Greiner

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Dambreak Study Computer Hardcopy
For
Guadalupe Flood Retarding Structure

Submitted to:
Flood Control District of Maricopa County
Maricopa County, Arizona
Contract No. FCD 88-65

Submitted by:
Greiner, Inc.
7310 N. 16th Street, Suite 160
Phoenix, Arizona 85020
(602) 275-5400

Job No. E124034

May 1990

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EDAM_NO_WALL.DAT *.OUT	East Dam Without Walls (East Dam North)
EDAM_WALL.DAT *.OUT	East Dam With Walls (East Dam North)
NDAM_NO_WALL.DAT *.OUT	North Dam Without Walls (North Dam No. 2)
NDAM_WALL.DAT *.OUT	North Dam With Walls (North Dam No. 2)
DYN_TYP.DAT *.OUT	Dynamic Downstream Routing from Typical Dam Reservoir Dynamic Routing
STOR_TYP.DAT *.OUT	Dynamic Downstream Routing from Typical Dam Reservoir Storage Routing
DYN_RES_ROUT.DAT *.OUT	Reservoir Dynamic Routing Option 5 for Breach Hydrograph for Option 8 Hydrograph Input
STOR_RES_ROUT.DAT *.OUT	Reserve Storage Routing Option 2 for Breach Hydrograph for Option 8 Hydrograph Input
EDAMS_WALL.DAT *.OUT	East Dam South With Walls
NDAM1_WALL.DAT *.OUT	North Dam No. 1 With Walls

QQQQQQQQQQ OOOO

GUADALUPE EAST DAM NORTH AT SOUTH MOUNTAIN - OPTION 2 SUPERCRITICAL LAKE EMPTY
GREINER, INC. 7310 N 16TH STREET, SUITE 160, PHOENIX, ARIZONA 85020

1	0	0	5	8	0	0	0
[illegible]							
37.91	31.06	29.55	22.61	15.96	11.06	6.54	2.0
1261.0	1277.0	1275.	1270.	1265.	1260.	1255.	1250.0
0.	1258.	0.	1253.	27.0	0.26	1253.	0.0
1274.0	1282.	1274.	0.0	0.0	0.0	-1256.	100.0
0.	303.	1110.	2350.	3900.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
0.	6.8	1.	0	0	0	0	
0.00	1425.0	4856.	6039.	4856.	1475.	731.	72.
0.0	2.13	2.53	2.80	3.07	3.87	4.60	6.60
10	6	0	1	0	1	0	0
0.0170	1256.						
1254.	1256.	1258.	1260.	1261.	1262.		
80.	220.	310.	400.	410.	420.		
0.	0.	0.	0.	0.	0.		
0.1174	1246.5						
1244.5	1245.	1246.	1248.	1249.	1250.		
0.	83.	282.	451.	504.	552.		
0.	0.	0.	15.	24.	37.		
0.2348	1237.						
1235.	1236.	1236.5	1237.	1237.5	1238.		
0.	491.	589.	623.	650.	686.		
0.	9.	14.	19.	22.	27.		
0.3883	1225.						
1223.	1224.	1225.	1226.	1227.	1228.		
0.	1203.	1458.	1554.	1677.	1798.		
0.	97.	140.	165.	171.	179.		
0.5701	1214.						
1212.	1213.	1214.	1215.	1216.	1217.		
0.	1825.	2350.	2161.	2238.	2314.		
0.	0.	0.	389.	392.	386.		
0.7509	1205.						
1203.	1203.5	1204.	1204.5	1205.	1206.		
0.	1142.	1998.	2282.	2497.	2650.		
0.	0.	77.	188.	328.	520.		
0.9716	1190.5						
1188.5	1189.	1190.	1191.	1192.	1194.		
0.	193.	584.	1078.	1422.	1705.		
0.	0.	0.	642.	949.	950.		
1.1382	1184.						
1182.	1183.	1184.	1185.	1185.5	1186.		
476.	670.	770.	1139.	1343.	1578.		
0.	0.	205.	587.	803.	1008.		
1.2254	1181.5						
1179.5	1180.	1182.	1183.	1184.	1186.		
324.	593.	1000.	1149.	1328.	1666.		
0.	2007.	2294.	2320.	2297.	2293.		
1.3229	1177.						
1175.	1175.5	1176.	1176.5	1177.	1178.		
0.	736.	1101.	1281.	1377.	1581.		
0.	42.	149.	182.	217.	270.		
0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		

0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		
0.025	0.025	0.025	0.025	0.025	0.025		
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0							
0.0	0.0	0.0	0.0	35.0	0.0	0.0	0.0

Digital Equipment Corporation - VAX/VMS Version V4.5

File _DUA1:[USERS.E124034.ENGR]EDAM_NO_WALL.OUT;2 (5037,67,0), last revised on 11-MAY-1990 16:03, is a 74 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with FORTRAN (FTN) carriage control. The longest record is 122 bytes.

Job EDAM_NO_WALL (1369) queued to SYS$PRINT on 11-MAY-1990 16:09 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _LPA0: on 11-MAY-1990 16:09 from queue SYS$PRINT.

Digital Equipment Corporation - VAX/VMS Version V4.5

PROGRAM DAMBRK---VERSION--6/20/88-3

Input file name : EDAM_NO_WALL.DAT

11-MAY-90 16:03:12

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE EAST DAM N

ON

OBCH AT SOUTH MOUNTA

ANALYSIS BY

IN - OPTION 2 SUPERCRITICAL LAKE EMPTY
GREINER, INC. 7310 N 16TH STREET, SUIT
E 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W32, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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***                         ***
***  SUMMARY OF INPUT DATA  ***
***                         ***
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INPUT CONTROL PARAMETERS FOR GUADALUPE EAST DAM N

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	1
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN INK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 0 0 1 0 0 0

GUADALUPE EAST DAM N RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
37.9	1281.00
33.1	1277.00
29.5	1275.00
22.6	1270.00
16.0	1265.00
11.1	1260.00
6.5	1255.00
2.0	1250.00

GUADALUPE EAST DAM N RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	RLM	0.00
ELEVATION OF WATER SURFACE	FEET	YO	1258.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1253.00
WIDTH OF BASE OF BREACH	FEET	BB	27.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TBH	0.28
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1253.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HF	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1282.00
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	-1250.00
DISCHARGE THRU TURBINES	CFS	QT	100.00

QSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHF(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEM(TIME AT WHICH COMPUTATIONS TERMINATE)= 6.6000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE EAST DAM N
****

0.00	1425.00	4856.00	6039.00	4956.00	1495.00	731.00	72.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5000	2.8000	3.0700	3.8700	4.5000	6.6000

CROSS-SECTIONAL PARAMETERS FOR ORTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	10
MAXIMUM NUMBER OF TOP WIDTHS	NCS	6
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR ORTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.500	0.000
2	0.500	0.000
3	0.500	0.000
4	0.500	0.000
5	0.500	0.000
6	0.500	0.000
7	0.500	0.000
8	0.500	0.000
9	0.500	0.000

DOWNSTREAM FLOW PARAMETERS FOR ORTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SDM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.163 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.131 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.108 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.104 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.087 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.091 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.088 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.092 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.077 DUE TO (WAVE SPEED * DT) CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 10 (MAXIMUM ALLOWABLE = 100

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*********************************
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***                           ***
***  SUMMARY OF OUTPUT DATA   ***
***                           ***
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE EAST DAM N = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TIP(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
EST DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUB
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		COFR

INFLOW TO RESERVOIR	CFS	QI(I)
BREACH OUTFLOW	CFS	QBREACH
SPILLWAY OUTFLOW	CFS	QSPIL

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	Z2	D	SUB	VCOR	OUTVOL	BB	COSR	Q1(I)	SPREDH	QSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
1	0	0.000	100	1258.00	1256.00	1254.35	1.00	1.00	0.0	0.0	3.10	0.	0.	100.
2	2	0.100	100	1257.94	1256.00	1254.36	1.00	1.00	0.9	0.0	4.80	67.	0.	100.
3	2	0.200	100	1257.94	1256.00	1254.36	1.00	1.00	1.7	0.0	4.80	134.	0.	100.
4	2	0.340	100	1258.04	1256.00	1254.36	1.00	1.00	3.8	0.0	4.80	227.	0.	100.
5	2	0.480	100	1258.26	1256.00	1254.36	1.00	1.00	4.0	0.0	4.80	321.	0.	100.
6	2	0.620	100	1258.58	1256.00	1254.36	1.00	1.00	5.1	0.0	4.80	415.	0.	100.
7	2	0.760	100	1259.00	1256.00	1254.36	1.00	1.00	6.3	0.0	4.80	508.	0.	100.
8	2	0.900	100	1259.51	1256.00	1254.36	1.00	1.00	7.4	0.0	4.80	602.	0.	100.
9	2	1.040	100	1260.09	1256.00	1254.36	1.00	1.00	8.6	0.0	4.80	696.	0.	100.
10	2	1.180	100	1260.74	1256.00	1254.36	1.00	1.00	9.8	0.0	4.80	789.	0.	100.
11	2	1.320	100	1261.44	1256.00	1254.36	1.00	1.00	10.9	0.0	4.80	883.	0.	100.
12	2	1.460	100	1262.19	1256.00	1254.36	1.00	1.00	12.1	0.0	4.80	977.	0.	100.
13	2	1.600	100	1262.97	1256.00	1254.36	1.00	1.00	13.2	0.0	4.80	1070.	0.	100.
14	2	1.740	100	1263.79	1256.00	1254.36	1.00	1.00	14.4	0.0	4.80	1164.	0.	100.
15	2	1.880	100	1264.64	1256.00	1254.36	1.00	1.00	15.5	0.0	4.80	1258.	0.	100.
16	2	2.020	100	1265.50	1256.00	1254.36	1.00	1.00	16.7	0.0	4.80	1351.	0.	100.
17	2	2.160	100	1266.45	1256.00	1254.36	1.00	1.00	17.9	0.0	4.80	1682.	0.	100.
18	2	2.300	100	1267.79	1256.00	1254.36	1.00	1.00	19.0	0.0	4.80	2883.	0.	100.
19	2	2.440	100	1269.67	1256.00	1254.36	1.00	1.00	20.2	0.0	4.80	4084.	0.	100.
20	2	2.580	100	1271.86	1256.00	1254.36	1.00	1.00	21.3	0.0	4.80	5075.	0.	100.
21	3	2.720	139	1274.13	1256.00	1254.44	1.00	1.00	22.7	1.0	4.80	5688.	0.	140.
22	1	2.726	174	1274.22	1255.84	1254.49	1.00	1.00	22.8	0.5	4.80	5713.	8.	167.
23	1	2.731	226	1274.31	1255.28	1254.57	1.00	1.00	22.9	1.1	4.80	5738.	32.	194.
24	1	2.737	293	1274.40	1254.92	1254.65	1.00	1.00	23.0	1.6	4.80	5762.	72.	221.
25	1	2.742	376	1274.49	1254.56	1254.75	1.00	1.00	23.1	2.2	4.80	5787.	129.	247.
26	1	2.748	475	1274.57	1254.20	1254.85	1.00	1.00	23.3	2.7	4.80	5811.	202.	273.
27	1	2.754	589	1274.66	1253.84	1254.96	1.00	1.00	23.6	3.2	4.80	5836.	291.	299.
28	1	2.759	720	1274.74	1253.48	1255.07	1.00	1.00	23.9	3.8	4.80	5860.	397.	324.
29	1	2.765	867	1274.82	1253.12	1255.19	1.00	1.00	24.3	4.3	4.80	5885.	519.	346.
30	1	2.770	1004	1274.90	1253.00	1255.28	1.00	1.00	24.7	4.9	4.80	5909.	632.	372.
31	1	2.776	1148	1274.97	1253.00	1255.37	1.00	1.00	25.2	5.4	4.80	5934.	753.	395.
32	1	2.782	1338	1275.05	1253.00	1255.49	1.00	1.00	25.8	5.9	4.80	5958.	897.	442.
33	1	2.787	1557	1275.12	1253.00	1255.61	1.00	1.00	26.4	6.5	4.80	5983.	1059.	498.
34	1	2.793	1785	1275.19	1253.00	1255.72	1.00	1.00	27.2	7.0	4.80	6007.	1237.	549.
35	1	2.798	2021	1275.25	1253.00	1255.83	1.00	1.00	28.1	7.6	4.80	6032.	1429.	592.
36	1	2.804	2265	1275.31	1253.00	1255.94	1.00	1.00	29.1	8.1	4.80	6023.	1634.	632.
37	1	2.810	2519	1275.36	1253.00	1256.04	1.00	1.00	30.2	8.6	4.80	6000.	1850.	669.
38	1	2.815	2779	1275.42	1253.00	1256.13	1.00	1.00	31.4	9.2	4.80	5978.	2077.	702.
39	1	2.821	3046	1275.46	1253.00	1256.22	1.00	1.00	32.8	9.7	4.80	5956.	2314.	732.
40	1	2.826	3319	1275.50	1253.00	1256.31	1.00	1.00	34.2	10.3	4.80	5933.	2561.	758.
41	1	2.832	3597	1275.54	1253.00	1256.40	1.00	1.00	35.8	10.8	4.80	5911.	2817.	780.
42	1	2.838	3879	1275.57	1253.00	1256.49	1.00	1.00	37.6	11.3	4.80	5888.	3081.	798.
43	3	2.843	4766	1275.60	1253.00	1256.74	1.00	1.00	39.6	11.9	3.10	5866.	3957.	809.
44	1	2.849	4954	1275.61	1253.00	1256.79	1.00	1.00	41.8	12.4	3.10	5843.	4141.	814.
45	1	2.854	5139	1275.62	1253.00	1256.84	1.00	1.00	44.2	13.0	3.10	5821.	4325.	815.
46	1	2.860	5321	1275.63	1253.00	1256.88	1.00	1.00	46.6	13.5	3.10	5798.	4508.	814.
47	1	2.866	5508	1275.64	1253.00	1256.93	1.00	1.00	49.1	14.0	3.10	5776.	4690.	819.
48	1	2.871	5691	1275.64	1253.00	1256.98	1.00	1.00	51.7	14.6	3.10	5753.	4871.	821.
49	1	2.877	5871	1275.64	1253.00	1257.02	1.00	1.00	54.4	15.1	3.10	5731.	5051.	820.
50	1	2.882	6047	1275.64	1253.00	1257.06	1.00	1.00	57.1	15.7	3.10	5708.	5231.	817.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	HB	D	SUB	VOLR	OUTVOL	BB	COBR	Q1(I)	BBREOH	GSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
51	1	2.888	6220	1275.63	1253.00	1257.11	1.00	1.00	60.0	16.2	3.10	5886.	5409.	812.
52	1	2.894	6390	1275.62	1253.00	1257.15	1.00	1.00	62.9	16.7	3.10	5664.	5586.	804.
53	1	2.899	6555	1275.61	1253.00	1257.18	1.00	1.00	65.9	17.3	3.10	5641.	5761.	794.
54	1	2.905	6717	1275.59	1253.00	1257.22	1.00	1.00	68.9	17.8	3.10	5619.	5935.	782.
55	1	2.910	6875	1275.58	1253.00	1257.26	1.00	1.00	72.1	18.4	3.10	5596.	6108.	768.
56	1	2.916	7030	1275.55	1253.00	1257.29	1.00	1.00	75.3	18.9	3.10	5574.	6279.	751.
57	1	2.922	7180	1275.53	1253.00	1257.33	1.00	1.00	78.6	19.4	3.10	5551.	6449.	732.
58	1	2.927	7327	1275.51	1253.00	1257.36	1.00	1.00	81.9	20.0	3.10	5529.	6617.	711.
59	1	2.933	7470	1275.48	1253.00	1257.39	1.00	1.00	85.4	20.5	3.10	5506.	6783.	688.
60	1	2.938	7609	1275.45	1253.00	1257.42	1.00	1.00	88.9	21.1	3.10	5484.	6947.	663.
61	1	2.944	7744	1275.41	1253.00	1257.45	1.00	1.00	92.4	21.6	3.10	5461.	7109.	635.
62	1	2.950	7875	1275.38	1253.00	1257.48	1.00	1.00	96.0	22.1	3.10	5439.	7270.	606.
63	1	2.955	8003	1275.34	1253.00	1257.50	1.00	1.00	99.7	22.7	3.10	5416.	7428.	575.
64	1	2.961	8126	1275.30	1253.00	1257.53	1.00	1.00	103.4	23.2	3.10	5394.	7584.	542.
65	1	2.966	8245	1275.25	1253.00	1257.55	1.00	1.00	107.2	23.8	3.10	5372.	7738.	507.
66	1	2.972	8360	1275.21	1253.00	1257.58	1.00	1.00	111.1	24.3	3.10	5349.	7890.	471.
67	1	2.978	8471	1275.16	1253.00	1257.60	1.00	1.00	115.0	24.8	3.10	5327.	8040.	432.
68	1	2.983	8578	1275.11	1253.00	1257.62	1.00	1.00	118.9	25.4	3.10	5304.	8187.	392.
69	1	2.989	8681	1275.06	1253.00	1257.64	1.00	1.00	122.9	25.9	3.10	5282.	8332.	350.
70	1	2.994	8780	1275.00	1253.00	1257.66	1.00	1.00	126.9	26.5	3.10	5259.	8474.	306.
71	1	3.000	8901	1274.95	1253.00	1257.68	1.00	1.00	131.0	27.0	3.10	5237.	8614.	287.
72	1	3.006	8850	1274.89	1253.00	1257.67	1.00	1.00	135.1	27.0	3.10	5214.	8581.	270.
73	1	3.011	8799	1274.83	1253.00	1257.66	1.00	1.00	139.2	27.0	3.10	5192.	8547.	252.
74	1	3.017	8749	1274.78	1253.00	1257.65	1.00	1.00	143.3	27.0	3.10	5169.	8514.	235.
75	1	3.022	8698	1274.72	1253.00	1257.64	1.00	1.00	147.3	27.0	3.10	5147.	8481.	218.
76	1	3.028	8649	1274.66	1253.00	1257.63	1.00	1.00	151.3	27.0	3.10	5124.	8448.	201.
77	1	3.034	8599	1274.61	1253.00	1257.62	1.00	1.00	155.3	27.0	3.10	5102.	8415.	184.
78	1	3.039	8549	1274.55	1253.00	1257.61	1.00	1.00	159.3	27.0	3.10	5080.	8383.	167.
79	1	3.045	8500	1274.50	1253.00	1257.60	1.00	1.00	163.2	27.0	3.10	5057.	8350.	151.
80	1	3.050	8452	1274.44	1253.00	1257.59	1.00	1.00	167.2	27.0	3.10	5035.	8318.	134.
81	1	3.056	8403	1274.39	1253.00	1257.58	1.00	1.00	171.1	27.0	3.10	5012.	8286.	117.
82	1	3.062	8355	1274.33	1253.00	1257.57	1.00	1.00	174.9	27.0	3.10	4990.	8255.	101.
83	1	3.067	8307	1274.28	1253.00	1257.56	1.00	1.00	178.8	27.0	3.10	4967.	8223.	84.
84	1	3.073	8259	1274.22	1253.00	1257.55	1.00	1.00	182.6	27.0	3.10	4944.	8192.	68.
85	1	3.078	8212	1274.17	1253.00	1257.54	1.00	1.00	186.4	27.0	3.10	4919.	8161.	52.
86	1	3.084	8165	1274.12	1253.00	1257.53	1.00	1.00	190.2	27.0	3.10	4895.	8130.	35.
87	1	3.090	8118	1274.06	1253.00	1257.53	1.00	1.00	194.0	27.0	3.10	4871.	8099.	19.
88	1	3.095	8071	1274.01	1253.00	1257.52	1.00	1.00	197.8	27.0	3.10	4846.	8068.	3.
89	1	3.101	8037	1273.96	1253.00	1257.51	1.00	1.00	201.5	27.0	3.10	4822.	8038.	0.
90	1	3.106	8007	1273.90	1253.00	1257.50	1.00	1.00	205.2	27.0	3.10	4798.	8007.	0.
91	1	3.112	7976	1273.85	1253.00	1257.50	1.00	1.00	208.9	27.0	3.10	4773.	7977.	0.
92	1	3.118	7946	1273.80	1253.00	1257.49	1.00	1.00	212.6	27.0	3.10	4749.	7947.	0.
93	1	3.123	7916	1273.75	1253.00	1257.48	1.00	1.00	216.2	27.0	3.10	4725.	7916.	0.
94	1	3.129	7885	1273.69	1253.00	1257.48	1.00	1.00	219.9	27.0	3.10	4700.	7886.	0.
95	1	3.134	7855	1273.64	1253.00	1257.47	1.00	1.00	223.5	27.0	3.10	4676.	7855.	0.
96	1	3.140	7824	1273.59	1253.00	1257.46	1.00	1.00	227.2	27.0	3.10	4651.	7825.	0.
97	1	3.146	7794	1273.53	1253.00	1257.46	1.00	1.00	230.8	27.0	3.10	4627.	7795.	0.
98	1	3.151	7764	1273.48	1253.00	1257.45	1.00	1.00	234.4	27.0	3.10	4603.	7764.	0.
99	1	3.157	7734	1273.43	1253.00	1257.44	1.00	1.00	238.0	27.0	3.10	4578.	7734.	0.
100	1	3.162	7703	1273.37	1253.00	1257.44	1.00	1.00	241.5	27.0	3.10	4554.	7704.	0.

RESERVOIR DEPLETION TABLE

I	K	ITP(I)	Q(I)	H2	H3	D	SUB	VCOR	OUTVOL	BE	DPR	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
101	1	3.168	7673	1273.32	1253.00	1257.43	1.00	1.00	245.1	27.0	3.10	4530.	7673.	0.
102	1	3.174	7643	1273.27	1253.00	1257.43	1.00	1.00	248.6	27.0	3.10	4505.	7643.	0.
103	1	3.179	7612	1273.21	1253.00	1257.42	1.00	1.00	252.2	27.0	3.10	4481.	7613.	0.
104	1	3.185	7582	1273.16	1253.00	1257.41	1.00	1.00	255.7	27.0	3.10	4456.	7583.	0.
105	1	3.190	7552	1273.10	1253.00	1257.41	1.00	1.00	259.2	27.0	3.10	4432.	7552.	0.
106	1	3.196	7522	1273.05	1253.00	1257.40	1.00	1.00	262.7	27.0	3.10	4408.	7522.	0.
107	1	3.202	7492	1273.00	1253.00	1257.39	1.00	1.00	266.2	27.0	3.10	4383.	7492.	0.
108	1	3.207	7461	1272.94	1253.00	1257.39	1.00	1.00	269.6	27.0	3.10	4359.	7462.	0.
109	1	3.213	7431	1272.89	1253.00	1257.38	1.00	1.00	273.1	27.0	3.10	4335.	7432.	0.
110	1	3.218	7401	1272.84	1253.00	1257.37	1.00	1.00	276.5	27.0	3.10	4310.	7402.	0.
111	1	3.224	7371	1272.78	1253.00	1257.37	1.00	1.00	279.9	27.0	3.10	4286.	7371.	0.
112	1	3.230	7341	1272.73	1253.00	1257.36	1.00	1.00	283.3	27.0	3.10	4262.	7341.	0.
113	1	3.235	7311	1272.67	1253.00	1257.35	1.00	1.00	286.7	27.0	3.10	4237.	7311.	0.
114	1	3.241	7280	1272.62	1253.00	1257.35	1.00	1.00	290.1	27.0	3.10	4213.	7281.	0.
115	1	3.246	7250	1272.57	1253.00	1257.34	1.00	1.00	293.5	27.0	3.10	4188.	7251.	0.
116	1	3.252	7220	1272.51	1253.00	1257.33	1.00	1.00	296.8	27.0	3.10	4164.	7221.	0.
117	1	3.258	7190	1272.46	1253.00	1257.33	1.00	1.00	300.1	27.0	3.10	4140.	7191.	0.
118	1	3.263	7160	1272.40	1253.00	1257.32	1.00	1.00	303.5	27.0	3.10	4115.	7161.	0.
119	1	3.269	7130	1272.35	1253.00	1257.31	1.00	1.00	306.8	27.0	3.10	4091.	7131.	0.
120	1	3.274	7100	1272.29	1253.00	1257.31	1.00	1.00	310.1	27.0	3.10	4067.	7101.	0.
121	1	3.280	7070	1272.24	1253.00	1257.30	1.00	1.00	313.3	27.0	3.10	4042.	7070.	0.
122	1	3.286	7037	1272.18	1253.00	1257.29	1.00	1.00	316.9	27.0	3.10	4015.	7037.	0.
123	1	3.293	7001	1272.11	1253.00	1257.29	1.00	1.00	320.9	27.0	3.10	3986.	7001.	0.
124	1	3.300	6961	1272.04	1253.00	1257.28	1.00	1.00	325.2	27.0	3.10	3954.	6961.	0.
125	1	3.309	6917	1271.96	1253.00	1257.27	1.00	1.00	329.9	27.0	3.10	3918.	6917.	0.
126	1	3.318	6869	1271.87	1253.00	1257.26	1.00	1.00	335.0	27.0	3.10	3879.	6869.	0.
127	1	3.328	6815	1271.77	1253.00	1257.24	1.00	1.00	340.6	27.0	3.10	3835.	6816.	0.
128	1	3.338	6757	1271.67	1253.00	1257.23	1.00	1.00	346.7	27.0	3.10	3788.	6758.	0.
129	2	3.350	6693	1271.55	1253.00	1257.22	1.00	1.00	353.4	27.0	3.10	3736.	6693.	0.
130	2	3.364	6622	1271.42	1253.00	1257.20	1.00	1.00	360.7	27.0	3.10	3678.	6623.	0.
131	2	3.379	6545	1271.27	1253.00	1257.18	1.00	1.00	368.6	27.0	3.10	3615.	6545.	0.
132	2	3.394	6460	1271.12	1253.00	1257.16	1.00	1.00	377.2	27.0	3.10	3546.	6460.	0.
133	2	3.412	6366	1270.94	1253.00	1257.14	1.00	1.00	386.5	27.0	3.10	3469.	6366.	0.
134	2	3.431	6263	1270.75	1253.00	1257.12	1.00	1.00	396.6	27.0	3.10	3385.	6263.	0.
135	2	3.452	6150	1270.53	1253.00	1257.09	1.00	1.00	407.5	27.0	3.10	3292.	6150.	0.
136	2	3.476	6025	1270.29	1253.00	1257.06	1.00	1.00	419.2	27.0	3.10	3191.	6026.	0.
137	2	3.501	5888	1270.03	1253.00	1257.03	1.00	1.00	431.9	27.0	3.10	3079.	5889.	0.
138	2	3.530	5738	1269.74	1253.00	1256.99	1.00	1.00	445.5	27.0	3.10	2955.	5738.	0.
139	2	3.561	5573	1269.42	1253.00	1256.95	1.00	1.00	460.1	27.0	3.10	2820.	5573.	0.
140	2	3.595	5391	1269.06	1253.00	1256.90	1.00	1.00	475.6	27.0	3.10	2671.	5391.	0.
141	2	3.633	5191	1268.66	1253.00	1256.85	1.00	1.00	492.1	27.0	3.10	2507.	5192.	0.
142	2	3.674	4972	1268.21	1253.00	1256.79	1.00	1.00	509.5	27.0	3.10	2327.	4972.	0.
143	2	3.720	4730	1267.72	1253.00	1256.73	1.00	1.00	527.7	27.0	3.10	2128.	4731.	0.
144	2	3.770	4465	1267.16	1253.00	1256.65	1.00	1.00	546.8	27.0	3.10	1910.	4465.	0.
145	2	3.825	4172	1266.53	1253.00	1256.57	1.00	1.00	566.5	27.0	3.10	1670.	4173.	0.
146	2	3.886	3853	1265.83	1253.00	1256.47	1.00	1.00	586.6	27.0	3.10	1459.	3854.	0.
147	2	3.953	3520	1265.08	1253.00	1256.37	1.00	1.00	606.9	27.0	3.10	1391.	3520.	0.
148	2	4.026	3187	1264.31	1253.00	1256.26	1.00	1.00	627.3	27.0	3.10	1316.	3188.	0.
149	1	4.107	2862	1263.53	1253.00	1256.16	1.00	1.00	647.5	27.0	3.10	1234.	2863.	0.
150	1	4.196	2547	1262.74	1253.00	1256.05	1.00	1.00	667.3	27.0	3.10	1143.	2548.	0.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUB	VCOR	OUTVOL	BB	COER	Q1(I)	QBXECH	GSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
151	1	4.293	2245	1261.95	1253.00	1255.93	1.00	1.00	686.7	27.0	3.10	1044.	2245.	0.
152	1	4.401	1956	1261.17	1253.00	1255.80	1.00	1.00	705.4	27.0	3.10	934.	1957.	0.
153	1	4.519	1682	1260.39	1253.00	1255.67	1.00	1.00	723.1	27.0	3.10	814.	1683.	0.
154	2	4.649	1427	1259.62	1253.00	1255.53	1.00	1.00	739.9	27.0	3.10	715.	1428.	0.
155	2	4.792	1204	1258.91	1253.00	1255.40	1.00	1.00	755.4	27.0	3.10	668.	1204.	0.
156	2	4.950	1018	1258.23	1253.00	1255.28	1.00	1.00	769.9	27.0	3.10	616.	1019.	0.
157	2	5.123	864	1257.73	1253.00	1255.18	1.00	1.00	783.4	27.0	3.10	559.	865.	0.
158	2	5.313	734	1257.25	1253.00	1255.08	1.00	1.00	795.9	27.0	3.10	496.	735.	0.
159	2	5.523	621	1256.80	1253.00	1254.99	1.00	1.00	807.7	27.0	3.10	427.	622.	0.
160	2	5.753	518	1256.37	1253.00	1254.90	1.00	1.00	818.5	27.0	3.10	351.	519.	0.
161	1	6.006	420	1255.92	1253.00	1254.80	1.00	1.01	828.4	27.0	3.10	268.	420.	0.
162	2	6.285	321	1255.44	1253.00	1254.69	1.00	1.01	836.9	27.0	3.10	176.	321.	0.
163	2	6.592	219	1254.89	1253.00	1254.56	1.00	1.01	843.8	27.0	3.10	75.	219.	0.

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	Q(1)	100.
MAX FLOW	CFS	QM	8902.
FINAL FLOW	CFS	Q(NU)	219.
TIME TO MAX FLOW	HRS	TP	3.00
NUMBER OF TIME STEPS		NNU	163
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	844.

INITIAL CONDITIONS

INITIAL CONDITIONS

(GDI(I),I=1,N)

```
 100.     100.     100.     100.     100.     100.     100.     100.
 100.     100.
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(YI(I),I=1,N)

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1254.32   1245.09   1235.40   1223.27   1212.24   1203.21   1188.95   1182.11
1179.63   1175.26
```

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.280
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TFO	2.720
TIME TO PEAK	HR	TP	3.000
TIME STEP SIZE	HR	DTH1	0.014

ROUTING COMPLETED.

KTIME= 246 ALLOWABLE KTIME= 699 TT= 6.6

PROFILE OF CRESTS AND TIMES FOR DRTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.017	1257.34	8879	2.998	14.03	1256.00	2.83
0.117	1247.49	8861	3.007	12.38	1246.50	2.84
0.235	1237.16	8837	3.016	9.65	1237.00	2.95
0.388	1224.51	8782	3.040	7.04	1225.00	0.00
0.570	1213.41	8722	3.063	5.15	1214.00	0.00
0.751	1204.32	8647	3.115	5.53	1205.00	0.00
0.972	1190.94	8496	3.167	11.47	1190.50	3.05
1.138	1184.10	8424	3.209	6.15	1184.00	3.14
1.225	1181.51	8109	3.298	6.37	1181.50	3.27
1.323	1176.44	8045	3.284	6.95	1177.00	0.00

RRRRRRRRRR 111111111

GUADALUPE EAST DAM NORTH AT SOUTH MOUNTAIN - OPTION 2 SUPERCRITICAL LAKE EMPTY
GREINER, INC. 7310 N 16TH STREET, SUITE 160, PHOENIX, ARIZONA 85020

1	0	0	5	8	0	0	0
1100000010 0 0							
37.91	33.08	29.55	22.60	15.98	11.06	6.54	2.0
1281.0	1277.0	1275.	1270.	1265.	1260.	1255.	1250.0
0.	1258.	0.	1253.	27.0	0.28	1253.	0.0
1274.0	1282.	1274.	0.0	0.0	0.0	-1256.	100.0
0.	303.	1110.	2350.	3900.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
0.	6.6	1.	0	0	0	0	
0.00	1425.0	4856.	6039.	4956.	1475.	731.	72.
0.0	2.13	2.53	2.50	3.07	3.87	4.60	6.60
10	7	0	1	0	1	0	0
0.0170	1256.						
1254.	1256.	1258.	1260.	1261.	1262.	1267.	
30.	220.	310.	400.	410.	420.	420.	
0.	0.	0.	0.	0.	0.	0.	
0.1174	1246.5						
1244.5	1245.	1246.	1248.	1249.	1250.	1255.	
0.	83.	282.	451.	504.	552.	552.	
0.	0.	0.	15.	24.	37.	37.	
0.2348	1237.						
1235.	1236.	1236.5	1237.	1237.5	1238.	1243.	
0.	300.	300.	300.	300.	300.	300.	
0.	500.	603.	642.	672.	713.	713.	
0.3883	1225.						
1223.	1224.	1225.	1226.	1227.	1228.	1233.	
0.	280.	280.	280.	280.	280.	280.	
0.	1300.	1598.	1719.	1848.	1977.	1977.	
0.5701	1214.						
1212.	1213.	1214.	1215.	1216.	1217.	1222.	
0.	240.	240.	240.	240.	240.	240.	
0.	1825.	2250.	2550.	2630.	2700.	2700.	
0.7509	1205.						
1203.	1203.5	1204.	1204.5	1205.	1206.	1211.	
0.	240.	240.	240.	240.	240.	240.	
0.	1142.	2075.	2450.	2825.	3170.	3170.	
0.9716	1190.5						
1188.5	1189.	1190.	1191.	1192.	1194.	1199.	
0.	240.	240.	240.	240.	240.	240.	
0.	178.	584.	1420.	2371.	2655.	2655.	
1.1382	1184.						
1182.	1183.	1184.	1185.	1185.5	1186.	1191.	
0.	240.	240.	240.	240.	240.	240.	
476.	670.	975.	1726.	2146.	2586.	2586.	
1.2254	1181.5						
1179.5	1180.	1182.	1183.	1184.	1186.	1191.	
0.	240.	240.	240.	240.	240.	240.	
324.	2600.	3294.	3469.	3525.	3960.	3960.	
1.3329	1177.						
1175.	1175.5	1176.	1176.5	1177.	1178.	1183.	
0.	240.	240.	240.	240.	240.	240.	
0.	778.	1250.	1463.	1549.	1851.	1851.	
0.024	0.024	0.024	0.024	0.024	0.024	0.024	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.020	0.020	0.020	0.020	0.020	0.020	0.020	

0.020	0.020	0.020	0.020	0.020	0.020	0.020	
0.020	0.020	0.020	0.020	0.020	0.020	0.020	
0.020	0.020	0.020	0.020	0.020	0.020	0.020	
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0							
0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0

SSSSSSSSSS 2222222222

PROGRAM DAMBRK---VERSION--6/20/88-3

Input file name : EDAM_WALL.DAT

11-MAY-90 16:15:29

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE EAST DAM N

ON

GRID AT SOUTH MOUNTA

ANALYSIS BY

IN - OPTION 2 SUPERCRITICAL LAKE EMPTY
GREINER, INC. 7310 N 16TH STREET, SUIT
E 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W23, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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***  SUMMARY OF INPUT DATA    ***
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INPUT CONTROL PARAMETERS FOR GUADALUPE EAST DAM N

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	1
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KOMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 0 0 1 0 0 0

GUADALUPE EAST DAM N RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
37.9	1281.00
33.1	1277.00
29.5	1275.00
22.6	1270.00
16.0	1265.00
11.1	1260.00
6.5	1255.00
2.0	1250.00

GUADALUPE EAST DAM N RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	RLM	0.00
ELEVATION OF WATER SURFACE	FEET	YC	1259.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1253.00
WIDTH OF BASE OF BREACH	FEET	BB	27.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TFM	0.50
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1253.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HB	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1282.00
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	-1253.00
DISCHARGE THRU TURBINES	CFS	QT	100.00

QSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHR(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE) = 6.0000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE BASI DAM *
****

0.00	1425.00	4856.00	6039.00	4986.00	1479.00	731.00	72.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5300	2.8000	3.0700	3.8700	4.6000	6.6000

CROSS-SECTIONAL PARAMETERS FOR GRID AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	10
MAXIMUM NUMBER OF TOP WIDTHS	MCS	7
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NOT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	NCG	0

CROSS-SECTIONAL VARIABLES FOR GRID AT SOUTH MOLINA
BELOW GUADALUPE EAST DAM N

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		ZKC(I)

REACH NUMBER	DXM(I)	ZKC(I)
1	0.500	0.000
2	0.500	0.000
3	0.500	0.000
4	0.500	0.000
5	0.500	0.000
6	0.500	0.000
7	0.500	0.000
8	0.500	0.000
9	0.500	0.000

DOWNSTREAM FLOW PARAMETERS FOR ORTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TF1	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.175 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.151 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.175 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.173 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.160 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.168 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.163 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.163 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.154 DUE TO (WAVE SPEED * DT) CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 10 (MAXIMUM ALLOWABLE = 300

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***                           ***
***  SUMMARY OF OUTPUT DATA   ***
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE EAST DAM N = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TIP(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
EST DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUB
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		COFR

INFLOW TO RESERVOIR	CFS	QINR
BREACH OUTFLOW	CFS	QBREACH
SPILLWAY OUTFLOW	CFS	QSPIL

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	P	SUB	VOOR	OUTVOL	BB	DOPR	Q1(I)	GBRESH	GSPIL
***	**	******	********	*******	*******	*******	****	****	********	****	****	*****	******	*****
1	0	0.000	100	1258.00	1256.00	1254.35	1.00	1.00	0.0	0.0	3.10	0.	0.	100.
2	2	0.100	100	1257.94	1256.00	1254.35	1.00	1.00	0.8	0.0	4.80	67.	0.	100.
3	2	0.200	100	1257.94	1256.00	1254.35	1.00	1.00	1.7	0.0	4.80	134.	0.	100.
4	2	0.340	100	1258.04	1256.00	1254.35	1.00	1.00	2.8	0.0	4.80	227.	0.	100.
5	2	0.480	100	1258.26	1256.00	1254.35	1.00	1.00	4.0	0.0	4.80	321.	0.	100.
6	2	0.620	100	1258.58	1256.00	1254.35	1.00	1.00	5.1	0.0	4.80	415.	0.	100.
7	2	0.760	100	1259.00	1256.00	1254.35	1.00	1.00	6.3	0.0	4.80	508.	0.	100.
8	2	0.900	100	1259.51	1256.00	1254.35	1.00	1.00	7.4	0.0	4.80	602.	0.	100.
9	2	1.040	100	1260.09	1256.00	1254.35	1.00	1.00	8.6	0.0	4.80	696.	0.	100.
10	2	1.180	100	1260.74	1256.00	1254.35	1.00	1.00	9.8	0.0	4.80	789.	0.	100.
11	2	1.320	100	1261.44	1256.00	1254.35	1.00	1.00	10.9	0.0	4.80	883.	0.	100.
12	2	1.460	100	1262.19	1256.00	1254.35	1.00	1.00	12.1	0.0	4.80	977.	0.	100.
13	2	1.600	100	1262.97	1256.00	1254.35	1.00	1.00	13.2	0.0	4.80	1070.	0.	100.
14	2	1.740	100	1263.79	1256.00	1254.35	1.00	1.00	14.4	0.0	4.80	1164.	0.	100.
15	2	1.880	100	1264.64	1256.00	1254.35	1.00	1.00	15.5	0.0	4.80	1258.	0.	100.
16	2	2.020	100	1265.50	1256.00	1254.35	1.00	1.00	16.7	0.0	4.80	1351.	0.	100.
17	2	2.160	100	1266.45	1256.00	1254.35	1.00	1.00	17.9	0.0	4.80	1682.	0.	100.
18	2	2.300	100	1267.79	1256.00	1254.35	1.00	1.00	19.0	0.0	4.80	2883.	0.	100.
19	2	2.440	100	1269.67	1256.00	1254.35	1.00	1.00	20.2	0.0	4.80	4084.	0.	100.
20	2	2.580	100	1271.86	1256.00	1254.35	1.00	1.00	21.3	0.0	4.80	5075.	0.	100.
21	3	2.720	139	1274.13	1256.00	1254.43	1.00	1.00	22.7	0.0	4.80	5688.	0.	140.
22	1	2.726	174	1274.22	1255.64	1254.48	1.00	1.00	22.8	0.5	4.80	5713.	8.	167.
23	1	2.731	226	1274.31	1255.28	1254.55	1.00	1.00	22.9	1.1	4.80	5738.	32.	194.
24	1	2.737	293	1274.40	1254.92	1254.64	1.00	1.00	23.0	1.6	4.80	5762.	72.	221.
25	1	2.742	376	1274.49	1254.56	1254.73	1.00	1.00	23.1	2.2	4.80	5787.	129.	247.
26	1	2.748	475	1274.57	1254.20	1254.83	1.00	1.00	23.3	2.7	4.80	5811.	202.	273.
27	1	2.754	589	1274.66	1253.84	1254.94	1.00	1.00	23.6	3.2	4.80	5836.	291.	299.
28	1	2.759	720	1274.74	1253.48	1255.05	1.00	1.00	23.9	3.8	4.80	5860.	397.	324.
29	1	2.765	867	1274.82	1253.12	1255.16	1.00	1.00	24.3	4.3	4.80	5885.	519.	348.
30	1	2.770	1004	1274.90	1253.00	1255.25	1.00	1.00	24.7	4.9	4.80	5909.	632.	372.
31	1	2.776	1148	1274.97	1253.00	1255.34	1.00	1.00	25.2	5.4	4.80	5934.	753.	395.
32	1	2.782	1338	1275.05	1253.00	1255.46	1.00	1.00	25.8	5.9	4.80	5958.	897.	442.
33	1	2.787	1557	1275.12	1253.00	1255.57	1.00	1.00	26.4	6.5	4.80	5983.	1059.	498.
34	1	2.793	1785	1275.19	1253.00	1255.68	1.00	1.00	27.2	7.0	4.80	6007.	1237.	549.
35	1	2.798	2021	1275.25	1253.00	1255.79	1.00	1.00	28.1	7.6	4.80	6032.	1429.	592.
36	1	2.804	2265	1275.31	1253.00	1255.90	1.00	1.00	29.1	8.1	4.80	6023.	1634.	632.
37	1	2.810	2519	1275.36	1253.00	1256.00	1.00	1.00	30.2	8.6	4.80	6000.	1850.	669.
38	1	2.815	2779	1275.42	1253.00	1256.10	1.00	1.00	31.4	9.2	4.80	5978.	2077.	702.
39	1	2.821	3046	1275.46	1253.00	1256.18	1.00	1.00	32.8	9.7	4.80	5956.	2314.	732.
40	1	2.826	3319	1275.50	1253.00	1256.27	1.00	1.00	34.2	10.3	4.80	5933.	2561.	758.
41	1	2.832	3597	1275.54	1253.00	1256.35	1.00	1.00	35.8	10.8	4.80	5911.	2817.	780.
42	1	2.838	3879	1275.57	1253.00	1256.44	1.00	1.00	37.6	11.3	4.80	5888.	3081.	798.
43	3	2.843	4766	1275.60	1253.00	1256.69	1.00	1.00	39.6	11.9	3.10	5866.	3957.	809.
44	1	2.849	4955	1275.61	1253.00	1256.74	1.00	1.00	41.8	12.4	3.10	5843.	4141.	814.
45	1	2.854	5140	1275.62	1253.00	1256.78	1.00	1.00	44.2	13.0	3.10	5821.	4325.	815.
46	1	2.860	5322	1275.63	1253.00	1256.83	1.00	1.00	46.6	13.5	3.10	5798.	4508.	814.
47	1	2.866	5508	1275.64	1253.00	1256.88	1.00	1.00	49.1	14.0	3.10	5776.	4690.	819.
48	1	2.871	5692	1275.64	1253.00	1256.92	1.00	1.00	51.7	14.6	3.10	5753.	4872.	821.
49	1	2.877	5872	1275.64	1253.00	1256.96	1.00	1.00	54.4	15.1	3.10	5731.	5052.	820.
50	1	2.882	6048	1275.64	1253.00	1257.01	1.00	1.00	57.1	15.7	3.10	5708.	5231.	817.

