09	.93	1.42	.07	269.70
1650.0	.0	1650.0	.0	.0	213.2	.0	40.5	11.0	265.00
.29	.00	7.74	.00	.000	.040	.000	.000	254.10	203.08
.004951	250.	251.	230.	2	0	0	.00	35.56	238.64

\*SECNO 6.249

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .63

6.249	8.67	264.67	.00	271.54	266.40	1.73	1.87	.44	270.80
1650.0	.0	1650.0	.0	.0	156.1	.0	41.6	11.2	269.00
.29	.00	10.57	.00	.000	.040	.000	.000	256.00	198.42
.012316	252.	252.	252.	2	0	0	.00	33.51	231.94

\*SECNO 6.296

6.296	7.67	267.87	.00	275.70	269.68	1.81	3.23	.04	275.80
1650.0	.0	1650.0	.0	.0	153.0	.0	42.5	11.4	269.70
.30	.00	10.78	.00	.000	.040	.000	.000	260.20	236.50
.013831	320.	248.	200.	2	0	0	.00	36.08	272.58

\*SECNO 6.311

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.54

6.311	7.03	268.13	.00	275.01	270.14	2.01	.35	.11	275.30
1650.0	.0	1650.0	.0	.0	144.9	.0	42.8	11.4	271.60
.30	.00	11.38	.00	.000	.015	.000	.000	261.10	263.86
.002143	50.	79.	35.	4	0	0	.00	33.51	297.37

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

CCHV= .500 CEHV= .700  
 \*SECNO 6.313

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

END OF HACIENDA DRIVE -PRIVATE ROAD  
 VARIABLE COFQ WAS DECREASED TO 2. AFTER INITIAL RUN INDICATED SUBMERGED  
 FLOW FOR THE 100 YR. OCCURANCE.

6.313	7.21	268.41	268.41	275.91	271.08	2.66	.03	.46	271.20
1650.0	.0	1650.0	.0	.0	125.9	.0	42.8	11.4	271.20
.30	.00	13.10	.00	.000	.015	.000	.000	261.20	277.92
.003231	10.	10.	10.	3	8	0	.00	24.14	302.06

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 264.09 , NOT 268.41 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.53	2.00	.00	32.00	8.67	164.00	.00	261.20	261.20

\*SECNO 6.316

3301 HV CHANGED MORE THAN HVINS

CLASS B LOW FLOW

3420 BRIDGE W.S.= 266.57 BRIDGE VELOCITY= 13.16 CALCULATED CHANNEL AREA= 125.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
270.82	271.26	.00	0.	1650.	164.	210.	270.20	271.50	0.
6.316	8.15	269.35	.00	276.25	271.26	1.92	.19	.00	271.20
1650.0	.0	1650.0	.0	.0	148.5	.0	42.8	11.4	271.20
.30	.00	11.11	.00	.000	.015	.000	.000	261.20	277.91
.001997	16.	16.	16.	0	0	0	.00	24.17	302.08

\*SECNO 6.324

3685 20 TRIALS ATTEMPTED WSEL,CWSEL

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3693 PROBABLE MINIMUM SPECIFIC ENERGY  
 3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=	206.0	340.7	TYPE=	1	TARGET=	134.700			
6.324	8.26	270.66	270.66	279.07	272.70	2.03	.20	.08	277.50
1650.0	.0	1650.0	.0	.0	144.3	.0	43.0	11.5	100000.00
.30	.00	11.44	.00	.000	.050	.000	.000	262.40	302.00
.026240	80.	41.	20.	20	5	0	.00	35.69	337.69

\*SECNO 6.366

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.65

6.366	7.59	274.89	.00	279.89	275.32	.42	1.82	.80	273.10
1650.0	123.5	1526.5	.0	56.7	282.6	.0	44.4	11.9	285.70
.32	2.18	5.40	.00	.050	.050	.000	.000	267.30	210.62
.003725	450.	223.	160.	4	0	0	.00	100.38	311.00

