

KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

[illegible]

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28 KK DETENTION
29 KO
30 RS 1 STOR
31 SA 0 0.7 1.2 3.6
32 SE 5538 5540 5545 5550
33 SQ 0 0 20
34 ST 5550 10 3.330 1.5
35 ZZ
1*****
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* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
*
* SEPTEMBER 1990 *
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* VERSION 4.0 *
*
* RUN DATE 12/01/2003 TIME 10:06:30 *
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*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*

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21

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IT TWO PONDS
5-yr rainfall

HYDROGRAPH TIME DATA
NMIN 1 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 300 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE

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NDTIME 0459 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .02 HOURS
TOTAL TIME BASE 4.98 HOURS

ENGLISH UNITS

DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

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*
* OW1 *
*

6 KO OUTPUT CONTROL VARIABLES
IPRNT 0 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE
IPNCH 0 PUNCH COMPUTED HYDROGRAPH
IOUT 21 SAVE HYDROGRAPH ON THIS UNIT
ISAV1 1 FIRST ORIGINATE PUNCHED OR SAVED
ISAV2 300 LAST ORIGINATE PUNCHED OR SAVED
TIMINT .017 TIME INTERVAL IN HOURS

SUBBASIN RUNOFF DATA

7 BA

SUBBASIN CHARACTERISTICS
TAREA .11 SUBBASIN AREA

8 PH

PRECIPITATION DATA

..... HYDRO-35 DEPTHS FOR 20-PERCENT HYPOTHETICAL STORM
 5-MIN 15-MIN 60-MIN TP-40 TP-49
 .20 .40 .60 2-HR 3-HR 6-HR 12-HR 24-HR 2-DAY 4-DAY 7-DAY 10-DAY
 .80 1.00 1.20 1.80 2.70 .00 .00 .00 .00

STORM AREA = .11

9 LS

SCS LOSS RATE
 STRTL .41 INITIAL ABSTRACTION
 CRVNR 83.00 CURVE NUMBER
 RTIMP 68.00 PERCENT IMPERVIOUS AREA

10 UD

SCS DIMENSIONLESS UNITGRAPH
 TLAG .48 LAG

VALUE EXCEEDS TABLE IN LOGLOG

.01667

.01667

24.00000

UNIT HYDROGRAPH

147 END-OF-PERIOD ORDINATES

1.	2.	3.	6.	8.	11.	14.	17.	20.	25.
29.	33.	39.	45.	51.	57.	64.	71.	76.	82.
87.	91.	95.	98.	100.	102.	103.	104.	104.	104.
104.	103.	102.	100.	98.	95.	93.	90.	88.	85.
82.	79.	75.	72.	68.	63.	59.	55.	52.	48.
46.	43.	41.	39.	37.	34.	33.	31.	29.	28.
27.	25.	24.	23.	21.	20.	19.	18.	17.	16.
15.	14.	14.	13.	12.	12.	11.	10.	10.	9.
9.	8.	8.	7.	7.	7.	6.	6.	6.	5.
5.	5.	5.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	0.	0.	0.	0.	0.	0.	0.

0. 0. 0. 0. 0. 0. 0.

HYDROGRAPH AT STATION OW1

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	*	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1	0000		1	.00	.00	.00	0.	*	*	*	1	0230	151		.04	.01	.03	10.
1	0001		2	.00	.00	.00	0.	*	*	*	1	0231	152		.04	.01	.03	11.
1	0002		3	.00	.00	.00	0.	*	*	*	1	0232	153		.04	.01	.03	11.
1	0003		4	.00	.00	.00	0.	*	*	*	1	0233	154		.02	.01	.02	12.
1	0004		5	.00	.00	.00	0.	*	*	*	1	0234	155		.02	.01	.02	12.
1	0005		6	.00	.00	.00	0.	*	*	*	1	0235	156		.02	.00	.01	13.
1	0006		7	.00	.00	.00	0.	*	*	*	1	0236	157		.02	.00	.01	14.
1	0007		8	.00	.00	.00	0.	*	*	*	1	0237	158		.01	.00	.01	15.
1	0008		9	.00	.00	.00	0.	*	*	*	1	0238	159		.01	.00	.01	16.
1	0009		10	.00	.00	.00	0.	*	*	*	1	0239	160		.01	.00	.01	17.
1	0010		11	.00	.00	.00	0.	*	*	*	1	0240	161		.01	.00	.01	18.
1	0011		12	.00	.00	.00	0.	*	*	*	1	0241	162		.01	.00	.00	19.
1	0012		13	.00	.00	.00	0.	*	*	*	1	0242	163		.01	.00	.00	21.
1	0013		14	.00	.00	.00	0.	*	*	*	1	0243	164		.01	.00	.00	22.
1	0014		15	.00	.00	.00	0.	*	*	*	1	0244	165		.01	.00	.00	23.
1	0015		16	.00	.00	.00	0.	*	*	*	1	0245	166		.00	.00	.00	25.
1	0016		17	.00	.00	.00	0.	*	*	*	1	0246	167		.00	.00	.00	26.
1	0017		18	.00	.00	.00	0.	*	*	*	1	0247	168		.00	.00	.00	28.
1	0018		19	.00	.00	.00	0.	*	*	*	1	0248	169		.00	.00	.00	29.
1	0019		20	.00	.00	.00	0.	*	*	*	1	0249	170		.00	.00	.00	30.
1	0020		21	.00	.00	.00	0.	*	*	*	1	0250	171		.00	.00	.00	32.
1	0021		22	.00	.00	.00	1.	*	*	*	1	0251	172		.00	.00	.00	33.
1	0022		23	.00	.00	.00	1.	*	*	*	1	0252	173		.00	.00	.00	34.
1	0023		24	.00	.00	.00	1.	*	*	*	1	0253	174		.00	.00	.00	34.
1	0024		25	.00	.00	.00	1.	*	*	*	1	0254	175		.00	.00	.00	35.
1	0025		26	.00	.00	.00	1.	*	*	*	1	0255	176		.00	.00	.00	36.

1	0026	27	.00	.00	.00	1.	*	1	0256	177	.00	.00	.00	36.
1	0027	28	.00	.00	.00	1.	*	1	0257	178	.00	.00	.00	36.
1	0028	29	.00	.00	.00	1.	*	1	0258	179	.00	.00	.00	37.
1	0029	30	.00	.00	.00	1.	*	1	0259	180	.00	.00	.00	37.
1	0030	31	.00	.00	.00	1.	*	1	0300	181	.00	.00	.00	37.
1	0031	32	.00	.00	.00	1.	*	1	0301	182	.00	.00	.00	37.
1	0032	33	.00	.00	.00	1.	*	1	0302	183	.00	.00	.00	36.
1	0033	34	.00	.00	.00	1.	*	1	0303	184	.00	.00	.00	36.
1	0034	35	.00	.00	.00	1.	*	1	0304	185	.00	.00	.00	36.
1	0035	36	.00	.00	.00	1.	*	1	0305	186	.00	.00	.00	35.
1	0036	37	.00	.00	.00	2.	*	1	0306	187	.00	.00	.00	35.
1	0037	38	.00	.00	.00	2.	*	1	0307	188	.00	.00	.00	34.
1	0038	39	.00	.00	.00	2.	*	1	0308	189	.00	.00	.00	33.
1	0039	40	.00	.00	.00	2.	*	1	0309	190	.00	.00	.00	33.
1	0040	41	.00	.00	.00	2.	*	1	0310	191	.00	.00	.00	32.
1	0041	42	.00	.00	.00	2.	*	1	0311	192	.00	.00	.00	31.
1	0042	43	.00	.00	.00	2.	*	1	0312	193	.00	.00	.00	30.
1	0043	44	.00	.00	.00	2.	*	1	0313	194	.00	.00	.00	29.
1	0044	45	.00	.00	.00	2.	*	1	0314	195	.00	.00	.00	29.
1	0045	46	.00	.00	.00	2.	*	1	0315	196	.00	.00	.00	28.
1	0046	47	.00	.00	.00	2.	*	1	0316	197	.00	.00	.00	27.
1	0047	48	.00	.00	.00	2.	*	1	0317	198	.00	.00	.00	26.
1	0048	49	.00	.00	.00	2.	*	1	0318	199	.00	.00	.00	25.
1	0049	50	.00	.00	.00	2.	*	1	0319	200	.00	.00	.00	24.
1	0050	51	.00	.00	.00	2.	*	1	0320	201	.00	.00	.00	24.
1	0051	52	.00	.00	.00	2.	*	1	0321	202	.00	.00	.00	23.
1	0052	53	.00	.00	.00	2.	*	1	0322	203	.00	.00	.00	22.
1	0053	54	.00	.00	.00	3.	*	1	0323	204	.00	.00	.00	22.
1	0054	55	.00	.00	.00	3.	*	1	0324	205	.00	.00	.00	21.
1	0055	56	.00	.00	.00	3.	*	1	0325	206	.00	.00	.00	20.
1	0056	57	.00	.00	.00	3.	*	1	0326	207	.00	.00	.00	20.
1	0057	58	.00	.00	.00	3.	*	1	0327	208	.00	.00	.00	19.
1	0058	59	.00	.00	.00	3.	*	1	0328	209	.00	.00	.00	19.
1	0059	60	.00	.00	.00	3.	*	1	0329	210	.00	.00	.00	18.
1	0100	61	.00	.00	.00	3.	*	1	0330	211	.00	.00	.00	18.
1	0101	62	.00	.00	.00	3.	*	1	0331	212	.00	.00	.00	18.
1	0102	63	.00	.00	.00	3.	*	1	0332	213	.00	.00	.00	17.
1	0103	64	.00	.00	.00	3.	*	1	0333	214	.00	.00	.00	