RESERVOIR DEPLETION TABLE

I	K	ITP(I)	Q(I)	H2	YB	D	SUB	VCOR	OUTVOL	BB	DOWR	QI(I)	QBRSCH	QSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
51	1	2.888	6221	1275.63	1253.00	1257.05	1.00	1.00	60.0	16.2	3.10	5686.	5409.	812.
52	1	2.894	6390	1275.62	1253.00	1257.09	1.00	1.00	62.9	16.7	3.10	5664.	5586.	804.
53	1	2.899	6556	1275.61	1253.00	1257.12	1.00	1.00	65.9	17.3	3.10	5641.	5762.	794.
54	1	2.905	6718	1275.59	1253.00	1257.16	1.00	1.00	68.9	17.8	3.10	5619.	5936.	782.
55	1	2.910	6876	1275.58	1253.00	1257.20	1.00	1.00	72.1	18.4	3.10	5596.	6109.	767.
56	1	2.916	7030	1275.55	1253.00	1257.23	1.00	1.00	75.3	18.9	3.10	5574.	6280.	751.
57	1	2.922	7181	1275.53	1253.00	1257.26	1.00	1.00	78.6	19.4	3.10	5551.	6450.	732.
58	1	2.927	7328	1275.51	1253.00	1257.29	1.00	1.00	81.9	20.0	3.10	5529.	6618.	711.
59	1	2.933	7471	1275.48	1253.00	1257.32	1.00	1.00	85.4	20.5	3.10	5506.	6784.	688.
60	1	2.938	7610	1275.45	1253.00	1257.35	1.00	1.00	88.9	21.1	3.10	5484.	6948.	663.
61	1	2.944	7745	1275.41	1253.00	1257.38	1.00	1.00	92.4	21.6	3.10	5461.	7110.	635.
62	1	2.950	7876	1275.38	1253.00	1257.41	1.00	1.00	96.0	22.1	3.10	5439.	7271.	606.
63	1	2.955	8004	1275.34	1253.00	1257.43	1.00	1.00	99.7	22.7	3.10	5416.	7429.	575.
64	1	2.961	8127	1275.30	1253.00	1257.46	1.00	1.00	103.4	23.2	3.10	5394.	7585.	542.
65	1	2.966	8246	1275.25	1253.00	1257.48	1.00	1.00	107.2	23.8	3.10	5372.	7740.	507.
66	1	2.972	8361	1275.21	1253.00	1257.51	1.00	1.00	111.1	24.3	3.10	5349.	7891.	470.
67	1	2.978	8473	1275.16	1253.00	1257.53	1.00	1.00	115.0	24.8	3.10	5327.	8041.	432.
68	1	2.983	8580	1275.11	1253.00	1257.55	1.00	1.00	118.9	25.4	3.10	5304.	8188.	392.
69	1	2.989	8683	1275.06	1253.00	1257.57	1.00	1.00	122.9	25.9	3.10	5282.	8334.	350.
70	1	2.994	8782	1275.00	1253.00	1257.59	1.00	1.00	127.0	26.5	3.10	5259.	8476.	306.
71	1	3.000	8903	1274.95	1253.00	1257.61	1.00	1.00	131.0	27.0	3.10	5237.	8616.	287.
72	1	3.006	8852	1274.89	1253.00	1257.60	1.00	1.00	135.2	27.0	3.10	5214.	8583.	270.
73	1	3.011	8801	1274.83	1253.00	1257.59	1.00	1.00	139.2	27.0	3.10	5192.	8549.	252.
74	1	3.017	8750	1274.78	1253.00	1257.58	1.00	1.00	143.3	27.0	3.10	5169.	8516.	235.
75	1	3.022	8700	1274.72	1253.00	1257.57	1.00	1.00	147.3	27.0	3.10	5147.	8483.	218.
76	1	3.028	8650	1274.66	1253.00	1257.56	1.00	1.00	151.4	27.0	3.10	5124.	8450.	201.
77	1	3.034	8600	1274.61	1253.00	1257.55	1.00	1.00	155.3	27.0	3.10	5102.	8417.	184.
78	1	3.039	8551	1274.55	1253.00	1257.54	1.00	1.00	159.3	27.0	3.10	5080.	8384.	167.
79	1	3.045	8502	1274.50	1253.00	1257.53	1.00	1.00	163.3	27.0	3.10	5057.	8352.	150.
80	1	3.050	8453	1274.44	1253.00	1257.52	1.00	1.00	167.2	27.0	3.10	5035.	8320.	134.
81	1	3.056	8404	1274.39	1253.00	1257.51	1.00	1.00	171.1	27.0	3.10	5012.	8288.	117.
82	1	3.062	8356	1274.33	1253.00	1257.51	1.00	1.00	175.0	27.0	3.10	4990.	8256.	100.
83	1	3.067	8308	1274.28	1253.00	1257.50	1.00	1.00	178.8	27.0	3.10	4967.	8225.	84.
84	1	3.073	8260	1274.22	1253.00	1257.49	1.00	1.00	182.7	27.0	3.10	4944.	8193.	68.
85	1	3.078	8213	1274.17	1253.00	1257.48	1.00	1.00	186.5	27.0	3.10	4919.	8162.	51.
86	1	3.084	8166	1274.12	1253.00	1257.47	1.00	1.00	190.3	27.0	3.10	4895.	8131.	35.
87	1	3.090	8119	1274.06	1253.00	1257.46	1.00	1.00	194.0	27.0	3.10	4871.	8100.	19.
88	1	3.095	8072	1274.01	1253.00	1257.45	1.00	1.00	197.8	27.0	3.10	4846.	8070.	3.
89	1	3.101	8039	1273.96	1253.00	1257.44	1.00	1.00	201.5	27.0	3.10	4822.	8039.	0.
90	1	3.106	8008	1273.90	1253.00	1257.43	1.00	1.00	205.2	27.0	3.10	4798.	8009.	0.
91	1	3.112	7978	1273.85	1253.00	1257.43	1.00	1.00	208.9	27.0	3.10	4773.	7978.	0.
92	1	3.118	7947	1273.80	1253.00	1257.42	1.00	1.00	212.6	27.0	3.10	4749.	7948.	0.
93	1	3.123	7917	1273.74	1253.00	1257.42	1.00	1.00	216.3	27.0	3.10	4725.	7917.	0.
94	1	3.129	7886	1273.69	1253.00	1257.41	1.00	1.00	219.9	27.0	3.10	4700.	7887.	0.
95	1	3.134	7856	1273.64	1253.00	1257.40	1.00	1.00	223.6	27.0	3.10	4676.	7856.	0.
96	1	3.140	7826	1273.58	1253.00	1257.40	1.00	1.00	227.2	27.0	3.10	4651.	7826.	0.
97	1	3.146	7795	1273.53	1253.00	1257.39	1.00	1.00	230.8	27.0	3.10	4627.	7796.	0.
98	1	3.151	7765	1273.48	1253.00	1257.38	1.00	1.00	234.4	27.0	3.10	4603.	7765.	0.
99	1	3.157	7735	1273.42	1253.00	1257.38	1.00	1.00	238.0	27.0	3.10	4578.	7735.	0.
100	1	3.162	7704	1273.37	1253.00	1257.37	1.00	1.00	241.6	27.0	3.10	4554.	7705.	0.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	Y3	D	BUB	VOOR	OUTVOL	BB	COEF	G1(I)	BBREC	GEFIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
101	1	3.168	7674	1273.32	1253.00	1257.37	1.00	1.00	245.1	27.0	3.10	4530.	7674.	0.
102	1	3.174	7644	1273.26	1253.00	1257.36	1.00	1.00	248.7	27.0	3.10	4505.	7644.	0.
103	1	3.179	7613	1273.21	1253.00	1257.35	1.00	1.00	252.2	27.0	3.10	4481.	7614.	0.
104	1	3.185	7583	1273.16	1253.00	1257.35	1.00	1.00	255.7	27.0	3.10	4456.	7584.	0.
105	1	3.190	7553	1273.10	1253.00	1257.34	1.00	1.00	259.2	27.0	3.10	4432.	7553.	0.
106	1	3.196	7523	1273.05	1253.00	1257.33	1.00	1.00	262.7	27.0	3.10	4408.	7523.	0.
107	1	3.202	7492	1273.00	1253.00	1257.33	1.00	1.00	266.2	27.0	3.10	4383.	7493.	0.
108	1	3.207	7462	1272.94	1253.00	1257.32	1.00	1.00	269.7	27.0	3.10	4359.	7463.	0.
109	1	3.213	7432	1272.89	1253.00	1257.31	1.00	1.00	273.1	27.0	3.10	4335.	7432.	0.
110	1	3.218	7402	1272.83	1253.00	1257.31	1.00	1.00	276.5	27.0	3.10	4310.	7402.	0.
111	1	3.224	7372	1272.78	1253.00	1257.30	1.00	1.00	280.0	27.0	3.10	4286.	7372.	0.
112	1	3.230	7341	1272.73	1253.00	1257.30	1.00	1.00	283.4	27.0	3.10	4262.	7342.	0.
113	1	3.235	7311	1272.67	1253.00	1257.29	1.00	1.00	286.7	27.0	3.10	4237.	7312.	0.
114	1	3.241	7281	1272.62	1253.00	1257.28	1.00	1.00	290.1	27.0	3.10	4213.	7282.	0.
115	1	3.246	7251	1272.56	1253.00	1257.28	1.00	1.00	293.5	27.0	3.10	4188.	7252.	0.
116	1	3.252	7221	1272.51	1253.00	1257.27	1.00	1.00	296.8	27.0	3.10	4164.	7221.	0.
117	1	3.258	7191	1272.46	1253.00	1257.26	1.00	1.00	300.2	27.0	3.10	4140.	7191.	0.
118	1	3.263	7161	1272.40	1253.00	1257.26	1.00	1.00	303.5	27.0	3.10	4115.	7161.	0.
119	1	3.269	7131	1272.35	1253.00	1257.25	1.00	1.00	306.8	27.0	3.10	4091.	7131.	0.
120	1	3.274	7101	1272.29	1253.00	1257.24	1.00	1.00	310.1	27.0	3.10	4067.	7101.	0.
121	1	3.280	7071	1272.24	1253.00	1257.24	1.00	1.00	313.4	27.0	3.10	4042.	7071.	0.
122	1	3.286	7037	1272.18	1253.00	1257.23	1.00	1.00	317.0	27.0	3.10	4015.	7038.	0.
123	1	3.293	7001	1272.11	1253.00	1257.22	1.00	1.00	320.9	27.0	3.10	3986.	7002.	0.
124	1	3.300	6961	1272.04	1253.00	1257.21	1.00	1.00	325.2	27.0	3.10	3954.	6962.	0.
125	1	3.309	6917	1271.96	1253.00	1257.20	1.00	1.00	329.9	27.0	3.10	3918.	6918.	0.
126	1	3.318	6869	1271.87	1253.00	1257.19	1.00	1.00	335.0	27.0	3.10	3879.	6869.	0.
127	1	3.328	6816	1271.77	1253.00	1257.18	1.00	1.00	340.6	27.0	3.10	3835.	6816.	0.
128	1	3.338	6757	1271.67	1253.00	1257.17	1.00	1.00	346.8	27.0	3.10	3788.	6758.	0.
129	2	3.350	6693	1271.55	1253.00	1257.15	1.00	1.00	353.4	27.0	3.10	3736.	6694.	0.
130	2	3.364	6623	1271.42	1253.00	1257.14	1.00	1.00	360.7	27.0	3.10	3678.	6623.	0.
131	2	3.379	6545	1271.27	1253.00	1257.12	1.00	1.00	368.6	27.0	3.10	3615.	6546.	0.
132	2	3.394	6460	1271.11	1253.00	1257.10	1.00	1.00	377.2	27.0	3.10	3546.	6460.	0.
133	2	3.412	6366	1270.94	1253.00	1257.08	1.00	1.00	386.5	27.0	3.10	3469.	6367.	0.
134	2	3.431	6263	1270.74	1253.00	1257.06	1.00	1.00	396.6	27.0	3.10	3385.	6264.	0.
135	2	3.452	6150	1270.53	1253.00	1257.03	1.00	1.00	407.5	27.0	3.10	3292.	6150.	0.
136	2	3.476	6025	1270.29	1253.00	1257.00	1.00	1.00	419.3	27.0	3.10	3191.	6026.	0.
137	2	3.501	5888	1270.03	1253.00	1256.97	1.00	1.00	432.0	27.0	3.10	3079.	5889.	0.
138	2	3.530	5738	1269.74	1253.00	1256.93	1.00	1.00	445.6	27.0	3.10	2955.	5738.	0.
139	2	3.561	5572	1269.41	1253.00	1256.89	1.00	1.00	460.1	27.0	3.10	2820.	5573.	0.
140	2	3.595	5391	1269.06	1253.00	1256.85	1.00	1.00	475.6	27.0	3.10	2671.	5391.	0.
141	2	3.633	5191	1268.66	1253.00	1256.79	1.00	1.00	492.1	27.0	3.10	2507.	5192.	0.
142	2	3.674	4971	1268.22	1253.00	1256.74	1.00	1.00	509.5	27.0	3.10	2327.	4972.	0.
143	2	3.720	4730	1267.71	1253.00	1256.67	1.00	1.00	527.8	27.0	3.10	2128.	4731.	0.
144	2	3.770	4464	1267.16	1253.00	1256.60	1.00	1.00	546.8	27.0	3.10	1910.	4465.	0.
145	2	3.825	4172	1266.53	1253.00	1256.52	1.00	1.00	566.5	27.0	3.10	1670.	4172.	0.
146	2	3.885	3853	1265.83	1253.00	1256.43	1.00	1.00	586.6	27.0	3.10	1459.	3853.	0.
147	2	3.953	3519	1265.08	1253.00	1256.33	1.00	1.00	607.0	27.0	3.10	1351.	3519.	0.
148	2	4.028	3187	1264.31	1253.00	1256.22	1.00	1.00	627.3	27.0	3.10	1316.	3187.	0.
149	1	4.107	2862	1263.52	1253.00	1256.12	1.00	1.00	647.5	27.0	3.10	1234.	2862.	0.
150	1	4.196	2547	1262.74	1253.00	1256.01	1.00	1.00	667.4	27.0	3.10	1143.	2547.	0.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUB	VCOR	OUTVOL	BB	COBB	QI(I)	QBRECH	QSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
151	1	4.293	2244	1261.95	1253.00	1255.89	1.00	1.00	686.7	27.0	3.10	1044.	2245.	0.
152	1	4.401	1956	1261.17	1253.00	1255.76	1.00	1.00	705.4	27.0	3.10	934.	1957.	0.
153	1	4.519	1682	1260.38	1253.00	1255.64	1.00	1.00	723.2	27.0	3.10	814.	1683.	0.
154	2	4.649	1427	1259.62	1253.00	1255.50	1.00	1.00	739.9	27.0	3.10	715.	1428.	0.
155	2	4.792	1204	1258.91	1253.00	1255.37	1.00	1.00	755.4	27.0	3.10	668.	1204.	0.
156	2	4.950	1018	1258.28	1253.00	1255.26	1.00	1.00	769.9	27.0	3.10	616.	1019.	0.
157	2	5.123	864	1257.73	1253.00	1255.15	1.00	1.00	783.4	27.0	3.10	559.	865.	0.
158	2	5.313	734	1257.25	1253.00	1255.06	1.00	1.00	795.9	27.0	3.10	496.	735.	0.
159	2	5.523	621	1256.80	1253.00	1254.97	1.00	1.00	807.7	27.0	3.10	427.	622.	0.
160	2	5.753	518	1256.37	1253.00	1254.88	1.00	1.00	818.5	27.0	3.10	351.	519.	0.
161	1	6.006	420	1255.92	1253.00	1254.78	1.00	1.01	828.4	27.0	3.10	268.	420.	0.
162	2	6.285	321	1255.44	1253.00	1254.67	1.00	1.01	836.9	27.0	3.10	176.	321.	0.
163	2	6.592	219	1254.89	1253.00	1254.54	1.00	1.01	843.8	27.0	3.10	75.	219.	0.

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	Q(1)	100.
MAX FLOW	CFS	QM	8903.
FINAL FLOW	CFS	Q(NU)	219.
TIME TO MAX FLOW	HRS	TP	3.00
NUMBER OF TIME STEPS		NNU	163
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	344.

INITIAL CONDITIONS

INITIAL CONDITIONS

(QDI(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.						

(YI(I),I=1,N)

1254.31	1245.09	1235.45	1223.49	1212.53	1203.39	1188.89	1182.53
1179.89	1175.39						

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.280
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TFO	2.720
TIME TO PEAK	HR	TP	3.000
TIME STEP SIZE	HR	DTHI	0.014

ROUTING COMPLETED.

KTIME= 191 ALLOWABLE KTIME= 699 TT= 6.7

PROFILE OF CRESTS AND TIMES FOR GRID AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM N

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.017	1257.27	8860	3.005	14.40	1256.00	2.83
0.117	1247.43	8827	3.017	12.74	1246.50	2.83
0.235	1237.70	8687	3.041	13.25	1237.00	2.89
0.388	1225.62	8176	3.130	14.16	1225.00	2.97
0.570	1215.07	7306	3.371	12.20	1214.00	3.05
0.751	1205.56	6719	3.622	13.69	1205.00	3.30
0.972	1190.61	6580	3.750	19.29	1190.50	3.54
1.138	1185.24	6425	3.870	9.85	1184.00	3.04
1.225	1182.05	6223	4.034	12.21	1181.50	3.62
1.323	1177.36	6098	4.120	12.13	1177.00	3.72

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 SSSS  H   H   III    AAA   U   U
S      H   H    I    A   A  U   U
S      H   H    I    A   A  U   U
 SSS   HHHHH    I    A   A  U   U
    S  H   H    I    AAAAA  U   U
    S  H   H    I    A   A  U   U
SSSS   H   H   III   A   A  UUUUU

N   N  DDDD    AAA   M   M        N   N   OOO         W   W   AAA   L      L           DDDD    AAA   TTTTT    ;;    222
N   N  D   D  A   A  MM MM        N   N  O   O        W   W  A   A  L      L           D   D  A   A    T      ;;   2   2
NN  N  D   D  A   A  M M M        NN  N  O   O        W   W  A   A  L      L           D   D  A   A    T             2
N N N  D   D  A   A  M   M        N N N  O   O        W   W  A   A  L      L           D   D  A   A    T      ;;     2
N  NN  D   D  AAAAA  M   M        N  NN  O   O        W W W  AAAAA  L      L           D   D  AAAAA    T      ;;    2
N   N  D   D  A   A  M   M        N   N  O   O        WW WW  A   A  L      L       ..  D   D  A   A    T       ;   2
N   N  DDDD   A   A  M   M  ____  N   N   OOO   ____   W   W  A   A  LLLLL  LLLLL   ..  DDDD   A   A    T       ;   22222
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Digital Equipment Corporation - VAX/VMS Version V4.5

GUADALUPE NORTH DAM 2 AT SOUTH MOUNTAIN -- OPTION 2 SUPERCRITICAL EMPTY LAKE
GREINER, INC. 7310 N. 16TH STREET, SUITE 160, PHOENIX, ARIZONA 85020

1	0	0	5	8	0	0	0

1100000010 0 0

37.91	33.08	29.55	22.60	15.98	11.06	6.54	2.0
1281.0	1277.0	1275.	1270.	1265.	1260.	1255.	1250.0
0.	1258.	0.	1252.	30.0	0.32	1252.	0.0
1274.0	1281.9	1274.	0.0	0.0	0.0	-1254.	100.0
0.	303.	1110.	2350.	3900.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
0.	6.6	1.	0	0	0	0	
0.00	1425.0	4856.	6039.	4956.	1475.	731.	72.
0.0	2.13	2.53	2.90	3.07	3.87	4.60	6.60
22	3	0	1	0	1	0	0
0.0379	1260.						
1258.	1259.	1261.	1263.	1264.	1265.		
0.	37.5	116.	185.	239.	280.		
0.	0.	0.	0.	0.	0.		
0.1326	1243.						
1241.	1242.	1243.	1244.	1245.	1246.		
0.	650.	970.	1190.	1350.	1475.		
0.	0.	0.	0.	0.	0.		
0.3220	1226.5						
1224.5	1225.5	1226.	1226.5	1227.	1228.5		
0.	750.	1115.	1250.	1350.	1600.		
0.	0.	0.	0.	0.	0.		
0.4167	1217.						
1215.	1215.5	1216.	1217.	1217.5	1218.		
0.	550.	925.	1570.	1840.	1950.		
0.	0.	0.	0.	0.	0.		
0.5492	1208.						
1206.	1206.5	1207.	1208.	1209.	1209.5		
0.	750.	1082.	1770.	2443.5	2750.		
0.	0.	0.	0.	0.	0.		
0.6818	1199.						
1197.	1197.5	1198.	1199.	1200.	1201.		
0.	613.	1100.	1525.	1830.	2040.		
0.	0.	0.	0.	0.	0.		
0.8239	1190.5						
1188.5	1189.5	1190.5	1191.5	1192.5	1193.5		
0.	1100.	1400.	1525.	1610.	1700.		
0.	0.	0.	0.	0.	0.		
1.0511	1180.						
1178.	1179.	1180.	1181.	1181.5	1182.		
0.	575.	875.	1500.	1910.5	2388.		
0.	0.	0.	0.	0.	0.		
1.1780	1173.						
1171.	1171.5	1172.	1173.	1173.5	1174.		
0.	375.	550.	670.	695.5	723.		
0.	0.	0.	0.	0.	0.		
1.2689	1169.						
1167.	1168.	1169.	1170.	1171.	1172.		
0.	400.	541.	650.	797.	946.		
0.	0.	0.	0.	0.	0.		
1.5568	1159.25						
1157.25	1157.75	1158.25	1158.75	1159.25	1159.75		
0.	1025.	1500.	1600.	1650.	1670.		
0.	0.	0.	0.	0.	0.		
1.6004	1157.						
1155.	1155.5	1156.	1156.5	1157.	1158.		

0.	300.	600.	925.	1250.	1758.
0.	0.	0.	0.	0.	0.
1.7008	1153.5				
1151.5	1152.	1152.5	1153.	1153.5	1154.5
0.	200.	365.	475.	576.5	667.
0.	0.	0.	0.	0.	0.
1.8674	1148.				
1146.	1147.	1148.	1150.	1151.	1152.
0.	235.	450.	609.	720.	867.
2134.	2134.	2134.	2134.	2134.	2134.
2.3955	1139.				
1137.	1137.5	1138.	1138.5	1139.	1140.
181.	1273.	2388.	3651.	4582.	5560.
2134.	2134.	2134.	2134.	2134.	2134.
2.6089	1133.8				
1131.8	1132.	1133.	1134.	1135.	1136.
0.	950.	1928.	2350.	2728.	3118.
0.	0.	0.	0.	0.	0.
2.9242	1129.8				
1127.8	1128.	1129.	1130.	1131.	1133.
0.	132.	649.	1150.	1570.	2179.
0.	0.	0.	0.	0.	0.
3.2064	1126.				
1124.	1124.5	1126.	1127.	1128.	1129.
0.	250.	874.	1125.	1344.	2182.
0.	0.	0.	0.	0.	0.
3.4943	1122.				
1120.	1121.	1122.	1123.	1124.	1126.
0.	300.	619.	902.	1150.	1619.
0.	0.	0.	0.	0.	0.
3.8239	1119.				
1117.	1118.	1119.	1120.	1121.	1122.
0.	750.	1141.	1350.	1546.	1776.
0.	617.	617.	617.	617.	617.
4.1411	1114.				
1112.	1114.	1115.	1116.	1117.	1118.
594.	1125.	1280.	1374.	1458.	1537.
817.	485.	432.	390.	361.	333.
4.8987	1102.				
1100.	1102.	1103.	1104.	1105.	1106.
1411.	1610.	1712.	1764.	1819.	1870.
0.	0.	0.	0.	0.	0.
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018
0.018	0.018	0.018	0.018	0.018	0.018

0.018	0.018	0.018	0.018	0.018	0.018		
0.018	0.018	0.018	0.018	0.018	0.018		
0.018	0.018	0.018	0.018	0.018	0.018		
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500	0.500	0.500	0.500	0.500			
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0			
0.0	0.0	0.0	0.0	78.0	0.0	0.0	0.0

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N N N D D A A M M N N N O O W W A A L L O O U U T ;; 2
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File _DUA1:[USERS.E124034.ENGR]NDAM_NO_WALL.OUT;2 (2024,26,0), last revised on 11-MAY-1990 16:19, is a 80 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with FORTRAN (FTN) carriage control. The longest record is 125 bytes.

Job NDAM_NO_WALL (1374) queued to SYS$PRINT on 11-MAY-1990 16:20 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 16:21 from queue SYS$PRINT.

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PROGRAM DAMBRK---VERSION--6/30/88-3

Input file name : NDAM_NO_WALL.DAT

11-MAY-90 16:18:33

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE NORTH DAM

ON

2 AT SOUTH MOUNTAIN

ANALYSIS BY

-- OPTION 2 SUPERCRITICAL EMPTY LAKE
GREINER, INC. 7310 N. 16TH STREET, SUI
TE 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W&S, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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***                       ***
***  SUMMARY OF INPUT DATA  ***
***                       ***
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INPUT CONTROL PARAMETERS FOR GUADALUPE NORTH DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	1
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	IIEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

INPUT= 1 1 0 0 0 0 0 0 1 0 0 0

GUADALUPE NORTH DAM RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
37.9	1281.00
33.1	1277.00
29.5	1275.00
22.6	1270.00
16.0	1265.00
11.1	1260.00
6.5	1255.00
2.0	1250.00

GUADALUPE NORTH DAM RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	RLM	0.00
ELEVATION OF WATER SURFACE	FEET	YO	1258.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1252.00
WIDTH OF BASE OF BREACH	FEET	BB	30.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TFH	0.32
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1252.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HF	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1281.90
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	-1254.00
DISCHARGE THRU TURBINES	CFS	QT	100.00

QSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5650.	5.0
8000.	6.0
10400.	7.0

DHF(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEM(TIME AT WHICH COMPUTATIONS TERMINATE)= 6.6000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE NORTH DAM
****

0.00	1425.00	4856.00	6039.00	4956.00	1475.00	731.00	72.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5300	2.8000	3.0700	3.8700	4.6000	6.6000

CROSS-SECTIONAL PARAMETERS FOR 2 AT SOUTH MOUNTAIN
BELOW GUADALUPE NORTH DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	22
MAXIMUM NUMBER OF TOP WIDTHS	NCS	6
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR 2 AT SOUTH MOUNTAIN
BELOW GUADALUPE NORTH DAM

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.500	0.000
2	0.500	0.000
3	0.500	0.000
4	0.500	0.000
5	0.500	0.000
6	0.500	0.000
7	0.500	0.000
8	0.500	0.000
9	0.500	0.000
10	0.500	0.000
11	0.500	0.000
12	0.500	0.000
13	0.500	0.000
14	0.500	0.000
15	0.500	0.000
16	0.500	0.000
17	0.500	0.000
18	0.500	0.000
19	0.500	0.000

30	0.500	0.000
31	0.500	0.000

DOWNSTREAM FLOW PARAMETERS FOR 2 AT SOUTH MOUNTAIN
BELOW GUADALUPE NORTH DAM

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SDM	78.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 21 DXM SHOULD BE CHANGED TO 0.379 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.255 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.180 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.166 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.159 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.153 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.163 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.154 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.140 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.155 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 10 DXM SHOULD BE CHANGED TO 0.134 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 11 DXM SHOULD BE CHANGED TO 0.134 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 12 DXM SHOULD BE CHANGED TO 0.134 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 13 DXM SHOULD BE CHANGED TO 0.150 DUE TO (WAVE SPEED * DT) CRITERIA

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AT REACH=   14  DXM SHOULD BE CHANGED TO 0.060  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   15  DXM SHOULD BE CHANGED TO 0.049  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   16  DXM SHOULD BE CHANGED TO 0.102  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   17  DXM SHOULD BE CHANGED TO 0.150  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   18  DXM SHOULD BE CHANGED TO 0.104  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   19  DXM SHOULD BE CHANGED TO 0.055  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   20  DXM SHOULD BE CHANGED TO 0.064  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   21  DXM SHOULD BE CHANGED TO 0.055  DUE TO (WAVE SPEED * DT) CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500
0.500   0.500   0.500   0.500   0.500   0.500

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) =    22      MAXIMUM ALLOWABLE =   200
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***                         ***
***  SUMMARY OF OUTPUT DATA  ***
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE NORTH DAM = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TTP(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
EST DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUB
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		COFR