\*SECNO 6.413

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.413	5.87	276.67	276.67	280.85	277.63	.96	1.48	.37	275.40
1650.0	238.9	1411.1	.0	62.5	168.9	.0	45.7	12.3	277.90
.33	3.82	8.35	.00	.050	.050	.000	.000	270.80	184.45
.015841	30.	243.	430.	4	18	0	.00	115.28	299.73

\*SECNO 6.460

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.30

6.460	7.29	279.19	.00	283.10	279.44	.25	1.46	.35	275.50
1650.0	283.9	743.9	622.2	79.8	152.4	213.8	47.7	13.0	276.00
.34	3.56	4.88	2.91	.050	.050	.050	.000	271.90	148.64
.003000	160.	243.	350.	3	0	0	.00	151.41	300.05

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 6.494

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .42

6.494	6.55	279.85	.00	283.72	280.54	.69	.80	.31	287.20
1650.0	.0	661.4	988.6	.0	88.4	162.5	48.7	13.4	278.90
.35	.00	7.48	6.08	.000	.050	.050	.000	273.30	109.74
.016996	240.	174.	80.	3	0	0	.00	136.93	253.34

\*SECNO 6.522

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.10

6.522	6.63	281.13	.00	285.07	281.41	.28	.66	.21	282.60
1650.0	.0	1204.0	446.0	.0	256.3	168.2	49.4	13.6	277.90
.35	.00	4.70	2.65	.000	.050	.050	.000	274.50	193.97
.003846	90.	151.	20.	2	0	0	.00	179.45	373.41

\*SECNO 6.523

3301 HV CHANGED MORE THAN HVINS

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

6.523	6.49	280.99	.00	285.07	281.89	.89	.04	.43	282.70
1650.0	.0	1617.3	32.7	.0	211.2	11.6	49.4	13.6	279.40
.35	.00	7.66	2.82	.000	.050	.050	.000	274.50	195.00
.012230	30.	8.	0.	2	0	0	.00	72.76	267.76

\*SECNO 6.555

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.02

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6.555	7.91	282.91	.00	289.19	283.15	.24	.94	.33	282.70
1650.0	.0	1262.0	388.0	.0	292.3	165.9	51.0	14.3	280.00
.37	.02	4.32	2.34	.050	.050	.050	.000	275.00	394.85
.002991	85.	157.	300.	3	0	0	.00	176.01	570.86

\*SECNO 6.602

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

6.602	8.71	284.71	284.71	289.52	285.49	.77	1.25	.37	286.80
1500.0	.0	1127.2	372.8	.0	141.6	122.5	53.0	15.2	284.20
.38	.00	7.96	3.04	.000	.050	.050	.000	276.00	670.74
.011466	190.	250.	230.	3	9	0	.00	164.33	835.07

\*SECNO 6.650

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.58

3470 ENCROACHMENT STATIONS=	779.0	998.1	TYPE=	1	TARGET=	219.100			
6.650	9.71	286.91	.00	290.89	287.46	.55	1.87	.11	293.30
1500.0	.0	1459.3	40.7	.0	241.3	23.4	54.7	16.2	285.30
.39	.00	6.05	1.74	.000	.050	.050	.000	277.20	788.96
.004586	45.	251.	400.	2	0	0	.00	71.64	860.60

\*SECNO 6.697

3470 ENCROACHMENT STATIONS=	561.5	759.0	TYPE=	1	TARGET=	197.500			
6.697	9.82	288.32	.00	293.73	289.08	.76	1.47	.15	293.40
1500.0	.0	1500.0	.0	.0	214.1	.0	56.1	16.5	289.70
.40	.00	7.01	.00	.000	.050	.000	.000	278.50	568.73
.008307	410.	245.	150.	2	0	0	.00	46.86	615.59

