APPENDIX 7-2

CRANDALL CREEK FLOW DATE (U.S.G.S.)

1-79 WI UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

PROCESS DATE: 12-AUG-85 11:48 BAD

09317919 CRANDALL CANYON AT MOUTH NR HUNTINGTON, UT DATUM OF GAGE: DRAINAGE AREA: 5.70

LAT 392748 LONG 1110854 STATE 49 COUNTY 015

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	.41	.50	.50	.60	.50	.85	2.5	14	4.5	1.2	.82
2	.44	.75	.50	.50	.59	.50	.87	2.4	13	4.1	1.2	.81
3	.44	.54	.50	.50	.58	.50	.89	2.5	13	3.9	1.2	.82
4	.44	.49	.50	.50	.58	.50	.90	2.8	13	3.6	1.1	.80
5	.44	.49	.50	.55	.60	.50	.93	3.3	13	3.3	1.1	.79
6	.44	.44	.50	.52	.60	.50	.96	3.6	12	3.2	1.1	.77
7	.44	.44	.50	.49	.61	.50	1.0	3.4	12	2.9	1.1	.73
8	.44	.44	.50	.51	.61	.53	1.1	3.1	12	2.7	1.1	.73
9	.44	.59	.50	.52	.56	.51	1.1	2.8	12	2.6	1.0	.84
10	.39	.46	.50	.53	.55	.50	1.1	2.8	12	2.4	.97	.79
11	.41	.51	.50	.55	.54	.58	1.0	2.6	11	2.3	.94	.70
12	.41	.46	.50	.55	.54	.62	1.0	2.6	11	2.2	1.1	.68
13	.41	.47	.50	.55	.52	.63	1.0	2.8	11	2.1	1.2	.68
14	.39	.47	.50	.55	.52	.62	1.1	3.0	11	1.9	1.1	.67
15	.39	.47	.50	.55	.52	.63	1.2	3.4	10	1.9	1.1	.64
16	.37	.47	.50	.55	.50	.61	1.4	4.5	10	1.8	1.1	.63
17	.37	.47	.50	.55	.50	.59	1.6	6.2	9.8	1.8	1.3	.61
18	.39	.47	.50	.55	.50	.58	1.6	7.3	9.5	1.7	1.2	.60
19	.37	.54	.50	.55	.50	.64	1.4	8.4	9.2	1.7	1.2	.60
20	.39	.52	.50	.56	.50	.66	1.5	10	8.7	1.6	1.2	.68
21	.42	.50	.50	.55	.50	.66	1.5	12	8.2	1.7	1.1	.63
22	.37	.50	.50	.54	.50	.66	1.6	14	7.7	1.7	1.0	.61
23	.39	.50	.54	.55	.50	.66	1.7	16	7.6	1.6	.96	.56
24	.39	.50	.53	.56	.50	.70	1.7	18	7.3	1.5	.94	.54
25	.39	.50	.50	.58	.50	.76	1.7	19	6.7	1.4	.90	.54
26	.39	.50	.50	.57	.50	.77	1.7	18	6.2	1.4	.90	.54
27	.41	.50	.50	.60	.50	.78	1.7	17	5.7	1.4	.84	.54
28	.46	.50	.50	.57	.50	.85	1.9	16	5.2	1.3	.81	.54
29	.47	.50	.50	.58	---	.87	2.2	15	4.8	1.3	.81	.54
30	.39	.50	.50	.57	---	.88	2.3	15	4.6	1.3	.83	.51
31	.39	---	.50	.60	---	.88	---	14	---	1.2	.81	---
TOTAL	12.72	14.90	15.57	16.90	15.02	19.67	40.50	254.0	291.2	68.0	32.41	19.94
MEAN	.41	.50	.50	.55	.54	.63	1.35	8.19	9.71	2.19	1.05	.66
MAX	.47	.75	.54	.60	.61	.88	2.3	19	14	4.5	1.3	.84
MIN	.37	.41	.50	.49	.50	.50	.85	2.4	4.6	1.2	.81	.51
AC-FT	25	30	31	34	30	39	80	504	578	135	64	40

WTR YR 1979 TOTAL 800.83 MEAN 2.19 MAX 19 MIN .37 AC-FT 1590

1980 WY UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

PROCESS DATE: 12-AUG-85 11:48 BAD

09317919 CRANDALL CANYON AT MOUTH NR HUNTINGTON, UT DRAINAGE AREA: 5.70

LAT 392748 LONG 1110854. STATE 49 COUNTY 015 DATUM OF GAGE:

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.41	.38				---	4.5	24	7.7	1.5	.80
2	.49	.41	.38				---	4.4	23	7.4	1.4	.78
3	.44	.42	.38				---	4.8	24	6.7	1.4	.73
4	.44	.42	---				---	6.2	24	6.0	1.4	.70
5	.44	.42	---				---	7.6	24	5.5	1.3	.68
6	.42	.42	---				---	11	24	5.2	1.2	.68
7	.42	.42	---				---	12	27	4.9	1.2	.93
8	.44	.41	---				---	13	27	5.0	1.2	.92
9	.46	.41	---				---	13	27	4.8	1.1	.89
10	.49	.40	---				---	13	25	4.5	1.1	1.3
11	.47	.39	---				---	12	24	4.4	1.0	1.0
12	.44	.38	---				---	11	23	3.2	1.1	.90
13	.44	.38	---				---	10	21	3.9	1.1	.85
14	.42	.38	---				---	10	20	3.7	1.4	.78
15	.41	.38	---				---	9.3	19	3.5	1.2	.75
16	.41	.38	---				---	9.9	18	3.3	1.1	.72
17	.44	.38	---				---	9.9	17	3.1	1.1	.71
18	.48	.40	---				---	11	16	2.9	1.0	.70
19	.46	.39	---				---	12	15	2.8	1.0	.68
20	.54	.38	---				---	16	14	2.7	1.0	.70
21	.46	.38	---				---	21	13	2.4	.96	.73
22	.46	.38	---				---	24	12	2.4	.93	.75
23	.46	.38	---				---	25	11	2.4	1.0	.76
24	.45	.38	---				---	23	10	2.3	1.1	.70
25	.45	.38	---				---	24	9.8	2.1	1.0	.73
26	.46	.38	---				---	25	9.7	1.9	1.0	.73
27	.46	.38	---				---	24	9.0	1.9	.94	.70
28	.45	.38	---				---	24	8.2	1.8	.87	.70
29	.44	.38	---				---	25	7.6	1.7	.83	.68
30	.44	.38	---				4.6	26	7.2	1.6	.81	.68
31	.43	---	---				---	28	---	1.6	.80	---
TOTAL	14.00	11.78	---				---	469.6	533.5	113.3	34.04	23.27
MEAN	.45	.39	---				---	15.1	17.8	3.65	1.10	.78
MAX	.54	.42	---				---	28	27	7.7	1.5	1.3
MIN	.41	.38	---				---	4.4	7.2	1.6	.80	.68
AC-FT	28	23	---				---	931	1060	225	68	46

1981 WY UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

PROCESS DATE: 12-AUG-85 11:48 RAD

09317919 CRANDALL CANYON AT MOUTH NR HUNTINGTON, UT DRAINAGE AREA: 5.70
LAT 392748 LONG 1110854 STATE 49 COUNTY 015 DATUM OF GAGE:

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.70						2.7	4.3	1.9	.55	.37
2	.68	.70						2.8	4.9	1.8	.55	.36
3	.68	.71						2.9	5.0	1.7	.50	.36
4	.68	.70						2.4	4.8	1.6	.48	.38
5	.66	.69						2.3	4.8	1.5	.47	.52
6	.66	.68						2.2	4.9	1.4	.44	.44
7	.68	.68						2.2	4.9	1.4	.43	.36
8	.66	.70						2.2	4.9	1.3	.41	.46
9	.64	.68						2.1	4.7	1.3	.39	.77
10	.68	.67						2.2	4.6	1.6	.55	.54
11	.68	.67						2.3	4.4	1.5	.53	.43
12	.90	.68						2.2	4.3	1.5	.55	.41
13	.84	.70						2.2	4.1	1.3	.56	.41
14	.91	.64						2.3	4.0	1.2	.51	.38
15	.98	.61						2.4	3.6	1.1	.49	.33
16	.91	.59						2.4	3.4	1.0	.50	.30
17	.83	.58						2.3	3.2	1.0	.45	.29
18	.83	.57						2.2	3.1	1.0	.43	.30
19	.76	.56						2.2	2.9	.93	.42	.29
20	.69	.56						2.4	2.8	.87	.43	.29
21	.69	.56						2.4	2.6	.84	.43	.29
22	.70	.56						2.3	2.5	.77	.51	.29
23	.63	.58						2.3	2.4	.79	.42	.29
24	.64	.59						2.2	2.3	.81	.42	.30
25	.70	.59						2.2	2.2	.76	.41	.28
26	.70	.59						2.3	2.2	.70	.39	.29
27	.64	.59						2.8	2.2	.65	.38	.28
28	.68	.59						2.9	2.0	.62	.39	.28
29	.74	.59						2.9	1.9	.61	.39	.28
30	.72	.59						4.0	1.9	.58	.40	.28
31	.77	---						4.2	---	.56	.37	---
TOTAL	22.64	18.90						77.4	105.8	34.59	14.15	10.85
MEAN	.73	.63						2.50	3.53	1.12	.46	.36
MAX	.98	.71						4.2	5.0	1.9	.56	.77
MIN	.63	.56						2.1	1.9	.56	.37	.28
AC-FT	45	37						154	210	69	28	22