INFLOW TO RESERVOIR	CFS	QINI
BREACH OUTFLOW	CFS	QBRCH
SPILLWAY OUTFLOW	CFS	QSPIL

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUP	VCUR	OUTVOL	BB	DDBR	QI(I)	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
1	0	0.000	100	1258.00	1254.00	1258.94	1.00	1.00	0.0	0.0	3.10	0.	0.	100.
2	2	0.100	100	1257.94	1254.00	1258.94	1.00	1.00	0.8	0.0	4.80	67.	0.	100.
3	2	0.200	100	1257.94	1254.00	1258.94	1.00	1.00	1.7	0.0	4.80	134.	0.	100.
4	2	0.340	100	1258.04	1254.00	1258.94	1.00	1.00	2.8	0.0	4.80	227.	0.	100.
5	2	0.480	100	1258.36	1254.00	1258.94	1.00	1.00	4.0	0.0	4.80	321.	0.	100.
6	2	0.620	100	1258.58	1254.00	1258.94	1.00	1.00	5.1	0.0	4.80	415.	0.	100.
7	2	0.760	100	1259.00	1254.00	1258.94	1.00	1.00	6.3	0.0	4.80	508.	0.	100.
8	2	0.900	100	1259.51	1254.00	1258.94	1.00	1.00	7.4	0.0	4.80	602.	0.	100.
9	2	1.040	100	1260.09	1254.00	1258.94	1.00	1.00	8.6	0.0	4.80	696.	0.	100.
10	2	1.180	100	1260.74	1254.00	1258.94	1.00	1.00	9.8	0.0	4.80	789.	0.	100.
11	2	1.320	100	1261.44	1254.00	1258.94	1.00	1.00	10.9	0.0	4.80	883.	0.	100.
12	2	1.460	100	1262.19	1254.00	1258.94	1.00	1.00	12.1	0.0	4.80	977.	0.	100.
13	2	1.600	100	1262.97	1254.00	1258.94	1.00	1.00	13.2	0.0	4.80	1070.	0.	100.
14	2	1.740	100	1263.79	1254.00	1258.94	1.00	1.00	14.4	0.0	4.80	1164.	0.	100.
15	2	1.880	100	1264.64	1254.00	1258.94	1.00	1.00	15.5	0.0	4.80	1258.	0.	100.
16	2	2.020	100	1265.50	1254.00	1258.94	1.00	1.00	16.7	0.0	4.80	1351.	0.	100.
17	2	2.160	100	1266.45	1254.00	1258.94	1.00	1.00	17.9	0.0	4.80	1682.	0.	100.
18	2	2.300	100	1267.79	1254.00	1258.94	1.00	1.00	19.0	0.0	4.80	2883.	0.	100.
19	2	2.440	100	1269.37	1254.00	1258.94	1.00	1.00	20.2	0.0	4.80	4084.	0.	100.
20	2	2.580	100	1271.86	1254.00	1258.94	1.00	1.00	21.3	0.0	4.80	5075.	0.	100.
21	3	2.720	139	1274.13	1254.00	1259.12	1.00	1.00	22.7	0.0	4.80	5688.	0.	140.
22	1	2.726	179	1274.23	1253.60	1259.17	1.00	1.00	22.8	0.6	4.80	5717.	0.	171.
23	1	2.733	237	1274.34	1253.20	1259.32	1.00	1.00	22.9	1.2	4.80	5745.	36.	202.
24	1	2.739	312	1274.44	1252.80	1259.46	1.00	1.00	23.0	1.8	4.80	5773.	80.	232.
25	1	2.746	405	1274.54	1252.40	1259.60	1.00	1.00	23.2	2.4	4.80	5801.	143.	263.
26	1	2.752	514	1274.63	1252.00	1259.75	1.00	1.00	23.5	3.0	4.80	5829.	223.	292.
27	1	2.758	615	1274.73	1252.00	1259.86	1.00	1.00	23.8	3.6	4.80	5857.	294.	321.
28	1	2.765	738	1274.82	1252.00	1260.00	1.00	1.00	24.1	4.2	4.80	5885.	389.	350.
29	1	2.771	883	1274.92	1252.00	1260.13	1.00	1.00	24.6	4.8	4.80	5913.	506.	377.
30	1	2.778	1050	1275.00	1252.00	1260.26	1.00	1.00	25.1	5.4	4.80	5941.	644.	407.
31	1	2.784	1274	1275.09	1252.00	1260.43	1.00	1.00	25.7	6.0	4.80	5969.	799.	476.
32	1	2.790	1513	1275.17	1252.00	1260.59	1.00	1.00	26.4	6.6	4.80	5997.	972.	542.
33	1	2.797	1760	1275.25	1252.00	1260.84	1.00	1.00	27.3	7.2	4.80	6025.	1158.	603.
34	1	2.803	2020	1275.32	1252.00	1260.98	1.00	1.00	28.3	7.8	4.80	6026.	1365.	656.
35	1	2.810	2289	1275.38	1252.00	1261.11	1.00	1.00	29.4	8.4	4.80	6000.	1588.	701.
36	1	2.816	2569	1275.44	1252.00	1261.24	1.00	1.00	30.7	9.0	4.80	5975.	1828.	742.
37	1	2.822	2861	1275.50	1252.00	1261.37	1.00	1.00	32.2	9.6	4.80	5949.	2084.	778.
38	1	2.829	3164	1275.55	1252.00	1261.49	1.00	1.00	33.8	10.2	4.80	5923.	2356.	809.
39	1	2.835	3478	1275.59	1252.00	1261.61	1.00	1.00	35.5	10.8	4.80	5898.	2643.	835.
40	1	2.842	3802	1275.63	1252.00	1261.72	1.00	1.00	37.4	11.4	4.80	5872.	2946.	857.
41	1	2.848	4136	1275.66	1252.00	1261.83	1.00	1.00	39.5	12.0	4.80	5846.	3263.	873.
42	3	2.854	5380	1275.68	1252.00	1262.14	1.00	1.00	42.1	12.6	3.10	5821.	4500.	880.
43	2	2.861	5593	1275.68	1252.00	1262.19	1.00	1.00	45.0	13.2	3.10	5795.	4717.	877.
44	1	2.867	5801	1275.68	1252.00	1262.25	1.00	1.00	48.0	13.8	3.10	5769.	4932.	870.
45	1	2.874	6005	1275.68	1252.00	1262.31	1.00	1.00	51.1	14.4	3.10	5744.	5145.	860.
46	1	2.880	6204	1275.67	1252.00	1262.36	1.00	1.00	54.3	15.0	3.10	5718.	5358.	847.
47	1	2.886	6406	1275.66	1252.00	1262.42	1.00	1.00	57.7	15.6	3.10	5692.	5568.	839.
48	1	2.893	6604	1275.65	1252.00	1262.47	1.00	1.00	61.1	16.2	3.10	5667.	5777.	827.
49	1	2.899	6797	1275.63	1252.00	1262.51	1.00	1.00	64.6	16.8	3.10	5641.	5985.	812.
50	1	2.906	6984	1275.61	1252.00	1262.56	1.00	1.00	68.3	17.4	3.10	5615.	6190.	795.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUB	YDSR	OUTVOL	BB	DDR	[illegible]	QBREL	QBFIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	*****	*****
51	1	2.912	7167	1275.58	1252.00	1262.61	1.00	1.00	72.0	18.0	3.10	5590.	8393.	774.
52	1	2.918	7345	1275.55	1252.00	1262.65	1.00	1.00	75.9	18.6	3.10	5554.	8294.	751.
53	1	2.925	7517	1275.52	1252.00	1262.69	1.00	1.00	79.8	19.2	3.10	5538.	8198.	704.
54	1	2.931	7684	1275.49	1252.00	1262.73	1.00	1.00	83.8	19.8	3.10	5513.	8099.	692.
55	1	2.938	7846	1275.45	1252.00	1262.77	1.00	1.00	87.9	20.4	3.10	5487.	7998.	664.
56	1	2.944	8003	1275.40	1252.00	1262.80	1.00	1.00	92.1	21.0	3.10	5461.	7874.	629.
57	1	2.950	8154	1275.36	1252.00	1262.84	1.00	1.00	96.4	21.6	3.10	5436.	7763.	592.
58	1	2.957	8300	1275.31	1252.00	1262.87	1.00	1.00	100.7	22.2	3.10	5410.	7749.	552.
59	1	2.963	8441	1275.26	1252.00	1262.90	1.00	1.00	105.2	22.8	3.10	5384.	7931.	510.
60	1	2.970	8576	1275.20	1252.00	1262.93	1.00	1.00	109.7	23.4	3.10	5359.	8111.	465.
61	1	2.976	8706	1275.14	1252.00	1262.96	1.00	1.00	114.2	24.0	3.10	5333.	8288.	418.
62	1	2.982	8830	1275.08	1252.00	1262.98	1.00	1.00	118.9	24.6	3.10	5307.	8462.	369.
63	1	2.989	8949	1275.02	1252.00	1263.01	1.00	1.00	123.6	25.2	3.10	5282.	8632.	317.
64	1	2.995	9087	1274.95	1252.00	1263.04	1.00	1.00	128.3	25.8	3.10	5256.	8800.	288.
65	1	3.002	9229	1274.88	1252.00	1263.08	1.00	1.00	133.2	26.4	3.10	5230.	8963.	267.
66	1	3.008	9367	1274.81	1252.00	1263.11	1.00	1.00	138.1	27.0	3.10	5205.	9123.	244.
67	1	3.014	9499	1274.73	1252.00	1263.14	1.00	1.00	143.1	27.6	3.10	5179.	9279.	221.
68	1	3.021	9627	1274.65	1252.00	1263.17	1.00	1.00	148.2	28.2	3.10	5153.	9431.	197.
69	1	3.027	9750	1274.57	1252.00	1263.20	1.00	1.00	153.3	28.8	3.10	5128.	9579.	172.
70	1	3.034	9868	1274.48	1252.00	1263.23	1.00	1.00	158.5	29.4	3.10	5102.	9723.	146.
71	1	3.040	9981	1274.39	1252.00	1263.25	1.00	1.00	163.7	30.0	3.10	5076.	9863.	119.
72	1	3.046	9895	1274.30	1252.00	1263.23	1.00	1.00	169.0	30.0	3.10	5051.	9804.	91.
73	1	3.053	9809	1274.21	1252.00	1263.21	1.00	1.00	174.2	30.0	3.10	5025.	9746.	64.
74	1	3.059	9724	1274.12	1252.00	1263.19	1.00	1.00	179.4	30.0	3.10	4999.	9687.	37.
75	1	3.066	9640	1274.04	1252.00	1263.17	1.00	1.00	184.5	30.0	3.10	4974.	9630.	11.
76	1	3.072	9572	1273.95	1252.00	1263.16	1.00	1.00	189.6	30.0	3.10	4947.	9573.	0.
77	1	3.078	9515	1273.86	1252.00	1263.14	1.00	1.00	194.6	30.0	3.10	4919.	9516.	0.
78	1	3.085	9459	1273.77	1252.00	1263.13	1.00	1.00	199.6	30.0	3.10	4892.	9459.	0.
79	1	3.091	9402	1273.69	1252.00	1263.12	1.00	1.00	204.6	30.0	3.10	4864.	9403.	0.
80	1	3.098	9346	1273.60	1252.00	1263.11	1.00	1.00	209.6	30.0	3.10	4836.	9347.	0.
81	1	3.104	9290	1273.52	1252.00	1263.09	1.00	1.00	214.5	30.0	3.10	4808.	9291.	0.
82	1	3.110	9235	1273.43	1252.00	1263.08	1.00	1.00	219.4	30.0	3.10	4780.	9235.	0.
83	1	3.117	9179	1273.34	1252.00	1263.07	1.00	1.00	224.3	30.0	3.10	4752.	9180.	0.
84	1	3.123	9124	1273.26	1252.00	1263.05	1.00	1.00	229.1	30.0	3.10	4724.	9124.	0.
85	1	3.130	9069	1273.17	1252.00	1263.04	1.00	1.00	233.9	30.0	3.10	4697.	9069.	0.
86	1	3.136	9014	1273.09	1252.00	1263.03	1.00	1.00	238.7	30.0	3.10	4669.	9014.	0.
87	1	3.142	8959	1273.00	1252.00	1263.01	1.00	1.00	243.5	30.0	3.10	4641.	8960.	0.
88	1	3.149	8905	1272.92	1252.00	1263.00	1.00	1.00	248.2	30.0	3.10	4613.	8905.	0.
89	1	3.155	8851	1272.83	1252.00	1262.99	1.00	1.00	252.9	30.0	3.10	4585.	8851.	0.
90	1	3.162	8797	1272.74	1252.00	1262.98	1.00	1.00	257.5	30.0	3.10	4557.	8797.	0.
91	1	3.168	8743	1272.66	1252.00	1262.96	1.00	1.00	262.2	30.0	3.10	4530.	8743.	0.
92	1	3.174	8689	1272.58	1252.00	1262.95	1.00	1.00	266.8	30.0	3.10	4502.	8690.	0.
93	1	3.181	8636	1272.49	1252.00	1262.94	1.00	1.00	271.4	30.0	3.10	4474.	8636.	0.
94	1	3.187	8583	1272.41	1252.00	1262.93	1.00	1.00	275.9	30.0	3.10	4446.	8583.	0.
95	1	3.194	8530	1272.32	1252.00	1262.92	1.00	1.00	280.5	30.0	3.10	4418.	8530.	0.
96	1	3.200	8477	1272.24	1252.00	1262.91	1.00	1.00	285.0	30.0	3.10	4390.	8477.	0.
97	1	3.206	8424	1272.15	1252.00	1262.90	1.00	1.00	289.4	30.0	3.10	4362.	8425.	0.
98	1	3.213	8372	1272.07	1252.00	1262.88	1.00	1.00	293.9	30.0	3.10	4335.	8372.	0.
99	1	3.219	8319	1271.99	1252.00	1262.87	1.00	1.00	298.3	30.0	3.10	4307.	8320.	0.
100	1	3.226	8267	1271.90	1252.00	1262.86	1.00	1.00	302.7	30.0	3.10	4279.	8268.	0.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUB	VCUR	OUTVOL	BB	COEF	P1(I)	GRASCP	SSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
101	1	3.232	8215	1271.82	1252.00	1262.85	1.00	1.00	307.0	30.0	3.10	4251.	8215.	0.
102	1	3.238	8164	1271.74	1252.00	1262.84	1.00	1.00	311.4	30.0	3.10	4223.	8164.	0.
103	1	3.245	8112	1271.65	1252.00	1262.83	1.00	1.00	315.7	30.0	3.10	4195.	8113.	0.
104	1	3.251	8061	1271.57	1252.00	1262.81	1.00	1.00	319.9	30.0	3.10	4168.	8061.	0.
105	1	3.258	8010	1271.49	1252.00	1262.80	1.00	1.00	324.2	30.0	3.10	4140.	8010.	0.
106	1	3.264	7959	1271.40	1252.00	1262.79	1.00	1.00	328.4	30.0	3.10	4112.	7959.	0.
107	1	3.270	7908	1271.32	1252.00	1262.78	1.00	1.00	332.6	30.0	3.10	4084.	7908.	0.
108	1	3.277	7857	1271.24	1252.00	1262.77	1.00	1.00	336.8	30.0	3.10	4056.	7858.	0.
109	1	3.283	7807	1271.16	1252.00	1262.76	1.00	1.00	340.9	30.0	3.10	4028.	7807.	0.
110	1	3.290	7756	1271.07	1252.00	1262.74	1.00	1.00	345.0	30.0	3.10	4000.	7757.	0.
111	1	3.296	7706	1270.99	1252.00	1262.73	1.00	1.00	349.1	30.0	3.10	3973.	7707.	0.
112	1	3.302	7656	1270.91	1252.00	1262.72	1.00	1.00	353.2	30.0	3.10	3945.	7657.	0.
113	1	3.309	7606	1270.83	1252.00	1262.71	1.00	1.00	357.2	30.0	3.10	3917.	7607.	0.
114	1	3.315	7557	1270.74	1252.00	1262.70	1.00	1.00	361.2	30.0	3.10	3889.	7557.	0.
115	1	3.322	7507	1270.66	1252.00	1262.69	1.00	1.00	365.2	30.0	3.10	3861.	7508.	0.
116	1	3.328	7458	1270.58	1252.00	1262.67	1.00	1.00	369.2	30.0	3.10	3833.	7459.	0.
117	1	3.334	7409	1270.50	1252.00	1262.66	1.00	1.00	373.1	30.0	3.10	3805.	7409.	0.
118	1	3.341	7360	1270.42	1252.00	1262.65	1.00	1.00	377.0	30.0	3.10	3778.	7360.	0.
119	1	3.347	7311	1270.33	1252.00	1262.64	1.00	1.00	380.9	30.0	3.10	3750.	7312.	0.
120	1	3.354	7262	1270.25	1252.00	1262.63	1.00	1.00	384.8	30.0	3.10	3722.	7263.	0.
121	1	3.360	7214	1270.17	1252.00	1262.62	1.00	1.00	388.6	30.0	3.10	3694.	7214.	0.
122	1	3.366	7165	1270.09	1252.00	1262.60	1.00	1.00	392.4	30.0	3.10	3666.	7166.	0.
123	1	3.373	7112	1270.00	1252.00	1262.59	1.00	1.00	396.5	30.0	3.10	3636.	7113.	0.
124	1	3.381	7054	1269.90	1252.00	1262.58	1.00	1.00	401.1	30.0	3.10	3602.	7055.	0.
125	1	3.390	6991	1269.79	1252.00	1262.56	1.00	1.00	406.0	30.0	3.10	3565.	6991.	0.
126	2	3.399	6921	1269.67	1252.00	1262.54	1.00	1.00	411.4	30.0	3.10	3524.	6921.	0.
127	2	3.409	6844	1269.54	1252.00	1262.53	1.00	1.00	417.3	30.0	3.10	3479.	6845.	0.
128	2	3.421	6761	1269.40	1252.00	1262.50	1.00	1.00	423.6	30.0	3.10	3430.	6761.	0.
129	2	3.433	6670	1269.24	1252.00	1262.48	1.00	1.00	430.6	30.0	3.10	3376.	6670.	0.
130	2	3.447	6570	1269.07	1252.00	1262.46	1.00	1.00	438.1	30.0	3.10	3316.	6570.	0.
131	2	3.462	6461	1268.88	1252.00	1262.43	1.00	1.00	446.2	30.0	3.10	3250.	6461.	0.
132	2	3.479	6342	1268.67	1252.00	1262.40	1.00	1.00	455.0	30.0	3.10	3178.	6342.	0.
133	2	3.497	6212	1268.44	1252.00	1262.36	1.00	1.00	464.5	30.0	3.10	3099.	6212.	0.
134	2	3.517	6070	1268.19	1252.00	1262.33	1.00	1.00	474.6	30.0	3.10	3011.	6071.	0.
135	2	3.539	5916	1267.92	1252.00	1262.28	1.00	1.00	485.6	30.0	3.10	2915.	5916.	0.
136	2	3.563	5748	1267.61	1252.00	1262.24	1.00	1.00	497.3	30.0	3.10	2809.	5748.	0.
137	2	3.590	5565	1267.28	1252.00	1262.19	1.00	1.00	509.8	30.0	3.10	2693.	5565.	0.
138	2	3.619	5365	1266.91	1252.00	1262.13	1.00	1.00	523.1	30.0	3.10	2565.	5366.	0.
139	2	3.652	5149	1266.51	1252.00	1262.07	1.00	1.00	537.1	30.0	3.10	2424.	5149.	0.
140	2	3.687	4914	1266.06	1252.00	1262.00	1.00	1.00	551.9	30.0	3.10	2269.	4914.	0.
141	2	3.727	4658	1265.57	1252.00	1261.92	1.00	1.00	567.4	30.0	3.10	2099.	4658.	0.
142	2	3.770	4380	1265.02	1252.00	1261.83	1.00	1.00	583.5	30.0	3.10	1912.	4380.	0.
143	2	3.817	4080	1264.42	1252.00	1261.73	1.00	1.00	600.1	30.0	3.10	1706.	4080.	0.
144	2	3.869	3758	1263.75	1252.00	1261.62	1.00	1.00	616.9	30.0	3.10	1479.	3758.	0.
145	2	3.926	3426	1263.05	1252.00	1261.49	1.00	1.00	634.0	30.0	3.10	1418.	3427.	0.
146	1	3.989	3101	1262.33	1252.00	1261.37	1.00	1.00	651.0	30.0	3.10	1353.	3101.	0.
147	1	4.059	2786	1261.61	1252.00	1261.24	1.00	1.01	667.8	30.0	3.10	1283.	2786.	0.
148	1	4.135	2483	1260.90	1252.00	1261.11	1.00	1.01	684.4	30.0	3.10	1205.	2484.	0.
149	1	4.219	2197	1260.20	1252.00	1260.97	1.00	1.01	700.7	30.0	3.10	1119.	2197.	0.
150	2	4.311	1927	1259.51	1252.00	1260.83	1.00	1.01	716.4	30.0	3.10	1025.	1928.	0.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUB	VOOR	OUTVOL	SB	DBBR	QI(I)	QBRECH	QSPIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
151	2	4.413	1676	1258.83	1252.00	1260.69	1.00	1.01	731.5	30.0	3.10	932.	1677.	0.
152	2	4.524	1442	1258.17	1252.00	1260.54	1.00	1.01	745.9	30.0	3.10	808.	1443.	0.
153	2	4.647	1228	1257.53	1252.00	1260.39	1.00	1.02	759.5	30.0	3.10	715.	1228.	0.
154	2	4.782	1044	1256.95	1252.00	1260.25	1.00	1.02	772.2	30.0	3.10	671.	1045.	0.
155	2	4.931	897	1256.46	1252.00	1260.13	1.00	1.03	784.1	30.0	3.10	622.	897.	0.
156	2	5.095	775	1256.04	1252.00	1260.02	1.00	1.04	795.4	30.0	3.10	568.	776.	0.
157	2	5.274	673	1255.66	1252.00	1259.91	1.00	1.04	806.2	30.0	3.10	509.	674.	0.
158	2	5.472	582	1255.30	1252.00	1259.81	1.00	1.05	816.4	30.0	3.10	444.	582.	0.
159	1	5.690	495	1254.95	1252.00	1259.72	1.00	1.07	826.1	30.0	3.10	372.	496.	0.
160	2	5.929	409	1254.57	1252.00	1259.59	1.00	1.09	835.1	30.0	3.10	293.	410.	0.
161	2	6.193	320	1254.15	1252.00	1259.45	1.00	1.14	843.0	30.0	3.10	206.	320.	0.
162	2	6.482	225	1253.65	1252.00	1259.28	1.00	1.27	849.6	30.0	3.10	111.	226.	0.

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	Q(1)	100.
MAX FLOW	CFS	QM	9982.
FINAL FLOW	CFS	Q(NU)	226.
TIME TO MAX FLOW	HRS	TP	3.04
NUMBER OF TIME STEPS		NNU	162
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	850.

INITIAL CONDITIONS

INITIAL CONDITIONS

(QDI(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.		

(YI(I),I=1,N)

1258.80	1241.29	1224.82	1215.22	1206.25	1197.26	1188.77	1178.38
1171.31	1167.43	1157.47	1155.36	1151.93	1146.52	1137.15	1131.95
1128.16	1124.39	1120.48	1117.34	1112.09	1100.05		

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.320
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TFO	2.720
TIME TO PEAK	HR	TP	3.040
TIME STEP SIZE	HR	DTHI	0.016

ROUTING COMPLETED.

KTIME= 332 ALLOWABLE KTIME= 699 TT= 6.6

PROFILE OF CRESTS AND TIMES FOR Q AT SOUTH MOUNTAIN
BELOW GUADALUPE NORTH DAM

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.038	1262.31	9907	3.034	27.96	1260.00	2.80
0.133	1242.43	9912	3.046	15.65	1243.00	0.00
0.322	1226.32	9859	3.056	8.17	1226.50	0.00
0.417	1216.28	9783	3.092	12.44	1217.00	0.00
0.549	1207.59	9799	3.092	7.01	1208.00	0.00
0.682	1198.34	9788	3.112	16.76	1199.00	0.00
0.824	1190.16	9777	3.129	7.33	1190.50	0.00
1.051	1180.13	9703	3.156	19.23	1180.00	3.09
1.178	1172.96	9694	3.177	10.66	1173.00	0.00
1.269	1169.69	9686	3.194	9.07	1169.00	3.06
1.557	1158.58	9644	3.208	6.91	1159.25	0.00
1.600	1157.23	9641	3.221	11.37	1157.00	3.13
1.701	1154.44	9611	3.245	7.74	1153.50	3.12
1.867	1148.78	8523	3.427	15.15	1148.00	3.21
2.296	1138.33	7782	3.635	3.57	1139.00	0.00
2.609	1133.18	7829	3.778	34.94	1133.80	0.00
2.924	1130.80	8577	3.905	5.07	1129.80	3.18
3.206	1126.38	7587	3.897	43.93	1126.00	3.27
3.494	1123.89	8446	4.038	10.24	1122.00	3.17
3.824	1118.71	7295	3.595	38.90	1119.00	0.00
4.141	1114.19	7142	4.002	22.96	1114.00	4.04
4.399	1100.79	7160	3.635	13.12	1102.00	0.00

ZZZZZZZZZZ 1111111111

```
GUADALUPE NORTH DAM 2 AT SOUTH MOUNTAIN --  OPTION 2   SUPERCRITICAL EMPTY LAKE
GREINER, INC.   7310 N. 16TH STREET, SUITE 130, PHOENIX, ARIZONA 85020
        1        0        0        5        3        0        0        0
1100000010 0 0
    37.91    33.08    29.55    22.60    15.66    11.06     6.54      2.0
   1281.0   1277.0    1275.    1270.    1265.    1260.    1255.   1250.0
       0.     1258.       0.    1252.     30.0     0.32    1252.      0.0
   1274.0   1281.9    1274.      0.0      0.0      0.0    -1254.    109.0
       0.      303.    1110.    2350.    3900.    5850.    8000.   10400.
       0.        1.       2.       3.       4.       5.       6.       7.
       0.      9.0       1.        0        0        0        0
    0.00   1425.0    4856.    6039.    4956.    1475.      72.       0.
     0.0     2.13     2.53     2.80     3.07     3.87     6.60      9.0
      22        7        0        1        0        1        0        0
  0.0379    1260.
   1258.    1259.    1261.    1263.    1264.    1265.    1270.
       0.     37.5     116.     185.     239.     280.     280.
       0.       0.       0.       0.       0.       0.       0.
  0.1326    1243.
   1241.    1242.    1243.    1244.    1245.    1246.    1251.
       0.     120.     120.     120.     120.     120.     120.
       0.     650.     970.    1190.    1350.    1475.    1475.
  0.3220    1226.5
   1224.5   1225.5    1226.   1226.5    1227.   1228.5   1233.5
       0.     120.     120.     120.     120.     120.     120.
       0.     750.    1115.    1250.    1350.    1600.    1600.
  0.4167    1217.
   1215.   1215.5    1216.    1217.   1217.5    1218.    1223.
       0.     120.     120.     120.     120.     120.     120.
       0.     550.     925.    1570.    1840.    1950.    1950.
  0.5492    1208.
   1206.   1206.5    1207.    1208.    1209.   1209.5   1214.5
       0.     120.     120.     120.     120.     120.     120.
       0.     750.    1082.    1770.   2443.5    2750.    2750.
  0.6818    1199.
   1197.   1197.5    1198.    1199.    1200.    1201.    1206.
       0.     120.     120.     120.     120.     120.     120.
       0.     613.    1100.    1525.    1830.    2040.    2040.
  0.8239   1190.5
   1188.5   1189.5   1190.5   1191.5   1192.5   1193.5   1198.5
       0.     120.     120.     120.     120.     120.     120.
       0.    1100.    1400.    1525.    1610.    1700.    1700.
  1.0511    1180.
   1178.    1179.    1180.    1181.   1181.5    1182.    1187.
       0.     120.     120.     120.     120.     120.     120.
       0.     575.     875.    1500.   1910.5    2388.    2388.
  1.1780    1173.
   1171.   1171.5    1172.    1173.   1173.5    1174.    1179.
       0.     120.     120.     120.     120.     120.     120.
       0.     375.     550.     670.    695.5     723.     723.
  1.2889    1169.
   1167.    1168.    1169.    1170.    1171.    1172.    1177.
       0.     120.     120.     120.     120.     120.     120.
       0.     400.     541.     650.     797.     946.     946.
  1.5568   1159.25
  1157.25  1157.75   1158.25  1158.75  1159.25  1159.75  1164.75
       0.     150.     150.     150.     150.     150.     150.
       0.    1025.    1500.    1600.    1650.    1670.    1670.
  1.6004    1157.
   1155.   1155.5    1156.   1156.5    1157.    1158.    1163.
```

0.	180.	180.	180.	180.	180.	180.
0.	300.	600.	825.	1250.	1758.	1758.
1.7008	1153.5					
1151.5	1152.	1152.5	1153.	1153.5	1154.5	1159.5
0.	210.	210.	210.	210.	210.	210.
0.	200.	365.	475.	578.5	667.	667.
1.3674	1148.					
1146.	1147.	1148.	1150.	1151.	1152.	1157.
0.	240.	240.	240.	240.	240.	240.
0.	235.	450.	609.	730.	867.	867.
2.2955	1139.					
1137.	1137.5	1138.	1138.5	1139.	1140.	1145.
0.	240.	240.	240.	240.	240.	240.
181.	1273.	2388.	3651.	4582.	5560.	5560.
2.6089	1133.8					
1131.8	1132.	1133.	1134.	1135.	1136.	1141.
0.	200.	200.	200.	200.	200.	200.
0.	950.	1928.	2350.	2728.	3118.	3118.
2.9242	1129.8					
1127.8	1128.	1129.	1130.	1131.	1133.	1138.
0.	180.	180.	180.	180.	180.	180.
0.	132.	649.	1150.	1570.	2179.	2179.
3.2064	1126.					
1124.	1124.5	1126.	1127.	1128.	1129.	1134.
0.	200.	200.	200.	200.	200.	200.
0.	250.	874.	1125.	1344.	2182.	2182.
3.4943	1122.					
1120.	1121.	1122.	1123.	1124.	1126.	1131.
0.	200.	200.	200.	200.	200.	200.
0.	300.	619.	902.	1150.	1619.	1619.
3.8239	1119.					
1117.	1118.	1119.	1120.	1121.	1122.	1127.
0.	200.	200.	200.	200.	200.	200.
0.	1367.	1758.	1967.	2163.	2393.	2393.
4.1411	1114.					
1112.	1114.	1115.	1116.	1117.	1118.	1123.
0.	220.	220.	220.	220.	220.	220.
0.	1300.	1848.	1896.	1948.	2009.	2009.
4.3987	1102.					
1100.	1102.	1103.	1104.	1105.	1106.	1111.
0.	240.	240.	240.	240.	240.	240.
0.	1300.	1848.	1896.	1948.	2009.	2009.
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.022	0.022	0.022	0.022	0.022	0.022	0.022
0.022	0.022	0.022	0.022	0.022	0.022	0.022

0.024	0.024	0.024	0.024	0.024	0.024	0.024	
0.024	0.024	0.024	0.024	0.024	0.024	0.024	
0.035	0.035	0.035	0.035	0.035	0.035	0.035	
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500	0.500	0.500	0.500	0.500			
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0			
0.0	0.0	0.0	0.0	78.0	0.0	0.0	0.0

Digital Equipment Corporation - VAX/VMS Version V4.5

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 SSSS  H   H   III   AAA   U   U
S      H   H    I   A   A  U   U
S      H   H    I   A   A  U   U
 SSS   HHHHH    I   A   A  U   U
    S  H   H    I   AAAAA  U   U
    S  H   H    I   A   A  U   U
SSSS   H   H  III  A   A  UUUUU

NN      NN  DDDDDDDD     AAAAAA    MM      MM          WW      WW   AAAAAA   LL          LL
NN      NN  DDDDDDDD     AAAAAA    MM      MM          WW      WW   AAAAAA   LL          LL
NN      NN  DD      DD  AA      AA  MMMM  MMMM          WW      WW  AA      AA  LL          LL
NN      NN  DD      DD  AA      AA  MMMM  MMMM          WW      WW  AA      AA  LL          LL
NNNN    NN  DD      DD  AA      AA  MM  MM  MM          WW      WW  AA      AA  LL          LL
NNNN    NN  DD      DD  AA      AA  MM  MM  MM          WW      WW  AA      AA  LL          LL
NN  NN  NN  DD      DD  AA      AA  MM      MM          WW      WW  AA      AA  LL          LL
NN  NN  NN  DD      DD  AA      AA  MM      MM          WW      WW  AA      AA  LL          LL
NN    NNNN  DD      DD  AAAAAAAAAA  MM      MM          WW  WW  WW  AAAAAAAAAA  LL          LL
NN    NNNN  DD      DD  AAAAAAAAAA  MM      MM          WW  WW  WW  AAAAAAAAAA  LL          LL
NN      NN  DD      DD  AA      AA  MM      MM          WWWW  WWWW  AA      AA  LL          LL
NN      NN  DD      DD  AA      AA  MM      MM          WWWW  WWWW  AA      AA  LL          LL
NN      NN  DDDDDDDD    AA      AA  MM      MM  ________ WW      WW  AA      AA  LLLLLLLLLL  LLLLLLLLLL
NN      NN  DDDDDDDD    AA      AA  MM      MM  ________ WW      WW  AA      AA  LLLLLLLLLL  LLLLLLLLLL

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                  00      00 UU      UU     TT         ;;;;   66
                  00      00 UU      UU     TT                66
                  00      00 UU      UU     TT                66
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                  00      00 UU      UU     TT         ;;;;   66666666
                  00      00 UU      UU     TT         ;;;;   66      66
                  00      00 UU      UU     TT         ;;;;   66      66
             ....  00      00 UU      UU     TT           ;;   66      66
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             ....    000000   UUUUUUUUUU     TT         ;;       666666
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File _DUA1:[USERS.E124034.ENGR]NDAM_WALL.OUT;6 (2945,80,0), last revised on 11-MAY-1990 17:17, is a 81 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with FORTRAN (FTN) carriage control. The longest record is 125 bytes.

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Digital Equipment Corporation - VAX/VMS Version V4.5

PROGRAM DAMBRK---VERSION--6/20/88-3

Input file name : NDAM_WALL.DAT

11-MAY-90 17:16:26

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE NORTH DAM

ON

2 AT SOUTH MOUNTAIN

ANALYSIS BY

-- OPTION 2 SUPERCRITICAL EMPTY LAKE
GREINER, INC. 7310 N. 16TH STREET, SUI
TE 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W22, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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*************************************
*************************************
***                               ***
***  SUMMARY OF INPUT DATA        ***
***                               ***
*************************************
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INPUT CONTROL PARAMETERS FOR GUADALUPE NORTH DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	1
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN INK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IDPUT= 1 1 0 0 0 0 0 0 1 0 0 0

GUADALUPE NORTH DAM RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
37.9	1281.00
33.1	1277.00
29.5	1275.00
22.6	1270.00
16.0	1265.00
11.1	1260.00
5.5	1255.00
2.0	1250.00

GUADALUPE NORTH DAM RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	XLM	0.30
ELEVATION OF WATER SURFACE	FEET	YI	1258.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1252.00
WIDTH OF BASE OF BREACH	FEET	B2	30.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TFM	0.32
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1252.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HF	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1281.90
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGI	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	-1254.00
DISCHARGE THRU TURBINES	CFS	GT	100.00

GSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHS(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE)= 9.0000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

WPPS(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE NORTH DAM
****

0.00	1425.00	4856.00	6039.00	4956.00	1475.00	72.00	0.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5300	2.8000	3.0700	3.8700	6.6000	9.0000

CROSS-SECTIONAL PARAMETERS FOR C AT SOUTH MOUNTAIN
BELOW GUADALUPE NORTH DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	22
MAXIMUM NUMBER OF TOP WIDTHS	NOS	7
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NOT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR I AT SOUTH MOUNTAIN
BELOW GUADALUPE MINI DAM

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EXC(I)

REACH NUMBER	DXM(I)	EXC(I)
1	0.500	0.000
2	0.500	0.000
3	0.500	0.000
4	0.500	0.000
5	0.500	0.000
6	0.500	0.000
7	0.500	0.000
8	0.500	0.000
9	0.500	0.000
10	0.500	0.000
11	0.500	0.000
12	0.500	0.000
13	0.500	0.000
14	0.500	0.000
15	0.100	1.000
16	0.500	0.000
17	0.500	0.000
18	0.500	0.000
19	0.500	0.000

20	1.500	0.000
21	1.000	0.000

DOWNSTREAM FLOW PARAMETERS FOR 2 AT [illegible]
BELOW GUADALUPE NORTH DAM

PARAMETER	UNIT	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PROPORTIONAL LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	78.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.373 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.336 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.346 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.333 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.321 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.311 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.295 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.285 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.280 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 10 DXM SHOULD BE CHANGED TO 0.255 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 11 DXM SHOULD BE CHANGED TO 0.254 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 12 DXM SHOULD BE CHANGED TO 0.246 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 13 DXM SHOULD BE CHANGED TO 0.232 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 14 DXM SHOULD BE CHANGED TO 0.200 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 13 DXM SHOULD BE CHANGED TO 0.135 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 14 DXM SHOULD BE CHANGED TO 0.170 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 17 DXM SHOULD BE CHANGED TO 0.132 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 18 DXM SHOULD BE CHANGED TO 0.152 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 19 DXM SHOULD BE CHANGED TO 0.141 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 20 DXM SHOULD BE CHANGED TO 0.132 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 21 DXM SHOULD BE CHANGED TO 0.112 DUE TO (WAVE SPEED * DT) CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500
0.500 0.500 0.500 0.500 0.500 0.500

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 32 (MAXIMUM ALLOWABLE = 200

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***                       ***
***  SUMMARY OF INPUT DATA  ***
***                       ***
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE NORTH DAM = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TTP(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
EST DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUB
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		CCFR

INFLOW TO RESERVOIR	CFS	[illegible]
BREACH OUTFLOW	CFS	[illegible]
SPILLWAY OUTFLOW	CFS	[illegible]