1	0106	67	.00	.00	.00	3.	*	1	0336	217	.00	.00	16
1	0107	68	.00	.00	.00	3.	*	1	0337	218	.00	.00	16.
1	0108	69	.00	.00	.00	3.	*	1	0338	219	.00	.00	15.
1	0109	70	.00	.00	.00	3.	*	1	0339	220	.00	.00	15.
1	0110	71	.00	.00	.00	3.	*	1	0340	221	.00	.00	15.
1	0111	72	.00	.00	.00	3.	*	1	0341	222	.00	.00	14.
1	0112	73	.00	.00	.00	3.	*	1	0342	223	.00	.00	14.
1	0113	74	.00	.00	.00	3.	*	1	0343	224	.00	.00	14.
1	0114	75	.00	.00	.00	4.	*	1	0344	225	.00	.00	14.
1	0115	76	.00	.00	.00	4.	*	1	0345	226	.00	.00	14.
1	0116	77	.00	.00	.00	4.	*	1	0346	227	.00	.00	13.
1	0117	78	.00	.00	.00	4.	*	1	0347	228	.00	.00	13.
1	0118	79	.00	.00	.00	4.	*	1	0348	229	.00	.00	13.
1	0119	80	.00	.00	.00	4.	*	1	0349	230	.00	.00	13.
1	0120	81	.00	.00	.00	4.	*	1	0350	231	.00	.00	13.
1	0121	82	.00	.00	.00	4.	*	1	0351	232	.00	.00	13.
1	0122	83	.00	.00	.00	4.	*	1	0352	233	.00	.00	13.
1	0123	84	.00	.00	.00	5.	*	1	0353	234	.00	.00	12.
1	0124	85	.00	.00	.00	5.	*	1	0354	235	.00	.00	12.
1	0125	86	.00	.00	.00	5.	*	1	0355	236	.00	.00	12.
1	0126	87	.00	.00	.00	5.	*	1	0356	237	.00	.00	12.
1	0127	88	.00	.00	.00	5.	*	1	0357	238	.00	.00	12.
1	0128	89	.00	.00	.00	5.	*	1	0358	239	.00	.00	12.
1	0129	90	.00	.00	.00	5.	*	1	0359	240	.00	.00	12.
1	0130	91	.00	.00	.00	6.	*	1	0400	241	.00	.00	12.
1	0131	92	.00	.00	.00	6.	*	1	0401	242	.00	.00	12.
1	0132	93	.00	.00	.00	6.	*	1	0402	243	.00	.00	12.
1	0133	94	.00	.00	.00	6.	*	1	0403	244	.00	.00	12.
1	0134	95	.00	.00	.00	6.	*	1	0404	245	.00	.00	11.
1	0135	96	.00	.00	.00	6.	*	1	0405	246	.00	.00	11.
1	0136	97	.00	.00	.00	6.	*	1	0406	247	.00	.00	11.
1	0137	98	.00	.00	.00	7.	*	1	0407	248	.00	.00	11.
1	0138	99	.00	.00	.00	7.	*	1	0408	249	.00	.00	11.
1	0139	100	.00	.00	.00	7.	*	1	0409	250	.00	.00	11.
1	0140	101	.00	.00	.00	7.	*	1	0410	251	.00	.00	11.
1	0141	102	.00	.00	.00	7.	*	1	0411	252	.00	.00	11.
1	0142	103	.00	.00	.00	7.	*	1	0412	253	.00	.00	11.
1	0143	104	.00	.00	.00	7.	*	1	0413	254	.00	.00	11.
1	0144	105	.00	.00	.00	7.	*	1	0414	255	.00	.00	11.
1	0145	106	.00	.00	.00	7.	*	1	0415	256	.00	.00	10.

1	0146	107	.00	.00	.00	.00	7.	*	1	0416	257	.00	.00	10.
1	0147	108	.00	.00	.00	.00	8.	*	1	0417	258	.00	.00	10.
1	0148	109	.00	.00	.00	.00	8.	*	1	0418	259	.00	.00	10.
1	0149	110	.00	.00	.00	.00	8.	*	1	0419	260	.00	.00	10.
1	0150	111	.00	.00	.00	.00	8.	*	1	0420	261	.00	.00	10.
1	0151	112	.00	.00	.00	.00	8.	*	1	0421	262	.00	.00	10.
1	0152	113	.00	.00	.00	.00	8.	*	1	0422	263	.00	.00	9.
1	0153	114	.00	.00	.00	.00	8.	*	1	0423	264	.00	.00	9.
1	0154	115	.00	.00	.00	.00	8.	*	1	0424	265	.00	.00	9.
1	0155	116	.00	.00	.00	.00	8.	*	1	0425	266	.00	.00	9.
1	0156	117	.00	.00	.00	.00	8.	*	1	0426	267	.00	.00	9.
1	0157	118	.00	.00	.00	.00	8.	*	1	0427	268	.00	.00	9.
1	0158	119	.00	.00	.00	.00	8.	*	1	0428	269	.00	.00	8.
1	0159	120	.00	.00	.00	.00	8.	*	1	0429	270	.00	.00	8.
1	0200	121	.00	.00	.00	.00	8.	*	1	0430	271	.00	.00	8.
1	0201	122	.00	.00	.00	.00	8.	*	1	0431	272	.00	.00	8.
1	0202	123	.00	.00	.00	.00	8.	*	1	0432	273	.00	.00	8.
1	0203	124	.00	.00	.00	.00	8.	*	1	0433	274	.00	.00	7.
1	0204	125	.00	.00	.00	.00	8.	*	1	0434	275	.00	.00	7.
1	0205	126	.00	.00	.00	.00	8.	*	1	0435	276	.00	.00	7.
1	0206	127	.00	.00	.00	.00	8.	*	1	0436	277	.00	.00	7.
1	0207	128	.00	.00	.00	.00	8.	*	1	0437	278	.00	.00	7.
1	0208	129	.00	.00	.00	.00	8.	*	1	0438	279	.00	.00	7.
1	0209	130	.00	.00	.00	.00	8.	*	1	0439	280	.00	.00	6.
1	0210	131	.00	.00	.00	.00	8.	*	1	0440	281	.00	.00	6.
1	0211	132	.00	.00	.00	.00	8.	*	1	0441	282	.00	.00	6.
1	0212	133	.00	.00	.00	.00	9.	*	1	0442	283	.00	.00	6.
1	0213	134	.00	.00	.00	.00	9.	*	1	0443	284	.00	.00	6.
1	0214	135	.00	.00	.00	.00	9.	*	1	0444	285	.00	.00	6.
1	0215	136	.01	.00	.00	.00	9.	*	1	0445	286	.00	.00	6.
1	0216	137	.01	.00	.00	.00	9.	*	1	0446	287	.00	.00	6.
1	0217	138	.01	.00	.00	.00	9.	*	1	0447	288	.00	.00	6.
1	0218	139	.01	.00	.00	.00	9.	*	1	0448	289	.00	.00	6.
1	0219	140	.01	.00	.00	.00	9.	*	1	0449	290	.00	.00	5.
1	0220	141	.01	.00	.00	.00	9.	*	1	0450	291	.00	.00	5.
1	0221	142	.01	.00	.00	.00	9.	*	1	0451	292	.00	.00	5.
1	0222	143	.01	.00	.00	.01	9.	*	1	0452	293	.00	.00	5.
1	0223	144	.02	.00	.00	.01	9.	*	1	0453	294	.00		

1	0226	147	.02	.01	.02	9.	*	1	0456	297	.00	.00	5.
1	0227	148	.02	.01	.02	9.	*	1	0457	298	.00	.00	5.
1	0228	149	.04	.01	.03	10.	*	1	0458	299	.00	.00	5.
1	0229	150	.04	.01	.03	10.	*	1	0459	300	.00	.00	5.

TOTAL RAINFALL = 1.10, TOTAL LOSS = .30, TOTAL EXCESS = .80

PEAK FLOW	TIME	6-HR	24-HR	72-HR	4.98-HR
+	(CFS)				
+	37.	10.	10.	10.	10.
		.764	.764	.764	.764
		4.	4.	4.	4.
		(CFS)			
	2.98				
		(INCHES)			
		(AC-FT)			
		CUMULATIVE AREA =	.11 SQ MI		

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 * RES *
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11 KK D/S

12 KO OUTPUT CONTROL VARIABLES

IPRNT	0	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT

ISAV1 1 FIRST ORDINATE PUNCHED OR SAVED
 ISAV2 300 LAST ORDINATE PUNCHED OR SAVED
 TIMINT .017 TIME INTERVAL IN HOURS

SUBBASIN RUNOFF DATA

13 BA SUBBASIN CHARACTERISTICS
 TAREA .05 SUBBASIN AREA

PRECIPITATION DATA

14 PH DEPTHS FOR 20-PERCENT HYPOTHETICAL STORM
 HYDRO-35 TP-40 TP-49
 5-MIN 15-MIN 60-MIN 2-HR 3-HR 6-HR 12-HR 24-HR 2-DAY 4-DAY 7-DAY 10-DAY
 .60 2.00 4.00 6.00 8.00 10.00 15.00 27.00 .00 .00 .00 .00

STORM AREA = .05

15 LS SCS LOSS RATE
 STRTL .41 INITIAL ABSTRACTION
 CRVNR 83.00 CURVE NUMBER
 RTIMP 68.00 PERCENT IMPERVIOUS AREA

16 UD SCS DIMENSIONLESS UNITGRAPH
 TIAG .38 LAG

VALUE EXCEEDS TABLE IN LOGLOG .01667 .01667 24.00000

UNIT HYDROGRAPH		116 END-OF-PERIOD ORDINATES	
1.	2.	3.	5.
26.	31.	36.	41.
62.	62.	62.	62.
52.	50.	47.	45.
26.	24.	23.	21.
13.	12.	11.	11.
6.	6.	6.	5.
			5.
			9.
			18.
			20.
			39.
			61.
			50.
			53.
			12.
			9.
			15.
			56.
			58.
			56.
			30.
			15.
			8.
			4.
			7.
			3.
			22.
			60.
			54.
			28.
			14.
			7.
			4.

3.	3.	3.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.
0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.