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

1982 WY

PROCESS DATE: 12-AUG-85 11:48 BAD

09317919 CRANDALL CANYON AT MOUTH NR HUNTINGTON, UT DATUM OF GAGE: DRAINAGE AREA: 5.70

LAT 392748 LONG 1110854 STATE 49 COUNTY 015

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	7.0	11	8.6	2.6	1.1
2							---	8.0	12	8.7	2.6	1.1
3							---	9.0	12	8.4	2.5	1.0
4							---	10	11	8.3	2.4	1.1
5							---	9.0	12	8.1	2.2	1.0
6							---	8.0	11	7.8	2.0	1.1
7							---	7.0	11	7.6	2.0	1.1
8							---	8.8	11	8.0	2.4	1.0
9							---	8.0	11	7.9	2.2	1.0
10							---	6.9	12	7.5	1.9	1.1
11							---	6.6	13	6.7	1.9	.97
12							---	6.0	13	6.5	1.9	.97
13							1.6	8.3	13	6.3	2.0	1.2
14							2.0	6.0	12	5.9	1.8	1.1
15							1.8	6.5	11	5.8	1.8	1.1
16							1.4	7.0	12	5.1	1.7	1.0
17							1.7	8.6	12	4.8	1.7	1.0
18							1.3	8.0	12	4.5	1.5	.98
19							1.5	7.0	13	4.5	1.6	1.0
20							1.4	8.0	11	4.2	1.5	1.0
21							1.3	8.4	13	3.8	1.9	1.0
22							1.4	9.0	12	3.6	1.8	1.1
23							1.5	10	12	3.9	1.6	1.0
24							1.7	11	10	3.8	1.4	1.0
25							2.0	12	10	3.4	1.4	1.0
26							2.6	14	11	3.8	1.4	1.2
27							3.5	13	11	4.9	1.3	1.3
28							5.4	12	11	3.8	1.3	1.4
29							7.0	12	11	3.3	1.5	1.6
30							6.1	12	11	3.0	1.3	2.0
31							---	11	---	2.8	1.2	---
TOTAL							---	278.1	348	175.3	56.3	33.52
MEAN							---	8.97	11.6	5.65	1.82	1.12
MAX							---	14	13	8.7	2.6	2.0
MIN							---	6.0	10	2.8	1.2	.97
AC-FT							---	552	690	348	112	66

1983 WY UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

PROCESS DATE: 12-AUG-85 11:48 RAD

09317919 CRANDALL CANYON AT MOUTH NR HUNTINGTON, UT DATUM OF GAGE: . DRAINAGE AREA: 5.70

LAT 392748 LONG 1110854 STATE 49 COUNTY 015

PROVISIONAL DATA DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MEAN VALUES