RESERVOIR DEPLETION TABLE

I	K	TIME(I)	Q(I)	H2	H1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	******	****	****	********	****	****	*****	*****	*****
1	0	0.000	100	1255.00	1254.00	1258.98	1.00	1.00	0.0	0.0	4.80	0.	0.	100.
2	2	0.120	100	1257.94	1254.00	1258.98	1.00	1.00	0.8	0.0	4.80	67.	0.	100.
3	2	0.200	100	1258.74	1254.00	1258.98	1.00	1.00	1.7	0.0	4.80	134.	0.	100.
4	2	0.340	100	1255.04	1254.00	1258.98	1.00	1.00	2.8	0.0	4.80	227.	0.	100.
5	2	0.480	100	1258.26	1254.00	1258.98	1.00	1.00	4.0	0.0	4.80	321.	0.	100.
6	2	0.620	100	1255.55	1254.00	1258.98	1.00	1.00	5.1	0.0	4.80	415.	0.	100.
7	2	0.760	100	1259.00	1254.00	1258.98	1.00	1.00	6.3	0.0	4.80	508.	0.	100.
8	2	0.900	100	1259.51	1254.00	1258.98	1.00	1.00	7.4	0.0	4.80	602.	0.	100.
9	2	1.040	100	1260.09	1254.00	1258.98	1.00	1.00	8.6	0.0	4.80	696.	0.	100.
10	2	1.180	100	1260.74	1254.00	1258.98	1.00	1.00	9.8	0.0	4.80	789.	0.	100.
11	2	1.320	100	1261.44	1254.00	1258.98	1.00	1.00	10.9	0.0	4.80	883.	0.	100.
12	2	1.460	100	1262.19	1254.00	1258.98	1.00	1.00	12.1	0.0	4.80	977.	0.	100.
13	2	1.600	100	1262.97	1254.00	1258.98	1.00	1.00	13.2	0.0	4.80	1070.	0.	100.
14	2	1.740	100	1263.79	1254.00	1258.98	1.00	1.00	14.4	0.0	4.80	1164.	0.	100.
15	2	1.880	100	1264.64	1254.00	1258.98	1.00	1.00	15.5	0.0	4.80	1258.	0.	100.
16	2	2.020	100	1265.50	1254.00	1258.98	1.00	1.00	16.7	0.0	4.80	1351.	0.	100.
17	2	2.160	100	1266.45	1254.00	1258.98	1.00	1.00	17.9	0.0	4.80	1682.	0.	100.
18	2	2.300	100	1267.79	1254.00	1258.98	1.00	1.00	19.0	0.0	4.80	2883.	0.	100.
19	2	2.440	100	1269.67	1254.00	1258.98	1.00	1.00	20.2	0.0	4.80	4084.	0.	100.
20	2	2.580	100	1271.86	1254.00	1258.98	1.00	1.00	21.3	0.0	4.80	5075.	0.	100.
21	3	2.720	139	1274.13	1254.00	1259.16	1.00	1.00	22.7	0.0	4.80	5688.	0.	140.
22	1	2.726	179	1274.23	1253.30	1259.22	1.00	1.00	22.8	1.6	4.80	5717.	9.	171.
23	1	2.733	237	1274.34	1253.20	1259.38	1.00	1.00	22.9	1.2	4.80	5745.	36.	202.
24	1	2.739	312	1274.44	1252.10	1259.52	1.00	1.00	23.0	1.8	4.80	5773.	80.	232.
25	1	2.746	405	1274.54	1252.40	1259.67	1.00	1.00	23.2	2.4	4.80	5801.	142.	263.
26	1	2.752	514	1274.63	1252.00	1259.82	1.00	1.00	23.5	3.0	4.80	5829.	222.	292.
27	1	2.758	614	1274.72	1252.00	1259.93	1.00	1.00	23.8	3.6	4.80	5857.	309.	321.
28	1	2.765	737	1274.82	1252.00	1260.07	1.00	1.00	24.1	4.2	4.80	5885.	388.	350.
29	1	2.771	882	1274.92	1252.00	1260.20	1.00	1.00	24.6	4.8	4.80	5913.	505.	377.
30	1	2.778	1048	1275.00	1252.00	1260.35	1.00	1.00	25.1	5.4	4.80	5941.	642.	407.
31	1	2.784	1271	1275.09	1252.00	1260.52	1.00	1.00	25.7	6.0	4.80	5969.	746.	476.
32	1	2.790	1510	1275.17	1252.00	1260.69	1.00	1.00	26.4	6.6	4.80	5997.	968.	542.
33	1	2.797	1761	1275.25	1252.00	1260.85	1.00	1.00	27.3	7.2	4.80	6025.	1133.	604.
34	1	2.803	2016	1275.32	1252.00	1261.10	1.00	1.00	28.3	7.8	4.80	6026.	1359.	657.
35	1	2.810	2283	1275.39	1252.00	1261.24	1.00	1.00	29.4	8.4	4.80	6000.	1591.	703.
36	1	2.816	2563	1275.45	1252.00	1261.37	1.00	1.00	30.7	9.0	4.80	5975.	1820.	743.
37	1	2.822	2853	1275.50	1252.00	1261.50	1.00	1.00	32.1	9.6	4.80	5949.	2074.	779.
38	1	2.829	3154	1275.55	1252.00	1261.63	1.00	1.00	33.7	10.2	4.80	5923.	2344.	810.
39	1	2.835	3466	1275.59	1252.00	1261.75	1.00	1.00	35.5	10.8	4.80	5898.	2629.	837.
40	1	2.842	3788	1275.63	1252.00	1261.87	1.00	1.00	37.4	11.4	4.80	5872.	2930.	859.
41	1	2.848	4120	1275.66	1252.00	1261.99	1.00	1.00	39.5	12.0	4.80	5846.	3245.	875.
42	3	2.854	5384	1275.66	1252.00	1262.31	1.00	1.00	42.0	12.6	3.10	5821.	4535.	882.
43	2	2.861	5599	1275.68	1252.00	1262.37	1.00	1.00	44.9	13.2	3.10	5796.	4721.	879.
44	1	2.867	5807	1275.66	1252.00	1262.43	1.00	1.00	47.9	13.8	3.10	5769.	4906.	872.
45	1	2.874	6011	1275.68	1252.00	1262.49	1.00	1.00	51.1	14.4	3.10	5744.	5100.	861.
46	1	2.880	6210	1275.66	1252.00	1262.54	1.00	1.00	54.3	15.0	3.10	5718.	5283.	848.
47	1	2.886	6413	1275.67	1252.00	1262.60	1.00	1.00	57.6	15.6	3.10	5692.	5474.	840.
48	1	2.893	6611	1275.65	1252.00	1262.65	1.00	1.00	61.1	16.2	3.10	5667.	5784.	828.
49	1	2.899	6804	1275.63	1252.00	1262.70	1.00	1.00	64.6	16.8	3.10	5641.	5991.	814.
50	1	2.906	6993	1275.61	1252.00	1262.75	1.00	1.00	68.3	17.4	3.10	5615.	6197.	796.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	H3	I	SUB	VOLR	DURATL	DT	DTSB	Q1(I)	TEMP	PRESL
***	--	******	********	*******	*******	*******	****	****	*********	****	****	*****	*****	*****
51	1	2.912	7176	1275.59	1252.00	1263.60	1.00	1.00	71.0	18.0	3.10	5510.	6491.	775.
52	1	2.918	7354	1275.56	1252.00	1263.84	1.00	1.00	75.1	18.6	3.10	5514.	6603.	752.
53	1	2.925	7537	1275.52	1252.00	1263.88	1.00	1.00	79.8	19.2	3.10	5528.	6902.	729.
54	1	2.931	7724	1275.49	1252.00	1263.92	1.00	1.00	83.9	19.8	3.10	5513.	6997.	698.
55	1	2.938	7557	1275.45	1252.00	1263.96	1.00	1.00	87.9	20.4	3.10	5497.	7194.	664.
56	1	2.944	8014	1275.41	1252.00	1263.00	1.00	1.00	92.1	21.0	3.10	5481.	7385.	629.
57	1	2.950	8166	1275.36	1252.00	1263.04	1.00	1.00	96.4	21.6	3.10	5436.	7575.	592.
58	1	2.957	8313	1275.31	1252.00	1263.08	1.00	1.00	100.8	22.2	3.10	5410.	7761.	552.
59	1	2.963	8454	1275.26	1252.00	1263.12	1.00	1.00	105.2	22.8	3.10	5384.	7945.	510.
60	1	2.970	8589	1275.20	1252.00	1263.15	1.00	1.00	109.7	23.4	3.10	5359.	8125.	465.
61	1	2.976	8720	1275.14	1252.00	1263.19	1.00	1.00	114.3	24.0	3.10	5333.	8303.	417.
62	1	2.982	8844	1275.08	1252.00	1263.22	1.00	1.00	118.9	24.6	3.10	5307.	8477.	368.
63	1	2.989	8964	1275.02	1252.00	1263.25	1.00	1.00	123.6	25.2	3.10	5282.	8648.	316.
64	1	2.995	9103	1274.95	1252.00	1263.28	1.00	1.00	128.4	25.8	3.10	5256.	8816.	287.
65	1	3.002	9246	1274.88	1252.00	1263.31	1.00	1.00	133.3	26.4	3.10	5230.	8981.	266.
66	1	3.008	9385	1274.80	1252.00	1263.35	1.00	1.00	138.2	27.0	3.10	5205.	9141.	244.
67	1	3.014	9518	1274.73	1252.00	1263.38	1.00	1.00	143.2	27.6	3.10	5179.	9298.	220.
68	1	3.021	9647	1274.65	1252.00	1263.41	1.00	1.00	148.3	28.2	3.10	5153.	9451.	196.
69	1	3.027	9771	1274.56	1252.00	1263.44	1.00	1.00	153.4	28.8	3.10	5128.	9601.	171.
70	1	3.034	9890	1274.48	1252.00	1263.46	1.00	1.00	158.6	29.4	3.10	5102.	9746.	144.
71	1	3.040	10003	1274.39	1252.00	1263.49	1.00	1.00	163.9	30.0	3.10	5076.	9887.	117.
72	1	3.046	9917	1274.30	1252.00	1263.47	1.00	1.00	169.1	30.0	3.10	5051.	9828.	90.
73	1	3.053	9861	1274.21	1252.00	1263.45	1.00	1.00	174.4	30.0	3.10	5025.	9769.	63.
74	1	3.059	9745	1274.12	1252.00	1263.43	1.00	1.00	179.5	30.0	3.10	4999.	9710.	36.
75	1	3.066	9660	1274.03	1252.00	1263.41	1.00	1.00	184.7	30.0	3.10	4974.	9652.	9.
76	1	3.072	9593	1273.94	1252.00	1263.40	1.00	1.00	189.8	30.0	3.10	4947.	9594.	0.
77	1	3.079	9536	1273.85	1252.00	1263.38	1.00	1.00	194.8	30.0	3.10	4919.	9537.	0.
78	1	3.085	9479	1273.77	1252.00	1263.37	1.00	1.00	199.8	30.0	3.10	4892.	9480.	0.
79	1	3.091	9422	1273.68	1252.00	1263.36	1.00	1.00	204.8	30.0	3.10	4864.	9423.	0.
80	1	3.098	9366	1273.59	1252.00	1263.34	1.00	1.00	209.8	30.0	3.10	4836.	9366.	0.
81	1	3.104	9309	1273.51	1252.00	1263.33	1.00	1.00	214.8	30.0	3.10	4808.	9310.	0.
82	1	3.111	9253	1273.42	1252.00	1263.32	1.00	1.00	219.7	30.0	3.10	4780.	9254.	0.
83	1	3.117	9197	1273.33	1252.00	1263.30	1.00	1.00	224.5	30.0	3.10	4752.	9198.	0.
84	1	3.123	9142	1273.25	1252.00	1263.29	1.00	1.00	229.4	30.0	3.10	4724.	9142.	0.
85	1	3.130	9086	1273.16	1252.00	1263.27	1.00	1.00	234.2	30.0	3.10	4697.	9087.	0.
86	1	3.136	9031	1273.08	1252.00	1263.26	1.00	1.00	239.0	30.0	3.10	4669.	9032.	0.
87	1	3.142	8976	1272.99	1252.00	1263.25	1.00	1.00	243.8	30.0	3.10	4641.	8976.	0.
88	1	3.149	8921	1272.90	1252.00	1263.23	1.00	1.00	248.5	30.0	3.10	4613.	8922.	0.
89	1	3.155	8867	1272.82	1252.00	1263.22	1.00	1.00	253.2	30.0	3.10	4585.	8867.	0.
90	1	3.162	8812	1272.73	1252.00	1263.21	1.00	1.00	257.9	30.0	3.10	4557.	8813.	0.
91	1	3.168	8758	1272.65	1252.00	1263.19	1.00	1.00	262.5	30.0	3.10	4530.	8758.	0.
92	1	3.174	8704	1272.56	1252.00	1263.18	1.00	1.00	267.1	30.0	3.10	4502.	8704.	0.
93	1	3.181	8650	1272.48	1252.00	1263.17	1.00	1.00	271.7	30.0	3.10	4474.	8651.	0.
94	1	3.187	8597	1272.39	1252.00	1263.15	1.00	1.00	276.3	30.0	3.10	4446.	8597.	0.
95	1	3.194	8543	1272.31	1252.00	1263.14	1.00	1.00	280.8	30.0	3.10	4418.	8544.	0.
96	1	3.200	8490	1272.22	1252.00	1263.13	1.00	1.00	285.3	30.0	3.10	4390.	8490.	0.
97	1	3.206	8437	1272.14	1252.00	1263.11	1.00	1.00	289.8	30.0	3.10	4362.	8437.	0.
98	1	3.213	8384	1272.06	1252.00	1263.10	1.00	1.00	294.3	30.0	3.10	4335.	8385.	0.
99	1	3.219	8332	1271.97	1252.00	1263.08	1.00	1.00	298.7	30.0	3.10	4307.	8332.	0.
100	1	3.226	8279	1271.89	1252.00	1263.07	1.00	1.00	303.1	30.0	3.10	4279.	8280.	0.

RESERVOIR DEPLETION TABLE

I	N	TIME(I)	Q(I)	H2	YB	D	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
101	1	3.232	8227	1271.20	1252.00	1262.10	1.00	1.00	307.4	30.0	3.10	4221.	8227.	0.
102	1	3.238	8175	1271.22	1252.00	1262.04	1.00	1.00	[illegible]	30.0	3.10	4222.	8175.	0.
103	1	3.245	8122	1271.24	1252.00	1262.03	1.00	1.00	311.1	30.0	3.10	4175.	8122.	0.
104	1	3.251	8071	1271.25	1252.00	1262.01	1.00	1.00	320.4	30.0	3.10	4138.	8072.	0.
105	1	3.258	8020	1271.27	1252.00	1262.00	1.00	1.00	324.8	30.0	3.10	4140.	8020.	0.
106	1	3.264	7968	1271.29	1252.00	1262.99	1.00	1.00	328.0	30.0	3.10	4112.	7969.	0.
107	1	3.270	7917	1271.30	1252.00	1262.98	1.00	1.00	333.1	30.0	3.10	4084.	7918.	0.
108	1	3.277	7866	1271.32	1252.00	1262.96	1.00	1.00	337.2	30.0	3.10	4056.	7867.	0.
109	1	3.283	7816	1271.34	1252.00	1262.95	1.00	1.00	341.4	30.0	3.10	4028.	7816.	0.
110	1	3.290	7765	1271.35	1252.00	1262.94	1.00	1.00	345.5	30.0	3.10	4000.	7765.	0.
111	1	3.296	7715	1270.37	1252.00	1262.93	1.00	1.00	349.6	30.0	3.10	3973.	7715.	0.
112	1	3.302	7664	1270.39	1252.00	1262.92	1.00	1.00	353.7	30.0	3.10	3945.	7665.	0.
113	1	3.309	7614	1270.41	1252.00	1262.90	1.00	1.00	357.7	30.0	3.10	3917.	7615.	0.
114	1	3.315	7564	1270.72	1252.00	1262.89	1.00	1.00	361.7	30.0	3.10	3889.	7565.	0.
115	1	3.322	7514	1270.64	1252.00	1262.88	1.00	1.00	365.7	30.0	3.10	3861.	7515.	0.
116	1	3.328	7465	1270.56	1252.00	1262.87	1.00	1.00	369.7	30.0	3.10	3833.	7465.	0.
117	1	3.334	7415	1270.48	1252.00	1262.85	1.00	1.00	373.6	30.0	3.10	3805.	7416.	0.
118	1	3.341	7366	1270.40	1252.00	1262.84	1.00	1.00	377.5	30.0	3.10	3778.	7367.	0.
119	1	3.347	7317	1270.31	1252.00	1262.83	1.00	1.00	381.4	30.0	3.10	3750.	7318.	0.
120	1	3.354	7268	1270.23	1252.00	1262.82	1.00	1.00	385.3	30.0	3.10	3722.	7269.	0.
121	1	3.360	7219	1270.15	1252.00	1262.81	1.00	1.00	389.1	30.0	3.10	3694.	7220.	0.
122	1	3.366	7171	1270.07	1252.00	1262.79	1.00	1.00	392.9	30.0	3.10	3666.	7171.	0.
123	1	3.373	7117	1269.98	1252.00	1262.78	1.00	1.00	397.0	30.0	3.10	3636.	7118.	0.
124	1	3.381	7059	1269.88	1252.00	1262.77	1.00	1.00	401.6	30.0	3.10	3602.	7059.	0.
125	1	3.390	6995	1269.77	1252.00	1262.75	1.00	1.00	406.5	30.0	3.10	3565.	6995.	0.
126	2	3.399	6925	1269.65	1252.00	1262.73	1.00	1.00	411.9	30.0	3.10	3524.	6925.	0.
127	2	3.409	6848	1269.52	1252.00	1262.71	1.00	1.00	417.8	30.0	3.10	3479.	6849.	0.
128	2	3.421	6764	1269.38	1252.00	1262.69	1.00	1.00	424.2	30.0	3.10	3430.	6765.	0.
129	2	3.433	6672	1269.22	1252.00	1262.66	1.00	1.00	431.1	30.0	3.10	3376.	6673.	0.
130	2	3.447	6572	1269.05	1252.00	1262.64	1.00	1.00	438.6	30.0	3.10	3316.	6573.	0.
131	2	3.462	6463	1268.86	1252.00	1262.61	1.00	1.00	446.7	30.0	3.10	3250.	6463.	0.
132	2	3.479	6343	1268.65	1252.00	1262.58	1.00	1.00	455.5	30.0	3.10	3176.	6343.	0.
133	2	3.497	6213	1268.42	1252.00	1262.54	1.00	1.00	465.0	30.0	3.10	[illegible]	6213.	0.
134	2	3.517	6070	1268.17	1252.00	1262.50	1.00	1.00	475.2	30.0	3.10	3011.	6071.	0.
135	2	3.539	5915	1267.89	1252.00	1262.46	1.00	1.00	486.1	30.0	3.10	2915.	5916.	0.
136	2	3.563	5746	1267.59	1252.00	1262.41	1.00	1.00	497.8	30.0	3.10	2809.	5747.	0.
137	2	3.590	5563	1267.25	1252.00	1262.35	1.00	1.00	510.3	30.0	3.10	2693.	5563.	0.
138	2	3.619	5363	1266.88	1252.00	1262.30	1.00	1.00	523.6	30.0	3.10	2565.	5363.	0.
139	2	3.652	5146	1266.48	1252.00	1262.23	1.00	1.00	537.7	30.0	3.10	2424.	5146.	0.
140	2	3.687	4910	1266.03	1252.00	1262.15	1.00	1.00	552.4	30.0	3.10	2269.	4910.	0.
141	2	3.727	4653	1265.54	1252.00	1262.07	1.00	1.00	567.9	30.0	3.10	2099.	4654.	0.
142	2	3.770	4375	1264.99	1252.00	1261.98	1.00	1.00	584.0	30.0	3.10	1912.	4375.	0.
143	2	3.817	4074	1264.39	1252.00	1261.86	1.00	1.01	600.5	30.0	3.10	1706.	4074.	0.
144	2	3.869	3752	1263.72	1252.00	1261.76	1.00	1.01	617.4	30.0	3.10	1479.	3752.	0.
145	2	3.926	3422	1263.02	1252.00	1261.63	1.00	1.01	634.4	30.0	3.10	1446.	3422.	0.
146	2	3.989	3103	1262.33	1252.00	1261.50	1.00	1.01	651.4	30.0	3.10	1414.	3103.	0.
147	2	4.059	2800	1261.64	1252.00	1261.37	1.00	1.01	668.3	30.0	3.10	1378.	2801.	0.
148	2	4.135	2517	1260.98	1252.00	1261.24	1.00	1.01	685.0	30.0	3.10	1339.	2518.	0.
149	2	4.219	2257	1260.34	1252.00	1261.12	1.00	1.01	701.6	30.0	3.10	1296.	2257.	0.
150	2	4.311	2021	1259.75	1252.00	1261.00	1.00	1.01	717.9	30.0	3.10	1248.	2022.	0.

RESERVOIR DEPLETION TABLE

I	K	ITP(I)	Q(I)	H2	YB	C	SUB	VOCR	OUTVOL	BB	COLR	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
151	2	4.413	1811	1259.20	1252.00	1260.33	1.00	1.01	[illegible]	30.0	3.10	[illegible]	[illegible]	0.
152	2	4.524	1627	1258.69	1252.00	1260.76	1.00	1.01	749.9	30.0	3.10	[illegible]	[illegible]	0.
153	2	4.647	1464	1258.23	1252.00	1260.33	1.00	1.01	765.6	30.0	3.10	[illegible]	[illegible]	0.
154	2	4.792	1320	1257.81	1252.00	1260.56	1.00	1.02	781.1	30.0	3.10	1006.	[illegible]	0.
155	2	4.931	1190	1257.41	1252.00	1260.48	1.00	1.02	796.5	30.0	3.10	930.	[illegible]	0.
156	2	5.095	1069	1257.03	1252.00	1260.35	1.00	1.02	811.8	30.0	3.10	846.	1069.	0.
157	1	5.274	952	1256.65	1252.00	1260.25	1.00	1.03	826.8	30.0	3.10	753.	952.	0.
158	2	5.472	835	1256.25	1252.00	1260.16	1.00	1.03	841.4	30.0	3.10	652.	835.	0.
159	2	5.690	714	1255.81	1252.00	1260.04	1.00	1.04	855.4	30.0	3.10	540.	715.	0.
160	2	5.929	587	1255.33	1252.00	1259.89	1.00	1.05	868.3	30.0	3.10	417.	587.	0.
161	2	6.193	450	1254.77	1252.00	1259.72	1.00	1.08	879.6	30.0	3.10	281.	451.	0.
162	2	6.482	303	1254.09	1252.00	1259.48	1.00	1.15	888.6	30.0	3.10	133.	303.	0.
163	2	6.801	177	1253.40	1252.00	1259.22	1.00	1.38	894.9	30.0	3.10	66.	177.	0.
164	2	7.151	110	1252.91	1252.00	1259.02	1.00	2.00	899.1	30.0	3.10	55.	111.	0.
165	2	7.537	81	1252.58	1252.00	1258.92	1.00	2.00	902.1	30.0	3.10	44.	82.	0.
166	0	7.92	100											
167	0	8.35	100											
168	0	8.81	100											
169	0	9.33	100											

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	QI	100.
MAX FLOW	CFS	QM	10000.
FINAL FLOW	CFS	Q(NU)	100.
TIME TO MAX FLOW	HRS	TP	9.04
NUMBER OF TIME STEPS		NNU	169
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	902.

INITIAL CONDITIONS

INITIAL CONDITIONS

(Q0(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.		

(YI(I),I=1,N)

1258.84	1241.54	1225.18	1215.40	1206.51	1197.48	1189.21	1178.68
1171.52	1167.71	1157.73	1155.45	1151.92	1146.62	1137.39	1132.09
1128.10	1124.43	1120.57	1117.57	1112.72	1100.70		

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.000
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TSD	2.720
TIME TO PEAK	HR	TP	3.040
TIME STEP SIZE	HR	DTHI	0.016

ROUTING COMPLETED.

KTIME= 251 ALLOWABLE KTIME= 699 TT= 9.1

[illegible] OF [illegible] AND TIMES FOR D AT [illegible] MOUNTAIN
BELOW GUADALUPE NORTH DAM

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
0.033	1211.59	9999	3.041	25.01	1209.00	2.79
0.133	1244.50	9613	3.082	27.09	1248.00	2.87
0.322	1223.53	9041	3.155	21.61	1226.50	2.93
0.417	1218.28	8526	3.358	24.17	1217.00	3.02
0.549	1209.69	7413	3.513	20.87	1208.00	3.09
0.682	1200.35	5960	3.722	19.73	1199.00	3.21
0.924	1192.81	6353	3.871	18.26	1190.50	3.26
1.051	1181.85	6140	4.110	15.78	1180.00	3.40
1.178	1174.21	6013	4.110	17.10	1173.00	3.54
1.269	1170.93	5980	4.172	14.61	1169.00	3.25
1.557	1160.42	5672	4.401	13.14	1159.25	3.78
1.600	1157.41	5646	4.401	16.35	1157.00	3.96
1.701	1154.35	5624	4.499	10.74	1153.50	3.87
1.867	1148.75	5608	4.469	10.39	1148.00	3.93
2.296	1139.72	4124	5.247	7.17	1139.00	4.37
2.609	1134.24	3755	5.993	8.67	1133.80	5.19
2.924	1131.19	3466	6.448	6.02	1129.80	5.04
3.306	1126.26	3430	6.367	11.91	1126.00	5.79
3.494	1124.30	3274	7.131	4.31	1122.00	5.91
3.924	1119.47	3123	8.954	10.90	1119.00	6.33
4.141	1116.58	3030	7.792	8.57	1114.00	5.09
4.899	1103.84	2668	8.964	16.24	1105.00	7.99

```
 SSSS  H   H   III   AAA   U   U
S      H   H    I   A   A  U   U
S      H   H    I   A   A  U   U
 SSS   HHHHH    I   A   A  U   U
    S  H   H    I   AAAAA  U   U
    S  H   H    I   A   A  U   U
SSSS   H   H   III  A   A  UUUUU

DDDDDDD    YY      YY  NN      NN          TTTTTTTTTT  YY      YY  PPPPPPPP
DDDDDDDD   YY      YY  NN      NN          TTTTTTTTTT  YY      YY  PPPPPPPP
DD      DD YY      YY  NN      NN              TT      YY      YY  PP      PP
DD      DD YY      YY  NN      NN              TT      YY      YY  PP      PP
DD      DD   YY  YY    NNNN    NN              TT        YY  YY    PP      PP
DD      DD   YY  YY    NNNN    NN              TT        YY  YY    PP      PP
DD      DD     YY      NN  NN  NN              TT          YY      PPPPPPPP
DD      DD     YY      NN  NN  NN              TT          YY      PPPPPPPP
DD      DD     YY      NN    NNNN              TT          YY      PP
DD      DD     YY      NN    NNNN              TT          YY      PP
DD      DD     YY      NN      NN              TT          YY      PP
DD      DD     YY      NN      NN              TT          YY      PP
DDDDDDDD       YY      NN      NN  ________    TT          YY      PP
DDDDDDD        YY      NN      NN  ________    TT          YY      PP

DDDDDDDD     AAAAAA   TTTTTTTTTT     ;;;;     222222
DDDDDDDD     AAAAAA   TTTTTTTTTT     ;;;;     222222
DD      DD  AA      AA     TT        ;;;;   22      22
DD      DD  AA      AA     TT        ;;;;   22      22
DD      DD  AA      AA     TT                      22
DD      DD  AA      AA     TT                      22
DD      DD  AA      AA     TT        ;;;;         22
DD      DD  AA      AA     TT        ;;;;         22
DD      DD  AAAAAAAAAA     TT        ;;;;       22
DD      DD  AAAAAAAAAA     TT        ;;;;       22
....  DD      DD  AA      AA     TT          ;;     22
....  DD      DD  AA      AA     TT          ;;     22
....  DDDDDDDD    AA      AA     TT        ;;     2222222222
....  DDDDDDDD    AA      AA     TT        ;;     2222222222
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File _DUA1:[USERS.E124034.ENGR]DYN_TYP.DAT;2 (5067,25,0), last revised on 11-MAY-1990 16:50, is a 8 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with implied (CR) carriage control. The longest record is 80 bytes.

Job DYN_TYP (1421) queued to SYS$PRINT on 11-MAY-1990 16:54 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 16:56 from queue SYS$PRINT.

TYPICAL GUADALUPE DAM AT SOUTH MOUNTAIN -- RESERVOIR DYNAMIC ROUTING (OPTION 8)
GREINER, INC. 7310 N 16TH STREET, SUITE 160, PHOENIX, ARIZONA 85020

9	0	0	5	60	0	0	0
1100001010							
.06	3.6	1.	0	0	0	0	
100.	100.	100.	100.	100.	192.	814.	2547.
5423.	3009.	12053.	10706.	9908.	9142.	8463.	7829.
7371.	6787.	6227.	5820.	5418.	5024.	4511.	4258.
3764.	3543.	3230.	2945.	2768.	2519.	2364.	2141.
2004.	1808.	1685.	1568.	1495.	1348.	1250.	1159.
1075.	997.	924.	857.	795.	737.	685.	632.
618.	573.	560.	527.	495.	480.	452.	437.
409.	396.	368.	354.				
9	6	0	1	0	1	0	0
0.0170							
1254.	1256.	1258.	1260.	1261.	1262.		
80.	220.	310.	400.	410.	420.		
0.	0.	0.	0.	0.	0.		
0.1174							
1244.5	1245.	1246.	1248.	1249.	1250.		
0.	83.	282.	466.	528.	589.		
0.	0.	0.	0.	0.	0.		
0.2348							
1235.	1236.	1236.5	1237.	1237.5	1238.		
0.	500.	603.	642.	672.	713.		
0.	0.	0.	0.	0.	0.		
0.3883							
1223.	1224.	1225.	1226.	1227.	1228.		
0.	1300.	1598.	1713.	1848.	1977.		
0.	0.	0.	0.	0.	0.		
0.5701							
1212.	1213.	1214.	1215.	1216.	1217.		
0.	1825.	2350.	2550.	2630.	2700.		
0.	0.	0.	0.	0.	0.		
0.7509							
1203.	1203.5	1204.	1204.5	1205.	1206.		
0.	1142.	2075.	2450.	2825.	3170.		
0.	0.	0.	0.	0.	0.		
0.9716							
1188.5	1189.	1190.	1191.	1192.	1194.		
0.	178.	584.	1420.	2371.	2655.		
0.	0.	0.	0.	0.	0.		
1.1382							
1182.	1183.	1184.	1185.	1185.5	1186.		
100.	550.	1160.	2200.	2550.	2775.		
0.	0.	0.	0.	0.	0.		
1.2907							
1178.	1179.	1179.5	1180.	1181.	1182.		
200.	739.	1127.	1485.	2250.	3076.		
0.	0.	0.	0.	0.	0.		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.020	0.020	0.020	0.020	0.020	0.020		
0.005	0.019	0.032	0.029	0.020	0.013	0.02	0.02
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

0.0 0.0 0.0 0.0 65.0 0.0 0.0 0.0

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RRRRRRRRRR    333333333
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PROGRAM DAMBRK---VERSION--5/10/88-3

Input file name : DYN_TYP.DAT

11-MAY-90 16:53:05

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

TYPICAL GUADALUPE DA

ON

N AT SOUTH MOUNTAIN

ANALYSIS BY

-- RESERVOIR DYNAMIC ROUTING (OPTION 3)
GREINER, INC. 7310 N 16TH STREET, SUIT
E 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W22, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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***                           ***
***  SUMMARY OF INPUT DATA    ***
***                           ***
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INPUT CONTROL PARAMETERS FOR TYPICAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	9
TYPE OF RESERVOIR ROUTING	KOI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	60
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 1 0 1 0 0 0

DHF(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.06 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE)= 3.6000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO TYPICAL GUADALUPE DA

100.00	100.00	100.00	100.00	100.00	192.00	814.00	2547.00
5423.00	8009.00	12053.00	10706.00	9909.00	9142.00	8463.00	7839.00
7371.00	6787.00	6227.00	5820.00	5418.00	5024.00	4511.00	4083.00
3764.00	3543.00	3230.00	2945.00	2718.00	2519.00	2364.00	2143.00
2004.00	1808.00	1685.00	1568.00	1455.00	1348.00	1250.00	1159.00
1075.00	997.00	924.00	857.00	795.00	737.00	685.00	662.00
618.00	578.00	560.00	527.00	495.00	480.00	452.00	437.00
409.00	396.00	368.00	354.00				

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	0.0600	0.1200	0.1800	0.2400	0.3000	0.3600	0.4200
0.4800	0.5400	0.6000	0.6600	0.7200	0.7800	0.8400	0.9000
0.9600	1.0200	1.0800	1.1400	1.2000	1.2600	1.3200	1.3800
1.4400	1.5000	1.5600	1.6200	1.6800	1.7400	1.8000	1.8600
1.9200	1.9800	2.0400	2.1000	2.1600	2.2200	2.2800	2.3400
2.4000	2.4600	2.5200	2.5800	2.6400	2.7000	2.7600	2.8200
2.8800	2.9400	3.0000	3.0600	3.1200	3.1800	3.2400	3.3000
3.3600	3.4200	3.4800	3.5400				

CROSS-SECTIONAL PARAMETERS FOR M AT LINCH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	9
MAXIMUM NUMBER OF TOP WIDTHS	NCS	6
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR * AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.305	0.000
2	0.019	0.000
3	0.032	0.000
4	0.029	0.000
5	0.020	0.000
6	0.013	0.000
7	0.010	0.000
8	0.020	0.000

DOWNSTREAM FLOW PARAMETERS FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.004 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.005 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.019 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.013 DUE TO EXP/CONTRACT CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.005 0.019 0.032 0.029 0.020 0.013 0.020 0.020

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 78 (MAXIMUM ALLOWABLE = 200

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***                       ***
***  SUMMARY OF OUTPUT DATA ***
***                       ***
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*****************************
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INITIAL CONDITIONS

INITIAL CONDITIONS

(QDI(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.		

(YI(I),I=1,N)

1254.27	1253.82	1253.35	1252.89	1252.41	1251.95	1251.50	1251.02
1250.57	1250.11	1249.65	1249.19	1248.73	1248.27	1247.81	1247.36
1246.89	1246.44	1245.98	1245.51	1245.03	1243.39	1241.75	1240.16
1238.55	1236.96	1235.36	1232.33	1229.29	1226.28	1223.26	1221.42
1219.59	1217.74	1215.90	1214.07	1212.24	1211.23	1210.23	1209.22

1208.23	1207.13	1206.22	1205.22	1204.21	1203.21	1202.36	1201.51
1200.67	1199.81	1198.97	1198.12	1197.28	1196.44	1195.59	1194.75
1193.91	1193.06	1192.24	1191.39	1190.57	1189.75	1188.94	1188.09
1187.24	1186.41	1185.57	1184.74	1183.90	1183.07	1182.25	1181.36
1181.08	1180.49	1179.92	1179.33	1178.76	1178.17		

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFM	0.600
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TFO	0.000
TIME TO PEAK	HR	TP	0.600
TIME STEP SIZE	HR	DTHI	0.030

ROUTING COMPLETED.

KTIME= 98 ALLOWABLE KTIME= 699 TT= 3.6

PROFILE OF CRESTS AND TIMES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.017	1257.52	11968	0.604	17.41	0.00	0.00
0.022	1257.07	11961	0.604	17.39	0.00	0.00
0.027	1256.61	11951	0.604	17.36	0.00	0.00
0.032	1256.15	11940	0.604	17.33	0.00	0.00
0.037	1255.68	11927	0.604	17.29	0.00	0.00
0.042	1255.21	11913	0.604	17.24	0.00	0.00
0.047	1254.73	11899	0.604	17.19	0.00	0.00
0.052	1254.24	11884	0.604	17.13	0.00	0.00
0.057	1253.75	11869	0.604	17.06	0.00	0.00
0.062	1253.26	11854	0.604	16.99	0.00	0.00
0.067	1252.76	11839	0.604	16.92	0.00	0.00
0.072	1252.25	11823	0.604	16.84	0.00	0.00
0.077	1251.75	11807	0.604	16.75	0.00	0.00
0.082	1251.23	11791	0.604	16.66	0.00	0.00
0.087	1250.71	11774	0.604	16.57	0.00	0.00
0.092	1250.19	11758	0.604	16.48	0.00	0.00
0.097	1249.66	11741	0.604	16.39	0.00	0.00
0.102	1249.12	11724	0.604	16.30	0.00	0.00
0.107	1248.59	11707	0.604	16.21	0.00	0.00
0.112	1248.04	11689	0.604	16.11	0.00	0.00
0.117	1247.50	11672	0.604	16.02	0.00	0.00
0.137	1245.68	11659	0.634	15.22	0.00	0.00
0.157	1243.92	11700	0.634	14.58	0.00	0.00
0.176	1242.19	11735	0.634	14.01	0.00	0.00
0.196	1240.49	11765	0.634	13.48	0.00	0.00
0.215	1238.81	11789	0.634	12.99	0.00	0.00
0.235	1237.16	11805	0.634	12.57	0.00	0.00
0.273	1233.85	11817	0.634	11.46	0.00	0.00
0.312	1230.73	11800	0.634	10.06	0.00	0.00
0.350	1227.59	11741	0.634	9.38	0.00	0.00
0.388	1224.49	11629	0.634	8.82	0.00	0.00
0.419	1222.73	11579	0.664	7.58	0.00	0.00
0.449	1220.82	11645	0.664	7.78	0.00	0.00
0.479	1218.98	11677	0.664	7.43	0.00	0.00
0.509	1217.10	11677	0.664	7.36	0.00	0.00
0.540	1215.24	11646	0.664	7.17	0.00	0.00
0.570	1213.38	11580	0.664	7.04	0.00	0.00
0.590	1212.46	11511	0.664	6.34	0.00	0.00
0.610	1211.42	11486	0.694	6.63	0.00	0.00
0.630	1210.44	11532	0.694	6.47	0.00	0.00
0.650	1209.43	11560	0.694	6.50	0.00	0.00
0.671	1208.43	11570	0.694	6.41	0.00	0.00
0.691	1207.41	11559	0.694	6.39	0.00	0.00
0.711	1206.39	11532	0.694	6.37	0.00	0.00
0.731	1205.36	11486	0.694	6.33	0.00	0.00
0.751	1204.33	11419	0.694	6.27	0.00	0.00
0.764	1203.45	11370	0.724	6.25	0.00	0.00

0.777	1202.85	11402	0.724	6.79	0.00	0.00

PROFILE OF CREEKS AND DIKES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.790	1201.83	11429	0.724	6.92	0.00	0.00
0.803	1201.02	11451	0.724	7.02	0.00	0.00
0.816	1200.22	11463	0.724	7.12	0.00	0.00
0.829	1199.41	11473	0.724	7.22	0.00	0.00
0.842	1198.61	11472	0.724	7.32	0.00	0.00
0.855	1197.81	11464	0.724	7.41	0.00	0.00
0.868	1197.02	11449	0.724	7.50	0.00	0.00
0.881	1196.24	11426	0.724	7.58	0.00	0.00
0.894	1195.46	11397	0.724	7.65	0.00	0.00
0.907	1194.69	11361	0.724	7.70	0.00	0.00
0.920	1193.94	11320	0.724	7.74	0.00	0.00
0.933	1193.19	11280	0.754	7.76	0.00	0.00
0.946	1192.46	11305	0.754	7.75	0.00	0.00
0.959	1191.74	11324	0.754	7.73	0.00	0.00
0.972	1191.03	11337	0.754	7.68	0.00	0.00
0.992	1190.32	11344	0.754	6.66	0.00	0.00
1.013	1189.42	11331	0.754	6.93	0.00	0.00
1.034	1188.58	11299	0.754	6.80	0.00	0.00
1.055	1187.72	11254	0.754	6.83	0.00	0.00
1.076	1186.87	11207	0.754	6.81	0.00	0.00
1.097	1186.03	11162	0.784	6.82	0.00	0.00
1.117	1185.19	11182	0.784	6.82	0.00	0.00
1.138	1184.34	11197	0.784	6.84	0.00	0.00
1.160	1183.99	11198	0.784	5.41	0.00	0.00
1.182	1183.15	11186	0.784	6.53	0.00	0.00
1.204	1182.72	11151	0.814	5.49	0.00	0.00
1.225	1181.93	11097	0.784	6.50	0.00	0.00
1.247	1181.49	11060	0.814	5.53	0.00	0.00
1.269	1180.70	11084	0.814	7.96	0.00	0.00
1.291	1180.26	11087	0.814	5.60	0.00	0.00

```
 SSSS  T   T   III   AAA   U   U
S      T   T    I   A   A  U   U
S      T   T    I   A   A  U   U
 SSS   T   T    I   A   A  U   U
    S  T   T    I   AAAAA  U   U
    S  T   T    I   A   A  U   U
SSSS   T   T   III  A   A  UUUUU
```

```
 SSSSSSSS  TTTTTTTTTT   OOOOOO   RRRRRRRR                TTTTTTTTTT  YY      YY  PPPPPPPP
 SSSSSSSS  TTTTTTTTTT   OOOOOO   RRRRRRRR                TTTTTTTTTT  YY      YY  PPPPPPPP
SS         TT      OO      OO  RR      RR                  TT      YY      YY  PP      PP
SS         TT      OO      OO  RR      RR                  TT      YY      YY  PP      PP
SS         TT      OO      OO  RR      RR                  TT        YY  YY    PP      PP
SS         TT      OO      OO  RR      RR                  TT        YY  YY    PP      PP
 SSSSSS    TT      OO      OO  RRRRRRRR                    TT          YY      PPPPPPPP
 SSSSSS    TT      OO      OO  RRRRRRRR                    TT          YY      PPPPPPPP
      SS   TT      OO      OO  RR  RR                      TT          YY      PP
      SS   TT      OO      OO  RR  RR                      TT          YY      PP
      SS   TT      OO      OO  RR    RR                    TT          YY      PP
      SS   TT      OO      OO  RR    RR                    TT          YY      PP
SSSSSSSS   TT        OOOOOO   RR      RR  ________        TT          YY      PP
SSSSSSSS   TT        OOOOOO   RR      RR  ________        TT          YY      PP
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```
DDDDDDDD     AAAAAA   TTTTTTTTTT    ;;;;     333333
DDDDDDDD     AAAAAA   TTTTTTTTTT    ;;;;     333333
DD      DD  AA      AA     TT       ;;;;  33      33
DD      DD  AA      AA     TT       ;;;;  33      33
DD      DD  AA      AA     TT                    33
DD      DD  AA      AA     TT                    33
DD      DD  AA      AA     TT       ;;;;        33
DD      DD  AA      AA     TT       ;;;;        33
DD      DD  AAAAAAAAAA     TT       ;;;;          33
DD      DD  AAAAAAAAAA     TT       ;;;;          33
DD      DD  AA      AA     TT         ;;  33      33
DD      DD  AA      AA     TT         ;;  33      33
DDDDDDDD    AA      AA     TT       ;;      333333
DDDDDDDD    AA      AA     TT       ;;      333333
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File _DUA1:[USERS.E124034.ENGR]STOR_TYP.DAT;3 (5069,71,0), last revised on 11-MAY-1990 16:55, is a 8 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with implied (CR) carriage control. The longest record is 80 bytes.