HYDROGRAPH AT STATION RES

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1	1	0000	1	.00	.00	.00	0.	1	1	0230	151	.12	.00	.11	71.
1	1	0001	2	.01	.00	.01	0.	1	1	0231	152	.12	.00	.11	74.
1	1	0002	3	.01	.00	.01	0.	1	1	0232	153	.12	.00	.11	77.
1	1	0003	4	.01	.00	.01	0.	1	1	0233	154	.15	.00	.15	80.
1	1	0004	5	.01	.00	.01	0.	1	1	0234	155	.16	.00	.16	84.
1	1	0005	6	.01	.00	.01	0.	1	1	0235	156	.11	.00	.11	89.
1	1	0006	7	.01	.00	.01	0.	1	1	0236	157	.11	.00	.11	93.
1	1	0007	8	.01	.00	.01	0.	1	1	0237	158	.11	.00	.10	98.
1	1	0008	9	.01	.00	.01	0.	1	1	0238	159	.07	.00	.07	103.
1	1	0009	10	.01	.00	.01	0.	1	1	0239	160	.07	.00	.07	109.
1	1	0010	11	.01	.00	.01	1.	1	1	0240	161	.06	.00	.06	114.
1	1	0011	12	.01	.00	.01	1.	1	1	0241	162	.06	.00	.06	119.
1	1	0012	13	.01	.00	.01	1.	1	1	0242	163	.06	.00	.06	124.
1	1	0013	14	.01	.00	.01	1.	1	1	0243	164	.06	.00	.06	129.
1	1	0014	15	.01	.00	.01	2.	1	1	0244	165	.06	.00	.05	134.
1	1	0015	16	.01	.00	.01	2.	1	1	0245	166	.04	.00	.04	139.
1	1	0016	17	.01	.00	.01	2.	1	1	0246	167	.04	.00	.04	143.
1	1	0017	18	.01	.00	.01	3.	1	1	0247	168	.04	.00	.04	147.
1	1	0018	19	.01	.00	.01	3.	1	1	0248	169	.04	.00	.04	150.
1	1	0019	20	.01	.00	.01	3.	1	1	0249	170	.04	.00	.03	153.
1	1	0020	21	.01	.00	.01	4.	1	1	0250	171	.03	.00	.03	155.
1	1	0021	22	.01	.00	.01	4.	1	1	0251	172	.03	.00	.03	157.

1	0022	23	.01	.00	.01	5.	*	1	0252	173	.03	.00	.03	158.
1	0023	24	.01	.00	.01	5.	*	1	0253	174	.03	.00	.03	159.
1	0024	25	.01	.00	.01	5.	*	1	0254	175	.03	.00	.03	159.
1	0025	26	.01	.00	.01	6.	*	1	0255	176	.03	.00	.03	158.
1	0026	27	.01	.00	.01	6.	*	1	0256	177	.03	.00	.03	157.
1	0027	28	.01	.00	.01	7.	*	1	0257	178	.03	.00	.03	156.
1	0028	29	.01	.00	.01	7.	*	1	0258	179	.03	.00	.03	154.
1	0029	30	.01	.00	.01	8.	*	1	0259	180	.03	.00	.03	152.
1	0030	31	.01	.00	.01	8.	*	1	0300	181	.04	.00	.04	149.
1	0031	32	.01	.00	.01	8.	*	1	0301	182	.04	.00	.04	146.
1	0032	33	.01	.00	.01	9.	*	1	0302	183	.04	.00	.04	142.
1	0033	34	.01	.00	.01	9.	*	1	0303	184	.04	.00	.04	139.
1	0034	35	.01	.00	.01	9.	*	1	0304	185	.04	.00	.03	135.
1	0035	36	.01	.00	.01	10.	*	1	0305	186	.04	.00	.03	132.
1	0036	37	.01	.00	.01	10.	*	1	0306	187	.03	.00	.03	128.
1	0037	38	.01	.00	.01	10.	*	1	0307	188	.03	.00	.03	125.
1	0038	39	.01	.00	.01	11.	*	1	0308	189	.03	.00	.03	121.
1	0039	40	.01	.00	.01	11.	*	1	0309	190	.03	.00	.03	117.
1	0040	41	.01	.00	.01	11.	*	1	0310	191	.03	.00	.03	114.
1	0041	42	.01	.00	.01	11.	*	1	0311	192	.03	.00	.03	111.
1	0042	43	.01	.00	.01	12.	*	1	0312	193	.03	.00	.03	107.
1	0043	44	.01	.00	.01	12.	*	1	0313	194	.03	.00	.03	104.
1	0044	45	.01	.00	.01	12.	*	1	0314	195	.03	.00	.03	102.
1	0045	46	.01	.00	.01	12.	*	1	0315	196	.03	.00	.03	99.
1	0046	47	.01	.00	.01	12.	*	1	0316	197	.03	.00	.03	97.
1	0047	48	.01	.00	.01	13.	*	1	0317	198	.03	.00	.03	94.
1	0048	49	.01	.00	.01	13.	*	1	0318	199	.03	.00	.03	92.
1	0049	50	.01	.00	.01	13.	*	1	0319	200	.03	.00	.03	90.
1	0050	51	.01	.00	.01	13.	*	1	0320	201	.03	.00	.03	88.
1	0051	52	.01	.00	.01	13.	*	1	0321	202	.03	.00	.03	87.
1	0052	53	.01	.00	.01	13.	*	1	0322	203	.03	.00	.03	85.
1	0053	54	.01	.00	.01	14.	*	1	0323	204	.03	.00	.03	84.
1	0054	55	.01	.00	.01	14.	*	1	0324	205	.03	.00	.03	82.
1	0055	56	.01	.00	.01	14.	*	1	0325	206	.03	.00	.03	81.
1	0056	57	.01	.00	.01	14.	*	1	0326	207	.03	.00	.03	79.
1	0057	58	.01	.00	.01	14.	*	1	0327	208	.03	.00	.03	78.
1	0058	59	.01	.00	.01	14.	*	1	0328	209	.03	.00	.03	77.
1	0059	60	.01	.00	.01	15.	*	1	0329	210	.03	.00	.03	76.
1	0100	61	.03	.01	.02	15.	*	1	0330	211	.03	.00	.03	75.
1	0101	62	.03	.01	.02	15.	*	1	0331	212	.03	.00	.03	74.

1	0102	63	.03	.01	.02	15.	*	1	0332	213	.03	.00	.03	73.
1	0103	64	.03	.01	.02	15.	*	1	0333	214	.03	.00	.03	72.
1	0104	65	.03	.01	.02	16.	*	1	0334	215	.03	.00	.03	71.
1	0105	66	.03	.01	.02	16.	*	1	0335	216	.03	.00	.03	70.
1	0106	67	.03	.01	.02	16.	*	1	0336	217	.03	.00	.03	70.
1	0107	68	.03	.01	.02	17.	*	1	0337	218	.03	.00	.03	69.
1	0108	69	.03	.01	.02	17.	*	1	0338	219	.03	.00	.03	68.
1	0109	70	.03	.01	.03	17.	*	1	0339	220	.03	.00	.03	68.
1	0110	71	.03	.01	.03	18.	*	1	0340	221	.03	.00	.03	67.
1	0111	72	.03	.01	.03	19.	*	1	0341	222	.03	.00	.03	66.
1	0112	73	.03	.01	.03	19.	*	1	0342	223	.03	.00	.03	66.
1	0113	74	.03	.01	.03	20.	*	1	0343	224	.03	.00	.03	65.
1	0114	75	.03	.01	.03	21.	*	1	0344	225	.03	.00	.03	65.
1	0115	76	.03	.01	.03	22.	*	1	0345	226	.03	.00	.03	65.
1	0116	77	.03	.01	.03	22.	*	1	0346	227	.03	.00	.03	64.
1	0117	78	.03	.01	.03	23.	*	1	0347	228	.03	.00	.03	64.
1	0118	79	.03	.01	.03	24.	*	1	0348	229	.03	.00	.03	64.
1	0119	80	.03	.01	.03	25.	*	1	0349	230	.03	.00	.03	64.
1	0120	81	.03	.01	.03	26.	*	1	0350	231	.03	.00	.03	63.
1	0121	82	.03	.00	.03	27.	*	1	0351	232	.03	.00	.03	63.
1	0122	83	.03	.00	.03	29.	*	1	0352	233	.03	.00	.03	63.
1	0123	84	.03	.00	.03	30.	*	1	0353	234	.03	.00	.03	63.
1	0124	85	.03	.00	.03	31.	*	1	0354	235	.03	.00	.03	63.
1	0125	86	.03	.00	.03	32.	*	1	0355	236	.03	.00	.03	63.
1	0126	87	.03	.00	.03	33.	*	1	0356	237	.03	.00	.03	63.
1	0127	88	.03	.00	.03	34.	*	1	0357	238	.03	.00	.03	63.
1	0128	89	.03	.00	.03	35.	*	1	0358	239	.03	.00	.03	62.
1	0129	90	.03	.00	.03	36.	*	1	0359	240	.03	.00	.03	62.
1	0130	91	.03	.00	.02	37.	*	1	0400	241	.01	.00	.01	62.
1	0131	92	.03	.00	.02	38.	*	1	0401	242	.01	.00	.01	62.
1	0132	93	.03	.00	.03	39.	*	1	0402	243	.01	.00	.01	62.
1	0133	94	.03	.00	.03	40.	*	1	0403	244	.01	.00	.01	62.
1	0134	95	.03	.00	.03	41.	*	1	0404	245	.01	.00	.01	62.
1	0135	96	.03	.00	.03	41.	*	1	0405	246	.01	.00	.01	61.
1	0136	97	.03	.00	.03	42.	*	1	0406	247	.01	.00	.01	61.
1	0137	98	.03	.00	.03	43.	*	1	0407	248	.01	.00	.01	61.
1	0138	99	.03	.00	.03	44.	*	1	0408	249	.01	.00	.01	60.
1	0139	100	.03	.00	.03	44.	*	1	0409	250	.01	.00	.01	60.
1	0140	101	.03	.00	.03	45.	*	1	0410	251	.01	.00	.01	59.
1	0141	102	.03	.00	.03	45.	*	1	0411	252	.01	.00	.01	58.