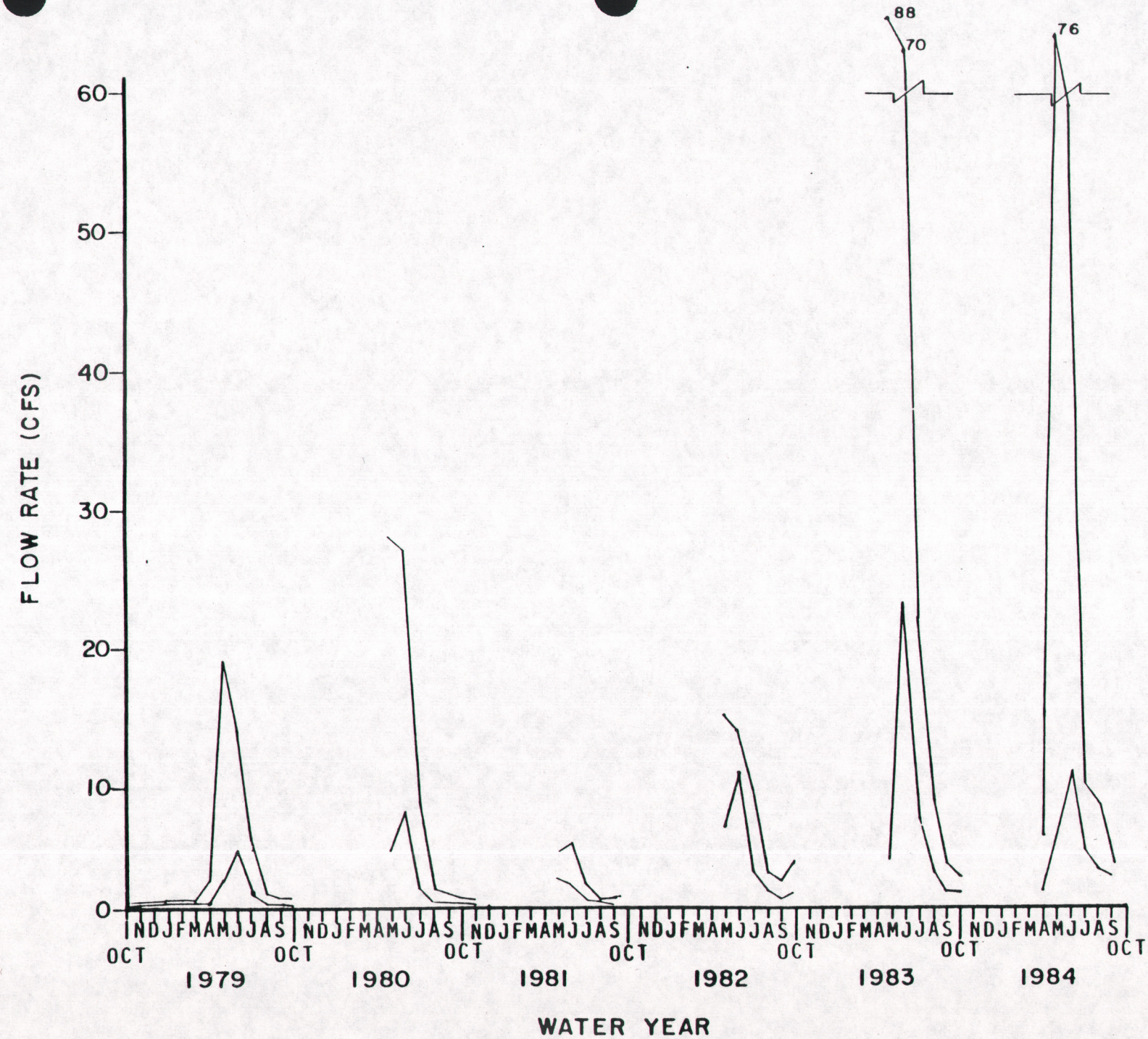
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5					---	3.8	70	22	6.9	2.9
2	1.3	1.4					---	4.2	58	21	6.9	2.9
3	1.3	1.3					---	4.5	55	18	7.9	2.6
4	1.3	1.2					---	4.7	51	15	6.5	3.2
5	1.3	1.2					---	5.3	49	14	5.9	2.4
6	1.2	1.3					---	5.7	45	13	5.5	2.4
7	1.3	1.2					---	5.7	47	12	6.6	2.4
8	1.3	1.5					---	6.5	52	14	5.9	2.4
9	1.2	2.0					---	6.9	50	15	5.0	2.4
10	1.3	.90					---	7.9	50	13	4.2	1.9
11	1.4	.80					---	7.9	52	13	4.0	1.9
12	1.4	.60					---	7.4	53	12	4.9	1.9
13	1.3	.60					---	7.9	48	10	4.2	1.9
14	1.3	.50					---	8.4	42	10	4.2	1.6
15	1.2	.40					---	8.4	37	10	3.8	1.6
16	1.2	.45					---	8.4	38	10	3.8	1.6
17	1.3	---					---	8.4	42	10	3.8	1.6
18	1.3	---					---	8.4	45	8.9	4.2	1.6
19	1.2	---					---	8.9	45	8.9	3.8	1.6
20	1.3	---					---	9.4	42	8.9	3.8	1.4
21	1.3	---					---	11	41	8.4	3.5	1.4
22	1.3	---					2.5	13	38	7.9	3.2	1.4
23	1.4	---					2.6	15	37	7.9	3.2	1.4
24	1.4	---					3.2	19	35	7.4	3.5	1.4
25	1.6	---					2.9	28	35	7.9	2.9	1.2
26	1.6	---					2.9	33	32	7.4	2.6	1.2
27	1.4	---					2.9	33	29	7.4	2.6	2.1
28	1.3	---					3.5	42	27	6.9	2.6	1.4
29	3.5	---					3.8	76	24	6.9	2.6	1.6
30	1.9	---					3.8	88	23	6.5	2.6	2.1
31	1.7	---					---	83	---	6.9	2.6	---
TOTAL	44.1	---					---	579.7	1292	340.2	133.7	57.4
MEAN	1.42	---					---	18.7	43.1	11.0	4.31	1.91
MAX	3.5	---					---	88	70	22	7.9	3.2
MIN	1.2	---					---	3.8	23	6.5	2.6	1.2
AC-FT	87	---					---	1150	2560	675	265	114