Job STOR_TYP (1425) queued to SYS$PRINT on 11-MAY-1990 16:58 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 16:59 from queue SYS$PRINT.

```
TYPICAL GUADALUPE DAM AT SOUTH MOUNTAIN -- RESERVOIR DYNAMIC ROUTING (OPTION 3)
GREINER, INC.  7310 N 16TH STREET, SUITE 180, PHOENIX, ARIZONA 85020
        9        0        0        5       10        0        0        0
1100001010
      .06       3.5       1.        0        0        0        0
      551.     937.    2849.    7432.   10473.   11732.   10135.    8818.
     9550.    7774.    7006.    6446.    5779.    5201.    4672.    4138.
     3701.    3189.    2888.    2655.    2387.    2151.    1943.    1760.
     1601.    1464.    1337.    1230.    1132.    1046.     967.     896.
      830.     773.     720.     671.     625.     585.     548.     502.
      481.     453.     423.     397.     374.     351.     333.     310.
      291.     272.     255.     240.     225.     201.     197.     185.
      174.     162.     151.     149.
        9        6        0        1        0        1        0        0
   0.0170
     1254.    1256.    1258.    1260.    1261.    1262.
       80.     220.     310.     400.     410.     420.
        0.       0.       0.       0.       0.       0.
   0.1174
   1244.5    1245.    1246.    1248.    1249.    1250.
        0.      83.     282.     466.     528.     589.
        0.       0.       0.       0.       0.       0.
   0.2348
     1235.    1236.   1236.5    1237.   1237.5    1238.
        0.     500.     603.     642.     672.     713.
        0.       0.       0.       0.       0.       0.
   0.3883
     1223.    1224.    1225.    1226.    1227.    1228.
        0.    1300.    1598.    1719.    1848.    1977.
        0.       0.       0.       0.       0.       0.
   0.5701
     1212.    1213.    1214.    1215.    1216.    1217.
        0.    1825.    2350.    2550.    2630.    2700.
        0.       0.       0.       0.       0.       0.
   0.7509
     1203.   1203.5    1204.   1204.5    1205.    1206.
        0.    1142.    2075.    2450.    2825.    3170.
        0.       0.       0.       0.       0.       0.
   0.9716
   1188.5    1189.    1190.    1191.    1192.    1194.
        0.     178.     564.    1420.    2371.    2655.
        0.       0.       0.       0.       0.       0.
   1.1382
     1182.    1183.    1184.    1185.   1185.5    1186.
      100.     550.    1160.    2200.    2550.    2775.
        0.       0.       0.       0.       0.       0.
   1.2907
     1178.    1179.   1179.5    1180.    1181.    1182.
      200.     739.    1127.    1485.    2250.    3076.
        0.       0.       0.       0.       0.       0.
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.020    0.020    0.020    0.020    0.020    0.020
    0.005    0.019    0.032    0.029    0.020    0.013     0.02     0.02
      0.0      0.0      0.0      0.0      0.0      0.0      0.0      0.0
```

0.0 0.0 0.0 0.0 [illegible] 0.0 0.0 0.0

```
 SSSS  H   H   III   AAA   U   U
S      H   H    I   A   A  U   U
S      H   H    I   A   A  U   U
 SSS   HHHHH    I   A   A  U   U
    S  H   H    I   AAAAA  U   U
    S  H   H    I   A   A  U   U
SSSS   H   H   III  A   A  UUUUU
```

```
  SSSSSSSS  TTTTTTTTTT   OOOOOO   RRRRRRRR                TTTTTTTTTT  YY      YY  PPPPPPPP
  SSSSSSSS  TTTTTTTTTT   OOOOOO   RRRRRRRR                TTTTTTTTTT  YY      YY  PPPPPPPP
SS              TT      OO    OO  RR     RR                  TT      YY      YY  PP      PP
SS              TT      OO    OO  RR     RR                  TT      YY      YY  PP      PP
SS              TT      OO    OO  RR     RR                  TT        YY  YY    PP      PP
SS              TT      OO    OO  RR     RR                  TT        YY  YY    PP      PP
  SSSSSS        TT      OO    OO  RRRRRRRR                    TT          YY      PPPPPPPP
  SSSSSS        TT      OO    OO  RRRRRRRR                    TT          YY      PPPPPPPP
        SS      TT      OO    OO  RR  RR                      TT          YY      PP
        SS      TT      OO    OO  RR  RR                      TT          YY      PP
        SS      TT      OO    OO  RR    RR                    TT          YY      PP
        SS      TT      OO    OO  RR    RR                    TT          YY      PP
SSSSSSSS        TT        OOOOOO   RR     RR  ________        TT          YY      PP
SSSSSSSS        TT        OOOOOO   RR     RR  ________        TT          YY      PP
```

```
                          OOOOOO   UU     UU  TTTTTTTTTT     ;;;;     222222
                          OOOOOO   UU     UU  TTTTTTTTTT     ;;;;     222222
                        OO    OO  UU     UU     TT         ;;;;   22      22
                        OO    OO  UU     UU     TT         ;;;;   22      22
                        OO    OO  UU     UU     TT                        22
                        OO    OO  UU     UU     TT                        22
                        OO    OO  UU     UU     TT         ;;;;         22
                        OO    OO  UU     UU     TT         ;;;;         22
                        OO    OO  UU     UU     TT         ;;;;       22
                        OO    OO  UU     UU     TT         ;;;;       22
                  ....  OO    OO  UU     UU     TT           ;;     22
                  ....  OO    OO  UU     UU     TT           ;;     22
                  ....    OOOOOO   UUUUUUUUUU     TT         ;;     2222222222
                  ....    OOOOOO   UUUUUUUUUU     TT         ;;     2222222222
```

File _DUA1:[USERS.E124034.ENGR]STOR_TYP.OUT;2 (3197,53,0), last revised on 11-MAY-1990 16:57, is a 37 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with FORTRAN (FTN) carriage control. The longest record is 107 bytes.

Job STOR_TYP (1436) queued to SYS$PRINT on 11-MAY-1990 16:58 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 17:00 from queue SYS$PRINT.

PROGRAM DAMBRK---VERSION--6/20/86-3

Input file name : STOR_TYP.DAT

11-MAY-90 16:56:21

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

TYPICAL GUADALUPE DA

ON

M AT SOUTH MOUNTAIN

ANALYSIS BY

-- RESERVOIR DYNAMIC ROUTING (OPTION 8)
BREINER, INC. 7310 N 16TH STREET, SUIT
E 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W32, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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*****************************
*****************************
***                       ***
***  SUMMARY OF INPUT DATA  ***
***                       ***
*****************************
*****************************
```

INPUT CONTROL PARAMETERS FOR TYPIDAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	9
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	60
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 1 0 1 0 0 0

DHF(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.06 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE)= 3.6000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO TYPICAL GUADALUPE DA
****

251.00	937.00	2849.00	7482.00	10473.00	11751.00	10136.00	9518.00
8530.00	7774.00	7006.00	6446.00	5779.00	5201.00	4672.00	4188.00
3701.00	3189.00	2888.00	2585.00	2287.00	2151.00	1943.00	1760.00
1601.00	1464.00	1337.00	1230.00	1132.00	1046.00	967.00	896.00
830.00	773.00	720.00	671.00	625.00	585.00	548.00	512.00
481.00	452.00	423.00	397.00	374.00	351.00	333.00	310.00
291.00	272.00	255.00	240.00	225.00	211.00	197.00	185.00
174.00	162.00	151.00	149.00				

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	0.0600	0.1200	0.1800	0.2400	0.3000	0.3600	0.4200
0.4800	0.5400	0.6000	0.6600	0.7200	0.7800	0.8400	0.9000
0.9600	1.0200	1.0800	1.1400	1.2000	1.2600	1.3200	1.3800
1.4400	1.5000	1.5600	1.6200	1.6800	1.7400	1.8000	1.8600
1.9200	1.9800	2.0400	2.1000	2.1600	2.2200	2.2800	2.3400
2.4000	2.4600	2.5200	2.5800	2.6400	2.7000	2.7600	2.8200
2.8800	2.9400	3.0000	3.0600	3.1200	3.1800	3.2400	3.3000
3.3600	3.4200	3.4800	3.5400				

CROSS-SECTIONAL PARAMETERS FOR M AT SMITH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	9
MAXIMUM NUMBER OF TOP WIDTHS	NCS	6
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.005	0.000
2	0.019	0.000
3	0.032	0.000
4	0.029	0.000
5	0.020	0.000
6	0.013	0.000
7	0.020	0.000
8	0.020	0.000

DOWNSTREAM FLOW PARAMETERS FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.004 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.005 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.019 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.013 DUE TO EXP/CONTRACT CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.005 0.019 0.032 0.029 0.020 0.013 0.020 0.020

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 78 (MAXIMUM ALLOWABLE = 200

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*****************************************
*****************************************
***                                   ***
***  SUMMARY OF OUTPUT DATA           ***
***                                   ***
*****************************************
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INITIAL CONDITIONS

INITIAL CONDITIONS

(QI(I),I=1,N)

251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.	251.	251.
251.	251.	251.	251.	251.	251.		

(YI(I),I=1,N)

1254.48	1254.02	1253.56	1253.10	1252.64	1252.18	1251.71	1251.26
1250.80	1250.35	1249.89	1249.44	1248.98	1248.52	1248.07	1247.61
1247.15	1246.67	1246.22	1245.73	1245.25	1243.57	1241.93	1240.32
1238.71	1237.11	1235.52	1232.46	1229.41	1226.39	1223.36	1221.54
1219.70	1217.86	1216.02	1214.17	1212.34	1211.34	1210.32	1209.33

1208.32	1207.32	1206.32	1205.31	1204.32	1203.30	1202.45	1201.62
1200.76	1199.93	1199.06	1198.20	1197.36	1196.55	1195.79	1194.97
1194.02	1193.11	1192.36	1191.54	1190.72	1189.92	1189.12	1188.13
1187.44	1186.63	1185.75	1184.92	1184.09	1183.26	1182.42	1181.61
1181.23	1180.65	1180.06	1179.47	1178.69	1178.32		

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.300
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TFO	0.000
TIME TO PEAK	HR	TP	0.300
TIME STEP SIZE	HR	DTHI	0.015

ROUTING COMPLETED.

KTIME= 150 ALLOWABLE KTIME= 699 TT= 3.6

PROFILE OF PEAKS AND TIMES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GLACIALFE DA

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.017	1257.48	11731	0.285	17.53	0.00	0.00
0.022	1257.02	11748	0.300	17.42	0.00	0.00
0.027	1256.57	11750	0.300	17.35	0.00	0.00
0.032	1256.12	11745	0.300	17.29	0.00	0.00
0.037	1255.65	11738	0.300	17.23	0.00	0.00
0.042	1255.18	11729	0.300	17.18	0.00	0.00
0.047	1254.70	11720	0.300	17.12	0.00	0.00
0.052	1254.22	11712	0.300	17.06	0.00	0.00
0.057	1253.73	11704	0.300	16.99	0.00	0.00
0.062	1253.24	11695	0.300	16.92	0.00	0.00
0.067	1252.74	11688	0.300	16.85	0.00	0.00
0.072	1252.24	11680	0.300	16.77	0.00	0.00
0.077	1251.73	11672	0.300	16.69	0.00	0.00
0.082	1251.22	11666	0.300	16.60	0.00	0.00
0.087	1250.70	11658	0.300	16.52	0.00	0.00
0.092	1250.18	11651	0.300	16.43	0.00	0.00
0.097	1249.65	11644	0.300	16.34	0.00	0.00
0.102	1249.12	11638	0.300	16.25	0.00	0.00
0.107	1248.58	11631	0.300	16.17	0.00	0.00
0.112	1248.04	11624	0.300	16.08	0.00	0.00
0.117	1247.49	11617	0.300	15.99	0.00	0.00
0.137	1245.68	11589	0.300	15.19	0.00	0.00
0.157	1243.90	11568	0.315	14.54	0.00	0.00
0.176	1242.17	11602	0.315	13.95	0.00	0.00
0.196	1240.47	11609	0.315	13.41	0.00	0.00
0.215	1238.80	11611	0.315	12.92	0.00	0.00
0.235	1237.14	11603	0.315	12.48	0.00	0.00
0.273	1233.84	11588	0.315	11.37	0.00	0.00
0.312	1230.71	11550	0.315	9.97	0.00	0.00
0.350	1227.58	11540	0.330	9.32	0.00	0.00
0.388	1224.48	11547	0.330	8.79	0.00	0.00
0.419	1222.73	11530	0.330	7.57	0.00	0.00
0.449	1220.81	11494	0.330	7.75	0.00	0.00
0.479	1218.97	11489	0.345	7.39	0.00	0.00
0.509	1217.09	11492	0.345	7.32	0.00	0.00
0.540	1215.24	11477	0.345	7.13	0.00	0.00
0.570	1213.37	11446	0.345	7.01	0.00	0.00
0.590	1212.46	11443	0.360	6.91	0.00	0.00
0.610	1211.42	11448	0.360	6.82	0.00	0.00
0.630	1210.44	11442	0.360	6.45	0.00	0.00
0.650	1209.42	11429	0.360	6.48	0.00	0.00
0.671	1208.42	11403	0.360	6.39	0.00	0.00
0.691	1207.41	11403	0.375	6.36	0.00	0.00
0.711	1206.39	11408	0.375	6.34	0.00	0.00
0.731	1205.36	11406	0.375	6.31	0.00	0.00
0.751	1204.32	11397	0.375	6.26	0.00	0.00
0.764	1203.45	11386	0.375	6.85	0.00	0.00

0.777	1203.65	11373	0.375	0.79	0.00	0.00

PROFILE OF CRESTS AND TIMES FOR % AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.790	1201.83	11371	0.390	6.91	0.00	0.00
0.803	1201.02	11376	0.390	7.00	0.00	0.00
0.816	1200.21	11378	0.390	7.10	0.00	0.00
0.829	1199.41	11378	0.390	7.20	0.00	0.00
0.842	1198.60	11374	0.390	7.30	0.00	0.00
0.855	1197.81	11367	0.390	7.39	0.00	0.00
0.868	1197.02	11358	0.390	7.48	0.00	0.00
0.881	1196.23	11346	0.390	7.56	0.00	0.00
0.894	1195.46	11342	0.405	7.63	0.00	0.00
0.907	1194.70	11347	0.405	7.69	0.00	0.00
0.920	1193.94	11349	0.405	7.73	0.00	0.00
0.933	1193.20	11347	0.405	7.75	0.00	0.00
0.946	1192.46	11343	0.405	7.76	0.00	0.00
0.959	1191.74	11336	0.405	7.74	0.00	0.00
0.972	1191.03	11327	0.405	7.69	0.00	0.00
0.992	1190.32	11310	0.420	6.67	0.00	0.00
1.013	1189.42	11315	0.420	6.93	0.00	0.00
1.034	1188.58	11310	0.420	6.80	0.00	0.00
1.055	1187.73	11294	0.420	6.83	0.00	0.00
1.076	1186.88	11272	0.435	6.81	0.00	0.00
1.097	1186.04	11278	0.435	6.82	0.00	0.00
1.117	1185.19	11270	0.435	6.83	0.00	0.00
1.138	1184.35	11256	0.435	6.85	0.00	0.00
1.160	1184.00	11224	0.450	5.45	0.00	0.00
1.182	1183.15	11226	0.450	6.52	0.00	0.00
1.204	1182.74	11209	0.465	5.54	0.00	0.00
1.225	1181.94	11179	0.450	6.54	0.00	0.00
1.247	1181.49	11179	0.480	5.55	0.00	0.00
1.269	1180.72	11170	0.465	7.99	0.00	0.00
1.291	1180.27	11144	0.480	5.61	0.00	0.00

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File _DUA1:[USERS.E124034.ENGR]DYN_RES_ROUT.DAT;3 (5070,38,0), last revised on 11-MAY-1990 16:59, is a 19 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with implied (CR) carriage control. The longest record is 80 bytes.

Job DYN_RES_ROUT (1427) queued to SYS$PRINT on 11-MAY-1990 17:05 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 17:05 from queue SYS$PRINT.

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TYPICAL GUADALUPE DAM AT SOUTH MOUNTAIN -- RESERVOIR DYNAMIC ROUTING (OPTION 5.
GREINER, INC. 7310 N 16TH STREET, SUITE 180, PHOENIX, ARIZONA 85020

2	1	0	5	0	0	0	0
1100001010							
0	1258.0	0.	1250.	30.0	0.3	1250.	0.0
1274.0	1281.	1274.	0.0	0.0	0.0	3.	100.0
0.	303.	1110.	2350.	3900.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
0.	6.6	1.	0	0	0	0	
0.	1425.	4856.	6039.	4956.	1475.	731.	72.
0.0	2.13	2.53	2.80	3.07	3.87	4.60	6.00
9	6	0	1	0	0	0	0
0.0833							
1257.	1272.	1274.6	1275.3	1278.8	1279.6	1280.	1280.1
55.	110.	135.	156.	185.	190.	263.	264.
0.	110.	246.	362.	475.	506.	504.	505.
0.1401							
1256.	1265.	1267.5	1272.	1272.05	1275.	1275.05	1278.
55.	110.	135.	135.	135.	135.	135.	135.
75.	138.	160.	304	421.	501.	501.	520.
0.1742							
1255.	1258.	1259.0	1259.05	1260.5	1263.	1266.2	1278.
55.	110.	120.	130.	135.	135.	135.	135.
84.	140.	170.	240.	353.	415.	472.	510.
0.2235							
1254.0	1254.05	1255.0	1257.	1264.	1267.5	1270.2	1278.2
55.	55.	73.33	110.	135.	135	135.	135.
0.	390.	398.	407.33	440.	502.	515.	542.
0.2614							
1253.0	1256.0	1258.5	1262.	1264.	1266.	1267.	1278.
55.	110.	135.	135.	135.	135.	135.	135.
0.	540.	544.17	550.	602.	626.	635.	685.
0.2879							
1252.	1254.	1262.0	1262.05	1268.	1271.	1272.	1278.05
55.	91.67	135.	135.	135.	135.	135.	135.
0.	600.6	632.	650.	695.	712.	750.	750.
0.3144							
1251.	1254.	1256.5	1265.	1265.05	1266.	1266.05	1278.
55.	110.	135.	135.	135.	135.	135.	135.
0.	103.83	190.36	424.54	520.	580.	645.	712.
0.3485							
1250.5	1254.	1254.05	1256.	1259.	1260.	1272.6	1278.
55.	110.	110.	135.	135.	135.	135.	135.
0.	98.13	256.	280.8	318.	361.	463.	530.
0.3788							
1250.	1253.	1255.	1258.	1261.	1268.	1272.	1278.05
55.	110.	135.	135.	135.	135.	135.	135.
0.	39.	65.	142.	282.	339.	363.	363.
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.006	0.000	0.010	0.005	0.004	0.005	0.001	0.003
0.	0.	0.	0.	0.	0.	0.	0.
0.0	0.0	0.0	1258.	57.	0.0	0.0	0.0
0.0	65.0	0.025					

15	8	0	4	0	1	0	0
0.0227							
1250.	1251.	1252.	1254.	1255.	1256.	1257.	1258.
0.	40.	130.	170.	210.	250.	300.	300.
0.	0.	0.	0.	0.	0.	0.	0.
0.1080							
1246.	1248.3	1248.8	1250.	1250.1	1250.4	1261.	1271.
0.	308.	364.	630.	844.	976.	1219.	1219.
0.	0.	0.	0.	0.	0.	0.	0.
0.2027							
1244.	1244.5	1245.2	1250.	1251.	1252.	1254.	1264.
0.	403.	548.	872.	1182.	1400.	1539.	1539.
0.	0.	0.	0.	0.	0.	0.	0.
0.3049							
1238.	1238.5	1239.	1240.	1240.1	1241.0	1241.1	1251.1
0.	240.	317.	571.	987.	1508.	1964.	1964.
0.	0.	0.	0.	0.	0.	0.	0.
0.4433							
1227.	1228.7	1229.2	1230.	1230.3	1231.4	1232.1	1242.1
0.	1001.	1285.	1719.	1898.	2004.	2163.	2163.
0.	0.	0.	0.	0.	0.	0.	0.
0.5322							
1220.2	1221.	1222.	1223.	1223.	1224.1	1226.	1236.
0.	280.	861.	1610.	1928.	2071.	2393.	2393.
0.	0.	0.	0.	0.	0.	0.	0.
0.6268							
1216.	1216.2	1217.5	1218.	1218.5	1219.9	1222.	1232.
38.	105.	303.	1502.	2067.	2473.	2855.	2855.
0.	0.	0.	0.	0.	0.	0.	0.
0.7727							
1208.	1208.4	1208.6	1209.2	1210.	1210.5	1211.	1221.
0.	211.	393.	556.	1373.	1966.	2678.	2678.
0.	0.	0.	0.	0.	0.	0.	0.
0.9053							
1202.	1202.2	1203.	1203.5	1203.6	1204.	1204.1	1214.
0.	222.	602.	1996.	2369.	3809.	3965.	3965.
0.	0.	0.	0.	0.	0.	0.	0.
1.0303							
1193.5	1194.	1195.	1195.5	1196.	1196.5	1197.	1207.
0.	220.	990.	1309.	2025.	4176.	4176.	4176.
0.	0.	0.	0.	0.	0.	0.	0.
1.1383							
1186.	1188.	1188.5	1189.	1189.8	1192.	1193.	1203.
0.	730.	1320.	2386.	3215.	3458.	3458.	3458.
0.	0.	0.	0.	0.	0.	0.	0.
1.2689							
1183.	1183.5	1184.	1184.5	1185.4	1186.5	1188.	1198.
0.	930.	2293.	2548.	2775.	3230.	3360.	3360.
0.	0.	0.	0.	0.	0.	0.	0.
1.4205							
1179.5	1180.	1180.5	1181.	1182.	1183.	1184.	1194.
0.	129.	2270.	3480.	4555.	4555.	4555.	4555.
0.	0.	0.	0.	0.	0.	0.	0.
1.5739							
1173.8	1174.	1176.	1178.	1179.	1180.	1181.	1191.
0.	650.	2156.	2564.	2564.	2564.	2564.	2564.
0.	0.	0.	0.	0.	0.	0.	0.
1.7898							
1171.9	1172.	1174.	1176.	1177.	1178.	1179.	1189.
0.	226.	2737.	4979.	4979.	4979.	4979.	4979.

0.	0.	0.	0.	0.	0.	0.	0.
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
.0853	.0947	.1022	.1385	.0990	.0966	.1439	.1326
.1250	.1080	.1306	.1516	.1534	.2159		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	85.	0.0	0.0	0.0

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File _DUA1:[USERS.B124034.ENGR]DYN_RES_ROUT.OUT;3 (1034,34,0), last revised on 11-MAY-1990 17:04, is a 166 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with FORTRAN (FTN) carriage control. The longest record is 122 bytes.

Job DYN_RES_ROUT (1428) queued to SYS$PRINT on 11-MAY-1990 17:05 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _JP40: on 11-MAY-1990 17:06 from queue SYS$PRINT.

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PROGRAM DAMBRK---VERSION--5/20/88-3

Input file name : DYN_RES_ROUT.DAT

11-MAY-90 17:00:00

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

TYPICAL GUADALUPE DA

ON

M A1 SOUTH MOUNTAIN

ANALYSIS BY

-- RESERVOIR DYNAMIC ROUTING (OPTION 5)
BREINER, INC. 7310 N 16TH STREET, SUIT
E 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, Ph.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W23, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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*******************************
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***                         ***
***  SUMMARY OF INPUT DATA  ***
***                         ***
*******************************
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INPUT CONTROL PARAMETERS FOR TYPICAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	2
TYPE OF RESERVOIR ROUTING	KUI	1
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 1 0 1 0 0 0

TYPICAL GUADALUPE DA RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	RLM	0.00
ELEVATION OF WATER SURFACE	FEET	YO	1258.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1250.00
WIDTH OF BASE OF BREACH	FEET	BB	30.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TBH	0.30
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1250.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HF	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1281.00
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	3.00
DISCHARGE THRU TURBINES	CFS	QT	100.00

QSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHE(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEM(TIME AT WHICH COMPUTATIONS TERMINATE)= 6.6000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO TYPICAL GUADALUPE DA
****

0.00	1425.00	4856.00	1039.00	4956.00	1475.00	731.00	72.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5300	2.8000	3.0700	3.8700	4.6000	6.6000

CROSS-SECTIONAL PARAMETERS FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	9
MAXIMUM NUMBER OF TOP WIDTHS	NCS	8
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	0
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR W AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.006	0.000
2	0.000	0.000
3	0.010	0.000
4	0.005	0.000
5	0.004	0.000
6	0.005	0.000
7	0.001	0.000
8	0.003	0.000

DOWNSTREAM FLOW PARAMETERS FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YON	1258.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	57.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 2 DXM WAS CHANGED TO 0.015 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.001 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.001 DUE TO EXP/CONTRACT CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.006 0.015 0.010 0.005 0.004 0.005 0.001 0.003

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 78 (MAXIMUM ALLOWABLE = 200

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***                           ***
***  SUMMARY OF OUTPUT DATA   ***
***                           ***
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INITIAL CONDITIONS FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE	VALUE
CRITICAL DEPTH OF UPSTREAM BOUNDARY	FEET	UPSH	0.00
SLOPE OF DOWNSTREAM CHANNEL	FPM	SOM	65.0000
AVE MANNING'S N FOR DOWNSTREAM CHANNEL		CMN	0.0250

INITIAL CONDITIONS

INITIAL CONDITIONS

(QDI(I),I=1,N)

0.	1.	3.	4.	5.	6.	8.	9.
10.	12.	13.	14.	16.	17.	18.	19.
21.	22.	23.	25.	26.	27.	29.	30.
31.	32.	34.	35.	36.	38.	39.	40.
42.	43.	44.	46.	47.	48.	49.	51.

52.	53.	55.	56.	57.	58.	60.	61.
62.	64.	65.	66.	68.	69.	70.	71.
73.	74.	75.	77.	78.	79.	81.	82.
83.	84.	86.	87.	88.	90.	91.	92.
94.	95.	96.	97.	99.	100.		

(YI(I),I=1,N)

1258.01	1258.01	1258.01	1258.01	1258.01	1258.01	1258.01	1258.01
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00	1258.00
1258.00	1258.00	1258.00	1258.00	1258.00	1258.00		

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.300
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TFO	6.600
TIME TO PEAK	HR	TP	3.800
TIME STEP SIZE	HR	DTHI	0.015

ROUTING COMPLETED.

KTIME= 283 ALLOWABLE KTIME= 699 TT= 6.6

PROFILE OF CRESTS AND TIMES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	BLOCK ELEV FEET	TIME BLOCK ELEV-HRS
********	********	********	********	********	**********	**********
0.083	1276.50	5024	2.962	6.42	0.00	0.00
0.090	1276.51	5945	2.962	6.39	0.00	0.00
0.096	1276.52	5852	2.947	6.37	0.00	0.00
0.102	1276.52	5756	2.947	6.35	0.00	0.00
0.109	1276.53	5658	2.947	6.34	0.00	0.00
0.115	1276.53	5584	2.947	6.34	0.00	0.00
0.121	1276.53	5721	2.947	6.37	0.00	0.00
0.127	1276.53	5866	2.947	6.42	0.00	0.00
0.134	1276.54	6020	2.947	6.54	0.00	0.00
0.140	1276.54	6175	2.947	7.34	0.00	0.00
0.157	1276.55	6597	2.947	7.66	0.00	0.00
0.174	1276.55	7017	2.947	4.76	0.00	0.00
0.187	1276.55	7318	2.947	4.73	0.00	0.00
0.199	1276.55	7621	2.947	4.73	0.00	0.00
0.211	1276.54	7922	2.947	4.84	0.00	0.00
0.224	1276.54	8222	2.947	5.00	0.00	0.00
0.229	1276.54	8354	2.947	5.22	0.00	0.00
0.234	1276.54	8489	2.947	5.22	0.00	0.00
0.240	1276.53	8625	2.947	5.12	0.00	0.00
0.245	1276.53	8764	2.947	5.08	0.00	0.00
0.251	1276.53	8903	2.947	5.12	0.00	0.00
0.256	1276.53	9043	2.947	5.18	0.00	0.00
0.261	1276.53	9184	2.947	5.66	0.00	0.00
0.266	1276.53	9305	2.947	5.59	0.00	0.00
0.270	1276.53	9441	2.947	5.51	0.00	0.00
0.275	1276.52	9579	2.947	5.42	0.00	0.00
0.279	1276.52	9717	2.947	5.32	0.00	0.00
0.283	1276.52	9858	2.947	5.20	0.00	0.00
0.288	1276.51	10000	2.947	5.06	0.00	0.00
0.293	1276.51	10168	2.947	4.81	0.00	0.00
0.299	1276.51	10332	2.947	4.43	0.00	0.00
0.304	1276.51	10491	2.947	3.94	0.00	0.00
0.309	1276.51	10644	2.947	3.57	0.00	0.00
0.314	1276.51	10792	2.947	3.57	0.00	0.00
0.315	1276.50	10820	2.947	3.58	0.00	0.00
0.316	1276.50	10847	2.947	3.59	0.00	0.00
0.317	1276.50	10873	2.947	3.60	0.00	0.00
0.318	1276.50	10900	2.947	3.61	0.00	0.00
0.319	1276.50	10926	2.947	3.62	0.00	0.00
0.320	1276.50	10951	2.947	3.63	0.00	0.00
0.321	1276.50	10977	2.947	3.64	0.00	0.00
0.322	1276.50	11002	2.947	3.65	0.00	0.00
0.323	1276.50	11026	2.947	3.66	0.00	0.00
0.324	1276.50	11051	2.947	3.67	0.00	0.00
0.325	1276.50	11075	2.947	3.68	0.00	0.00
0.326	1276.50	11098	2.947	3.69	0.00	0.00
0.327	1276.50	11121	2.947	3.69	0.00	0.00

0.329	1276.50	11144	2.947	3.70	0.00	0.00

PROFILE OF CRESTS AND TIMES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.329	1276.49	11167	2.947	3.71	0.00	0.00
0.330	1276.49	11189	2.947	3.71	0.00	0.00
0.331	1276.49	11211	2.947	3.72	0.00	0.00
0.332	1276.49	11232	2.947	3.72	0.00	0.00
0.333	1276.49	11253	2.947	3.73	0.00	0.00
0.334	1276.49	11274	2.947	3.73	0.00	0.00
0.335	1276.49	11294	2.947	3.74	0.00	0.00
0.336	1276.49	11314	2.947	3.74	0.00	0.00
0.337	1276.49	11333	2.947	3.75	0.00	0.00
0.338	1276.49	11353	2.947	3.75	0.00	0.00
0.339	1276.49	11371	2.947	3.75	0.00	0.00
0.340	1276.49	11390	2.947	3.76	0.00	0.00
0.341	1276.49	11408	2.947	3.76	0.00	0.00
0.342	1276.49	11425	2.947	3.76	0.00	0.00
0.343	1276.48	11442	2.947	3.76	0.00	0.00
0.344	1276.48	11459	2.947	3.76	0.00	0.00
0.345	1276.48	11476	2.947	3.76	0.00	0.00
0.346	1276.48	11492	2.947	3.76	0.00	0.00
0.347	1276.48	11507	2.947	3.76	0.00	0.00
0.348	1276.48	11522	2.947	3.76	0.00	0.00
0.352	1276.48	11566	2.947	3.77	0.00	0.00
0.355	1276.48	11607	2.947	3.77	0.00	0.00
0.358	1276.48	11644	2.947	3.78	0.00	0.00
0.361	1276.47	11679	2.947	3.78	0.00	0.00
0.364	1276.47	11710	2.947	3.78	0.00	0.00
0.367	1276.47	11788	2.947	3.77	0.00	0.00
0.370	1276.47	11856	2.947	3.77	0.00	0.00
0.373	1276.46	11923	2.932	3.77	0.00	0.00
0.376	1276.46	11988	2.932	3.77	0.00	0.00
0.379	1276.46	12052	2.932	3.78	0.00	0.00

CROSS-SECTIONAL PARAMETERS FOR [illegible] MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	15
MAXIMUM NUMBER OF TOP WIDTHS	NCS	8
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	INK	4
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR M AT SOUTH MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.085	0.000
2	0.095	0.000
3	0.102	0.000
4	0.139	0.000
5	0.089	0.000
6	0.097	0.000
7	0.144	0.000
8	0.133	0.000
9	0.125	0.000
10	0.109	0.000
11	0.131	0.000
12	0.152	0.000
13	0.153	0.000
14	0.216	0.000

DOWNSTREAM FLOW PARAMETERS FOR M AT COLD MOUNTAIN
BELOW TYPICAL GUADALUPE DA

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.003 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.014 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.010 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.005 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.006 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.007 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.014 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.027 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.042 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 10 DXM SHOULD BE CHANGED TO 0.004 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 11 DXM SHOULD BE CHANGED TO 0.026 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 12 DXM SHOULD BE CHANGED TO 0.012 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 13 DXM SHOULD BE CHANGED TO 0.019 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 14 DXM SHOULD BE CHANGED TO 0.022 DUE TO EXP/CONTRACT CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING SKM VALUES

0.035	0.075	0.102	0.139	0.039	0.059	0.144	0.133	0.125	0.106	0.131	0.162	0.165	0.216

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 15 (MAXIMUM ALLOWABLE = 200

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*************************************
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***                               ***
***  SUMMARY OF OUTPUT DATA       ***
***                               ***
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SNC(K,1)= 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

INITIAL CONDITIONS

I=	1	X=	0.023	YN=	1251.29	DEPN=	1.29	YC=	1251.09	DEPC=	1.09	IER=	1	ITN=	11	ITC=	11
I=	2	X=	0.108	YN=	1248.34	DEPN=	0.34	YC=	1248.30	DEPC=	0.30	IER=	1	ITN=	11	ITC=	11
I=	3	X=	0.203	YN=	1244.36	DEPN=	0.36	YC=	1244.32	DEPC=	0.32	IER=	1	ITN=	10	ITC=	10
I=	4	X=	0.305	YN=	1238.40	DEPN=	0.40	YC=	1238.40	DEPC=	0.40	IER=	1	ITN=	10	ITC=	10
I=	5	X=	0.443	YN=	1227.38	DEPN=	0.38	YC=	1227.38	DEPC=	0.38	IER=	1	ITN=	10	ITC=	10
I=	6	X=	0.532	YN=	1220.72	DEPN=	0.52	YC=	1220.66	DEPC=	0.46	IER=	1	ITN=	10	ITC=	10
I=	7	X=	0.629	YN=	1216.40	DEPN=	0.40	YC=	1216.37	DEPC=	0.37	IER=	1	ITN=	10	ITC=	10
I=	8	X=	0.773	YN=	1208.44	DEPN=	0.44	YC=	1208.39	DEPC=	0.39	IER=	1	ITN=	10	ITC=	10
I=	9	X=	0.905	YN=	1202.30	DEPN=	0.30	YC=	1202.29	DEPC=	0.29	IER=	1	ITN=	10	ITC=	10
I=	10	X=	1.030	YN=	1193.93	DEPN=	0.43	YC=	1193.92	DEPC=	0.42	IER=	1	ITN=	10	ITC=	10
I=	11	X=	1.138	YN=	1186.57	DEPN=	0.57	YC=	1186.46	DEPC=	0.46	IER=	1	ITN=	10	ITC=	10
I=	12	X=	1.269	YN=	1183.31	DEPN=	0.31	YC=	1183.24	DEPC=	0.24	IER=	1	ITN=	10	ITC=	10
I=	13	X=	1.421	YN=	1180.13	DEPN=	0.63	YC=	1180.07	DEPC=	0.57	IER=	1	ITN=	10	ITC=	10
I=	14	X=	1.574	YN=	1174.09	DEPN=	0.29	YC=	1173.99	DEPC=	0.19	IER=	1	ITN=	10	ITC=	10
I=	15	X=	1.790	YN=	1172.28	DEPN=	0.38	YC=	1172.18	DEPC=	0.28	IER=	1	ITN=	10	ITC=	10

(IER(I),I=1,N)

```
1   1   1   1   1   1   1   1   1   1
1   1   1   1   1
```

I=	2	X=	0.108	QIR=	100.	YIR=	1248.29	DEP=	0.29	ITD=	4
I=	3	X=	0.203	QIR=	100.	YIR=	1244.32	DEP=	0.32	ITD=	5
I=	4	X=	0.305	QIR=	100.	YIR=	1238.40	DEP=	0.40	ITD=	5
I=	5	X=	0.443	QIR=	100.	YIR=	1227.37	DEP=	0.37	ITD=	5
I=	6	X=	0.532	QIR=	100.	YIR=	1220.65	DEP=	0.45	ITD=	5
I=	7	X=	0.629	QIR=	100.	YIR=	1216.36	DEP=	0.36	ITD=	5
I=	8	X=	0.773	QIR=	100.	YIR=	1208.38	DEP=	0.38	ITD=	5
I=	9	X=	0.905	QIR=	100.	YIR=	1202.28	DEP=	0.28	ITD=	4
I=	10	X=	1.030	QIR=	100.	YIR=	1193.91	DEP=	0.41	ITD=	5
I=	11	X=	1.138	QIR=	100.	YIR=	1186.45	DEP=	0.45	ITD=	5
I=	12	X=	1.269	QIR=	100.	YIR=	1183.23	DEP=	0.23	ITD=	4
I=	13	X=	1.421	QIR=	100.	YIR=	1180.06	DEP=	0.56	ITD=	5

```
I=   14    X=   1.574    GIR=      100.    YIR=   [illegible]    DEP=      0.19    ITD=    4
I=   15    X=   1.790    GIR=      100.    YIR=   1172.12    DEP=      0.22    ITD=    4
```

INITIAL CONDITIONS

```
(QBI(I),I=1,N)
  100.     100.     100.     100.     100.     100.     100.     100.
  100.     100.     100.     100.     100.     100.     100.