1	0142	103	.03	.00	.03	46.	*	1	0412	253	.01	.00	.01	58.
1	0143	104	.03	.00	.03	46.	*	1	0413	254	.01	.00	.01	57.
1	0144	105	.03	.00	.03	47.	*	1	0414	255	.01	.00	.01	56.
1	0145	106	.03	.00	.03	47.	*	1	0415	256	.01	.00	.01	55.
1	0146	107	.03	.00	.03	48.	*	1	0416	257	.01	.00	.01	54.
1	0147	108	.03	.00	.03	48.	*	1	0417	258	.01	.00	.01	53.
1	0148	109	.03	.00	.03	48.	*	1	0418	259	.01	.00	.01	52.
1	0149	110	.03	.00	.03	48.	*	1	0419	260	.01	.00	.01	50.
1	0150	111	.03	.00	.03	49.	*	1	0420	261	.01	.00	.01	49.
1	0151	112	.03	.00	.03	49.	*	1	0421	262	.01	.00	.01	48.
1	0152	113	.03	.00	.03	49.	*	1	0422	263	.01	.00	.01	47.
1	0153	114	.03	.00	.03	50.	*	1	0423	264	.01	.00	.01	46.
1	0154	115	.03	.00	.03	50.	*	1	0424	265	.01	.00	.01	44.
1	0155	116	.04	.00	.03	50.	*	1	0425	266	.01	.00	.01	43.
1	0156	117	.04	.00	.03	50.	*	1	0426	267	.01	.00	.01	42.
1	0157	118	.04	.00	.03	51.	*	1	0427	268	.01	.00	.01	41.
1	0158	119	.04	.00	.03	51.	*	1	0428	269	.01	.00	.01	40.
1	0159	120	.04	.00	.03	51.	*	1	0429	270	.01	.00	.01	39.
1	0200	121	.03	.00	.03	51.	*	1	0430	271	.01	.00	.01	38.
1	0201	122	.03	.00	.03	52.	*	1	0431	272	.01	.00	.01	37.
1	0202	123	.03	.00	.03	52.	*	1	0432	273	.01	.00	.01	36.
1	0203	124	.03	.00	.03	52.	*	1	0433	274	.01	.00	.01	35.
1	0204	125	.03	.00	.03	53.	*	1	0434	275	.01	.00	.01	34.
1	0205	126	.03	.00	.03	53.	*	1	0435	276	.01	.00	.01	33.
1	0206	127	.03	.00	.03	53.	*	1	0436	277	.01	.00	.01	33.
1	0207	128	.03	.00	.03	54.	*	1	0437	278	.01	.00	.01	32.
1	0208	129	.03	.00	.03	54.	*	1	0438	279	.01	.00	.01	31.
1	0209	130	.03	.00	.03	54.	*	1	0439	280	.01	.00	.01	31.
1	0210	131	.03	.00	.03	55.	*	1	0440	281	.01	.00	.01	30.
1	0211	132	.04	.00	.03	55.	*	1	0441	282	.01	.00	.01	30.
1	0212	133	.04	.00	.03	55.	*	1	0442	283	.01	.00	.01	29.
1	0213	134	.04	.00	.04	55.	*	1	0443	284	.01	.00	.01	29.
1	0214	135	.04	.00	.04	56.	*	1	0444	285	.01	.00	.01	28.
1	0215	136	.06	.00	.05	56.	*	1	0445	286	.01	.00	.01	28.
1	0216	137	.06	.00	.05	56.	*	1	0446	287	.01	.00	.01	27.
1	0217	138	.06	.00	.06	56.	*	1	0447	288	.01	.00	.01	27.
1	0218	139	.06	.00	.06	57.	*	1	0448	289	.01	.00	.01	27.
1	0219	140	.06	.00	.06	57.	*	1	0449	290	.01	.00	.01	26.
1	0220	141	.07	.00	.06	57.	*	1	0450	291	.01	.00	.01	26.
1	0221	142	.07	.00	.07	58.	*	1	0451	292	.01	.00	.01	25.

1	0222	143	.07	.00	.07	58.	*	1	0452	293	.01	.00	.01	25.
1	0223	144	.11	.01	.10	59.	*	1	0453	294	.01	.00	.01	25.
1	0224	145	.11	.01	.11	60.	*	1	0454	295	.01	.00	.01	25.
1	0225	146	.17	.01	.16	61.	*	1	0455	296	.01	.00	.01	24.
1	0226	147	.16	.01	.15	62.	*	1	0456	297	.01	.00	.01	24.
1	0227	148	.15	.01	.14	64.	*	1	0457	298	.01	.00	.01	24.
1	0228	149	.12	.00	.11	66.	*	1	0458	299	.01	.00	.01	24.
1	0229	150	.12	.00	.11	68.	*	1	0459	300	.01	.00	.01	23.

TOTAL RAINFALL = 9.04, TOTAL LOSS = .66, TOTAL EXCESS = 8.38

PEAK FLOW	TIME	6-HR	24-HR	72-HR	4.98-HR
+	(CFS)				
+	159.	52.	52.	52.	52.
		8.056	8.056	8.056	8.056
		21.	21.	21.	21.
		(CFS)			
	2.90				
		(INCHES)			
		(AC-FT)			
		CUMULATIVE AREA =	.05 SQ MI		

*** **
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 *
 * GRASS *
 * *

17 KK
 18 KO
 OUTPUT CONTROL VARIABLES
 IPRNT 0 PRINT CONTROL

IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUT 21 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORIGINATE PUNCHED OR SAVED
 ISAV2 300 LAST ORIGINATE PUNCHED OR SAVED
 TIMINT .017 TIME INTERVAL IN HOURS

SUBBASIN RUNOFF DATA

19 BA SUBBASIN CHARACTERISTICS
 TAREA .03 SUBBASIN AREA

PRECIPITATION DATA

14 PH DEPTHS FOR 20-PERCENT HYPOTHETICAL STORM
 HYDRO-35 TP-40 TP-49
 5-MIN 15-MIN 60-MIN 2-HR 3-HR 6-HR 12-HR 24-HR 2-DAY 4-DAY 7-DAY 10-DAY
 .60 2.00 4.00 6.00 8.00 10.00 15.00 27.00 .00 .00 .00 .00

STORM AREA = .03

20 LS SCS LOSS RATE
 STRTL .82 INITIAL ABSTRACTION
 CRVNR 71.00 CURVE NUMBER
 RTIMP .00 PERCENT IMPERVIOUS AREA

21 UD SCS DIMENSIONLESS UNITGRAPH
 FLAG 3.10 LAG

VALUE EXCEEDS TABLE IN LOGLOG .01667 .01667 24.00000

*** WARNING *** UNIT HYDROGRAPH TRUNCATED FROM 932 TO 300 INTERVALS

*** WARNING *** VOLUME UNDER UNIT GRAPH = .76
 ORDINATES OF UNIT GRAPH WERE INCREASED TO OBTAIN 1.0 INCH OF RUNOFF.

HYDROGRAPH AT STATION GRASS

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*
1	1	0000	1	.00	.00	.00	0.	*	1	1	0230	151	.12	.03	.08	1.	*
1	1	0001	2	.01	.01	.00	0.	*	1	1	0231	152	.12	.03	.08	1.	*
1	1	0002	3	.01	.01	.00	0.	*	1	1	0232	153	.12	.03	.09	1.	*
1	1	0003	4	.01	.01	.00	0.	*	1	1	0233	154	.15	.04	.12	1.	*
1	1	0004	5	.01	.01	.00	0.	*	1	1	0234	155	.16	.04	.12	1.	*
1	1	0005	6	.01	.01	.00	0.	*	1	1	0235	156	.11	.03	.09	1.	*
1	1	0006	7	.01	.01	.00	0.	*	1	1	0236	157	.11	.02	.09	1.	*
1	1	0007	8	.01	.01	.00	0.	*	1	1	0237	158	.11	.02	.08	1.	*
1	1	0008	9	.01	.01	.00	0.	*	1	1	0238	159	.07	.02	.06	1.	*
1	1	0009	10	.01	.01	.00	0.	*	1	1	0239	160	.07	.01	.05	1.	*
1	1	0010	11	.01	.01	.00	0.	*	1	1	0240	161	.06	.01	.05	1.	*
1	1	0011	12	.01	.01	.00	0.	*	1	1	0241	162	.06	.01	.05	1.	*
1	1	0012	13	.01	.01	.00	0.	*	1	1	0242	163	.06	.01	.05	1.	*
1	1	0013	14	.01	.01	.00	0.	*	1	1	0243	164	.06	.01	.05	1.	*
1	1	0014	15	.01	.01	.00	0.	*	1	1	0244	165	.06	.01	.04	2.	*
1	1	0015	16	.01	.01	.00	0.	*	1	1	0245	166	.04	.01	.03	2.	*
1	1	0016	17	.01	.01	.00	0.	*	1	1	0246	167	.04	.01	.03	2.	*
1	1	0017	18	.01	.01	.00	0.	*	1	1	0247	168	.04	.01	.03	2.	*
1	1	0018	19	.01	.01	.00	0.	*	1	1	0248	169	.04	.01	.03	2.	*
1	1	0019	20	.01	.01	.00	0.	*	1	1	0249	170	.04	.01	.03	2.	*
1	1	0020	21	.01	.01	.00	0.	*	1	1	0250	171	.03	.01	.03	2.	*
1	1	0021	22	.01	.01	.00	0.	*	1	1	0251	172	.03	.01	.03	2.	*
1	1	0022	23	.01	.01	.00	0.	*	1	1	0252	173	.03	.01	.03	2.	*
1	1	0023	24	.01	.01	.00	0.	*	1	1	0253	174	.03	.01	.03	2.	*
1	1	0024	25	.01	.01	.00	0.	*	1	1	0254	175	.03	.01	.03	2.	*
1	1	0025	26	.01	.01	.00	0.	*	1	1	0255	176	.03	.01	.02	2.	*
1	1	0026	27	.01	.01	.00	0.	*	1	1	0256	177	.03	.01	.02	2.	*
1	1	0027	28	.01	.01	.00	0.	*	1	1	0257	178	.03	.01	.02	3.	*
1	1	0028	29	.01	.01	.00	0.	*	1	1	0258	179	.03	.01	.02	3.	*
1	1	0029	30	.01	.01	.00	0.	*	1	1	0259	180	.03	.00	.02	3.	*
1	1	0030	31	.01	.01	.00	0.	*	1	1	0300	181	.04	.01	.03	3.	*
1	1	0031	32	.01	.01	.00	0.	*	1	1	0301	182	.04	.01	.03	3.	*