1984 WY UNITED STATES DEPARTMENT OF INTERIOR GEOLOGICAL SURVEY WATER RESOURCES DIVISION

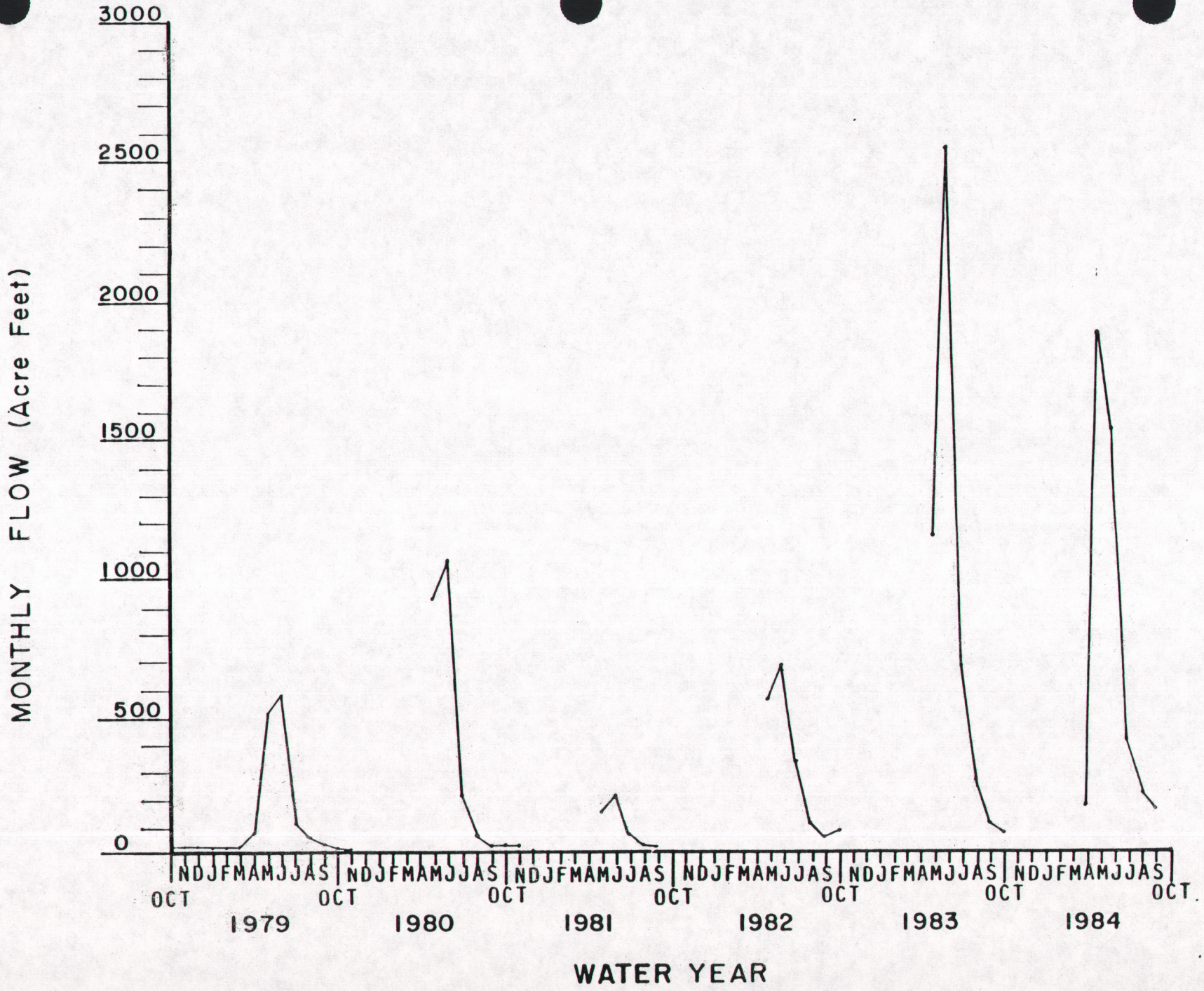
09317919 CRANDALL CANYON AT MOUTH NR HUNTINGTON, UT PROCESS DATE: 12-AUG-85 11:52 BAD
LAT 392748 LONG 1110854 STATE 49 COUNTY 015 DATUM OF GAGE: DRAINAGE AREA: 5.70