(YI(I),I=1,N)
1251.29  1248.29  1244.32  1238.40  1227.37  1220.65  1216.36  1208.38
1202.28  1193.91  1186.45  1183.23  1180.06  1173.99  1172.12
```

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.300
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TTO	1.752
TIME TO PEAK	HR	TP	3.052
TIME STEP SIZE	HR	DTHI	0.015

```
TT =   0.0000          DTH =  0.0150          ITMX =   1
QU(1) =     100.00     YU(1) =    1251.29  QU(N) =     100.00  YU(N) =    1172.12
FRDM=    1.09  IIFR=    3  FRM=0.66 IIFM=    1

TT =   0.0000          DTH =  0.0150          ITMX =   3
QU(1) =     100.00     YU(1) =    1251.29  QU(N) =     100.00  YU(N) =    1172.12
FRDM=    1.09  IIFR=    3  FRM=0.56 IIFM=   14

TT =   0.0000          DTH =  0.0150          ITMX =   5
QU(1) =     100.00     YU(1) =    1251.29  QU(N) =     100.00  YU(N) =    1172.24
FRDM=    1.38  IIFR=    5  FRM=0.39 IIFM=   15

TT =   0.1526          DTH =  0.1526          ITMX =   4
QU(1) =     100.00     YU(1) =    1251.29  QU(N) =     100.00  YU(N) =    1172.61
FRDM=    1.38  IIFR=    5  FRM=0.07 IIFM=   15

TT =   0.3052          DTH =  0.1526          ITMX =   6
QU(1) =     100.00     YU(1) =    1251.29  QU(N) =     329.88  YU(N) =    1172.43
FRDM=    1.38  IIFR=    5  FRM=0.47 IIFM=   15

TT =   0.4577          DTH =  0.1526          ITMX =   6
QU(1) =     100.00     YU(1) =    1251.29  QU(N) =     329.88  YU(N) =    1172.71
FRDM=    1.38  IIFR=    5  FRM=0.13 IIFM=   15
```

```
TT =   3.9011          DTH =  0.0370          ITMX =   3
QU(1) =    3817.49     YU(1) =    1254.24  QU(N) =  252610.44  YU(N) =    1172.33
FRDM=  495.72  IIFR=   15  FRM=0.51 IIFM=   13


TT =   3.9857          DTH =  0.0842          ITMX =   9
QU(1) =    3380.62     YU(1) =    1254.06  QU(N) =  252610.44  YU(N) =    1172.33
FRDM=  495.72  IIFR=   15  FRM=0.51 IIFM=   13


PROGRAM TERMINATED BECAUSE NONCONVERGENCE LIMITATIONS HAVE BEEN EXCEEDED.
```

```
 SSSS  H   H   III   AAA   U   U
S      H   H    I   A   A  U   U
S      H   H    I   A   A  U   U
 SSS   HHHHH    I   A   A  U   U
    S  H   H    I   AAAAA  U   U
    S  H   H    I   A   A  U   U
SSSS   H   H   III  A   A  UUUUU

 SSSS  TTTTT   OOO   RRRR        RRRR   EEEEE   SSSS        RRRR   OOO   U   U  TTTTT
S        T    O   O  R   R       R   R  E      S            R   R  O   O  U   U    T
S        T    O   O  R   R       R   R  E      S            R   R  O   O  U   U    T
 SSS     T    O   O  RRRR        RRRR   EEEE    SSS         RRRR   O   O  U   U    T
    S    T    O   O  R R         R R    E         S         R R    O   O  U   U    T
    S    T    O   O  R  R        R  R   E         S         R  R   O   O  U   U    T
SSSS     T     OOO   R   R  ____ R   R  EEEEE  SSSS   ____  R   R   OOO   UUUUU    T