1	0032	33	.01	.01	.00	0.	*	1	0302	183	.04	.01	.03	3.
1	0033	34	.01	.01	.00	0.	*	1	0303	184	.04	.01	.03	3.
1	0034	35	.01	.01	.00	0.	*	1	0304	185	.04	.01	.03	3.
1	0035	36	.01	.01	.00	0.	*	1	0305	186	.04	.01	.03	3.
1	0036	37	.01	.01	.00	0.	*	1	0306	187	.03	.01	.03	4.
1	0037	38	.01	.01	.00	0.	*	1	0307	188	.03	.01	.03	4.
1	0038	39	.01	.01	.00	0.	*	1	0308	189	.03	.01	.03	4.
1	0039	40	.01	.01	.00	0.	*	1	0309	190	.03	.01	.03	4.
1	0040	41	.01	.01	.00	0.	*	1	0310	191	.03	.01	.03	4.
1	0041	42	.01	.01	.00	0.	*	1	0311	192	.03	.01	.03	4.
1	0042	43	.01	.01	.00	0.	*	1	0312	193	.03	.01	.03	4.
1	0043	44	.01	.01	.00	0.	*	1	0313	194	.03	.01	.03	4.
1	0044	45	.01	.01	.00	0.	*	1	0314	195	.03	.01	.03	4.
1	0045	46	.01	.01	.00	0.	*	1	0315	196	.03	.01	.03	4.
1	0046	47	.01	.01	.00	0.	*	1	0316	197	.03	.00	.03	5.
1	0047	48	.01	.01	.00	0.	*	1	0317	198	.03	.00	.03	5.
1	0048	49	.01	.01	.00	0.	*	1	0318	199	.03	.00	.03	5.
1	0049	50	.01	.01	.00	0.	*	1	0319	200	.03	.00	.03	5.
1	0050	51	.01	.01	.00	0.	*	1	0320	201	.03	.00	.03	5.
1	0051	52	.01	.01	.00	0.	*	1	0321	202	.03	.00	.03	5.
1	0052	53	.01	.01	.00	0.	*	1	0322	203	.03	.00	.03	6.
1	0053	54	.01	.01	.00	0.	*	1	0323	204	.03	.00	.03	6.
1	0054	55	.01	.01	.00	0.	*	1	0324	205	.03	.00	.02	6.
1	0055	56	.01	.01	.00	0.	*	1	0325	206	.03	.00	.02	6.
1	0056	57	.01	.01	.00	0.	*	1	0326	207	.03	.00	.02	6.
1	0057	58	.01	.01	.00	0.	*	1	0327	208	.03	.00	.02	6.
1	0058	59	.01	.01	.00	0.	*	1	0328	209	.03	.00	.02	7.
1	0059	60	.01	.01	.00	0.	*	1	0329	210	.03	.00	.02	7.
1	0100	61	.03	.03	.00	0.	*	1	0330	211	.03	.00	.03	7.
1	0101	62	.03	.03	.00	0.	*	1	0331	212	.03	.00	.03	7.
1	0102	63	.03	.03	.00	0.	*	1	0332	213	.03	.00	.03	7.
1	0103	64	.03	.03	.00	0.	*	1	0333	214	.03	.00	.03	7.
1	0104	65	.03	.03	.00	0.	*	1	0334	215	.03	.00	.03	8.
1	0105	66	.03	.03	.00	0.	*	1	0335	216	.03	.00	.03	8.
1	0106	67	.03	.03	.00	0.	*	1	0336	217	.03	.00	.03	8.
1	0107	68	.03	.03	.00	0.	*	1	0337	218	.03	.00	.03	8.
1	0108	69	.03	.03	.00	0.	*	1	0338	219	.03	.00	.03	8.
1	0109	70	.03	.03	.00	0.	*	1	0339	220	.03	.00	.03	8.
1	0110	71	.03	.03	.00	0.	*	1	0340	221	.03	.00	.03	9.
1	0111	72	.03	.03	.00	0.	*	1	0341	222	.03	.00	.03	9.

1	0112	73	.03	.03	.00	0.	*	1	0342	223	.03	.00	.03	9.
1	0113	74	.03	.03	.00	0.	*	1	0343	224	.03	.00	.03	9.
1	0114	75	.03	.03	.00	0.	*	1	0344	225	.03	.00	.03	9.
1	0115	76	.03	.03	.00	0.	*	1	0345	226	.03	.00	.03	10.
1	0116	77	.03	.03	.01	0.	*	1	0346	227	.03	.00	.03	10.
1	0117	78	.03	.03	.01	0.	*	1	0347	228	.03	.00	.03	10.
1	0118	79	.03	.03	.01	0.	*	1	0348	229	.03	.00	.03	10.
1	0119	80	.03	.03	.01	0.	*	1	0349	230	.03	.00	.03	10.
1	0120	81	.03	.03	.01	0.	*	1	0350	231	.03	.00	.03	11.
1	0121	82	.03	.03	.01	0.	*	1	0351	232	.03	.00	.03	11.
1	0122	83	.03	.03	.01	0.	*	1	0352	233	.03	.00	.03	11.
1	0123	84	.03	.03	.01	0.	*	1	0353	234	.03	.00	.03	11.
1	0124	85	.03	.03	.01	0.	*	1	0354	235	.03	.00	.03	11.
1	0125	86	.03	.02	.01	0.	*	1	0355	236	.03	.00	.03	12.
1	0126	87	.03	.02	.01	0.	*	1	0356	237	.03	.00	.03	12.
1	0127	88	.03	.02	.01	0.	*	1	0357	238	.03	.00	.03	12.
1	0128	89	.03	.02	.01	0.	*	1	0358	239	.03	.00	.03	12.
1	0129	90	.03	.02	.01	0.	*	1	0359	240	.03	.00	.03	13.
1	0130	91	.03	.02	.01	0.	*	1	0400	241	.01	.00	.01	13.
1	0131	92	.03	.02	.01	0.	*	1	0401	242	.01	.00	.01	13.
1	0132	93	.03	.02	.01	0.	*	1	0402	243	.01	.00	.01	13.
1	0133	94	.03	.02	.01	0.	*	1	0403	244	.01	.00	.01	14.
1	0134	95	.03	.02	.01	0.	*	1	0404	245	.01	.00	.01	14.
1	0135	96	.03	.02	.01	0.	*	1	0405	246	.01	.00	.01	14.
1	0136	97	.03	.02	.01	0.	*	1	0406	247	.01	.00	.01	14.
1	0137	98	.03	.02	.01	0.	*	1	0407	248	.01	.00	.01	14.
1	0138	99	.03	.02	.01	0.	*	1	0408	249	.01	.00	.01	15.
1	0139	100	.03	.02	.01	0.	*	1	0409	250	.01	.00	.01	15.
1	0140	101	.03	.02	.01	0.	*	1	0410	251	.01	.00	.01	15.
1	0141	102	.03	.02	.01	0.	*	1	0411	252	.01	.00	.01	15.
1	0142	103	.03	.02	.01	0.	*	1	0412	253	.01	.00	.01	16.
1	0143	104	.03	.02	.01	0.	*	1	0413	254	.01	.00	.01	16.
1	0144	105	.03	.02	.01	0.	*	1	0414	255	.01	.00	.01	16.
1	0145	106	.03	.02	.01	0.	*	1	0415	256	.01	.00	.01	16.
1	0146	107	.03	.02	.01	0.	*	1	0416	257	.01	.00	.01	17.
1	0147	108	.03	.02	.01	0.	*	1	0417	258	.01	.00	.01	17.
1	0148	109	.03	.02	.01	0.	*	1	0418	259	.01	.00	.01	17.
1	0149	110	.03	.02	.01	0.	*	1	0419	260	.01	.00	.01	17.
1	0150	111	.03	.02	.02	0.	*	1	0420	261	.01	.00	.01	18.
1	0151	112	.03	.02	.02	0.	*	1	0421	262	.01	.00	.01	18.

1	0152	113	.03	.02	.02	0.	*	1	0422	263	.01	.00	.01	18.
1	0153	114	.03	.02	.02	0.	*	1	0423	264	.01	.00	.01	18.
1	0154	115	.03	.02	.02	0.	*	1	0424	265	.01	.00	.01	19.
1	0155	116	.04	.02	.02	0.	*	1	0425	266	.01	.00	.01	19.
1	0156	117	.04	.02	.02	0.	*	1	0426	267	.01	.00	.01	19.
1	0157	118	.04	.02	.02	0.	*	1	0427	268	.01	.00	.01	19.
1	0158	119	.04	.02	.02	0.	*	1	0428	269	.01	.00	.01	20.
1	0159	120	.04	.02	.02	0.	*	1	0429	270	.01	.00	.01	20.
1	0200	121	.03	.01	.01	0.	*	1	0430	271	.01	.00	.01	20.
1	0201	122	.03	.01	.01	0.	*	1	0431	272	.01	.00	.01	20.
1	0202	123	.03	.01	.01	0.	*	1	0432	273	.01	.00	.01	21.
1	0203	124	.03	.01	.02	0.	*	1	0433	274	.01	.00	.01	21.
1	0204	125	.03	.01	.02	0.	*	1	0434	275	.01	.00	.01	21.
1	0205	126	.03	.01	.02	0.	*	1	0435	276	.01	.00	.01	21.
1	0206	127	.03	.01	.02	0.	*	1	0436	277	.01	.00	.01	22.
1	0207	128	.03	.01	.02	0.	*	1	0437	278	.01	.00	.01	22.
1	0208	129	.03	.01	.02	0.	*	1	0438	279	.01	.00	.01	22.
1	0209	130	.03	.01	.02	0.	*	1	0439	280	.01	.00	.01	22.
1	0210	131	.03	.02	.02	0.	*	1	0440	281	.01	.00	.01	23.
1	0211	132	.04	.02	.02	0.	*	1	0441	282	.01	.00	.01	23.
1	0212	133	.04	.02	.02	0.	*	1	0442	283	.01	.00	.01	23.
1	0213	134	.04	.02	.02	0.	*	1	0443	284	.01	.00	.01	23.
1	0214	135	.04	.02	.02	0.	*	1	0444	285	.01	.00	.01	24.
1	0215	136	.06	.02	.03	0.	*	1	0445	286	.01	.00	.01	24.
1	0216	137	.06	.02	.03	0.	*	1	0446	287	.01	.00	.01	24.
1	0217	138	.06	.02	.04	0.	*	1	0447	288	.01	.00	.01	24.
1	0218	139	.06	.02	.04	0.	*	1	0448	289	.01	.00	.01	24.
1	0219	140	.06	.02	.04	0.	*	1	0449	290	.01	.00	.01	25.
1	0220	141	.07	.02	.04	1.	*	1	0450	291	.01	.00	.01	25.
1	0221	142	.07	.03	.04	1.	*	1	0451	292	.01	.00	.01	25.
1	0222	143	.07	.03	.05	1.	*	1	0452	293	.01	.00	.01	25.
1	0223	144	.11	.04	.07	1.	*	1	0453	294	.01	.00	.01	25.
1	0224	145	.11	.04	.07	1.	*	1	0454	295	.01	.00	.01	26.
1	0225	146	.17	.06	.11	1.	*	1	0455	296	.01	.00	.01	26.
1	0226	147	.16	.05	.11	1.	*	1	0456	297	.01	.00	.01	26.
1	0227	148	.15	.04	.10	1.	*	1	0457	298	.01	.00	.01	26.
1	0228	149	.12	.03	.08	1.	*	1	0458	299	.01	.00	.01	27.
1	0229	150	.12	.03	.08	1.	*	1	0459	300	.01	.00	.01	27.