\*SECNO 6.725

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.53

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

6.725	10.39	289.69	.00	295.02	290.06	.37	.78	.20	293.00
1500.0	.0	1495.5	4.5	.0	307.2	5.1	57.0	16.7	289.00
.41	.00	4.87	.88	.000	.050	.050	.000	279.30	320.65
.003566	200.	150.	90.	2	0	0	.00	78.89	399.54

\*SECNO 6.744

6.744	10.86	290.16	.00	295.44	290.41	.25	.29	.06	293.30
1500.0	.0	1500.0	.0	.0	375.0	.0	57.8	16.8	292.80
.42	.00	4.00	.00	.000	.050	.000	.000	279.30	745.52
.002370	110.	100.	90.	2	0	0	.00	77.68	823.20

OCHV= .200 CEHV= .400

\*SECNO 6.747

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.23

BREEZE HILL DRIVE BRIDGE

VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.

6.747	14.04	290.34	.00	295.71	290.45	.10	.01	.03	290.30
1500.0	.0	1500.0	.0	.0	578.7	.0	57.9	16.9	290.30
.42	.01	2.59	.01	.050	.050	.000	.000	276.30	437.69
.000475	11.	11.	11.	2	0	0	.00	65.98	503.67

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.79	1.50	.00	28.00	10.00	432.00	1.50	276.30	276.30

\*SECNO 6.750

PRESSURE AND WEIR FLOW, Weir Submergence Based on TRAPEZOIDAL Shape

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
290.68	290.49	.04	23.	1479.	432.	432.	288.30	290.30	81.
6.750	14.27	290.57	.00	295.82	290.67	.10	.22	.00	290.30
1500.0	.2	1499.7	.1	1.1	593.2	.6	58.1	16.9	290.30
.42	.16	2.53	.16	.050	.050	.050	.000	276.30	430.61
.000437	18.	18.	18.	2	0	4	.00	76.65	507.26

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

\*SECNO 6.775

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

6.775	11.94	290.54	.00	296.08	290.88	.33	.11	.09	294.20
1500.0	.0	1500.0	.0	.0	323.2	.0	59.5	17.1	294.40
.43	.00	4.64	.00	.000	.050	.000	.000	278.60	418.04
.002682	110.	128.	140.	2	0	0	.00	56.27	474.31

OCHV= .350 CEHV= .600

\*SECNO 6.779

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 5.89

FRONTAGE ROAD (HACIENDA DR ) BRIDGE  
 VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUN INDICATED SUBMERGED  
 FLOW FOR THE 100 YR. OCCURANCE.

6.779	9.49	290.79	.00	296.18	290.94	.15	.00	.06	294.30
1500.0	.0	1500.0	.0	.0	475.5	.0	59.7	17.1	294.30
.43	.00	3.15	.00	.000	.015	.000	.000	281.30	369.89
.000077	22.	22.	22.	2	0	0	.00	50.22	420.11

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.90	1.50	.00	68.00	18.00	450.00	.00	281.30	281.30

\*SECNO 6.799

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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
291.12	291.05	.11	0.	1500.	450.	450.	290.30	294.30	0.
6.799	9.67	290.97	.00	296.51	291.12	.15	.17	.00	294.30
1500.0	.0	1500.0	.0	.0	484.4	.0	60.8	17.2	294.30
.44	.00	3.10	.00	.000	.050	.000	.000	281.30	369.88
.000813	100.	100.	100.	2	0	0	.00	50.23	420.12