DDDD    AAA   TTTTT   ;;    333
D   D  A   A    T     ;;   3   3
D   D  A   A    T             3
D   D  A   A    T     ;;     3
D   D  AAAAA    T     ;;      3
D   D  A   A    T      ;   3   3
DDDD   A   A    T      ;    333
```

File _DUA1:[USERS.E124034.ENGR]STOR_RES_ROUT.DAT;3 (4949,26,0), last revised on 11-MAY-1990 17:06, is a 15 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with implied (CR) carriage control. The longest record is 80 bytes.

Job STOR_RES_ROUT (1429) queued to SYS$PRINT on 11-MAY-1990 17:08 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OP40: on 11-MAY-1990 17:16 from queue SYS$PRINT.

Digital Equipment Corporation - VAX/VMS Version V4.5

GUADALUPE N-2 DAM SOUTH MOUNTAIN GREINER INC.
7310 N 16TH STREET, SUITE 160 PHOENIX, ARIZONA 85020

1	0	3	5	93	0	0	1
1110001010							
39.71	33.08	29.55	22.60	15.72	11.18	1.34	1.0
1281.	1277.	1275.	1270.	1265.	1260.	1255.	1250.
0	1258.0	0.	1250.	30.0	0.0	1250.	0.0
1274.0	1280.	1274.	0.0	0.0	0.0	-1254.	100.0
0.	303.	1110.	2250.	3500.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
.067	6.	2.	0	0	0	0	0
1.	1.	1.	2.	3.	5.	8.	11.
15.	20.	27.	37.	48.	60.	74.	89.
106.	124.	142.	161.	179.	195.	213.	228.
507.	1425.	2562.	3600.	4134.	4265.	4456.	4856.
5306.	5683.	5939.	6039.	5971.	5742.	5390.	4956.
4477.	4003.	3562.	3137.	2922.	2629.	2277.	2061.
1877.	1720.	1587.	1475.	1382.	1304.	1230.	1146.
1068.	1001.	944.	890.	837.	784.	731.	681.
633.	589.	549.	515.	486.	458.	425.	394.
368.	345.	325.	304.	284.	264.	245.	226.
206.	194.	181.	170.	158.	144.	131.	120.
110.	101.	91.	82.	72.			
15	8	0	1	0	1	0	0
0.0227							
1250.	1251.	1252.	1253.	1254.	1255.	1276.	1377.
0.	40.	90.	130.	170.	210.	250.	300.
0.	0.	0.	0.	0.	0.	0.	0.
0.1080							
1248.	1248.3	1248.8	1249.6	1250.	1260.1	1260.4	1361.
0.	308.	364.	479.	630.	844.	976.	1219.
0.	0.	0.	0.	0.	0.	0.	0.
0.2027							
1244.	1244.5	1245.2	1250.	1250.5	1251.	1252.	1354.
0.	403.	548.	672.	959.	1182.	1400.	1539.
0.	0.	0.	0.	0.	0.	0.	0.
0.3049							
1238.	1238.5	1239.	1240.	1240.1	1240.7	1241.1	1341.
0.	240.	317.	494.	950.	1108.	1228.	1514.
0.	0.	0.	0.	0.	0.	0.	0.
0.4432							
1227.	1228.	1228.7	1229.2	1230.	1230.8	1231.4	1332.1
0.	206.	323.	483.	991.	1154.	1557.	1713.
0.	0.	0.	0.	0.	0.	0.	0.
0.5332							
1220.2	1221.	1222.	1223.	1223.1	1224.	1224.1	1326.
0.	280.	861.	1610.	1928.	2038.	2071.	2393.
0.	0.	0.	0.	0.	0.	0.	0.
0.6288							
1216.	1216.2	1217.5	1218.	1218.5	1219.9	1221.	1322.
0.	58.	263.	845.	1520.	2338.	2503.	2720.
0.	0.	0.	0.	0.	0.	0.	0.
0.7727							
1208.	1209.4	1208.6	1209.2	1209.5	1210.	1210.5	1311.
0.	211.	393.	556.	698.	956.	1171.	1321.
0.	0.	0.	0.	0.	0.	0.	0.
0.9053							
1202.	1202.2	1202.5	1203.	1203.5	1203.6	1204.	1304.1
0.	223.	388.	602.	354.	1227.	1447.	1447.
0.	0.	0.	0.	0.	0.	0.	0.

1.0303							
1193.5	1194.	1195.	1195.5	1196.	1196.5	1197.	1198.
0.	220.	990.	1309.	1531.	1125.	2125.	2125.
0.	0.	0.	0.	0.	0.	0.	0.
1.1383							
1186.	1188.	1188.5	1189.	1189.5	1190.	1191.	1194.
0.	100.	200.	330.	375.	1000.	1000.	1000.
0.	0.	0.	0.	0.	0.	0.	0.
1.1583							
1183.	1183.5	1184.	1184.5	1185.	1185.4	1186.5	1188.
0.	20.	40.	50.	80.	130.	430.	560.
0.	0.	0.	0.	0.	0.	0.	0.
1.4205							
1179.5	1180.	1180.5	1181.	1182.	1183.	1184.	1185.
0.	129.	2270.	3490.	4555.	4555.	4555.	4555.
0.	0.	0.	0.	0.	0.	0.	0.
1.5739							
1173.8	1174.	1176.	1178.	1179.	1180.	1181.	1182.
0.	485.	1718.	1997.	1997.	1997.	1997.	1997.
0.	0.	0.	0.	0.	0.	0.	0.
1.7898							
1171.9	1172.	1174.	1176.	1177.	1178.	1179.	1180.
0.	226.	2737.	2974.	2974.	2974.	2974.	2974.
0.	0.	0.	0.	0.	0.	0.	0.
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
0.191	0.220	0.212	0.218	0.235	0.209	0.169	0.160
0.194	0.192	0.177	0.174	0.204	0.182		
1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0

BBBBBBBBBB 3333333333

PROGRAM DAMBRK- -VERSION- 6/30/88-3

Input file name : STOR_RES_ROUT.DAT

11-MAY-90 17:07:01

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE N-2 DAM

ON

SOUTH MOUNTAIN

ANALYSIS BY

GREINER INC.
7310 N 16TH STREET, SUITE 160
PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W23, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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***                       ***
***  SUMMARY OF INPUT DATA  ***
***                       ***
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INPUT CONTROL PARAMETERS FOR GUADALUPE N-2 DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	1
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEM	93
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN INK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 1 0 1 0 0 0

GUADALUPE N-2 DAM RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
39.7	1281.00
33.1	1277.00
29.5	1275.00
22.6	1270.00
11.0	1265.00
11.1	1260.00
6.5	1255.00
2.0	1250.00

GUADALUPE N-2 DAM RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	RLM	0.00
ELEVATION OF WATER SURFACE	FEET	YO	1258.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1250.00
WIDTH OF BASE OF BREACH	FEET	BB	30.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TFH	0.30
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1250.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HF	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1280.00
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	-1254.00
DISCHARGE THRU TURBINES	CFS	QT	100.00

QSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHF(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.07 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE)= 6.0000 HRS.

BREX(BREACH EXPONENT) = 3.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE N-2 DAM
****

1.00	1.00	1.00	2.00	3.00	5.00	8.00	11.00
15.00	20.00	27.00	37.00	48.00	60.00	74.00	89.00
106.00	124.00	142.00	161.00	179.00	196.00	213.00	228.00
507.00	1425.00	2562.00	3600.00	4164.00	4265.00	4456.00	4856.00
5306.00	5683.00	5939.00	6039.00	5971.00	5742.00	5390.00	4956.00
4477.00	4003.00	3562.00	3167.00	2823.00	2529.00	2277.00	2061.00
1877.00	1720.00	1587.00	1475.00	1382.00	1304.00	1230.00	1146.00
1068.00	1001.00	944.00	890.00	837.00	784.00	731.00	681.00
633.00	589.00	549.00	515.00	486.00	458.00	425.00	394.00
368.00	345.00	325.00	304.00	284.00	264.00	245.00	226.00
206.00	194.00	181.00	170.00	158.00	144.00	131.00	120.00
110.00	101.00	91.00	82.00	72.00			

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	0.0670	0.1340	0.2010	0.2680	0.3350	0.4020	0.4690
0.5360	0.6030	0.6700	0.7370	0.8040	0.8710	0.9380	1.0050
1.0720	1.1390	1.2060	1.2730	1.3400	1.4070	1.4740	1.5410
1.6080	1.6750	1.7420	1.8090	1.8760	1.9430	2.0100	2.0770
2.1440	2.2110	2.2780	2.3450	2.4120	2.4790	2.5460	2.6130
2.6800	2.7470	2.8140	2.8810	2.9480	3.0150	3.0820	3.1490
3.2160	3.2830	3.3500	3.4170	3.4840	3.5510	3.6180	3.6850
3.7520	3.8190	3.8860	3.9530	4.0200	4.0870	4.1540	4.2210
4.2880	4.3550	4.4220	4.4890	4.5560	4.6230	4.6900	4.7570
4.8240	4.8910	4.9580	5.0250	5.0920	5.1590	5.2260	5.2930
5.3600	5.4270	5.4940	5.5610	5.6280	5.6950	5.7620	5.8290
5.8960	5.9630	6.0300	6.0970	6.1640			

CROSS-SECTIONAL PARAMETERS FOR SOUTH MOUNTAIN
BELOW GUADALUPE N-2 DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	15
MAXIMUM NUMBER OF TOP WIDTHS	NCS	8
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR SOUTH MOUNTAIN
BELOW GUADALUPE N-2 DAM

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		FKC(I)

REACH NUMBER	DXM(I)	FKC(I)
1	0.191	1.000
2	0.220	0.000
3	0.212	0.000
4	0.218	0.000
5	0.235	0.000
6	0.209	0.000
7	0.169	0.000
8	0.160	0.000
9	0.194	0.000
10	0.192	0.000
11	0.177	0.000
12	0.174	0.000
13	0.204	0.000
14	0.182	0.000

DOWNSTREAM FLOW PARAMETERS FOR SOUTH MOUNTAIN
BELOW GUADALUPE N-2 DAM

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 14 DXM SHOULD BE CHANGED TO 0.031 DUE TO EXP/CONTRACT CRITERIA

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.115 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.132 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.127 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.131 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.141 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.124 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.098 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.093 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.114 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 10 DXM SHOULD BE CHANGED TO 0.114 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 11 DXM SHOULD BE CHANGED TO 0.105 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 12 DXM SHOULD BE CHANGED TO 0.103 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 13 DXM SHOULD BE CHANGED TO 0.122 DUE TO (WAVE SPEED * DT) CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.191	0.220	0.212	0.218	0.235	0.209	0.169	0.160	0.194	0.192	0.177	0.174	0.204	0.182

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) = 15 (MAXIMUM ALLOWABLE = 200

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*****************************************
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***                                   ***
***  SUMMARY OF OUTPUT DATA           ***
***                                   ***
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE N-2 DAM = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TT(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
DST DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUB
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		COFR

INFLOW TO RESERVOIR	CFS	QIN(I)
BREACH OUTFLOW	CFS	QBRCH
SPILLWAY OUTFLOW	CFS	QSPIL

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	[illegible]	D	SUB	VOUR	OUTVOL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
1	0	0.000	100	1256.00	1254.00	1251.08	1.00	1.00	0.0	0.0	3.10	1.	0.	100.
2	2	0.100	100	1257.51	1254.00	1251.07	1.00	1.00	0.8	0.0	4.80	1.	0.	100.
3	1	0.200	100	1257.82	1254.00	1251.07	1.00	1.00	1.7	0.0	4.80	2.	0.	100.
4	2	0.317	100	1257.72	1254.00	1251.07	1.00	1.00	2.6	0.0	4.80	4.	0.	100.
5	1	0.435	100	1257.62	1254.00	1251.07	1.00	1.00	3.6	0.0	4.80	9.	0.	100.
6	1	0.552	100	1257.52	1254.00	1251.07	1.00	1.00	4.6	0.0	4.80	16.	0.	100.
7	1	0.669	100	1257.44	1254.00	1251.07	1.00	1.00	5.5	0.0	4.80	27.	0.	100.
8	2	0.786	100	1257.38	1254.00	1251.07	1.00	1.00	6.5	0.0	4.80	45.	0.	100.
9	2	0.904	100	1257.32	1254.00	1251.07	1.00	1.00	7.5	0.0	4.80	67.	0.	100.
10	2	1.021	100	1257.29	1254.00	1251.07	1.00	1.00	8.4	0.0	4.80	93.	0.	100.
11	2	1.138	100	1257.30	1254.00	1251.07	1.00	1.00	9.4	0.0	4.80	124.	0.	100.
12	2	1.255	100	1257.35	1254.00	1251.07	1.00	1.00	10.4	0.0	4.80	156.	0.	100.
13	2	1.372	100	1257.43	1254.00	1251.07	1.00	1.00	11.3	0.0	4.80	187.	0.	100.
14	2	1.490	100	1257.54	1254.00	1251.07	1.00	1.00	12.3	0.0	4.80	217.	0.	100.
15	2	1.607	100	1257.82	1254.00	1251.07	1.00	1.00	13.3	0.0	4.80	503.	0.	100.
16	3	1.724	100	1259.10	1254.00	1251.07	1.00	1.00	14.3	0.0	4.80	2251.	0.	100.
17	3	1.841	100	1261.62	1254.00	1251.07	1.00	1.00	15.2	0.0	4.80	3874.	0.	100.
18	2	1.959	100	1264.38	1254.00	1251.07	1.00	1.00	16.2	0.0	4.80	4310.	0.	100.
19	2	2.076	100	1266.94	1254.00	1251.07	1.00	1.00	17.2	0.0	4.80	4850.	0.	100.
20	2	2.193	100	1269.39	1254.00	1251.07	1.00	1.00	18.1	0.0	4.80	5583.	0.	100.
21	2	2.310	100	1271.75	1254.00	1251.07	1.00	1.00	19.1	0.0	4.80	5988.	0.	100.
22	3	2.428	100	1273.99	1254.00	1251.07	1.00	1.00	20.1	0.0	4.80	5917.	0.	100.
23	1	2.424	100	1273.99	1253.99	1251.07	1.00	1.00	20.1	0.0	4.80	5897.	0.	100.
24	1	2.440	127	1274.09	1253.97	1251.20	1.00	1.00	20.2	0.0	4.80	5876.	0.	127.
25	1	2.446	158	1274.19	1253.93	1251.29	1.00	1.00	20.2	0.1	4.80	5856.	0.	158.
26	1	2.452	188	1274.29	1253.87	1251.38	1.00	1.00	20.3	0.2	4.80	5835.	1.	188.
27	1	2.458	219	1274.39	1253.80	1251.45	1.00	1.00	20.4	0.3	4.80	5815.	3.	217.
28	1	2.464	251	1274.48	1253.71	1251.52	1.00	1.00	20.5	0.4	4.80	5794.	5.	246.
29	1	2.470	284	1274.58	1253.61	1251.59	1.00	1.00	20.7	0.6	4.80	5774.	10.	275.
30	1	2.476	320	1274.67	1253.49	1251.66	1.00	1.00	20.8	0.8	4.80	5753.	17.	303.
31	1	2.482	358	1274.76	1253.35	1251.73	1.00	1.00	21.0	1.0	4.80	5728.	28.	331.
32	1	2.488	400	1274.85	1253.20	1251.80	1.00	1.00	21.2	1.2	4.80	5696.	42.	358.
33	1	2.494	447	1274.94	1253.03	1251.87	1.00	1.00	21.4	1.5	4.80	5665.	62.	385.
34	1	2.500	513	1275.03	1252.85	1251.97	1.00	1.00	21.6	1.7	4.80	5633.	88.	426.
35	1	2.506	611	1275.11	1252.65	1252.10	1.00	1.00	21.9	2.0	4.80	5601.	121.	490.
36	1	2.512	711	1275.19	1252.43	1252.20	1.00	1.00	22.2	2.4	4.80	5570.	153.	548.
37	1	2.518	819	1275.27	1252.20	1252.31	1.00	1.00	22.6	2.7	4.80	5538.	216.	604.
38	1	2.524	937	1275.35	1251.95	1252.42	1.00	1.00	23.1	3.1	4.80	5507.	280.	658.
39	1	2.530	1066	1275.42	1251.69	1252.54	1.00	1.00	23.6	3.5	4.80	5475.	357.	709.
40	1	2.536	1207	1275.49	1251.41	1252.66	1.00	1.00	24.1	3.9	4.80	5444.	450.	758.
41	1	2.542	1363	1275.56	1251.11	1252.78	1.00	1.00	24.8	4.3	4.80	5412.	559.	804.
42	1	2.548	1535	1275.63	1250.80	1252.90	1.00	1.00	25.5	4.8	4.80	5379.	687.	848.
43	1	2.554	1725	1275.69	1250.47	1253.03	1.00	1.00	26.3	5.3	4.80	5340.	837.	889.
44	1	2.560	1935	1275.74	1250.13	1253.16	1.00	1.00	27.2	5.8	4.80	5301.	1009.	926.
45	1	2.566	2165	1275.79	1250.00	1253.27	1.00	1.00	28.2	6.3	4.80	5262.	1171.	960.
46	1	2.572	2335	1275.84	1250.00	1253.38	1.00	1.00	29.3	6.9	4.80	5223.	1345.	991.
47	1	2.578	2574	1275.89	1250.00	1253.51	1.00	1.00	30.5	7.5	4.80	5184.	1556.	1018.
48	1	2.584	2849	1275.93	1250.00	1253.64	1.00	1.00	31.9	8.1	4.80	5145.	1800.	1050.
49	1	2.590	3151	1275.96	1250.00	1253.78	1.00	1.00	33.4	8.7	4.80	5107.	2074.	1077.
50	1	2.596	3478	1275.99	1250.00	1253.93	1.00	1.00	35.0	9.4	4.80	5068.	2379.	1100.

RESERVOIR DEPLETION TABLE

I	K	ITP(I)	Q(I)	H2	Y3	D	BB3	POUR	DUTVOL	BB	IDB	Q1(I)	DEPLIN	DEPIL
***	**	******	********	*******	*******	*******	****	****	********	****	****	*****	******	*****
51	1	2.602	3834	1276.01	1250.00	1254.10	1.00	1.00	36.5	10.1	4.80	5033.	2713.	1132.
52	1	2.608	4219	1276.02	1250.00	1254.22	1.00	1.00	38.8	10.8	4.80	4990.	3077.	1141.
53	1	2.614	4625	1276.03	1250.00	1254.37	1.00	1.00	41.0	11.5	4.80	4951.	3474.	1152.
54	1	2.620	5054	1276.03	1250.00	1254.52	1.00	1.00	43.4	12.3	4.80	4908.	3901.	1153.
55	1	2.626	5503	1276.03	1250.00	1254.67	1.00	1.00	46.0	13.1	4.80	4865.	4356.	1146.
56	3	2.632	6828	1275.01	1250.00	1255.06	1.00	1.00	49.1	13.9	3.10	4822.	5709.	1120.
57	2	2.638	7128	1275.97	1250.00	1255.12	1.00	1.00	52.5	14.7	3.10	4779.	6040.	1088.
58	1	2.644	7432	1275.93	1250.00	1255.19	1.00	1.00	56.1	15.6	3.10	4736.	6377.	1056.
59	1	2.650	7738	1275.89	1250.00	1255.26	1.00	1.00	59.9	16.4	3.10	4693.	6719.	1019.
60	1	2.656	8044	1275.84	1250.00	1255.33	1.00	1.00	63.8	17.3	3.10	4650.	7067.	978.
61	1	2.662	8351	1275.78	1250.00	1255.39	1.00	1.00	67.9	18.3	3.10	4607.	7420.	932.
62	1	2.668	8659	1275.72	1250.00	1255.46	1.00	1.00	72.1	19.2	3.10	4565.	7778.	881.
63	1	2.674	8966	1275.65	1250.00	1255.52	1.00	1.00	76.5	20.2	3.10	4522.	8141.	825.
64	1	2.680	9272	1275.57	1250.00	1255.58	1.00	1.00	81.0	21.2	3.10	4479.	8507.	765.
65	1	2.686	9576	1275.49	1250.00	1255.65	1.00	1.00	85.7	22.2	3.10	4436.	8877.	700.
66	1	2.692	9878	1275.40	1250.00	1255.71	1.00	1.00	90.5	23.2	3.10	4394.	9249.	630.
67	1	2.698	10177	1275.31	1250.00	1255.77	1.00	1.00	95.5	24.3	3.10	4351.	9623.	555.
68	1	2.704	10473	1275.21	1250.00	1255.82	1.00	1.00	100.6	25.4	3.10	4309.	9999.	475.
69	1	2.710	10765	1275.11	1250.00	1255.88	1.00	1.00	105.8	26.5	3.10	4267.	10376.	390.
70	1	2.716	11054	1275.00	1250.00	1255.93	1.00	1.00	111.3	27.6	3.10	4224.	10753.	302.
71	1	2.722	11394	1274.88	1250.00	1256.00	1.00	1.00	116.8	28.8	3.10	4182.	11129.	266.
72	1	2.728	11732	1274.75	1250.00	1256.06	1.00	1.00	122.6	30.0	3.10	4139.	11504.	228.
73	1	2.734	11607	1274.62	1250.00	1256.04	1.00	1.00	128.3	30.0	3.10	4097.	11419.	189.
74	1	2.740	11479	1274.50	1250.00	1256.01	1.00	1.00	134.1	30.0	3.10	4054.	11330.	150.
75	1	2.746	11352	1274.37	1250.00	1255.99	1.00	1.00	139.7	30.0	3.10	4012.	11241.	112.
76	1	2.752	11226	1274.24	1250.00	1255.97	1.00	1.00	145.3	30.0	3.10	3972.	11153.	73.
77	1	2.758	11101	1274.12	1250.00	1255.94	1.00	1.00	150.9	30.0	3.10	3932.	11066.	35.
78	1	2.764	10980	1273.99	1250.00	1255.92	1.00	1.00	156.3	30.0	3.10	3893.	10980.	0.
79	1	2.770	10894	1273.87	1250.00	1255.90	1.00	1.00	161.8	30.0	3.10	3853.	10894.	0.
80	1	2.776	10809	1273.74	1250.00	1255.89	1.00	1.00	167.1	30.0	3.10	3814.	10809.	0.
81	1	2.782	10724	1273.62	1250.00	1255.87	1.00	1.00	172.5	30.0	3.10	3774.	10724.	0.
82	1	2.788	10639	1273.49	1250.00	1255.85	1.00	1.00	177.8	30.0	3.10	3735.	10639.	0.
83	1	2.794	10554	1273.37	1250.00	1255.84	1.00	1.00	183.0	30.0	3.10	3695.	10555.	0.
84	1	2.800	10470	1273.24	1250.00	1255.82	1.00	1.00	188.2	30.0	3.10	3656.	10471.	0.
85	1	2.806	10386	1273.12	1250.00	1255.80	1.00	1.00	193.4	30.0	3.10	3616.	10387.	0.
86	1	2.812	10302	1272.99	1250.00	1255.79	1.00	1.00	198.5	30.0	3.10	3577.	10303.	0.
87	1	2.818	10219	1272.87	1250.00	1255.77	1.00	1.00	203.6	30.0	3.10	3540.	10219.	0.
88	1	2.824	10136	1272.74	1250.00	1255.76	1.00	1.00	208.7	30.0	3.10	3505.	10136.	0.
89	1	2.830	10053	1272.62	1250.00	1255.74	1.00	1.00	213.7	30.0	3.10	3469.	10053.	0.
90	1	2.836	9970	1272.50	1250.00	1255.72	1.00	1.00	218.7	30.0	3.10	3434.	9971.	0.
91	1	2.842	9888	1272.37	1250.00	1255.71	1.00	1.00	223.6	30.0	3.10	3398.	9888.	0.
92	1	2.848	9806	1272.25	1250.00	1255.69	1.00	1.00	228.5	30.0	3.10	3363.	9806.	0.
93	1	2.854	9724	1272.12	1250.00	1255.67	1.00	1.00	233.3	30.0	3.10	3329.	9724.	0.
94	1	2.860	9642	1272.00	1250.00	1255.66	1.00	1.00	238.1	30.0	3.10	3292.	9643.	0.
95	1	2.866	9561	1271.87	1250.00	1255.64	1.00	1.00	242.9	30.0	3.10	3257.	9561.	0.
96	1	2.872	9480	1271.75	1250.00	1255.62	1.00	1.00	247.6	30.0	3.10	3222.	9480.	0.
97	1	2.878	9399	1271.63	1250.00	1255.61	1.00	1.00	252.3	30.0	3.10	3186.	9399.	0.
98	1	2.884	9318	1271.50	1250.00	1255.59	1.00	1.00	256.9	30.0	3.10	3153.	9319.	0.
99	1	2.890	9238	1271.38	1250.00	1255.58	1.00	1.00	261.5	30.0	3.10	3122.	9239.	0.
100	1	2.896	9158	1271.26	1250.00	1255.56	1.00	1.00	266.1	30.0	3.10	3091.	9159.	0.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	G(I)	H2	H3	D	SUB	VOOR	OUTVOL	BB	[illegible]	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
101	1	2.902	9079	1271.13	1250.00	1255.54	1.00	1.01	278.6	30.0	3.10	3060.	[illegible]	0.
102	1	2.908	8999	1271.01	1250.00	1255.53	1.00	1.01	279.1	30.0	3.10	3030.	[illegible]	0.
103	1	2.914	8926	1270.89	1250.00	1255.51	1.00	1.01	279.3	30.0	3.10	2999.	[illegible]	0.
104	1	2.920	8842	1270.78	1250.00	1255.49	1.00	1.01	283.9	30.0	3.10	2968.	8842.	0.
105	1	2.926	8763	1270.64	1250.00	1255.48	1.00	1.01	288.3	30.0	3.10	2937.	8764.	0.
106	1	2.932	8685	1270.52	1250.00	1255.46	1.00	1.01	292.6	30.0	3.10	2906.	8686.	0.
107	1	2.938	8608	1270.39	1250.00	1255.44	1.00	1.01	296.9	30.0	3.10	2876.	8608.	0.
108	1	2.944	8530	1270.27	1250.00	1255.43	1.00	1.01	301.2	30.0	3.10	2845.	8531.	0.
109	1	2.950	8453	1270.15	1250.00	1255.41	1.00	1.01	305.4	30.0	3.10	2815.	8453.	0.
110	1	2.956	8376	1270.03	1250.00	1255.40	1.00	1.01	309.5	30.0	3.10	2789.	8376.	0.
111	1	2.962	8299	1269.90	1250.00	1255.38	1.00	1.01	313.7	30.0	3.10	2763.	8300.	0.
112	1	2.968	8223	1269.78	1250.00	1255.36	1.00	1.01	317.8	30.0	3.10	2736.	8224.	0.
113	1	2.974	8148	1269.66	1250.00	1255.35	1.00	1.01	321.8	30.0	3.10	2710.	8148.	0.
114	1	2.980	8072	1269.54	1250.00	1255.33	1.00	1.01	325.8	30.0	3.10	2684.	8073.	0.
115	1	2.986	7997	1269.42	1250.00	1255.31	1.00	1.01	329.8	30.0	3.10	2657.	7998.	0.
116	1	2.992	7923	1269.29	1250.00	1255.30	1.00	1.01	333.8	30.0	3.10	2631.	7923.	0.
117	1	2.998	7848	1269.17	1250.00	1255.28	1.00	1.01	337.7	30.0	3.10	2605.	7849.	0.
118	1	3.004	7774	1269.05	1250.00	1255.27	1.00	1.01	341.6	30.0	3.10	2578.	7775.	0.
119	1	3.010	7701	1268.93	1250.00	1255.25	1.00	1.01	345.4	30.0	3.10	2552.	7701.	0.
120	1	3.016	7627	1268.81	1250.00	1255.23	1.00	1.01	349.2	30.0	3.10	2526.	7628.	0.
121	1	3.022	7555	1268.69	1250.00	1255.22	1.00	1.01	353.0	30.0	3.10	2504.	7555.	0.
122	1	3.028	7482	1268.57	1250.00	1255.20	1.00	1.01	356.7	30.0	3.10	2481.	7483.	0.
123	2	3.034	7403	1268.44	1250.00	1255.18	1.00	1.01	360.8	30.0	3.10	2456.	7403.	0.
124	2	3.042	7316	1268.30	1250.00	1255.16	1.00	1.01	365.2	30.0	3.10	2429.	7317.	0.
125	2	3.050	7222	1268.14	1250.00	1255.14	1.00	1.01	370.0	30.0	3.10	2399.	7222.	0.
126	2	3.058	7118	1267.96	1250.00	1255.12	1.00	1.01	375.2	30.0	3.10	2366.	7119.	0.
127	2	3.068	7006	1267.77	1250.00	1255.09	1.00	1.01	380.8	30.0	3.10	2329.	7006.	0.
128	2	3.079	6883	1267.56	1250.00	1255.07	1.00	1.01	386.9	30.0	3.10	2289.	6883.	0.
129	2	3.090	6749	1267.34	1250.00	1255.03	1.00	1.01	393.5	30.0	3.10	2250.	6750.	0.
130	2	3.102	6604	1267.09	1250.00	1255.00	1.00	1.01	400.6	30.0	3.10	2209.	6604.	0.
131	2	3.117	6449	1266.81	1250.00	1254.96	1.00	1.01	408.2	30.0	3.10	2163.	6447.	0.
132	2	3.133	6276	1266.51	1250.00	1254.91	1.00	1.01	416.4	30.0	3.10	2113.	6276.	0.
133	2	3.150	6091	1266.19	1250.00	1254.85	1.00	1.01	425.2	30.0	3.10	2058.	6091.	0.
134	2	3.169	5891	1265.83	1250.00	1254.79	1.00	1.01	434.5	30.0	3.10	2006.	5892.	0.
135	2	3.190	5677	1265.44	1250.00	1254.72	1.00	1.01	444.4	30.0	3.10	1949.	5677.	0.
136	2	3.212	5447	1265.02	1250.00	1254.65	1.00	1.01	454.9	30.0	3.10	1887.	5447.	0.
137	2	3.237	5201	1264.57	1250.00	1254.57	1.00	1.01	465.9	30.0	3.10	1827.	5202.	0.
138	2	3.265	4943	1264.08	1250.00	1254.48	1.00	1.01	477.4	30.0	3.10	1762.	4943.	0.
139	2	3.295	4672	1263.56	1250.00	1254.39	1.00	1.01	489.5	30.0	3.10	1695.	4673.	0.
140	2	3.329	4389	1263.01	1250.00	1254.28	1.00	1.01	502.0	30.0	3.10	1629.	4390.	0.
141	2	3.365	4097	1262.42	1250.00	1254.17	1.00	1.01	514.9	30.0	3.10	1561.	4098.	0.
142	2	3.406	3798	1261.81	1250.00	1254.06	1.00	1.01	528.0	30.0	3.10	1494.	3798.	0.
143	2	3.450	3494	1261.17	1250.00	1253.93	1.00	1.01	541.4	30.0	3.10	1429.	3494.	0.
144	2	3.499	3189	1260.51	1250.00	1253.80	1.00	1.01	554.9	30.0	3.10	1365.	3189.	0.
145	2	3.553	2888	1259.83	1250.00	1253.66	1.00	1.01	568.4	30.0	3.10	1302.	2888.	0.
146	1	3.612	2595	1259.15	1250.00	1253.52	1.00	1.01	581.8	30.0	3.10	1237.	2596.	0.
147	1	3.677	2314	1258.48	1250.00	1253.37	1.00	1.01	595.0	30.0	3.10	1156.	2314.	0.
148	1	3.748	2045	1257.80	1250.00	1253.22	1.00	1.01	607.9	30.0	3.10	1072.	2046.	0.
149	2	3.827	1794	1257.15	1250.00	1253.07	1.00	1.01	620.3	30.0	3.10	994.	1794.	0.
150	2	3.914	1564	1256.52	1250.00	1252.92	1.00	1.01	632.3	30.0	3.10	922.	1564.	0.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	Y2	Q	SQ2	VLOR	OUTVOL	B3	COEN	X(I)	Y(I)	DEPTL
***	**	******	********	*******	*******	******	****	****	*********	****	****	*****	******	****
151	2	4.009	1357	1255.93	1250.00	1252.77	1.00	1.01	640.8	30.0	3.10	848.	1357.	0.
152	2	4.113	1171	1255.37	1250.00	1252.62	1.00	1.02	654.3	30.0	3.10	763.	1171.	0.
153	2	4.229	1004	1254.84	1250.00	1252.48	1.00	1.02	665.1	30.0	3.10	676.	1004.	0.
154	2	4.355	854	1254.33	1250.00	1252.34	1.00	1.02	674.9	30.0	3.10	587.	854.	0.
155	2	4.495	720	1253.85	1250.00	1252.21	1.00	1.03	683.0	30.0	3.10	513.	721.	0.
156	2	4.648	604	1253.42	1250.00	1252.09	1.00	1.04	692.3	30.0	3.10	446.	605.	0.
157	2	4.817	502	1253.00	1250.00	1251.95	1.00	1.05	700.0	30.0	3.10	371.	503.	0.
158	2	5.002	412	1252.61	1250.00	1251.81	1.00	1.07	707.1	30.0	3.10	311.	412.	0.
159	2	5.206	333	1252.24	1250.00	1251.68	1.00	1.10	713.4	30.0	3.10	251.	334.	0.
160	1	5.430	262	1251.88	1250.00	1251.56	1.00	1.15	718.9	30.0	3.10	193.	263.	0.
161	2	5.677	201	1251.52	1250.00	1251.40	1.00	1.27	723.6	30.0	3.10	148.	201.	0.
162	1	5.949	149	1251.17	1250.00	1251.27	1.00	1.39	727.6	30.0	3.10	103.	150.	0.

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	Q(1)	100.
MAX FLOW	CFS	QM	11732.
FINAL FLOW	CFS	Q(NU)	150.
TIME TO MAX FLOW	HRS	TP	2.73
NUMBER OF TIME STEPS		NNU	162
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	728.

INITIAL CONDITIONS

INITIAL CONDITIONS

(GDI(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	

(YI(I),I=1,N)

1251.31	1248.29	1244.32	1238.40	1227.56	1220.65	1215.52	1208.38
1202.28	1193.91	1188.99	1184.19	1180.06	1174.00	1172.11	

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.000
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TEQ	3.429
TIME TO PEAK	HR	TP	3.728
TIME STEP SIZE	HR	DTHI	0.015

ROUTING COMPLETED.

KTIME= 615 ALLOWABLE KTIME= 699 TT= 6.0

PROFILE OF CREST AND TIMES FOR SOUTH MOUNTAIN
BELOW GUADALUPE N-2 DAM

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.023	1255.02	11727	2.726	15.61	0.00	0.00
0.108	1250.33	11658	2.732	11.67	0.00	0.00
0.203	1247.17	11576	2.742	7.43	0.00	0.00
0.305	1240.62	11488	2.760	12.12	0.00	0.00
0.443	1230.53	11408	2.771	7.38	0.00	0.00
0.532	1222.47	11368	2.789	12.78	0.00	0.00
0.629	1219.37	11276	2.803	4.31	0.00	0.00
0.773	1209.80	11191	2.840	51.04	0.00	0.00
0.905	1204.60	11129	2.849	9.38	0.00	0.00
1.030	1195.19	11082	2.878	59.40	0.00	0.00
1.138	1191.34	11030	2.887	14.64	0.00	0.00
1.269	1188.49	10802	2.940	28.68	0.00	0.00
1.421	1181.09	10782	2.922	4.55	0.00	0.00
1.574	1176.14	10639	2.984	30.08	0.00	0.00
1.790	1174.49	9613	3.159	8.26	0.00	0.00

Digital Equipment Corporation - VAX/VMS Version V4.5

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 SSSS   M   M   III    AAA    I   U
S       M   M    I    A   A   I   U
S       M   M    I    A   A   I   U
 SSS    MMMMM    I    A   A   I   U
    S   M   M    I    AAAAA   U   U
    S   M   M    I    A   A   I   I
SSSS    M   M   III   A   A   UUUUU
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EEEEEEEEEE  DDDDDDDD      AAAAAA    MM      MM    SSSSSSSS          WW      WW    AAAAAA    LL          LL
EEEEEEEEEE  DDDDDDDD      AAAAAA    MM      MM    SSSSSSSS          WW      WW    AAAAAA    LL          LL
EE          DD      DD  AA      AA  MMMM  MMMM  SS                  WW      WW  AA      AA  LL          LL
EE          DD      DD  AA      AA  MMMM  MMMM  SS                  WW      WW  AA      AA  LL          LL
EE          DD      DD  AA      AA  MM  MM  MM  SS                  WW      WW  AA      AA  LL          LL
EE          DD      DD  AA      AA  MM  MM  MM  SS                  WW      WW  AA      AA  LL          LL
EEEEEEEE    DD      DD  AA      AA  MM      MM    SSSSSS            WW      WW  AA      AA  LL          LL
EEEEEEEE    DD      DD  AA      AA  MM      MM    SSSSSS            WW      WW  AA      AA  LL          LL
EE          DD      DD  AAAAAAAAAA  MM      MM          SS          WW  WW  WW  AAAAAAAAAA  LL          LL
EE          DD      DD  AAAAAAAAAA  MM      MM          SS          WW  WW  WW  AAAAAAAAAA  LL          LL
EE          DD      DD  AA      AA  MM      MM          SS          WWWW    WWWW  AA      AA  LL          LL
EE          DD      DD  AA      AA  MM      MM          SS          WWWW    WWWW  AA      AA  LL          LL
EEEEEEEEEE  DDDDDDDD    AA      AA  MM      MM  SSSSSSSS  ________  WW      WW  AA      AA  LLLLLLLLLL  LLLLLLLLLL
EEEEEEEEEE  DDDDDDDD    AA      AA  MM      MM  SSSSSSSS  ________  WW      WW  AA      AA  LLLLLLLLLL  LLLLLLLLLL
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                                  DDDDDDDD      AAAAAA    TTTTTTTTTT      ;;;;    44    44
                                  DDDDDDDD      AAAAAA    TTTTTTTTTT      ;;;;    44    44
                                  DD      DD  AA      AA      TT        ;;;;    44    44
                                  DD      DD  AA      AA      TT        ;;;;    44    44
                                  DD      DD  AA      AA      TT                44    44
                                  DD      DD  AA      AA      TT                44    44
                                  DD      DD  AA      AA      TT        ;;;;    4444444444
                                  DD      DD  AA      AA      TT        ;;;;    4444444444
                                  DD      DD  AAAAAAAAAA      TT        ;;;;          44
                                  DD      DD  AAAAAAAAAA      TT        ;;;;          44
                            ....  DD      DD  AA      AA      TT          ;;          44
                            ....  DD      DD  AA      AA      TT          ;;          44
                            ....  DDDDDDDD    AA      AA      TT        ;;            44
                            ....  DDDDDDDD    AA      AA      TT        ;;            44
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[redacted]

File _DUA1:[USERS.E124034.ENGR]EDAMS_WALL.DAT;4 (2873,45,0), last revised on 11-MAY-1990 17:00, is a 9 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with implied (CR) carriage control. The longest record is 80 bytes.

Job EDAMS_WALL (1431) queued to SYS$PRINT on 11-MAY-1990 17:10 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 17:10 from queue SYS$PRINT.

Digital Equipment Corporation - VAX/VMS Version V4.5

GUADALUPE EAST DAM SOUTH AT SOUTH MOUNTAIN - OPTION 2 SUPERCRITICAL LAKE EMPTY
GREINER, INC. 7310 N 16TH STREET, SUITE 160, PHOENIX, ARIZONA 85020

1	0	0	5	3	0	0	0
1100000010 0 0							
37.91	33.06	29.55	22.00	15.78	11.06	6.54	2.0
1281.0	1277.0	1275.	1270.	1265.	1261.	1255.	1250.0
0.	1265.	0.	1264.	17.0	1.24	1264.	0.0
1274.0	1281.	1274.	0.0	0.0	0.0	-1267.	100.0
0.	303.	1110.	2350.	3900.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
0.	6.6	1.	0	0	0	0	
0.00	1425.0	4856.	6039.	4956.	1475.	731.	72.
0.0	2.13	2.53	2.80	3.07	3.87	4.60	6.60
10	7	0	1	0	1	0	0
0.0170	1256.						
1254.	1256.	1258.	1260.	1261.	1262.	1267.	
80.	220.	310.	400.	410.	420.	420.	
0.	0.	0.	0.	0.	0.	0.	
0.1174	1246.5						
1244.5	1245.	1246.	1248.	1249.	1250.	1255.	
0.	83.	282.	451.	504.	552.	552.	
0.	0.	0.	15.	24.	37.	37.	
0.2348	1237.						
1235.	1236.	1236.5	1237.	1237.5	1238.	1243.	
0.	300.	300.	300.	300.	300.	300.	
0.	500.	603.	642.	672.	713.	713.	
0.3883	1225.						
1223.	1224.	1225.	1226.	1227.	1228.	1233.	
0.	280.	280.	280.	280.	280.	280.	
0.	1300.	1598.	1719.	1848.	1977.	1977.	
0.5701	1214.						
1212.	1213.	1214.	1215.	1216.	1217.	1222.	
0.	240.	240.	240.	240.	240.	240.	
0.	1825.	2350.	2550.	2630.	2700.	2700.	
0.7509	1205.						
1203.	1203.5	1204.	1204.5	1205.	1206.	1211.	
0.	240.	240.	240.	240.	240.	240.	
0.	1142.	2075.	2450.	2825.	3170.	3170.	
0.9716	1190.5						
1188.5	1189.	1190.	1191.	1192.	1194.	1199.	
0.	240.	240.	240.	240.	240.	240.	
0.	178.	584.	1420.	2371.	2655.	2655.	
1.1382	1184.						
1182.	1183.	1184.	1185.	1185.5	1186.	1191.	
0.	240.	240.	240.	240.	240.	240.	
476.	670.	975.	1726.	2146.	2586.	2586.	
1.2254	1181.5						
1179.5	1180.	1182.	1183.	1184.	1186.	1191.	
0.	240.	240.	240.	240.	240.	240.	
324.	2600.	3294.	3469.	3525.	3960.	3960.	
1.3229	1177.						
1175.	1175.5	1176.	1176.5	1177.	1178.	1183.	
0.	240.	240.	240.	240.	240.	240.	
0.	778.	1250.	1463.	1549.	1851.	1851.	
0.024	0.024	0.024	0.024	0.024	0.024	0.024	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.022	0.022	0.022	0.022	0.022	0.022	0.022	
0.020	0.020	0.020	0.020	0.020	0.020	0.020	

0.020	0.020	0.020	0.020	0.020	0.020	0.020	
0.020	0.020	0.020	0.020	0.020	0.020	0.020	
0.020	0.020	0.020	0.020	0.020	0.020	0.020	
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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AAAAAAAAAA  22222222222
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PROGRAM DAMBRK -- VERSION--6/20/88-3

Input file name : EDAMS_WALL.DAT

11-MAY-90 17:09:51

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE EAST DAM S

ON

OUTH AT SOUTH MOUNTA

ANALYSIS BY

IN - OPTION 2 SUPERCRITICAL LAKE EMPTY
GREINER, INC. 7310 N 16TH STREET, SUIT
E 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH HYDROLOGIST

HYDROLOGIC RESEARCH LABORATORY
W23, OFFICE OF HYDROLOGY
NOAA, NATIONAL WEATHER SERVICE
SILVER SPRING, MARYLAND 20910

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***                       ***
***  SUMMARY OF INPUT DATA  ***
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INPUT CONTROL PARAMETERS FOR GUADALUPE EAST DAM S

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKN	1
TYPE OF RESERVOIR ROUTING	KUI	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KOMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	ITEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRI	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IOPUT= 1 1 0 0 0 0 0 0 1 0 1 0

GUADALUPE EAST DAM S RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
37.0	1281.00
33.1	1277.00
29.5	1275.00
22.6	1270.00
16.0	1265.00
11.1	1260.00
1.5	1255.00
2.0	1250.00

GUADALUPE EAST DAM S RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	XLT	0.00
ELEVATION OF WATER SURFACE	FEET	YI	1265.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1264.00
WIDTH OF BASE OF BREACH	FEET	BB	17.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TFH	0.24
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1264.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HI	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1281.00
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDC	-1267.00
DISCHARGE THRU TURBINES	CFS	QT	100.00

QSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3700.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHF(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE)= 6.6000 HRS.

BREX(BREACH EXPONENT) = 0.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPRES(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE EAST DAM 8
****

0.00	1425.00	4856.00	6039.00	4956.00	1475.00	731.00	72.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5300	2.8000	3.0700	3.8700	4.6000	6.6000

CROSS-SECTIONAL PARAMETERS FOR [illegible] AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM 5

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	10
MAXIMUM NUMBER OF TOP WIDTHS	NCS	7
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NTT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	JNK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	KSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LQ	0
NO. OF POINTS IN GATE CONTROL CURVE	KCG	0

CROSS-SECTIONAL VARIABLES FOR OUTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM 5

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		FKC(I)

REACH NUMBER	DXM(I)	FKC(I)
1	0.500	0.000
2	0.500	0.000
3	0.500	0.000
4	0.500	0.000
5	0.500	0.000
6	0.500	0.000
7	0.500	0.000
8	0.500	0.000
9	0.500	0.000

DOWNSTREAM FLOW PARAMETERS FOR DUTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM 5

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET	QLL	0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	65.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.105 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.097 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.103 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.101 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.095 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.099 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.097 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.097 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.093 DUE TO (WAVE SPEED * DT) CRITERIA

COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500

TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) = [illegible] (MAXIMUM ALLOWABLE = [illegible]

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*****************************************
*****************************************
***                                   ***
***  SUMMARY OF OUTPUT DATA           ***
***                                   ***
*****************************************
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE EAST DAM S = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TTP(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
EOT DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUP
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		COFR

INFLOW TO RESERVOIR	CFS	QI(I)
BREACH OUTFLOW	CFS	QBRECH
SPILLWAY OUTFLOW	CFS	QSPIL

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	Y2	D	SUB	VOOR	OLTVOL	SS	COEF	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	*****	*****
1	0	0.000	100	1265.00	1267.00	1254.35	1.00	1.00	0.0	0.0	3.10	0.	0.	100.
2	2	0.100	100	1264.97	1267.00	1254.35	1.00	1.00	0.3	0.0	4.80	17.	0.	100.
3	2	0.200	100	1264.97	1267.00	1254.35	1.00	1.00	1.7	0.0	4.80	134.	0.	100.
4	2	0.340	100	1265.02	1267.00	1254.35	1.00	1.00	2.8	0.0	4.80	227.	0.	100.
5	2	0.480	100	1265.15	1267.00	1254.35	1.00	1.00	4.0	0.0	4.80	321.	0.	100.
6	2	0.620	100	1265.34	1267.00	1254.35	1.00	1.00	5.1	0.0	4.80	415.	0.	100.
7	2	0.760	100	1265.59	1267.00	1254.35	1.00	1.00	6.3	0.0	4.80	508.	0.	100.
8	2	0.900	100	1265.90	1267.00	1254.35	1.00	1.00	7.4	0.0	4.80	602.	0.	100.
9	2	1.040	100	1266.27	1267.00	1254.35	1.00	1.00	8.6	0.0	4.80	696.	0.	100.
10	2	1.180	100	1266.68	1267.00	1254.35	1.00	1.00	9.8	0.0	4.80	789.	0.	100.
11	2	1.320	100	1267.14	1267.00	1254.35	1.00	1.00	10.9	0.0	4.80	883.	0.	100.
12	2	1.460	100	1267.64	1267.00	1254.35	1.00	1.00	12.1	0.0	4.80	977.	0.	100.
13	2	1.600	100	1268.18	1267.00	1254.35	1.00	1.00	13.2	0.0	4.80	1070.	0.	100.
14	2	1.740	100	1268.75	1267.00	1254.35	1.00	1.00	14.4	0.0	4.80	1164.	0.	100.
15	2	1.880	100	1269.36	1267.00	1254.35	1.00	1.00	15.5	0.0	4.80	1258.	0.	100.
16	2	2.020	100	1269.98	1267.00	1254.35	1.00	1.00	16.7	0.0	4.80	1351.	0.	100.
17	2	2.160	100	1270.70	1267.00	1254.35	1.00	1.00	17.9	0.0	4.80	1682.	0.	100.
18	2	2.300	100	1271.74	1267.00	1254.35	1.00	1.00	19.0	0.0	4.80	2883.	0.	100.
19	2	2.440	100	1273.24	1267.00	1254.35	1.00	1.00	20.2	0.0	4.80	4084.	0.	100.
20	3	2.580	403	1275.00	1267.00	1255.12	1.00	1.00	23.1	0.0	4.80	5075.	0.	407.
21	1	2.585	458	1275.07	1266.86	1254.88	1.00	1.00	23.3	0.2	4.80	5096.	1.	457.
22	1	2.590	511	1275.13	1266.72	1254.94	1.00	1.00	23.5	0.7	4.80	5117.	5.	507.
23	1	2.594	567	1275.19	1266.58	1254.93	1.00	1.00	23.7	1.0	4.80	5138.	12.	556.
24	1	2.599	625	1275.25	1266.44	1254.97	1.00	1.00	23.9	1.4	4.80	5159.	21.	605.
25	1	2.604	685	1275.31	1266.30	1255.02	1.00	1.00	24.2	1.7	4.80	5180.	33.	653.
26	1	2.609	747	1275.37	1266.16	1255.07	1.00	1.00	24.5	2.0	4.80	5201.	48.	700.
27	1	2.614	812	1275.43	1266.02	1255.12	1.00	1.00	24.8	2.4	4.80	5222.	65.	747.
28	1	2.618	878	1275.48	1265.88	1255.16	1.00	1.00	25.1	2.7	4.80	5243.	85.	793.
29	1	2.623	947	1275.54	1265.74	1255.21	1.00	1.00	25.5	3.1	4.80	5264.	108.	839.
30	1	2.628	1018	1275.60	1265.60	1255.26	1.00	1.00	25.9	3.4	4.80	5285.	134.	884.
31	1	2.633	1091	1275.65	1265.46	1255.30	1.00	1.00	26.3	3.7	4.80	5306.	160.	928.
32	1	2.638	1166	1275.71	1265.32	1255.35	1.00	1.00	26.7	4.1	4.80	5327.	195.	972.
33	1	2.642	1239	1275.76	1265.18	1255.39	1.00	1.00	27.2	4.4	4.80	5348.	229.	1011.
34	1	2.647	1311	1275.81	1265.04	1255.43	1.00	1.00	27.7	4.8	4.80	5370.	267.	1045.
35	1	2.652	1385	1275.86	1264.90	1255.47	1.00	1.00	28.2	5.1	4.80	5391.	307.	1079.
36	1	2.657	1461	1275.91	1264.76	1255.52	1.00	1.00	28.8	5.4	4.80	5412.	350.	1112.
37	1	2.662	1540	1275.96	1264.62	1255.56	1.00	1.00	29.4	5.8	4.80	5433.	396.	1144.
38	1	2.666	1625	1276.01	1264.48	1255.60	1.00	1.00	30.0	6.1	4.80	5454.	446.	1180.
39	1	2.671	1729	1276.06	1264.34	1255.65	1.00	1.00	30.7	6.5	4.80	5475.	498.	1232.
40	1	2.676	1834	1276.11	1264.20	1255.70	1.00	1.00	31.4	6.8	4.80	5496.	553.	1282.
41	1	2.681	1941	1276.15	1264.06	1255.75	1.00	1.00	32.1	7.1	4.80	5517.	611.	1330.
42	1	2.686	2039	1276.20	1264.00	1255.79	1.00	1.00	32.9	7.5	4.80	5538.	662.	1377.
43	1	2.690	2131	1276.24	1264.00	1255.83	1.00	1.00	33.8	7.8	4.80	5559.	711.	1423.
44	1	2.695	2222	1276.28	1264.00	1255.88	1.00	1.00	34.6	8.2	4.80	5580.	766.	1467.
45	1	2.700	2333	1276.32	1264.00	1255.92	1.00	1.00	35.5	8.5	4.80	5601.	823.	1510.
46	1	2.705	2447	1276.36	1264.00	1255.96	1.00	1.00	36.5	8.8	4.80	5622.	888.	1560.
47	1	2.710	2560	1276.40	1264.00	1256.01	1.00	1.00	37.5	9.2	4.80	5643.	953.	1608.
48	1	2.714	2674	1276.44	1264.00	1256.05	1.00	1.00	38.5	9.5	4.80	5664.	1019.	1655.
49	1	2.719	2787	1276.48	1264.00	1256.09	1.00	1.00	39.6	9.9	4.80	5685.	1088.	1700.
50	1	2.724	2901	1276.51	1264.00	1256.13	1.00	1.00	40.7	10.2	4.80	5706.	1159.	1743.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	YB	D	BLE	VOLR	DUTVOL	BB	DLEB	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	*****	*****
51	1	2.729	4025	1276.54	1264.00	1256.13	1.00	1.00	45.1	10.1	3.10	5727.	2248.	1778.
52	1	2.734	3313	1276.56	1264.00	1256.29	1.00	1.00	43.8	10.8	3.10	5748.	1934.	1809.
53	1	2.738	3401	1276.59	1264.00	1256.35	1.00	1.00	44.9	11.2	3.10	5739.	1838.	1846.
54	1	2.743	3489	1276.62	1264.00	1256.32	1.00	1.00	46.3	11.6	3.10	5730.	1801.	1881.
55	1	2.748	3577	1276.65	1264.00	1256.35	1.00	1.00	47.7	11.9	3.10	5811.	1782.	1915.
56	1	2.753	3663	1276.68	1264.00	1256.37	1.00	1.00	49.1	12.2	3.10	5832.	1716.	1949.
57	1	2.758	3748	1276.70	1264.00	1256.40	1.00	1.00	50.6	12.6	3.10	5852.	1768.	1981.
58	1	2.762	3833	1276.73	1264.00	1256.42	1.00	1.00	52.1	12.9	3.10	5874.	1821.	2012.
59	1	2.767	3917	1276.75	1264.00	1256.45	1.00	1.00	53.6	13.3	3.10	5895.	1875.	2043.