24 HC HYDROGRAPH COMBINATION

75.	1	0011	12	1.	*	1	0126	87	33.	*	1	0241	162	121.	*	1	0356	237
75.	1	0012	13	1.	*	1	0127	88	34.	*	1	0242	163	126.	*	1	0357	238
75.	1	0013	14	1.	*	1	0128	89	35.	*	1	0243	164	131.	*	1	0358	239
75.	1	0014	15	2.	*	1	0129	90	36.	*	1	0244	165	136.	*	1	0359	240
75.	1	0015	16	2.	*	1	0130	91	37.	*	1	0245	166	141.	*	1	0400	241
75.	1	0016	17	2.	*	1	0131	92	38.	*	1	0246	167	145.	*	1	0401	242
75.	1	0017	18	3.	*	1	0132	93	39.	*	1	0247	168	149.	*	1	0402	243
75.	1	0018	19	3.	*	1	0133	94	40.	*	1	0248	169	152.	*	1	0403	244
75.	1	0019	20	3.	*	1	0134	95	41.	*	1	0249	170	155.	*	1	0404	245
75.	1	0020	21	4.	*	1	0135	96	41.	*	1	0250	171	157.	*	1	0405	246
75.	1	0021	22	4.	*	1	0136	97	42.	*	1	0251	172	159.	*	1	0406	247
75.	1	0022	23	5.	*	1	0137	98	43.	*	1	0252	173	160.	*	1	0407	248
75.	1	0023	24	5.	*	1	0138	99	44.	*	1	0253	174	161.	*	1	0408	249
75.	1	0024	25	5.	*	1	0139	100	44.	*	1	0254	175	161.	*	1	0409	250
74.	1	0025	26	6.	*	1	0140	101	45.	*	1	0255	176	161.	*	1	0410	251
74.	1	0026	27	6.	*	1	0141	102	45.	*	1	0256	177	160.	*	1	0411	252
73.	1	0027	28	7.	*	1	0142	103	46.	*	1	0257	178	158.	*	1	0412	253
73.	1	0028	29	7.	*	1	0143	104	46.	*	1	0258	179	157.	*	1	0413	254
72.	1	0029	30	8.	*	1	0144	105	47.	*	1	0259	180	154.	*	1	0414	255
71.	1	0030	31	8.	*	1	0145	106	47.	*	1	0300	181	152.	*	1	0415	256

71.	1	0031	32	8.	*	1	0146	107	48.	*	1	0301	182	149.	*	1	0416	257
70.	1	0032	33	9.	*	1	0147	108	48.	*	1	0302	183	145.	*	1	0417	258
69.	1	0033	34	9.	*	1	0148	109	48.	*	1	0303	184	142.	*	1	0418	259
68.	1	0034	35	9.	*	1	0149	110	49.	*	1	0304	185	139.	*	1	0419	260
67.	1	0035	36	10.	*	1	0150	111	49.	*	1	0305	186	135.	*	1	0420	261
66.	1	0036	37	10.	*	1	0151	112	49.	*	1	0306	187	132.	*	1	0421	262
65.	1	0037	38	10.	*	1	0152	113	49.	*	1	0307	188	128.	*	1	0422	263
64.	1	0038	39	11.	*	1	0153	114	50.	*	1	0308	189	125.	*	1	0423	264
63.	1	0039	40	11.	*	1	0154	115	50.	*	1	0309	190	121.	*	1	0424	265
62.	1	0040	41	11.	*	1	0155	116	50.	*	1	0310	191	118.	*	1	0425	266
61.	1	0041	42	11.	*	1	0156	117	50.	*	1	0311	192	115.	*	1	0426	267
61.	1	0042	43	12.	*	1	0157	118	51.	*	1	0312	193	112.	*	1	0427	268
60.	1	0043	44	12.	*	1	0158	119	51.	*	1	0313	194	109.	*	1	0428	269
59.	1	0044	45	12.	*	1	0159	120	51.	*	1	0314	195	106.	*	1	0429	270
58.	1	0045	46	12.	*	1	0200	121	52.	*	1	0315	196	104.	*	1	0430	271
57.	1	0046	47	12.	*	1	0201	122	52.	*	1	0316	197	101.	*	1	0431	272
57.	1	0047	48	13.	*	1	0202	123	52.	*	1	0317	198	99.	*	1	0432	273
56.	1	0048	49	13.	*	1	0203	124	53.	*	1	0318	199	97.	*	1	0433	274
55.	1	0049	50	13.	*	1	0204	125	53.	*	1	0319	200	95.	*	1	0434	275
55.	1	0050	51	13.	*	1	0205	126	53.	*	1	0320	201	94.	*	1	0435	276

54.	1	0051	52	13.	*	1	0206	127	54.	*	1	0321	202	92.	*	1	0436	277
54.	1	0052	53	13.	*	1	0207	128	54.	*	1	0322	203	91.	*	1	0437	278
54.	1	0053	54	14.	*	1	0208	129	54.	*	1	0323	204	89.	*	1	0438	279
53.	1	0054	55	14.	*	1	0209	130	55.	*	1	0324	205	88.	*	1	0439	280
53.	1	0055	56	14.	*	1	0210	131	55.	*	1	0325	206	87.	*	1	0440	281
52.	1	0056	57	14.	*	1	0211	132	55.	*	1	0326	207	86.	*	1	0441	282
52.	1	0057	58	14.	*	1	0212	133	55.	*	1	0327	208	85.	*	1	0442	283
52.	1	0058	59	14.	*	1	0213	134	56.	*	1	0328	209	84.	*	1	0443	284
52.	1	0059	60	15.	*	1	0214	135	56.	*	1	0329	210	83.	*	1	0444	285
52.	1	0100	61	15.	*	1	0215	136	56.	*	1	0330	211	82.	*	1	0445	286
51.	1	0101	62	15.	*	1	0216	137	56.	*	1	0331	212	81.	*	1	0446	287
51.	1	0102	63	15.	*	1	0217	138	57.	*	1	0332	213	80.	*	1	0447	288
51.	1	0103	64	15.	*	1	0218	139	57.	*	1	0333	214	79.	*	1	0448	289
51.	1	0104	65	16.	*	1	0219	140	57.	*	1	0334	215	79.	*	1	0449	290
51.	1	0105	66	16.	*	1	0220	141	58.	*	1	0335	216	78.	*	1	0450	291
51.	1	0106	67	16.	*	1	0221	142	58.	*	1	0336	217	78.	*	1	0451	292
50.	1	0107	68	17.	*	1	0222	143	59.	*	1	0337	218	77.	*	1	0452	293
50.	1	0108	69	17.	*	1	0223	144	60.	*	1	0338	219	76.	*	1	0453	294
50.	1	0109	70	17.	*	1	0224	145	61.	*	1	0339	220	76.	*	1	0454	295
50.	1	0110	71	18.	*	1	0225	146	62.	*	1	0340	221	76.	*	1	0455	296

27 HC	HYDROGRAPH COMBINATION ICOMP 2	NUMBER OF HYDROGRAPHS TO COMBINE
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87.	1	0007	8	0.	*	1	0122	83	33.	*	1	0237	158	114.	*	1	0352	233
87.	1	0008	9	0.	*	1	0123	84	34.	*	1	0238	159	120.	*	1	0353	234
87.	1	0009	10	1.	*	1	0124	85	35.	*	1	0239	160	127.	*	1	0354	235
87.	1	0010	11	1.	*	1	0125	86	37.	*	1	0240	161	133.	*	1	0355	236
87.	1	0011	12	1.	*	1	0126	87	38.	*	1	0241	162	140.	*	1	0356	237
87.	1	0012	13	1.	*	1	0127	88	39.	*	1	0242	163	147.	*	1	0357	238
87.	1	0013	14	1.	*	1	0128	89	40.	*	1	0243	164	153.	*	1	0358	239
87.	1	0014	15	2.	*	1	0129	90	41.	*	1	0244	165	159.	*	1	0359	240
87.	1	0015	16	2.	*	1	0130	91	43.	*	1	0245	166	165.	*	1	0400	241
87.	1	0016	17	2.	*	1	0131	92	44.	*	1	0246	167	171.	*	1	0401	242
87.	1	0017	18	3.	*	1	0132	93	45.	*	1	0247	168	176.	*	1	0402	243
87.	1	0018	19	3.	*	1	0133	94	46.	*	1	0248	169	181.	*	1	0403	244
87.	1	0019	20	4.	*	1	0134	95	47.	*	1	0249	170	185.	*	1	0404	245
87.	1	0020	21	4.	*	1	0135	96	48.	*	1	0250	171	189.	*	1	0405	246
87.	1	0021	22	5.	*	1	0136	97	49.	*	1	0251	172	192.	*	1	0406	247
86.	1	0022	23	5.	*	1	0137	98	50.	*	1	0252	173	194.	*	1	0407	248
86.	1	0023	24	6.	*	1	0138	99	50.	*	1	0253	174	195.	*	1	0408	249
86.	1	0024	25	6.	*	1	0139	100	51.	*	1	0254	175	196.	*	1	0409	250
85.	1	0025	26	7.	*	1	0140	101	52.	*	1	0255	176	196.	*	1	0410	251
85.	1	0026	27	7.	*	1	0141	102	52.	*	1	0256	177	196.	*	1	0411	252