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 6.803									
6.803	8.72	291.02	.00	298.66	291.23	.21	.08	.04	290.60
1500.0	2.6	1497.4	.0	5.5	407.5	.0	61.5	17.4	295.30
.44	.47	3.67	.00	.045	.050	.000	.000	282.30	298.59
.001628	120.	70.	20.	2	0	0	.00	99.10	397.69
*SECNO 6.822									
6.822	8.74	291.24	.00	298.82	291.39	.15	.14	.02	292.80
1500.0	.0	1500.0	.0	.0	485.5	.0	62.5	17.6	294.60
.45	.00	3.09	.00	.000	.050	.000	.000	282.50	295.25
.001232	98.	98.	98.	2	0	0	.00	93.08	388.33
*SECNO 6.836									
6.836	8.74	291.34	.00	298.92	291.51	.17	.10	.01	292.70
1500.0	.0	1500.0	.0	.0	451.0	.0	63.3	17.7	294.90
.46	.00	3.33	.00	.000	.050	.000	.000	282.60	282.28
.001633	70.	73.	70.	0	0	0	.00	95.75	378.04
*SECNO 6.884									
6.884	8.20	291.80	.00	299.15	292.03	.23	.48	.03	294.50
1500.0	.0	1500.0	.0	.0	389.7	.0	65.7	18.3	295.40
.48	.00	3.85	.00	.000	.050	.000	.000	283.60	247.88
.002332	245.	250.	260.	2	0	0	.00	86.56	334.44
*SECNO 6.931									
6.931	7.54	292.54	.00	299.55	292.91	.37	.80	.09	295.80
1500.0	.0	1500.0	.0	.0	306.0	.0	67.7	18.7	296.80
.49	.00	4.90	.00	.000	.050	.000	.000	285.00	545.64
.004622	250.	250.	250.	2	0	0	.00	78.49	624.14
*SECNO 6.978									
6.978	7.20	293.70	.00	300.27	294.04	.35	1.12	.01	303.10
1500.0	.0	1500.0	.0	.0	317.1	.0	69.5	19.2	301.00
.50	.00	4.73	.00	.000	.050	.000	.000	286.50	501.84
.004560	240.	245.	245.	3	0	0	.00	86.00	587.83

SECNO	DEPTH	CWSEL	CRWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XLN	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

\*SECNO 7.026

7.026	5.78	294.98	.00	301.33	295.40	.42	1.31	.04	301.80
1500.0	.0	1500.0	.0	.0	288.6	.0	71.2	19.7	301.60
.52	.00	5.20	.00	.000	.050	.000	.000	289.20	720.55
.006053	251.	251.	251.	2	0	0	.00	84.14	804.69

CCHV= .500 CEHV= .700

\*SECNO 7.071

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.57

3470 ENCROACHMENT STATIONS= 854.8 905.2 TYPE= 1 TARGET= 50.400

VARIABLE COFQ WAS DECREASED TO 1.5 AFTER INITIAL RUNINDICATED SUBMERGED FLOW FOR THE 100 YR. OCCURANCE.

7.071	5.22	295.22	.00	301.25	295.73	.51	.27	.06	303.00
1500.0	.0	1500.0	.0	.0	261.4	.0	72.7	20.0	100000.00
.53	.00	5.74	.00	.000	.015	.000	.000	290.00	854.94
.000476	232.	232.	232.	3	0	0	.00	50.12	905.06

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.89	1.50	.00	68.00	18.00	450.00	.00	290.00	290.00

\*SECNO 7.088

CLASS A LOW FLOW

3420 BRIDGE W.S.= 294.86 BRIDGE VELOCITY= 6.17 CALCULATED CHANNEL AREA= 243.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	296.32	.70	0.	1500.	450.	450.	299.00	303.00	0.
7.088	5.93	295.93	.00	304.42	296.32	.40	.59	.00	303.00
1500.0	.0	1500.0	.0	.0	296.7	.0	73.2	20.1	301.00
.53	.00	5.06	.00	.000	.015	.000	.000	290.00	854.93
.000322	90.	90.	90.	0	0	0	.00	50.13	905.07