60	1	2.772	4000	1276.79	1264.00	1256.47	1.00	1.00	55.2	13.6	3.10	5916.	1928.	2072.
61	1	2.777	4082	1276.80	1264.00	1256.50	1.00	1.00	56.8	13.9	3.10	5937.	1982.	2100.
62	1	2.782	4163	1276.82	1264.00	1256.52	1.00	1.00	58.4	14.3	3.10	5958.	2035.	2128.
63	1	2.786	4243	1276.84	1264.00	1256.54	1.00	1.00	60.1	14.6	3.10	5979.	2089.	2154.
64	1	2.791	4322	1276.86	1264.00	1256.56	1.00	1.00	61.8	15.0	3.10	6000.	2143.	2180.
65	1	2.796	4401	1276.88	1264.00	1256.59	1.00	1.00	63.5	15.3	3.10	6021.	2197.	2205.
66	1	2.801	4479	1276.90	1264.00	1256.61	1.00	1.00	65.3	15.6	3.10	6036.	2251.	2228.
67	1	2.806	4555	1276.92	1264.00	1256.63	1.00	1.00	67.1	16.0	3.10	6017.	2305.	2251.
68	1	2.810	4630	1276.94	1264.00	1256.65	1.00	1.00	68.9	16.3	3.10	5997.	2359.	2272.
69	1	2.815	4703	1276.95	1264.00	1256.67	1.00	1.00	70.7	16.7	3.10	5978.	2412.	2292.
70	1	2.820	4775	1276.97	1264.00	1256.69	1.00	1.00	72.6	17.0	3.10	5959.	2466.	2310.
71	1	2.825	4797	1276.98	1264.00	1256.69	1.00	1.00	74.5	17.0	3.10	5940.	2470.	2327.
72	1	2.830	4817	1277.00	1264.00	1256.70	1.00	1.00	76.4	17.0	3.10	5920.	2474.	2344.
73	1	2.834	4840	1277.01	1264.00	1256.70	1.00	1.00	78.3	17.0	3.10	5901.	2478.	2363.
74	1	2.839	4863	1277.02	1264.00	1256.71	1.00	1.00	80.3	17.0	3.10	5882.	2481.	2382.
75	1	2.844	4885	1277.03	1264.00	1256.72	1.00	1.00	82.2	17.0	3.10	5862.	2485.	2400.
76	1	2.849	4906	1277.04	1264.00	1256.72	1.00	1.00	84.1	17.0	3.10	5843.	2488.	2418.
77	1	2.854	4926	1277.05	1264.00	1256.73	1.00	1.00	86.1	17.0	3.10	5824.	2491.	2435.
78	1	2.858	4945	1277.07	1264.00	1256.73	1.00	1.00	88.1	17.0	3.10	5805.	2494.	2452.
79	1	2.863	4964	1277.08	1264.00	1256.74	1.00	1.00	90.0	17.0	3.10	5785.	2497.	2467.
80	1	2.868	4981	1277.09	1264.00	1256.74	1.00	1.00	92.0	17.0	3.10	5766.	2500.	2482.
81	1	2.873	4998	1277.09	1264.00	1256.75	1.00	1.00	94.0	17.0	3.10	5747.	2502.	2496.
82	1	2.878	5014	1277.10	1264.00	1256.75	1.00	1.00	96.0	17.0	3.10	5728.	2505.	2510.
83	1	2.882	5029	1277.11	1264.00	1256.75	1.00	1.00	97.9	17.0	3.10	5708.	2507.	2523.
84	1	2.887	5044	1277.12	1264.00	1256.76	1.00	1.00	99.9	17.0	3.10	5689.	2510.	2535.
85	1	2.892	5058	1277.13	1264.00	1256.76	1.00	1.00	101.9	17.0	3.10	5670.	2512.	2546.
86	1	2.897	5071	1277.13	1264.00	1256.76	1.00	1.00	104.0	17.0	3.10	5651.	2514.	2557.
87	1	2.902	5083	1277.14	1264.00	1256.77	1.00	1.00	106.0	17.0	3.10	5631.	2516.	2568.
88	1	2.906	5095	1277.15	1264.00	1256.77	1.00	1.00	108.0	17.0	3.10	5612.	2518.	2578.
89	1	2.911	5106	1277.15	1264.00	1256.77	1.00	1.00	110.0	17.0	3.10	5593.	2519.	2587.
90	1	2.916	5116	1277.16	1264.00	1256.78	1.00	1.00	112.0	17.0	3.10	5574.	2521.	2596.
91	1	2.921	5126	1277.16	1264.00	1256.78	1.00	1.00	114.1	17.0	3.10	5554.	2523.	2604.
92	1	2.926	5135	1277.17	1264.00	1256.78	1.00	1.00	116.1	17.0	3.10	5535.	2524.	2612.
93	1	2.930	5144	1277.17	1264.00	1256.78	1.00	1.00	118.1	17.0	3.10	5516.	2525.	2619.
94	1	2.935	5151	1277.18	1264.00	1256.78	1.00	1.00	120.2	17.0	3.10	5497.	2527.	2625.
95	1	2.940	5159	1277.18	1264.00	1256.79	1.00	1.00	122.2	17.0	3.10	5477.	2528.	2631.
96	1	2.945	5165	1277.19	1264.00	1256.79	1.00	1.00	124.3	17.0	3.10	5458.	2529.	2637.
97	1	2.950	5171	1277.19	1264.00	1256.79	1.00	1.00	126.3	17.0	3.10	5439.	2530.	2642.
98	1	2.954	5177	1277.19	1264.00	1256.79	1.00	1.00	128.4	17.0	3.10	5420.	2531.	2647.
99	1	2.959	5182	1277.19	1264.00	1256.79	1.00	1.00	130.4	17.0	3.10	5400.	2531.	2651.
100	1	2.964	5187	1277.20	1264.00	1256.79	1.00	1.00	132.5	17.0	3.10	5381.	2532.	2655.

RESERVOIR DEPLETION TABLE

I	*	TIP(I)	G(I)	H2	H3	D	SUB	VOLR	OUTVOL	SB	SUBA	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	*****	*****
101	1	2.969	5191	1277.20	1264.00	1256.79	1.00	1.00	134.6	17.0	3.10	5362.	2533.	2658.
102	1	2.974	5194	1277.20	1264.00	1256.80	1.00	1.00	136.8	17.0	3.10	5343.	2533.	2661.
103	1	2.978	5197	1277.20	1264.00	1256.80	1.00	1.00	138.7	17.0	3.10	5323.	2534.	2664.
104	1	2.983	5200	1277.20	1264.00	1256.80	1.00	1.00	140.7	17.0	3.10	5304.	2534.	2666.
105	1	2.988	5202	1277.20	1264.00	1256.80	1.00	1.00	142.8	17.0	3.10	5285.	2535.	2668.
106	1	2.993	5203	1277.21	1264.00	1256.80	1.00	1.00	144.9	17.0	3.10	5266.	2535.	2669.
107	1	2.998	5204	1277.21	1264.00	1256.80	1.00	1.00	146.9	17.0	3.10	5246.	2535.	2670.
108	1	3.002	5205	1277.21	1264.00	1256.80	1.00	1.00	149.0	17.0	3.10	5227.	2535.	2670.
109	1	3.007	5205	1277.21	1264.00	1256.80	1.00	1.00	151.1	17.0	3.10	5208.	2535.	2671.
110	1	3.012	5205	1277.21	1264.00	1256.80	1.00	1.00	153.1	17.0	3.10	5189.	2535.	2671.
111	1	3.017	5205	1277.21	1264.00	1256.80	1.00	1.00	155.2	17.0	3.10	5169.	2535.	2670.
112	1	3.022	5204	1277.21	1264.00	1256.80	1.00	1.00	157.3	17.0	3.10	5150.	2535.	2669.
113	1	3.026	5202	1277.21	1264.00	1256.80	1.00	1.00	159.3	17.0	3.10	5131.	2535.	2668.
114	1	3.031	5200	1277.20	1264.00	1256.80	1.00	1.00	161.4	17.0	3.10	5112.	2534.	2667.
115	1	3.036	5198	1277.20	1264.00	1256.80	1.00	1.00	163.4	17.0	3.10	5092.	2534.	2665.
116	1	3.041	5196	1277.20	1264.00	1256.80	1.00	1.00	165.5	17.0	3.10	5073.	2534.	2663.
117	1	3.046	5193	1277.20	1264.00	1256.80	1.00	1.00	167.6	17.0	3.10	5054.	2533.	2660.
118	1	3.050	5190	1277.20	1264.00	1256.79	1.00	1.00	169.6	17.0	3.10	5035.	2533.	2658.
119	1	3.055	5186	1277.20	1264.00	1256.79	1.00	1.00	171.7	17.0	3.10	5015.	2532.	2655.
120	1	3.060	5182	1277.19	1264.00	1256.79	1.00	1.00	173.7	17.0	3.10	4996.	2531.	2651.
121	1	3.065	5178	1277.19	1264.00	1256.79	1.00	1.00	175.8	17.0	3.10	4977.	2531.	2648.
122	1	3.070	5173	1277.19	1264.00	1256.79	1.00	1.00	178.1	17.0	3.10	4956.	2530.	2643.
123	1	3.076	5167	1277.19	1264.00	1256.79	1.00	1.00	180.5	17.0	3.10	4930.	2529.	2638.
124	1	3.082	5160	1277.18	1264.00	1256.79	1.00	1.00	183.3	17.0	3.10	4903.	2528.	2632.
125	1	3.089	5151	1277.18	1264.00	1256.79	1.00	1.00	186.3	17.0	3.10	4872.	2527.	2625.
126	1	3.097	5141	1277.17	1264.00	1256.78	1.00	1.00	189.5	17.0	3.10	4838.	2525.	2616.
127	1	3.106	5128	1277.17	1264.00	1256.78	1.00	1.00	193.2	17.0	3.10	4801.	2523.	2606.
128	1	3.115	5114	1277.16	1264.00	1256.78	1.00	1.00	197.1	17.0	3.10	4761.	2521.	2594.
129	1	3.125	5097	1277.15	1264.00	1256.77	1.00	1.00	201.5	17.0	3.10	4716.	2518.	2579.
130	1	3.137	5076	1277.14	1264.00	1256.77	1.00	1.00	206.2	17.0	3.10	4667.	2515.	2562.
131	1	3.149	5052	1277.12	1264.00	1256.76	1.00	1.00	211.4	17.0	3.10	4612.	2511.	2541.
132	1	3.163	5023	1277.11	1264.00	1256.75	1.00	1.00	217.1	17.0	3.10	4553.	2507.	2517.
133	1	3.178	4990	1277.09	1264.00	1256.74	1.00	1.00	223.4	17.0	3.10	4487.	2501.	2489.
134	1	3.194	4950	1277.07	1264.00	1256.73	1.00	1.00	230.2	17.0	3.10	4415.	2495.	2456.
135	1	3.213	4904	1277.04	1264.00	1256.72	1.00	1.00	237.6	17.0	3.10	4336.	2488.	2417.
136	1	3.233	4850	1277.01	1264.00	1256.71	1.00	1.00	245.7	17.0	3.10	4249.	2479.	2372.
137	1	3.255	4794	1276.98	1264.00	1256.69	1.00	1.00	254.5	17.0	3.10	4153.	2469.	2325.
138	1	3.279	4732	1276.94	1264.00	1256.68	1.00	1.00	264.0	17.0	3.10	4047.	2458.	2275.
139	1	3.306	4660	1276.89	1264.00	1256.66	1.00	1.00	274.4	17.0	3.10	3931.	2444.	2216.
140	1	3.335	4575	1276.84	1264.00	1256.64	1.00	1.00	285.6	17.0	3.10	3803.	2429.	2147.
141	1	3.367	4477	1276.77	1264.00	1256.61	1.00	1.00	297.7	17.0	3.10	3663.	2410.	2067.
142	2	3.403	4362	1276.70	1264.00	1256.57	1.00	1.00	310.6	17.0	3.10	3508.	2389.	1974.
143	2	3.442	4230	1276.61	1264.00	1256.54	1.00	1.00	324.5	17.0	3.10	3338.	2364.	1866.
144	2	3.485	4078	1276.51	1264.00	1256.49	1.00	1.00	339.3	17.0	3.10	3151.	2336.	1742.
145	2	3.532	3903	1276.40	1264.00	1256.44	1.00	1.00	354.9	17.0	3.10	2945.	2304.	1600.
146	2	3.584	3704	1276.26	1264.00	1256.38	1.00	1.00	371.2	17.0	3.10	2719.	2267.	1438.
147	2	3.641	3478	1276.12	1264.00	1256.31	1.00	1.00	388.2	17.0	3.10	2470.	2226.	1253.
148	2	3.704	3244	1275.94	1264.00	1256.24	1.00	1.00	405.7	17.0	3.10	2196.	2179.	1065.
149	2	3.773	3026	1275.74	1264.00	1256.17	1.00	1.00	423.6	17.0	3.10	1895.	2124.	903.
150	2	3.850	2768	1275.50	1264.00	1256.08	1.00	1.00	441.8	17.0	3.10	1564.	2059.	710.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	G(I)	H2	(B	I	SUB	VOLR	DUTOL	SS	[illegible]	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	********	****	****	*****	******	*****
151	2	3.933	2487	1275.24	1264.00	1255.15	1.00	1.00	467.0	17.0	3.11	1411.	1189.	199.
152	1	4.025	2221	1274.99	1264.00	1255.37	1.00	1.00	479.0	17.0	3.10	1317.	1022.	309.
153	1	4.127	1978	1274.74	1264.00	1255.91	1.00	1.00	496.0	17.0	3.10	1211.	1771.	223.
154	2	4.228	1927	1274.47	1264.00	1255.74	1.00	1.00	514.4	17.0	3.10	1.00.	1756.	142.
155	2	4.331	1767	1274.18	1264.00	1255.57	1.00	1.00	533.2	17.0	3.10	979.	1711.	53.
156	2	4.496	1634	1273.87	1264.00	1255.60	1.00	1.00	552.1	17.0	3.10	837.	1634.	0.
157	2	4.644	1545	1273.51	1264.00	1255.56	1.00	1.00	571.6	17.0	3.10	716.	1546.	0.
158	2	4.807	1448	1273.11	1264.00	1255.51	1.00	1.00	591.9	17.0	3.10	663.	1449.	0.
159	2	4.987	1348	1272.68	1264.00	1255.45	1.00	1.00	612.6	17.0	3.10	603.	1348.	0.
160	2	5.184	1243	1272.22	1264.00	1255.39	1.00	1.00	633.7	17.0	3.10	538.	1244.	0.
161	2	5.402	1135	1271.74	1264.00	1255.33	1.00	1.00	655.1	17.0	3.10	467.	1135.	0.
162	2	5.641	1022	1271.22	1264.00	1255.26	1.00	1.00	676.4	17.0	3.10	388.	1022.	0.
163	2	5.904	905	1270.65	1264.00	1255.18	1.00	1.00	697.3	17.0	3.10	301.	905.	0.
164	2	6.193	783	1270.04	1264.00	1255.09	1.00	1.00	717.5	17.0	3.10	206.	783.	0.
165	2	6.511	656	1269.37	1264.00	1254.99	1.00	1.00	736.4	17.0	3.10	101.	657.	0.

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	Q(1)	100.
MAX FLOW	CFS	QM	5206.
FINAL FLOW	CFS	Q(NU)	657.
TIME TO MAX FLOW	HRS	TP	3.01
NUMBER OF TIME STEPS		NNU	165
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	736.

INITIAL CONDITIONS

INITIAL CONDITIONS

(GDI(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.						

(YI(I),I=1,N)

1254.21	1241.09	1235.45	1223.45	1212.53	1203.39	1188.89	1182.53
1179.89	1175.39						

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.240
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	TIO	1.797
TIME TO PEAK	HR	TP	3.007
TIME STEP SIZE	HR	DTH1	0.012

ROUTING COMPLETED.

KTIME= 151 ALLOWABLE KTIME= 699 TT= 6.7

PROFILE OF CRESTS AND TIMES FOR DUTH AT SOUTH MOUNTA
BELOW GUADALUPE EAST DAM 9

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.017	1256.55	5205	2.948	12.20	1256.00	2.73
0.117	1246.89	5205	3.008	10.67	1246.50	2.74
0.235	1237.07	5200	3.056	11.06	1237.00	2.89
0.388	1225.13	5155	3.128	11.30	1225.00	2.95
0.570	1214.51	4897	3.256	10.25	1214.00	3.01
0.751	1205.11	4633	3.633	10.57	1205.00	3.41
0.972	1190.23	4591	3.694	12.92	1190.50	0.00
1.138	1184.78	4516	3.865	9.25	1184.00	3.34
1.225	1181.56	4400	3.995	10.49	1181.50	3.87
1.323	1177.00	4329	4.082	10.35	1177.00	4.08

YYYYYYYYYY 0000000000

GUADALUPE NORTH DAM 1 AT SOUTH MOUNTAIN -- OPTION 2 SUPERCRITICAL EMPTY LAKE
GREINER, INC. 7310 N. 16TH STREET, SUITE 160, PHOENIX, ARIZONA 85020

1	0	0	5	3	0	0	0
1100000010 0 0							
37.91	33.08	29.55	22.60	15.98	11.06	6.54	2.0
1281.0	1277.0	1275.	1270.	1265.	1260.	1255.	1250.0
0.	1267.	0.	1266.	15.0	0.23	1266.	0.0
1274.0	1281.2	1274.	0.0	0.0	0.0	-1268.	100.0
0.	303.	1110.	2350.	3900.	5850.	8000.	10400.
0.	1.	2.	3.	4.	5.	6.	7.
0.	9.0	1.	0	0	0	0	
0.00	1425.0	4856.	6039.	4956.	1475.	72.	0.
0.0	2.13	2.53	2.80	3.07	3.87	6.60	9.0
22	7	0	1	0	1	0	0
0.0379	1260.						
1258.	1259.	1261.	1263.	1264.	1265.	1270.	
0.	37.5	116.	185.	239.	280.	280.	
0.	0.	0.	0.	0.	0.	0.	
0.1326	1243.						
1241.	1242.	1243.	1244.	1245.	1246.	1251.	
0.	120.	120.	120.	120.	120.	120.	
0.	650.	970.	1190.	1350.	1475.	1475.	
0.3220	1226.5						
1224.5	1225.5	1226.	1226.5	1227.	1228.5	1233.5	
0.	120.	120.	120.	120.	120.	120.	
0.	750.	1115.	1250.	1350.	1600.	1600.	
0.4167	1217.						
1215.	1215.5	1216.	1217.	1217.5	1218.	1223.	
0.	120.	120.	120.	120.	120.	120.	
0.	550.	925.	1570.	1840.	1950.	1950.	
0.5492	1208.						
1206.	1206.5	1207.	1208.	1209.	1209.5	1214.5	
0.	120.	120.	120.	120.	120.	120.	
0.	750.	1082.	1770.	2443.5	2750.	2750.	
0.6818	1199.						
1197.	1197.5	1198.	1199.	1200.	1201.	1206.	
0.	120.	120.	120.	120.	120.	120.	
0.	613.	1100.	1525.	1830.	2040.	2040.	
0.8229	1190.5						
1188.5	1189.5	1190.5	1191.5	1192.5	1193.5	1198.5	
0.	120.	120.	120.	120.	120.	120.	
0.	1100.	1400.	1525.	1610.	1700.	1700.	
1.0511	1180.						
1178.	1179.	1180.	1181.	1181.5	1182.	1187.	
0.	120.	120.	120.	120.	120.	120.	
0.	575.	875.	1500.	1910.5	2388.	2388.	
1.1780	1173.						
1171.	1171.5	1172.	1173.	1173.5	1174.	1179.	
0.	120.	120.	120.	120.	120.	120.	
0.	375.	550.	670.	695.5	723.	723.	
1.2689	1169.						
1167.	1168.	1169.	1170.	1171.	1172.	1177.	
0.	120.	120.	120.	120.	120.	120.	
0.	400.	541.	650.	797.	946.	946.	
1.5568	1159.25						
1157.25	1157.75	1158.25	1158.75	1159.25	1159.75	1164.75	
0.	150.	150.	150.	150.	150.	150.	
0.	1025.	1500.	1600.	1650.	1670.	1670.	
1.6004	1157.						
1155.	1155.5	1156.	1156.5	1157.	1158.	1163.	

0.	180.	180.	180.	180.	180.	180.
0.	300.	600.	925.	1250.	1758.	1758.
1.7008	1153.5					
1151.5	1152.	1152.5	1153.	1153.5	1154.5	1159.5
0.	210.	210.	210.	210.	210.	210.
0.	200.	365.	475.	578.5	667.	667.
1.8674	1148.					
1146.	1147.	1148.	1150.	1151.	1152.	1157.
0.	240.	240.	240.	240.	240.	240.
0.	235.	450.	609.	720.	867.	867.
2.2055	1139.					
1137.	1137.5	1138.	1138.5	1139.	1140.	1145.
0.	240.	240.	240.	240.	240.	240.
181.	1273.	2388.	3651.	4582.	5560.	5560.
2.6089	1133.8					
1131.8	1132.	1133.	1134.	1135.	1136.	1141.
0.	200.	200.	200.	200.	200.	200.
0.	950.	1928.	2350.	2728.	3118.	3118.
2.9242	1129.8					
1127.8	1128.	1129.	1130.	1131.	1133.	1138.
0.	180.	180.	180.	180.	180.	180.
0.	132.	649.	1150.	1570.	2179.	2179.
3.2064	1126.					
1124.	1124.5	1126.	1127.	1128.	1129.	1134.
0.	200.	200.	200.	200.	200.	200.
0.	250.	874.	1125.	1344.	2182.	2182.
3.4943	1122.					
1120.	1121.	1122.	1123.	1124.	1126.	1131.
0.	200.	200.	200.	200.	200.	200.
0.	300.	619.	902.	1150.	1619.	1619.
3.8239	1119.					
1117.	1118.	1119.	1120.	1121.	1122.	1127.
0.	200.	200.	200.	200.	200.	200.
0.	1367.	1758.	1967.	2163.	2393.	2393.
4.1411	1114.					
1112.	1114.	1115.	1116.	1117.	1118.	1123.
0.	220.	220.	220.	220.	220.	220.
0.	1800.	1848.	1896.	1948.	2009.	2009.
4.8987	1102.					
1100.	1102.	1103.	1104.	1105.	1106.	1111.
0.	240.	240.	240.	240.	240.	240.
0.	1800.	1848.	1896.	1948.	2009.	2009.
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.020	0.020	0.020	0.020	0.020	0.020	0.020
0.022	0.022	0.022	0.022	0.022	0.022	0.022
0.022	0.022	0.022	0.022	0.022	0.022	0.022

0.024	0.024	0.024	0.024	0.034	0.024	0.024	
0.024	0.024	0.024	0.024	0.024	0.024	0.024	
0.035	0.035	0.035	0.035	0.035	0.035	0.035	
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
0.500	0.500	0.500	0.500	0.500			
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0			
0.0	0.0	0.0	0.0	78.0	0.0	0.0	0.0

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                                 S    V   V    I    A   A  U   U
                                  SSS    VVVVV   I    A   A  U   U
                                     S   V   V    I    AAAAA  U   U
                                     S   V   V    I    A   A  U   U
                                 SSSS    V   V   III   A   A  UUUUU

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NN      NN  DD      DD  AA      AA  MM      MM     11               WWWW  WWWW  AA      AA  LL          LL
NN      NN  DD      DD  AA      AA  MM      MM     11               WWWW  WWWW  AA      AA  LL          LL
NN      NN  DDDDDDDD    AA      AA  MM      MM    111111   ________  WW      WW  AA      AA  LLLLLLLLLL  LLLLLLLLLL
NN      NN  DDDDDDDD    AA      AA  MM      MM    111111   ________  WW      WW  AA      AA  LLLLLLLLLL  LLLLLLLLLL

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                               00      00 UU      UU     TT         ;;;;   44    44
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                          ....    000000   UUUUUUUUUU     TT         ;;         44
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File _DUA1:[USERS.8124034.ENGR]NDAM1_WALL.OUT;4 (2810,36,0), last revised on 11-MAY-1990 17:15, is a 81 block sequential file owned by UIC [ENGR,SHIAU]. The records are variable length with FORTRAN (FTN) carriage control. The longest record is 125 bytes.

Job NDAM1_WALL (1434) queued to SYS$PRINT on 11-MAY-1990 17:15 by user SHIAU, UIC [ENGR,SHIAU], under account ENGR at priority 100, started on printer _OPA0: on 11-MAY-1990 17:27 from queue SYS$PRINT.

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PROGRAM DAMBRK - VERSION 3/20/88 1

Input file name : NDAM1_WALL.DAT

11-MAY-90 17:14:31

ANALYSIS OF THE DOWNSTREAM FLOOD HYDROGRAPH

PRODUCED BY THE DAM BREAK OF

GUADALUPE NORTH DAM

ON

1 A1 SOUTH MOUNTAIN

ANALYSIS BY

-- OPTION 2 SUPERCRITICAL EMPTY LAKE
GREINER, INC. 7310 N. 16TH STREET, SUI
TE 160, PHOENIX, ARIZONA 85020

BASED ON PROCEDURE DEVELOPED BY
DANNY L. FREAD, PH.D., SR. RESEARCH HYDROLOGIST

QUALITY CONTROL TESTING AND OTHER SUPPORT BY

JANICE M. LEWIS, RESEARCH [illegible]

[illegible] RESEARCH LABORATORY
[illegible] OFFICE OF [illegible]
NOAA, NATIONAL [illegible]
SILVER SPRING, [illegible]

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*****************************************
*****************************************
***                                   ***
***  SUMMARY OF INPUT DATA            ***
***                                   ***
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*****************************************
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INPUT CONTROL PARAMETERS FOR GUADALUPE NORTH DAM

PARAMETER	VARIABLE	VALUE
NUMBER OF DYNAMIC ROUTING REACHES	KKK	1
TYPE OF RESERVOIR ROUTING	KU1	0
MULTIPLE DAM INDICATOR	MULDAM	0
PRINTING INSTRUCTIONS FOR INPUT SUMMARY	KDMP	5
NO. OF RESERVOIR INFLOW HYDROGRAPH POINTS	IIEH	8
INTERVAL OF CROSS-SECTION INFO PRINTED OUT WHEN JNK=9	NPRT	0
FLOOD-PLAIN MODEL PARAMETER	KFLP	0
METRIC INPUT/OUTPUT OPTION	METRIC	0

IDPLO= 1 1 0 0 0 0 0 0 1 0 0 0

GUADALUPE NORTH DAM RESERVOIR

TABLE OF ELEVATION VS SURFACE AREA

SURFACE AREA (ACRES) SA(K)	ELEVATION (FT) HSA(K)
37.9	1281.00
33.1	1277.00
27.5	1275.00
22.6	1270.00
16.0	1265.00
11.1	1260.00
6.5	1255.00
2.0	1250.00

GUADALUPE NORTH DAM RESERVOIR AND BREACH PARAMETERS

PARAMETER	UNITS	VARIABLE	VALUE
LENGTH OF RESERVOIR	MILE	XLM	0.00
ELEVATION OF WATER SURFACE	FEET	YO	1267.00
SIDE SLOPE OF BREACH		Z	0.00
ELEVATION OF BOTTOM OF BREACH	FEET	YBMIN	1266.00
WIDTH OF BASE OF BREACH	FEET	BB	15.00
TIME TO MAXIMUM BREACH SIZE	HOUR	TFM	0.36
ELEVATION (MSL) OF BOTTOM OF DAM	FEET	DATUM	1266.00
VOLUME-SURFACE AREA PARAMETER		VOL	0.00
ELEVATION OF WATER WHEN BREACHED	FEET	HF	1274.00
ELEVATION OF TOP OF DAM	FEET	HD	1281.20
ELEVATION OF UNCONTROLLED SPILLWAY CREST	FEET	HSP	1274.00
ELEVATION OF CENTER OF GATE OPENINGS	FEET	HGT	0.00
DISCHARGE COEF. FOR UNCONTROLLED SPILLWAY		CS	0.00
DISCHARGE COEF. FOR GATE FLOW		CG	0.00
DISCHARGE COEF. FOR UNCONTROLLED WEIR FLOW		CDO	-1268.00
DISCHARGE THRU TURBINES	CFS	GT	100.00

GSPILL(K,1) CFS	HEAD(K,1) FEET
0.	0.0
303.	1.0
1110.	2.0
2350.	3.0
3900.	4.0
5850.	5.0
8000.	6.0
10400.	7.0

DHR(INTERVAL BETWEEN INPUT HYDROGRAPH ORDINATES) = 0.00 HRS.

TEH(TIME AT WHICH COMPUTATIONS TERMINATE) = 9.0000 HRS.

BREX(BREACH EXPONENT) = 1.000

MUD(MUD FLOW OPTION) = 0

IWF(TYPE OF WAVE FRONT TRACKING) = 0

KPREG(WETTED PERIMETER OPTION) = 0

KSL(LANDSLIDE PARAMETER) = 0

INFLOW HYDROGRAPH TO GUADALUPE NORTH DAM
****

0.00	1425.00	4856.00	6039.00	4956.00	1475.00	72.00	0.00

TIME OF INFLOW HYDROGRAPH ORDINATES

0.0000	2.1300	2.5300	2.8000	3.0700	3.8700	6.6000	9.0000

CROSS-SECTIONAL PARAMETERS FOR 1 AT BLACK MOUNTAIN
BELOW GUADALUPE NORTH IAM

PARAMETER	VARIABLE	VALUE
NUMBER OF CROSS-SECTIONS	NS	22
MAXIMUM NUMBER OF TOP WIDTHS	NCS	7
NUMBER OF CROSS-SECTIONAL HYDROGRAPHS TO PLOT	NHT	0
TYPE OF OUTPUT OTHER THAN HYDROGRAPH PLOTS	INK	1
CROSS-SECTIONAL SMOOTHING PARAMETER	NSA	0
DOWNSTREAM SUPERCRITICAL OR NOT	KSUPC	1
NO. OF LATERAL INFLOW HYDROGRAPHS	LI	0
NO. OF POINTS IN GATE CONTROL CURVE	NCG	0

CROSS-SECTIONAL VARIABLES FOR 1 AT SOUTH BOUNDARY
BELOW GUADALUPE NORTH DAM

PARAMETER	UNITS	VARIABLE
MINIMUM COMPUTATIONAL DISTANCE USED BETWEEN CROSS-SECTIONS	MILE	DXM(I)
CONTRACTION - EXPANSION COEFFICIENTS BETWEEN CROSS-SECTIONS		EKC(I)

REACH NUMBER	DXM(I)	EKC(I)
1	0.500	0.000
2	0.500	0.000
3	0.500	0.000
4	0.500	0.000
5	0.500	0.000
6	0.500	0.000
7	0.500	0.000
8	0.500	0.000
9	0.500	0.000
10	0.500	0.000
11	0.500	0.000
12	0.500	0.000
13	0.500	0.000
14	0.500	0.000
15	0.500	0.000
16	0.500	0.000
17	0.500	0.000
18	0.500	0.000
19	0.500	0.000

10	0.500	0.001
11	1.100	0.002

DOWNSTREAM FLOW PARAMETERS FOR 1 AT SOUTH MOUNTAIN
BELOW GUADALUPE NORTH DAM

PARAMETER	UNITS	VARIABLE	VALUE
MAX DISCHARGE AT DOWNSTREAM EXTREMITY	CFS	QMAXD	0.0
MAX LATERAL OUTFLOW PRODUCING LOSSES	CFS /FEET SLL		0.000
INITIAL SIZE OF TIME STEP	HOUR	DTHM	0.0000
DOWNSTREAM BOUNDARY PARAMETER	FEET	YDN	0.000000
SLOPE OF CHANNEL DOWNSTREAM OF DAM	FPM	SOM	78.00
THETA WEIGHTING FACTOR		THETA	0.00
CONVERGENCE CRITERION FOR STAGE	FEET	EPSY	0.000
TIME AT WHICH DAM STARTS TO FAIL	HOUR	TFI	0.00

AT REACH= 1 DXM SHOULD BE CHANGED TO 0.192 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 2 DXM SHOULD BE CHANGED TO 0.161 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 3 DXM SHOULD BE CHANGED TO 0.159 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 4 DXM SHOULD BE CHANGED TO 0.155 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 5 DXM SHOULD BE CHANGED TO 0.152 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 6 DXM SHOULD BE CHANGED TO 0.150 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 7 DXM SHOULD BE CHANGED TO 0.142 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 8 DXM SHOULD BE CHANGED TO 0.138 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 9 DXM SHOULD BE CHANGED TO 0.138 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 10 DXM SHOULD BE CHANGED TO 0.128 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 11 DXM SHOULD BE CHANGED TO 0.127 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 12 DXM SHOULD BE CHANGED TO 0.124 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 13 DXM SHOULD BE CHANGED TO 0.120 DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH= 14 DXM SHOULD BE CHANGED TO 0.105 DUE TO (WAVE SPEED * DT) CRITERIA

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AT REACH=   15  DXM SHOULD BE CHANGED TO 0.100  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   16  DXM SHOULD BE CHANGED TO 0.094  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   17  DXM SHOULD BE CHANGED TO 0.090  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   18  DXM SHOULD BE CHANGED TO 0.086  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   19  DXM SHOULD BE CHANGED TO 0.081  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   20  DXM SHOULD BE CHANGED TO 0.086  DUE TO (WAVE SPEED * DT) CRITERIA

AT REACH=   21  DXM SHOULD BE CHANGED TO 0.075  DUE TO (WAVE SPEED * DT) CRITERIA


COMPUTATIONS WILL USE THE FOLLOWING DXM VALUES

0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500   0.500
0.500   0.500   0.500   0.500   0.500   0.500


TOTAL NUMBER OF CROSS SECTIONS (ORIGINAL+INTERPOLATED) (N) =    22     (MAXIMUM ALLOWABLE =   200
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***                       ***
***  SUMMARY OF OUTPUT DATA ***
***                       ***
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TOTAL VOLUME IN RESERVOIR BEHIND
GUADALUPE NORTH DAM = 330.9 ACRE-FEET

DEFINITION OF VARIABLES IN RESERVOIR DEPLETION TABLE

PARAMETER	UNITS	VARIABLE
TIME STEP FROM START OF ANALYSIS		I
ITERATIONS NECESSARY TO SOLVE FLOW EQUATIONS		K
ELAPSED TIME FROM START OF ANALYSIS	HOUR	TTP(I)
TOTAL OUTFLOW FROM DAM	CFS	Q(I)
ELEVATION OF WATER SURFACE AT DAM	FEET	H2
ELEVATION OF BOTTOM OF BREACH	FEET	YB
EST DEPTH OF FLOW IMMEDIATELY DOWNSTREAM	FEET	D
SUBMERGENCE COEFFICIENT		SUB
VELOCITY CORRECTION		VCOR
TOTAL VOLUME DISCHARGED FROM TIME OF BREACH	A FT	OUTVOL
BREACH WIDTH	FEET	BB
RECTANGULAR BREACH DISCHARGE COEFFICIENT		COEFR

INFLOW TO RESERVOIR	CFS	QI(I)
BREACH OUTFLOW	CFS	QBREACH
SPILLWAY OUTFLOW	CFS	QSPWL

RESERVOIR DEPLETION TABLE

I	[illegible]	TP(I)	Q(I)	HZ	YS	[illegible]	[illegible]	[illegible]	OUTVOL	SS	[illegible]	[illegible]	[illegible]	[illegible]
1	0	0.000	100	1267.11	1268.00	1258.98	1.00	1.00	0.0	0.0	4.80	0.	0.	100.
2	2	0.100	100	1266.97	1268.00	1258.98	1.00	1.00	0.8	0.0	4.80	67.	0.	100.
3	2	0.200	100	1266.97	1268.00	1258.98	1.00	1.00	1.7	0.0	4.80	134.	0.	100.
4	2	0.340	100	1267.02	1268.00	1258.98	1.00	1.00	2.8	0.0	4.80	227.	0.	100.
5	2	0.480	100	1267.13	1268.00	1258.98	1.00	1.00	4.0	0.0	4.80	321.	0.	100.
6	2	0.620	100	1267.29	1268.00	1258.98	1.00	1.00	5.1	0.0	4.80	415.	0.	100.
7	2	0.760	100	1267.51	1268.00	1258.98	1.00	1.00	6.3	0.0	4.80	508.	0.	100.
8	2	0.900	100	1267.75	1268.00	1258.98	1.00	1.00	7.4	0.0	4.80	602.	0.	100.
9	2	1.040	100	1268.10	1268.00	1258.98	1.00	1.00	8.6	0.0	4.80	696.	0.	100.
10	2	1.180	100	1268.47	1268.00	1258.98	1.00	1.00	9.8	0.0	4.80	789.	0.	100.
11	2	1.320	100	1268.88	1268.00	1258.98	1.00	1.00	10.9	0.0	4.80	883.	0.	100.
12	2	1.460	100	1269.32	1268.00	1258.98	1.00	1.00	12.1	0.0	4.80	977.	0.	100.
13	2	1.600	100	1269.81	1268.00	1258.98	1.00	1.00	13.2	0.0	4.80	1070.	0.	100.
14	2	1.740	100	1270.33	1268.00	1258.98	1.00	1.00	14.4	0.0	4.80	1164.	0.	100.
15	2	1.880	100	1270.83	1268.00	1258.98	1.00	1.00	15.5	0.0	4.80	1258.	0.	100.
16	2	2.020	100	1271.45	1268.00	1258.98	1.00	1.00	16.7	0.0	4.80	1351.	0.	100.
17	2	2.160	100	1272.11	1268.00	1258.98	1.00	1.00	17.9	0.0	4.80	1682.	0.	100.
18	2	2.300	100	1273.07	1268.00	1258.98	1.00	1.00	19.0	0.0	4.80	2883.	0.	100.
19	3	2.440	235	1274.45	1268.00	1259.55	1.00	1.00	21.0	0.0	4.80	4084.	0.	236.
20	1	2.445	254	1274.51	1267.88	1259.41	1.00	1.00	21.1	0.3	4.80	4129.	1.	253.
21	1	2.450	274	1274.56	1267.76	1259.43	1.00	1.00	21.2	0.6	4.80	4173.	4.	271.
22	1	2.456	296	1274.62	1267.64	1259.47	1.00	1.00	21.3	0.9	4.80	4218.	8.	288.
23	1	2.461	320	1274.68	1267.52	1259.51	1.00	1.00	21.4	1.2	4.80	4262.	14.	306.
24	1	2.466	346	1274.74	1267.40	1259.56	1.00	1.00	21.6	1.5	4.80	4307.	22.	324.
25	1	2.471	373	1274.80	1267.28	1259.60	1.00	1.00	21.7	1.8	4.80	4352.	33.	341.
26	1	2.476	403	1274.85	1267.16	1259.65	1.00	1.00	21.9	2.1	4.80	4396.	44.	359.
27	1	2.482	434	1274.91	1267.04	1259.69	1.00	1.00	22.1	2.4	4.80	4441.	58.	377.
28	1	2.487	468	1274.97	1266.92	1259.74	1.00	1.00	22.3	2.7	4.80	4485.	74.	394.
29	1	2.492	504	1275.03	1266.80	1259.81	1.00	1.00	22.5	3.0	4.80	4530.	92.	427.
30	1	2.497	543	1275.09	1266.68	1259.90	1.00	1.00	22.7	3.3	4.80	4575.	112.	474.
31	1	2.502	583	1275.15	1266.56	1259.97	1.00	1.00	23.0	3.6	4.80	4619.	133.	520.
32	1	2.508	719	1275.20	1266.44	1260.04	1.00	1.00	23.3	3.9	4.80	4664.	157.	562.
33	1	2.513	782	1275.26	1266.32	1260.11	1.00	1.00	23.6	4.2	4.80	4709.	183.	600.
34	1	2.518	847	1275.31	1266.20	1260.17	1.00	1.00	23.9	4.5	4.80	4753.	211.	637.
35	1	2.523	914	1275.37	1266.08	1260.23	1.00	1.00	24.3	4.8	4.80	4798.	241.	674.
36	1	2.528	979	1275.43	1266.00	1260.29	1.00	1.00	24.7	5.1	4.80	4842.	270.	710.
37	1	2.534	1041	1275.48	1266.00	1260.34	1.00	1.00	25.2	5.4	4.80	4872.	295.	746.
38	1	2.539	1106	1275.53	1266.00	1260.39	1.00	1.00	25.6	5.7	4.80	4895.	325.	782.
39	1	2.544	1173	1275.59	1266.00	1260.45	1.00	1.00	26.1	6.0	4.80	4917.	358.	816.
40	1	2.549	1242	1275.64	1266.00	1260.50	1.00	1.00	26.6	6.3	4.80	4940.	392.	850.
41	1	2.554	1312	1275.69	1266.00	1260.55	1.00	1.00	27.2	6.6	4.80	4963.	429.	884.
42	1	2.560	1384	1275.74	1266.00	1260.60	1.00	1.00	27.8	6.9	4.80	4986.	467.	917.
43	1	2.565	1456	1275.79	1266.00	1260.65	1.00	1.00	28.4	7.2	4.80	5008.	507.	949.
44	1	2.570	1528	1275.84	1266.00	1260.70	1.00	1.00	29.0	7.5	4.80	5031.	548.	980.
45	1	2.575	1610	1275.89	1266.00	1260.75	1.00	1.00	29.7	7.8	4.80	5054.	591.	1019.
46	1	2.580	1692	1275.93	1266.00	1260.80	1.00	1.00	30.4	8.1	4.80	5077.	635.	1057.
47	1	2.586	1774	1275.98	1266.00	1260.85	1.00	1.00	31.1	8.4	4.80	5100.	680.	1094.
48	1	2.591	2464	1276.02	1266.00	1261.29	1.00	1.00	32.1	8.7	3.10	5122.	1328.	1137.
49	1	2.596	2079	1276.06	1266.00	1261.18	1.00	1.00	33.0	9.0	3.10	5145.	894.	1185.
50	1	2.601	2165	1276.10	1266.00	1261.07	1.00	1.00	33.9	9.3	3.10	5168.	929.	1237.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	I	BUB	VOLB	OUTVOL	BW	GOR	[illegible]	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	*****	*****
51	1	2.606	2251	1276.14	1266.00	1261.13	1.00	1.00	34.9	9.8	3.10	5191.	[illegible]	1287.
52	1	2.612	2336	1276.18	1266.00	1261.16	1.00	1.00	35.9	9.9	3.10	5214.	[illegible]	1336.
53	1	2.617	2420	1276.22	1266.00	1261.20	1.00	1.00	36.9	10.0	3.10	5236.	1037.	1384.
54	1	2.622	2504	1276.26	1266.00	1261.24	1.00	1.00	38.0	10.5	3.10	5259.	1074.	1431.
55	1	2.627	2586	1276.30	1266.00	1261.28	1.00	1.00	39.1	10.8	3.10	5282.	1111.	1478.
56	1	2.632	2668	1276.32	1266.00	1261.31	1.00	1.00	40.2	11.1	3.10	5305.	1148.	1521.
57	1	2.638	2749	1276.37	1266.00	1261.35	1.00	1.00	41.4	11.4	3.10	5327.	1185.	1564.
58	1	2.643	2829	1276.40	1266.00	1261.39	1.00	1.00	42.5	11.7	3.10	5350.	1222.	1607.
59	1	2.648	2908	1276.43	1266.00	1261.42	1.00	1.01	43.8	12.0	3.10	5373.	1260.	1648.
60	1	2.653	2986	1276.47	1266.00	1261.45	1.00	1.01	45.0	12.3	3.10	5396.	1298.	1689.
61	1	2.658	3064	1276.50	1266.00	1261.49	1.00	1.01	46.3	12.6	3.10	5419.	1336.	1728.
62	1	2.664	3140	1276.53	1266.00	1261.52	1.00	1.01	47.7	12.9	3.10	5441.	1374.	1767.
63	1	2.669	3216	1276.56	1266.00	1261.55	1.00	1.01	49.0	13.2	3.10	5464.	1412.	1804.
64	1	2.674	3291	1276.59	1266.00	1261.58	1.00	1.01	50.4	13.5	3.10	5487.	1451.	1841.
65	1	2.679	3365	1276.62	1266.00	1261.61	1.00	1.01	51.9	13.8	3.10	5510.	1489.	1877.
66	1	2.684	3439	1276.65	1266.00	1261.64	1.00	1.01	53.3	14.1	3.10	5532.	1528.	1911.
67	1	2.690	3512	1276.67	1266.00	1261.67	1.00	1.01	54.8	14.4	3.10	5555.	1567.	1945.
68	1	2.695	3584	1276.70	1266.00	1261.69	1.00	1.01	56.4	14.7	3.10	5578.	1606.	1978.
69	1	2.700	3655	1276.73	1266.00	1261.72	1.00	1.01	57.9	15.0	3.10	5601.	1645.	2011.
70	1	2.705	3693	1276.75	1266.00	1261.74	1.00	1.01	59.5	15.0	3.10	5624.	1651.	2042.
71	1	2.710	3730	1276.78	1266.00	1261.75	1.00	1.01	61.1	15.0	3.10	5646.	1657.	2074.
72	1	2.716	3767	1276.80	1266.00	1261.76	1.00	1.01	62.7	15.0	3.10	5669.	1663.	2105.
73	1	2.721	3804	1276.83	1266.00	1261.78	1.00	1.01	64.3	15.0	3.10	5692.	1669.	2136.
74	1	2.726	3840	1276.85	1266.00	1261.79	1.00	1.01	66.0	15.0	3.10	5715.	1675.	2166.
75	1	2.731	3877	1276.88	1266.00	1261.80	1.00	1.01	67.6	15.0	3.10	5738.	1681.	2196.
76	1	2.736	3912	1276.90	1266.00	1261.82	1.00	1.01	69.3	15.0	3.10	5760.	1686.	2226.
77	1	2.742	3948	1276.92	1266.00	1261.83	1.00	1.01	71.0	15.0	3.10	5783.	1692.	2256.
78	1	2.747	3983	1276.95	1266.00	1261.84	1.00	1.01	72.7	15.0	3.10	5806.	1698.	2286.
79	1	2.752	4018	1276.97	1266.00	1261.86	1.00	1.01	74.4	15.0	3.10	5829.	1703.	2315.
80	1	2.757	4053	1277.00	1266.00	1261.87	1.00	1.01	76.1	15.0	3.10	5851.	1709.	2344.
81	1	2.762	4088	1277.02	1266.00	1261.88	1.00	1.01	77.9	15.0	3.10	5874.	1714.	2373.
82	1	2.768	4134	1277.04	1266.00	1261.90	1.00	1.01	79.7	15.0	3.10	5897.	1720.	2414.
83	1	2.773	4175	1277.06	1266.00	1261.91	1.00	1.01	81.5	15.0	3.10	5920.	1725.	2450.
84	1	2.778	4215	1277.09	1266.00	1261.92	1.00	1.01	83.3	15.0	3.10	5943.	1731.	2485.
85	1	2.783	4255	1277.11	1266.00	1261.94	1.00	1.01	85.1	15.0	3.10	5965.	1736.	2519.
86	1	2.788	4294	1277.13	1266.00	1261.95	1.00	1.01	86.9	15.0	3.10	5988.	1742.	2553.
87	1	2.794	4333	1277.15	1266.00	1261.97	1.00	1.01	88.8	15.0	3.10	6011.	1747.	2587.
88	1	2.799	4372	1277.17	1266.00	1261.98	1.00	1.01	90.6	15.0	3.10	6034.	1752.	2620.
89	1	2.804	4410	1277.20	1266.00	1261.99	1.00	1.01	92.5	15.0	3.10	6023.	1757.	2653.
90	1	2.809	4446	1277.22	1266.00	1262.00	1.00	1.01	94.4	15.0	3.10	6002.	1762.	2685.
91	1	2.814	4482	1277.24	1266.00	1262.02	1.00	1.01	96.3	15.0	3.10	5981.	1767.	2715.
92	1	2.820	4516	1277.25	1266.00	1262.03	1.00	1.01	98.3	15.0	3.10	5960.	1772.	2745.
93	1	2.825	4546	1277.27	1266.00	1262.04	1.00	1.01	100.2	15.0	3.10	5940.	1776.	2773.
94	1	2.830	4580	1277.29	1266.00	1262.05	1.00	1.01	102.2	15.0	3.10	5919.	1780.	2800.
95	1	2.835	4610	1277.31	1266.00	1262.06	1.00	1.01	104.2	15.0	3.10	5898.	1784.	2826.
96	1	2.840	4639	1277.32	1266.00	1262.07	1.00	1.01	106.2	15.0	3.10	5877.	1788.	2851.
97	1	2.846	4667	1277.34	1266.00	1262.08	1.00	1.01	108.2	15.0	3.10	5856.	1792.	2875.
98	1	2.851	4694	1277.35	1266.00	1262.09	1.00	1.01	110.2	15.0	3.10	5835.	1796.	2899.
99	1	2.856	4720	1277.37	1266.00	1262.09	1.00	1.01	112.2	15.0	3.10	5814.	1799.	2921.
100	1	2.861	4744	1277.38	1266.00	1262.10	1.00	1.01	114.2	15.0	3.10	5794.	1803.	2942.

RESERVOIR DEPLETION TABLE

I	K	TTP(I)	Q(I)	H2	YB	D	SUP	VCOR	OUTVOL	BB	COR2	QI(I)	BBRECH	BBFIL
***	**	******	********	*******	*******	*******	****	****	*********	****	****	*****	******	*****
101	1	2.866	4768	1277.40	1266.00	1262.11	1.00	1.01	116.3	15.0	3.10	5773.	1806.	2963.
102	1	2.872	4791	1277.41	1266.00	1262.12	1.00	1.01	118.3	15.0	3.10	5752.	1809.	2982.
103	1	2.877	4812	1277.42	1266.00	1262.12	1.00	1.01	120.4	15.0	3.10	5731.	1812.	3001.
104	1	2.882	4833	1277.43	1266.00	1262.13	1.00	1.01	122.5	15.0	3.10	5710.	1815.	3018.
105	1	2.887	4852	1277.44	1266.00	1262.14	1.00	1.01	124.5	15.0	3.10	5689.	1817.	3035.
106	1	2.892	4871	1277.45	1266.00	1262.14	1.00	1.01	126.6	15.0	3.10	5668.	1820.	3052.
107	1	2.898	4889	1277.46	1266.00	1262.15	1.00	1.01	128.7	15.0	3.10	5648.	1822.	3067.
108	1	2.903	4906	1277.47	1266.00	1262.15	1.00	1.01	130.8	15.0	3.10	5627.	1825.	3082.
109	1	2.908	4922	1277.48	1266.00	1262.16	1.00	1.01	132.9	15.0	3.10	5606.	1827.	3096.
110	1	2.913	4937	1277.49	1266.00	1262.16	1.00	1.01	135.1	15.0	3.10	5585.	1829.	3109.
111	1	2.918	4952	1277.50	1266.00	1262.17	1.00	1.01	137.2	15.0	3.10	5564.	1831.	3121.
112	1	2.924	4965	1277.51	1266.00	1262.17	1.00	1.01	139.3	15.0	3.10	5543.	1833.	3133.
113	1	2.929	4978	1277.51	1266.00	1262.18	1.00	1.01	141.5	15.0	3.10	5522.	1835.	3144.
114	1	2.934	4990	1277.52	1266.00	1262.18	1.00	1.01	143.6	15.0	3.10	5502.	1836.	3154.
115	1	2.939	5002	1277.53	1266.00	1262.18	1.00	1.01	145.7	15.0	3.10	5481.	1838.	3164.
116	1	2.944	5012	1277.53	1266.00	1262.19	1.00	1.01	147.9	15.0	3.10	5460.	1839.	3173.
117	1	2.950	5022	1277.54	1266.00	1262.19	1.00	1.01	150.1	15.0	3.10	5439.	1841.	3182.
118	1	2.955	5031	1277.54	1266.00	1262.19	1.00	1.01	152.2	15.0	3.10	5418.	1842.	3190.
119	1	2.960	5040	1277.55	1266.00	1262.20	1.00	1.01	154.4	15.0	3.10	5397.	1843.	3197.
120	1	2.965	5048	1277.55	1266.00	1262.20	1.00	1.01	156.5	15.0	3.10	5376.	1844.	3204.
121	1	2.971	5056	1277.56	1266.00	1262.20	1.00	1.01	158.9	15.0	3.10	5353.	1845.	3211.
122	1	2.977	5063	1277.56	1266.00	1262.20	1.00	1.01	161.6	15.0	3.10	5328.	1846.	3217.
123	1	2.984	5071	1277.56	1266.00	1262.21	1.00	1.01	164.5	15.0	3.10	5300.	1847.	3224.
124	1	2.992	5073	1277.57	1266.00	1262.21	1.00	1.01	167.7	15.0	3.10	5270.	1848.	3230.
125	1	3.000	5084	1277.57	1266.00	1262.21	1.00	1.01	171.2	15.0	3.10	5236.	1849.	3235.
126	1	3.009	5089	1277.57	1266.00	1262.21	1.00	1.01	175.0	15.0	3.10	5199.	1850.	3240.
127	1	3.019	5093	1277.58	1266.00	1262.21	1.00	1.01	179.3	15.0	3.10	5159.	1851.	3243.
128	1	3.031	5095	1277.58	1266.00	1262.21	1.00	1.01	184.0	15.0	3.10	5114.	1851.	3245.
129	1	3.043	5095	1277.58	1266.00	1262.21	1.00	1.01	189.2	15.0	3.10	5065.	1851.	3245.
130	1	3.056	5092	1277.58	1266.00	1262.21	1.00	1.01	194.3	15.0	3.10	5011.	1850.	3242.
131	1	3.071	5085	1277.57	1266.00	1262.21	1.00	1.01	201.1	15.0	3.10	4951.	1849.	3236.
132	1	3.088	5073	1277.56	1266.00	1262.21	1.00	1.01	207.9	15.0	3.10	4880.	1848.	3226.
133	1	3.105	5055	1277.56	1266.00	1262.20	1.00	1.01	215.4	15.0	3.10	4802.	1845.	3210.
134	1	3.125	5031	1277.54	1266.00	1262.20	1.00	1.01	223.7	15.0	3.10	4716.	1842.	3189.
135	1	3.147	4998	1277.52	1266.00	1262.19	1.00	1.01	232.7	15.0	3.10	4621.	1838.	3161.
136	1	3.171	4955	1277.50	1266.00	1262.17	1.00	1.01	242.5	15.0	3.10	4517.	1832.	3124.
137	1	3.197	4901	1277.47	1266.00	1262.16	1.00	1.01	253.2	15.0	3.10	4403.	1824.	3077.
138	1	3.226	4833	1277.43	1266.00	1262.14	1.00	1.01	264.8	15.0	3.10	4277.	1815.	3019.
139	1	3.258	4751	1277.39	1266.00	1262.11	1.00	1.01	277.4	15.0	3.10	4139.	1804.	2948.
140	1	3.293	4652	1277.33	1266.00	1262.08	1.00	1.01	291.0	15.0	3.10	3987.	1791.	2862.
141	2	3.331	4534	1277.26	1266.00	1262.03	1.00	1.01	305.6	15.0	3.10	3819.	1775.	2760.
142	2	3.374	4396	1277.19	1266.00	1261.99	1.00	1.01	321.3	15.0	3.10	3635.	1756.	2640.
143	2	3.420	4234	1277.10	1266.00	1261.93	1.00	1.01	337.9	15.0	3.10	3432.	1734.	2500.
144	2	3.471	4048	1276.99	1266.00	1261.87	1.00	1.01	355.4	15.0	3.10	3209.	1709.	2340.
145	2	3.528	3867	1276.87	1266.00	1261.80	1.00	1.01	373.8	15.0	3.10	2964.	1680.	2187.
146	2	3.590	3652	1276.72	1266.00	1261.72	1.00	1.01	393.1	15.0	3.10	2695.	1645.	2007.
147	2	3.658	3401	1276.55	1266.00	1261.62	1.00	1.01	413.0	15.0	3.10	2398.	1606.	1796.
148	2	3.733	3111	1276.36	1266.00	1261.51	1.00	1.01	433.1	15.0	3.10	2072.	1560.	1551.
149	2	3.815	2779	1276.13	1266.00	1261.36	1.00	1.01	453.2	15.0	3.10	1713.	1508.	1271.
150	2	3.906	2466	1275.88	1266.00	1261.22	1.00	1.00	472.9	15.0	3.10	1456.	1452.	1014.

RESERVOIR DEPLETION TABLE

I	K	TIP(I)	Q(I)	H2	H3	D	SUB	VCOR	OUTVOL	BB	COFR	Q1(I)	[illegible]	[illegible]
***	**	******	********	*******	*******	*******	****	****	********	****	****	*****	*****	*****
151	1	4.006	2215	1275.64	1266.00	1261.09	1.00	1.00	493.2	15.0	3.10	1405.	1398.	311.
152	2	4.116	1993	1275.42	1266.00	1260.98	1.00	1.00	511.3	15.0	3.10	1349.	1350.	643.
153	2	4.236	1797	1275.23	1266.00	1260.87	1.00	1.00	530.2	15.0	3.10	1297.	1309.	489.
154	2	4.369	1624	1275.06	1266.00	1260.76	1.00	1.00	549.0	15.0	3.10	1215.	1272.	352.
155	2	4.315	1512	1274.90	1266.00	1260.69	1.00	1.00	567.9	15.0	3.10	1143.	1239.	274.
156	1	4.675	1426	1274.74	1266.00	1260.63	1.00	1.00	587.5	15.0	3.10	1061.	1204.	222.
157	2	4.853	1333	1274.55	1266.00	1260.57	1.00	1.00	607.6	15.0	3.10	970.	1166.	167.
158	2	5.048	1230	1274.35	1266.00	1260.49	1.00	1.00	628.2	15.0	3.10	870.	1125.	106.
159	2	5.261	1118	1274.13	1266.00	1260.40	1.00	1.00	649.0	15.0	3.10	760.	1080.	38.
160	2	5.497	1028	1273.87	1266.00	1260.33	1.00	1.00	669.9	15.0	3.10	639.	1029.	0.
161	2	5.756	965	1273.54	1266.00	1260.28	1.00	1.00	691.2	15.0	3.10	506.	965.	0.
162	2	6.040	884	1273.12	1266.00	1260.20	1.00	1.00	713.0	15.0	3.10	360.	885.	0.
163	2	6.354	785	1272.57	1266.00	1260.11	1.00	1.00	734.6	15.0	3.10	199.	786.	0.
164	2	6.698	671	1271.92	1266.00	1259.99	1.00	1.00	755.4	15.0	3.10	69.	671.	0.
165	2	7.077	556	1271.22	1266.00	1259.85	1.00	1.01	774.6	15.0	3.10	58.	557.	0.
166	2	7.494	455	1270.56	1266.00	1259.72	1.00	1.01	792.0	15.0	3.10	45.	455.	0.
167	2	7.953	366	1269.95	1266.00	1259.59	1.00	1.01	807.6	15.0	3.10	31.	367.	0.
168	2	8.457	290	1269.37	1266.00	1259.46	1.00	1.01	821.3	15.0	3.10	16.	291.	0.

PARAMETER	UNITS	VARIABLE	VALUE
INITIAL FLOW	CFS	Q(1)	100.
MAX FLOW	CFS	QM	5096.
FINAL FLOW	CFS	Q(NU)	291.
TIME TO MAX FLOW	HRS	TP	3.03
NUMBER OF TIME STEPS		NNU	168
TOTAL VOLUME DISCHARGED FROM RESERVOIR	A FT	DISVOL	821.

INITIAL CONDITIONS

INITIAL CONDITIONS

(QDI(I),I=1,N)

100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.	100.	100.
100.	100.	100.	100.	100.	100.		

(YI(I),I=1,N)

1258.84	1241.54	1225.18	1215.40	1206.51	1197.48	1189.21	1178.68
1171.52	1167.71	1157.73	1155.45	1151.92	1146.52	1137.39	1132.09
1128.10	1124.43	1120.57	1117.57	1112.72	1100.70		

TIME PARAMETERS OF OUTFLOW HYDROGRAPH IMMEDIATELY DOWNSTREAM OF DAM

PARAMETER	UNITS	VARIABLE	VALUE
TIME TO FAILURE	HR	TFH	0.260
TIME TO START OF RISING LIMB OF HYDROGRAPH	HR	SRO	2.771
TIME TO PEAK	HR	TP	3.031
TIME STEP SIZE	HR	DTHI	0.013

ROUTING COMPLETED.

KTIME= 210 ALLOWABLE KTIME= 699 TT= 9.0

PROFILE OF CRESTS AND TIMES FOR 1 AT SOLIN MOUNTAIN
BELOW GUADALUPE NORTH DAM

DISTANCE FROM DAM MILE	MAX ELEV FEET	MAX FLOW CFS	TIME MAX ELEV-HRS	MAX VEL FPS	FLOOD ELEV FEET	TIME FLOOD ELEV-HRS
********	********	********	********	********	**********	**********
0.038	1261.57	5095	3.011	20.99	1260.00	2.66
0.133	1243.47	5086	3.076	21.58	1243.00	2.73
0.322	1227.67	4961	3.245	15.60	1226.50	2.74
0.417	1217.38	4887	3.310	19.33	1217.00	2.99
0.549	1208.94	4684	3.524	14.90	1208.00	2.97
0.682	1199.59	4517	3.636	16.31	1199.00	3.18
0.824	1191.64	4398	3.803	14.10	1190.50	3.18
1.051	1181.16	4196	3.999	13.33	1180.00	3.35
1.178	1173.61	4154	4.083	14.73	1173.00	3.55
1.269	1170.32	4136	4.116	12.28	1169.00	3.44
1.557	1159.83	3927	4.415	11.33	1159.25	3.86
1.600	1156.98	3913	4.382	12.61	1157.00	0.00
1.701	1153.83	3902	4.449	8.94	1153.50	3.97
1.867	1148.27	3893	4.482	9.18	1148.00	4.05
2.296	1139.30	2913	5.247	6.04	1139.00	4.55
2.609	1133.79	2736	6.047	8.01	1133.80	0.00
2.924	1130.72	2583	6.568	5.18	1129.80	5.21
3.206	1125.89	2552	6.568	14.49	1126.00	0.00
3.494	1123.67	2469	7.199	4.02	1122.00	3.89
3.824	1119.10	2416	8.933	15.62	1119.00	7.60
4.141	1115.81	2318	7.831	4.38	1114.00	4.90
4.899	1103.09	1921	8.933	10.82	1102.00	8.00