[illegible]

64.	1	0047	48	15.	*	1	0202	123	60.	*	1	0317	198	125.	*	1	0432	273
64.	1	0048	49	15.	*	1	0203	124	61.	*	1	0318	199	122.	*	1	0433	274
63.	1	0049	50	15.	*	1	0204	125	61.	*	1	0319	200	120.	*	1	0434	275
62.	1	0050	51	15.	*	1	0205	126	62.	*	1	0320	201	117.	*	1	0435	276
61.	1	0051	52	16.	*	1	0206	127	62.	*	1	0321	202	115.	*	1	0436	277
61.	1	0052	53	16.	*	1	0207	128	62.	*	1	0322	203	113.	*	1	0437	278
60.	1	0053	54	16.	*	1	0208	129	63.	*	1	0323	204	111.	*	1	0438	279
60.	1	0054	55	16.	*	1	0209	130	63.	*	1	0324	205	109.	*	1	0439	280
59.	1	0055	56	17.	*	1	0210	131	63.	*	1	0325	206	107.	*	1	0440	281
59.	1	0056	57	17.	*	1	0211	132	64.	*	1	0326	207	105.	*	1	0441	282
58.	1	0057	58	17.	*	1	0212	133	64.	*	1	0327	208	104.	*	1	0442	283
58.	1	0058	59	17.	*	1	0213	134	64.	*	1	0328	209	102.	*	1	0443	284
58.	1	0059	60	17.	*	1	0214	135	65.	*	1	0329	210	101.	*	1	0444	285
57.	1	0100	61	18.	*	1	0215	136	65.	*	1	0330	211	100.	*	1	0445	286
57.	1	0101	62	18.	*	1	0216	137	65.	*	1	0331	212	99.	*	1	0446	287
57.	1	0102	63	18.	*	1	0217	138	65.	*	1	0332	213	97.	*	1	0447	288
56.	1	0103	64	18.	*	1	0218	139	66.	*	1	0333	214	96.	*	1	0448	289
56.	1	0104	65	19.	*	1	0219	140	66.	*	1	0334	215	95.	*	1	0449	290
56.	1	0105	66	19.	*	1	0220	141	67.	*	1	0335	216	94.	*	1	0450	291
56.	1	0106	67	19.	*	1	0221	142	67.	*	1	0336	217	93.	*	1	0451	292

56.	1	0107	68	20.	*	1	0222	143	68.	*	1	0337	218	93.	*	1	0452	293
55.	1	0108	69	20.	*	1	0223	144	69.	*	1	0338	219	92.	*	1	0453	294
55.	1	0109	70	21.	*	1	0224	145	70.	*	1	0339	220	91.	*	1	0454	295
55.	1	0110	71	21.	*	1	0225	146	71.	*	1	0340	221	90.	*	1	0455	296
55.	1	0111	72	22.	*	1	0226	147	72.	*	1	0341	222	90.	*	1	0456	297
55.	1	0112	73	23.	*	1	0227	148	74.	*	1	0342	223	89.	*	1	0457	298
55.	1	0113	74	23.	*	1	0228	149	76.	*	1	0343	224	89.	*	1	0458	299
55.	1	0114	75	24.	*	1	0229	150	79.	*	1	0344	225	88.	*	1	0459	300
					*					*					*			

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	4.98-HR
+	(CFS)				
+	196.	68.	68.	68.	68.
		2.774	2.774	2.774	2.774
		28.	28.	28.	28.
CUMULATIVE AREA =		.19 SQ MI			

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28 KK * DETENT * ION
 * *

29 KO OUTPUT CONTROL VARIABLES
 IPRINT 0 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCAL 0. HYDROGRAPH PLOT SCALE
 IPNCH 0 PUNCH COMPUTED HYDROGRAPH
 IOUT 21 SAVE HYDROGRAPH ON THIS UNIT
 ISAV1 1 FIRST ORIGINATE PUNCHED OR SAVED
 ISAV2 300 LAST ORIGINATE PUNCHED OR SAVED
 TIMINT .017 TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

30 RS STORAGE ROUTING
 NSTPS 1 NUMBER OF SUBREACHES
 ITYP STOR TYPE OF INITIAL CONDITION
 RSVRIC .00 INITIAL CONDITION
 X .00 WORKING R AND D COEFFICIENT

31 SA AREA .0 .7 1.2 3.6

32 SE ELEVATION 5538.00 5540.00 5545.00 5550.00

33 SQ DISCHARGE 0. 0. 0. 20.

34 ST TOP OF DAM
 TOPEL 5550.00 ELEVATION AT TOP OF DAM
 DAMWID 10.00 DAM WIDTH
 COQD 3.33 WEIR COEFFICIENT
 EXPD 1.50 EXPONENT OF HEAD

COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	.47	5.16	16.62
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ELEVATION 5538.00 5540.00 5545.00 5550.00

HYDROGRAPH AT STATION DE'PENT

DA MON HRMN		ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE
STAGE																		
1	0000	1	0.	.0	5538.0	*	1	0140	101	0.	2.5	5542.4	*	1	0320	201	20.	16.3
5549.9																		
1	0001	2	0.	.0	5538.0	*	1	0141	102	0.	2.5	5542.5	*	1	0321	202	20.	16.4
5550.0																		
1	0002	3	0.	.0	5538.0	*	1	0142	103	0.	2.6	5542.6	*	1	0322	203	20.	16.6
5550.0																		
1	0003	4	0.	.0	5538.0	*	1	0143	104	0.	2.7	5542.7	*	1	0323	204	20.	16.7
5550.0																		
1	0004	5	0.	.0	5538.0	*	1	0144	105	0.	2.7	5542.8	*	1	0324	205	21.	16.8
5550.1																		
1	0005	6	0.	.0	5538.0	*	1	0145	106	0.	2.8	5542.8	*	1	0325	206	21.	16.9
5550.1																		
1	0006	7	0.	.0	5538.0	*	1	0146	107	0.	2.9	5542.9	*	1	0326	207	22.	17.1
5550.1																		
1	0007	8	0.	.0	5538.1	*	1	0147	108	0.	3.0	5543.0	*	1	0327	208	23.	17.2
5550.2																		
1	0008	9	0.	.0	5538.1	*	1	0148	109	0.	3.0	5543.1	*	1	0328	209	23.	17.3
5550.2																		
1	0009	10	0.	.0	5538.1	*	1	0149	110	0.	3.1	5543.1	*	1	0329	210	24.	17.4
5550.2																		
1	0010	11	0.	.0	5538.2	*	1	0150	111	0.	3.2	5543.2	*	1	0330	211	25.	17.5
5550.2																		
1	0011	12	0.	.0	5538.2	*	1	0151	112	0.	3.3	5543.3	*	1	0331	212	26.	17.6
5550.3																		
1	0012	13	0.	.0	5538.3	*	1	0152	113	0.	3.4	5543.4	*	1	0332	213	26.	17.7

5550.3	0013	14	0.	.0	5538.4 *	1	0153 114	0.	3.4	5543.5 *	1	0333 214	27.	17.8
5550.3	0014	15	0.	.0	5538.4 *	1	0154 115	0.	3.5	5543.5 *	1	0334 215	28.	17.9
5550.3	0015	16	0.	.0	5538.5 *	1	0155 116	0.	3.6	5543.6 *	1	0335 216	29.	18.0
5550.4	0016	17	0.	.0	5538.5 *	1	0156 117	0.	3.7	5543.7 *	1	0336 217	30.	18.1
5550.4	0017	18	0.	.0	5538.6 *	1	0157 118	0.	3.8	5543.8 *	1	0337 218	30.	18.2
5550.4	0018	19	0.	.0	5538.7 *	1	0158 119	0.	3.8	5543.8 *	1	0338 219	31.	18.2
5550.4	0019	20	0.	.0	5538.7 *	1	0159 120	0.	3.9	5543.9 *	1	0339 220	32.	18.3
5550.5	0020	21	0.	.0	5538.8 *	1	0200 121	0.	4.0	5544.0 *	1	0340 221	33.	18.4
5550.5	0021	22	0.	.0	5538.8 *	1	0201 122	0.	4.1	5544.1 *	1	0341 222	34.	18.5
5550.5	0022	23	0.	.0	5538.9 *	1	0202 123	0.	4.2	5544.1 *	1	0342 223	34.	18.6
5550.5	0023	24	0.	.0	5538.9 *	1	0203 124	0.	4.3	5544.2 *	1	0343 224	35.	18.6
5550.5	0024	25	0.	.1	5539.0 *	1	0204 125	0.	4.3	5544.3 *	1	0344 225	36.	18.7
5550.6	0025	26	0.	.1	5539.0 *	1	0205 126	0.	4.4	5544.4 *	1	0345 226	37.	18.8
5550.6	0026	27	0.	.1	5539.1 *	1	0206 127	0.	4.5	5544.4 *	1	0346 227	37.	18.9
5550.6	0027	28	0.	.1	5539.1 *	1	0207 128	0.	4.6	5544.5 *	1	0347 228	38.	18.9
5550.6	0028	29	0.	.1	5539.2 *	1	0208 129	0.	4.7	5544.6 *	1	0348 229	39.	19.0
5550.6	0029	30	0.	.1	5539.2 *	1	0209 130	0.	4.8	5544.7 *	1	0349 230	40.	19.1
5550.6	0030	31	0.	.1	5539.3 *	1	0210 131	0.	4.9	5544.7 *	1	0350 231	40.	19.1
5550.7	0031	32	0.	.1	5539.3 *	1	0211 132	0.	4.9	5544.8 *	1	0351 232	41.	19.2
5550.7	0032	33	0.	.1	5539.3 *	1	0212 133	0.	5.0	5544.9 *	1	0352 233	42.	19.2