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

\*SECNO 7.091

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .21

7.091	3.73	295.83	.00	306.27	296.63	.80	.02	.28	302.30
1500.0	.0	1500.0	.0	.0	208.7	.0	73.4	20.2	302.10
.53	.00	7.19	.00	.000	.035	.000	.000	292.10	2168.14
.007437	24.	24.	24.	2	0	0	.00	75.09	2243.23

\*SECNO 7.138

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.46

7.138	5.50	297.50	.00	306.55	297.98	.48	1.19	.16	302.20
1500.0	.0	1500.0	.0	.0	269.5	.0	74.7	20.6	302.90
.55	.00	5.57	.00	.000	.035	.000	.000	292.00	732.35
.003481	270.	243.	200.	2	0	0	.00	79.80	812.16

\*SECNO 7.186

7.186	5.97	298.37	.00	306.63	298.73	.36	.69	.06	302.50
1500.0	.0	1500.0	.0	.0	310.8	.0	76.4	21.1	303.00
.56	.00	4.83	.00	.000	.035	.000	.000	292.40	799.14
.002203	230.	252.	270.	2	0	0	.00	81.09	880.23

\*SECNO 7.233

7.233	5.45	299.05	.00	306.71	299.57	.52	.73	.11	302.70
1500.0	.0	1500.0	.0	.0	259.5	.0	78.0	21.5	302.50
.57	.00	5.78	.00	.000	.035	.000	.000	293.60	763.39
.004224	260.	247.	290.	2	0	0	.00	83.68	847.07

CCHV= .500 CEHV= .700

\*SECNO 7.263

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.49

7.263	3.37	299.27	.00	306.20	300.50	1.23	.43	.50	310.90
1500.0	.0	1500.0	.0	.0	168.5	.0	78.8	21.8	310.90
.58	.00	8.90	.00	.000	.015	.000	.000	295.90	104.96
.001891	157.	157.	157.	2	0	0	.00	50.07	155.04

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	L-BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	R-BANK ELEV
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 297.55 , NOT 299.27 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.11	2.50	.00	68.00	18.00	450.00	.00	295.90	295.90

\*SECNO 7.300

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.63

CLASS B LOW FLOW

3420 BRIDGE W.S.= 298.93 BRIDGE VELOCITY= 9.89 CALCULATED CHANNEL AREA= 152.

EGPRS	EGLWC	H3	QWEIR	QLOW	BAREA	TRAPEZOID AREA	ELLC	ELTRD	WEIRLN
.00	301.15	.00	0.	1500.	450.	450.	304.90	310.90	0.
7.300	4.59	300.49	.00	312.01	301.15	.66	.65	.00	310.90
1500.0	.0	1500.0	.0	.0	229.5	.0	79.7	22.0	310.90
.59	.00	6.54	.00	.000	.015	.000	.000	295.90	104.95
.000714	200.	200.	200.	0	0	0	.00	50.10	155.05

\*SECNO 7.304

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

7.304	5.83	301.13	.00	313.53	301.37	.24	.01	.21	309.80
1500.0	.0	1500.0	.0	.0	380.1	.0	79.9	22.1	308.20
.59	.00	3.95	.00	.000	.015	.000	.000	295.30	80.50
.000238	40.	33.	40.	3	0	0	.00	89.49	169.98

\*SECNO 7.351

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

7.351	5.82	301.12	.00	313.48	301.72	.60	.09	.25	308.60
1500.0	.0	1500.0	.0	.0	241.2	.0	81.7	22.5	309.00
.60	.00	6.22	.00	.000	.015	.000	.000	295.30	660.93
.000661	260.	248.	90.	2	0	0	.00	60.68	721.60

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

\*SECNO 7.375

7.375	5.59	301.09	.00	313.41	302.09	1.00	.10	.28	309.00
1500.0	.0	1500.0	.0	.0	186.6	.0	82.3	22.6	309.40
.60	.00	8.04	.00	.000	.015	.000	.000	295.50	560.23
.000999	140.	121.	100.	2	0	0	.00	42.09	602.33