PROVISIONAL DATA DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.4				---	1.7	4.2	59	9.8	4.2	2.8
2	1.6	1.5				---	1.6	4.6	53	9.1	3.7	2.7
3	1.4	1.4				---	1.3	4.6	45	8.9	3.5	2.6
4	1.2	1.4				---	1.7	4.5	39	8.9	3.5	2.6
5	1.1	1.4				---	1.2	4.5	34	8.6	3.5	2.5
6	1.1	1.3				---	1.3	4.5	36	8.4	3.4	2.5
7	1.1	1.2				---	1.3	4.5	37	8.4	3.2	2.5
8	1.1	---				---	1.4	4.8	31	7.9	3.1	2.6
9	1.1	---				---	1.4	5.9	27	7.9	3.0	2.5
10	1.1	---				---	1.9	6.9	27	7.8	2.8	2.4
11	1.2	---				---	1.4	7.3	24	7.4	3.0	2.7
12	1.1	---				---	1.5	9.2	23	7.4	2.9	2.6
13	1.2	---				---	1.6	11	24	7.3	2.9	2.6
14	1.9	---				---	1.8	14	25	6.9	2.9	2.5
15	1.6	---				---	2.3	22	26	6.7	3.1	2.4
16	1.7	---				---	2.8	27	25	6.4	2.9	2.5
17	1.7	---				---	3.4	26	24	6.0	2.7	2.5
18	1.6	---				---	3.7	28	24	5.8	3.0	2.4
19	1.5	---				---	3.7	33	23	5.6	3.9	2.6
20	1.5	---				---	3.5	40	22	5.5	5.2	3.3
21	1.5	---				---	3.3	50	20	5.6	4.4	3.3
22	1.5	---				---	3.4	55	20	5.7	4.2	2.6
23	1.4	---				---	3.9	63	18	6.2	4.1	2.6
24	1.4	---				---	4.8	76	17	6.5	3.8	2.6
25	1.4	---				---	5.0	73	15	5.9	7.6	2.6
26	1.3	---				---	5.2	65	14	6.1	3.5	2.5
27	1.3	---				---	5.1	62	13	4.5	3.2	2.6
28	1.3	---				---	5.1	60	12	4.2	3.1	2.4
29	1.4	---				1.7	4.4	60	11	4.3	2.9	2.5
30	1.3	---				1.7	4.2	63	10	5.4	2.9	2.5
31	1.6	---				1.7	---	61	---	4.4	2.8	---
TOTAL	43.7	---				---	84.9	954.5	777	209.5	108.9	78.0
MEAN	1.41	---				---	2.83	30.8	25.9	6.76	3.51	2.60
MAX	2.5	---				---	5.2	76	59	9.8	7.6	3.3
MIN	1.1	---				---	1.2	4.2	10	4.2	2.7	2.4
AC-FT	87	---				---	168	1890	1540	416	216	155



Maximum and minimum daily flows of Crandall Creek near Huntington.



Monthly flow of Crandall Creek near Huntington.

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7-5	Crandall Creek flow Calculations
7-6	Slope Stability Analyses
7-7	Diversion Calculations
7-8	Information Submitted in Compliance with 30 CFR 77.216-1 and 30 CFR 77.216-2
7-9	Small Area Exemption Calculations
7-10	Sedimentation Pond Calculations (As Built)
7-11	As-Built Calculations for Diversions and Culverts
7-12	Letter from U.S. Soil Conservation Service Concerning Alluvial Valley Floors in the Crandall Canyon Area
7-13	Municipal Watershed Description
7-14	Water Share Certificate
7-15	Probable Hydrologic Consequences Determination
7-16	Geologic Occurrence and Use of Seeps and Springs
7-17	Seep and Spring Flow Rate and Temperature Measurements