5550.7	0033	34	0.	.2	5539.4 *	1	0213	134	0.	5.1	5545.0 *	1	0353	234	42.	19.3
5550.7	0034	35	0.	.2	5539.4 *	1	0214	135	0.	5.2	5545.0 *	1	0354	235	43.	19.4
5550.7	0035	36	0.	.2	5539.5 *	1	0215	136	0.	5.3	5545.1 *	1	0355	236	44.	19.4
5550.7	0036	37	0.	.2	5539.5 *	1	0216	137	1.	5.4	5545.2 *	1	0356	237	44.	19.5
5550.7	0037	38	0.	.2	5539.5 *	1	0217	138	1.	5.5	5545.2 *	1	0357	238	45.	19.5
5550.8	0038	39	0.	.2	5539.6 *	1	0218	139	1.	5.6	5545.3 *	1	0358	239	46.	19.6
5550.8	0039	40	0.	.2	5539.6 *	1	0219	140	2.	5.6	5545.4 *	1	0359	240	46.	19.7
5550.8	0040	41	0.	.3	5539.7 *	1	0220	141	2.	5.7	5545.4 *	1	0400	241	47.	19.7
5550.8	0041	42	0.	.3	5539.7 *	1	0221	142	2.	5.8	5545.5 *	1	0401	242	48.	19.8
5550.8	0042	43	0.	.3	5539.7 *	1	0222	143	2.	5.9	5545.6 *	1	0402	243	48.	19.8
5550.8	0043	44	0.	.3	5539.8 *	1	0223	144	3.	6.0	5545.6 *	1	0403	244	49.	19.9
5550.8	0044	45	0.	.3	5539.8 *	1	0224	145	3.	6.1	5545.7 *	1	0404	245	50.	19.9
5550.9	0045	46	0.	.4	5539.8 *	1	0225	146	3.	6.2	5545.8 *	1	0405	246	50.	20.0
5550.9	0046	47	0.	.4	5539.9 *	1	0226	147	3.	6.3	5545.8 *	1	0406	247	51.	20.0
5550.9	0047	48	0.	.4	5539.9 *	1	0227	148	4.	6.4	5545.9 *	1	0407	248	51.	20.1
5550.9	0048	49	0.	.4	5539.9 *	1	0228	149	4.	6.5	5546.0 *	1	0408	249	52.	20.1
5550.9	0049	50	0.	.4	5540.0 *	1	0229	150	4.	6.6	5546.0 *	1	0409	250	53.	20.2
5550.9	0050	51	0.	.5	5540.0 *	1	0230	151	4.	6.7	5546.1 *	1	0410	251	53.	20.2
5550.9	0051	52	0.	.5	5540.0 *	1	0231	152	5.	6.8	5546.2 *	1	0411	252	54.	20.3
5550.9	0052	53	0.	.5	5540.1 *	1	0232	153	5.	6.9	5546.2 *	1	0412	253	54.	20.3

5550.9	0053	54	0.	.5	5540.1 *	1	0233	154	5.	7.0	5546.3 *	1	0413	254	55.	20.3
5551.0	0054	55	0.	.5	5540.1 *	1	0234	155	5.	7.1	5546.4 *	1	0414	255	55.	20.4
5551.0	0055	56	0.	.6	5540.1 *	1	0235	156	6.	7.3	5546.4 *	1	0415	256	56.	20.4
5551.0	0056	57	0.	.6	5540.2 *	1	0236	157	6.	7.4	5546.5 *	1	0416	257	56.	20.4
5551.0	0057	58	0.	.6	5540.2 *	1	0237	158	6.	7.6	5546.6 *	1	0417	258	57.	20.5
5551.0	0058	59	0.	.6	5540.2 *	1	0238	159	7.	7.7	5546.7 *	1	0418	259	57.	20.5
5551.0	0059	60	0.	.7	5540.3 *	1	0239	160	7.	7.9	5546.8 *	1	0419	260	57.	20.5
5551.0	0100	61	0.	.7	5540.3 *	1	0240	161	7.	8.0	5546.8 *	1	0420	261	58.	20.6
5551.0	0101	62	0.	.7	5540.3 *	1	0241	162	8.	8.2	5546.9 *	1	0421	262	58.	20.6
5551.0	0102	63	0.	.7	5540.4 *	1	0242	163	8.	8.4	5547.0 *	1	0422	263	58.	20.6
5551.0	0103	64	0.	.8	5540.4 *	1	0243	164	9.	8.6	5547.1 *	1	0423	264	59.	20.6
5551.0	0104	65	0.	.8	5540.4 *	1	0244	165	9.	8.8	5547.2 *	1	0424	265	59.	20.7
5551.0	0105	66	0.	.8	5540.5 *	1	0245	166	9.	9.0	5547.3 *	1	0425	266	59.	20.7
5551.0	0106	67	0.	.8	5540.5 *	1	0246	167	10.	9.2	5547.4 *	1	0426	267	59.	20.7
5551.0	0107	68	0.	.9	5540.5 *	1	0247	168	10.	9.5	5547.5 *	1	0427	268	59.	20.7
5551.0	0108	69	0.	.9	5540.6 *	1	0248	169	11.	9.7	5547.6 *	1	0428	269	60.	20.7
5551.0	0109	70	0.	.9	5540.6 *	1	0249	170	11.	9.9	5547.7 *	1	0429	270	60.	20.7
5551.0	0110	71	0.	.9	5540.7 *	1	0250	171	11.	10.2	5547.8 *	1	0430	271	60.	20.7
5551.0	0111	72	0.	1.0	5540.7 *	1	0251	172	12.	10.4	5547.9 *	1	0431	272	60.	20.7
5551.0	0112	73	0.	1.0	5540.7 *	1	0252	173	12.	10.7	5548.0 *	1	0432	273	60.	20.7

5551.0	0113	74	0.	1.0	5540.8 *	1	0253	174	13.	10.9	5548.1 *	1	0433	274	60.	20.8
5551.1	0114	75	0.	1.1	5540.8 *	1	0254	175	13.	11.2	5548.2 *	1	0434	275	60.	20.8
5551.1	0115	76	0.	1.1	5540.9 *	1	0255	176	13.	11.4	5548.3 *	1	0435	276	60.	20.8
5551.1	0116	77	0.	1.1	5540.9 *	1	0256	177	14.	11.7	5548.4 *	1	0436	277	60.	20.8
5551.1	0117	78	0.	1.2	5541.0 *	1	0257	178	14.	11.9	5548.5 *	1	0437	278	60.	20.8
5551.1	0118	79	0.	1.2	5541.0 *	1	0258	179	14.	12.2	5548.6 *	1	0438	279	60.	20.8
5551.1	0119	80	0.	1.3	5541.1 *	1	0259	180	15.	12.4	5548.7 *	1	0439	280	60.	20.8
5551.1	0120	81	0.	1.3	5541.1 *	1	0300	181	15.	12.6	5548.8 *	1	0440	281	60.	20.8
5551.1	0121	82	0.	1.3	5541.2 *	1	0301	182	15.	12.9	5548.9 *	1	0441	282	60.	20.8
5551.1	0122	83	0.	1.4	5541.2 *	1	0302	183	16.	13.1	5548.9 *	1	0442	283	60.	20.8
5551.1	0123	84	0.	1.4	5541.3 *	1	0303	184	16.	13.3	5549.0 *	1	0443	284	60.	20.8
5551.1	0124	85	0.	1.5	5541.3 *	1	0304	185	16.	13.6	5549.1 *	1	0444	285	60.	20.8
5551.1	0125	86	0.	1.5	5541.4 *	1	0305	186	17.	13.8	5549.1 *	1	0445	286	60.	20.8
5551.1	0126	87	0.	1.6	5541.5 *	1	0306	187	17.	14.0	5549.2 *	1	0446	287	60.	20.7
5551.0	0127	88	0.	1.6	5541.5 *	1	0307	188	17.	14.2	5549.3 *	1	0447	288	60.	20.7
5551.0	0128	89	0.	1.7	5541.6 *	1	0308	189	17.	14.4	5549.3 *	1	0448	289	60.	20.7
5551.0	0129	90	0.	1.7	5541.6 *	1	0309	190	18.	14.6	5549.4 *	1	0449	290	60.	20.7
5551.0	0130	91	0.	1.8	5541.7 *	1	0310	191	18.	14.8	5549.5 *	1	0450	291	60.	20.7
5551.0	0131	92	0.	1.9	5541.8 *	1	0311	192	18.	14.9	5549.5 *	1	0451	292	60.	20.7
5551.0	0132	93	0.	1.9	5541.9 *	1	0312	193	18.	15.1	5549.6 *	1	0452	293	60.	20.7

CUMULATIVE AREA = .19 SQ MI

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX. STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	OW1	37.	2.98	10.	10.	10.	.11		
HYDROGRAPH AT	RES	159.	2.90	52.	52.	52.	.05		
HYDROGRAPH AT	GRASS	27.	4.98	6.	6.	6.	.03		
2 COMBINED AT	COMBIN	161.	2.90	58.	58.	58.	.08		
2 COMBINED AT	COMBIN	196.	2.92	68.	68.	68.	.19		
ROUTED TO	DETENT	60.	4.62	18.	18.	18.	.19	5551.05	4.62

SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION DETENT
(PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED DURING BREACH FORMATION)

PLAN 1	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	5538.00	5550.00	5550.00
STORAGE	0.	17.	17.
OUTFLOW	0.	20.	20.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
1.00	5551.05	1.05	21.	60.	1.62	4.62	.00

*** NORMAL END OF HEC-1 ***