

MINNESOTA RIVER BASIN

05320270 LITTLE COBB RIVER NEAR BEAUFORD, MN

LOCATION.--Lat 43° 59'48", long 93° 54'30", in SE¼SE¼ sec. 11, T.106 N., R.26 W., Blue Earth County, Hydrologic Unit 07020011, on left bank at downstream end of bridge on County Road No. 16, 1.6 mi upstream from mouth, 2.6 mi east of Beauford, and 5.3 mi northeast of Mapleton.

DRAINAGE AREA.--304 mi².

PERIOD OF RECORD.--April 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 980 ft above sea level from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	2.3	e21	158	e19	e14	e44	302	55	219
198	91	35							
2	1.6	e21	145	e19	e13	e50	266	54	196
181	83	29							
3	1.3	e21	e138	e20	e13	e58	235	56	172
162	71	23							
4	2.0	22	e130	e20	e13	e63	209	59	151
140	60	e21							
5	2.8	22	e123	e21	e13	e64	195	60	134
122	50	e20							
6	2.2	24	e115	e21	e12	e65	209	61	121
108	47	e19							
7	1.9	29	e105	e21	e12	e66	202	61	111
100	42	e18							
8	1.9	29	e93	e21	e12	e70	189	67	102
96	38	e18							
9	2.4	28	e86	e21	e12	e87	175	83	95
91	32	e18							
10	2.7	26	e76	e20	e12	e105	171	87	88
84	28	e17							
11	2.5	e24	e65	e20	e11	e130	160	88	82
79	25	e17							
12	2.3	e24	e54	e20	e11	e159	145	87	76
71	24	e17							
13	2.3	e24	e45	e20	e11	e195	133	84	69

71	24	e17							
14	2.3	e24	e34	e19	e11	e210	124	83	62
102	23	e17							
15	2.3	23	28	e19	e11	e215	115	79	57
134	28	e17							
16	2.3	37	e21	e18	e11	e216	109	73	53
162	41	e17							
17	3.9	101	e21	e18	e12	e227	104	67	48
188	41	e18							
18	3.9	134	e19	e18	e15	e260	100	62	45
187	37	e17							
19	3.9	160	e18	e18	e18	e344	97	58	43
173	35	e16							
20	3.7	195	e17	e18	e20	e405	95	53	41
159	34	e15							
21	3.2	277	e17	e18	e24	e500	91	48	47
144	32	e15							
22	3.4	255	e17	e17	e29	e610	88	45	45
140	30	e14							
23	5.8	161	e17	e17	e30	e690	84	42	62
137	26	e14							
24	12	165	e16	e17	e32	688	80	105	71
119	23	e13							
25	19	162	e16	e16	e32	595	75	188	77
123	e19	e13							
26	20	e153	e16	e16	e35	499	70	203	84
128	e18	e13							
27	16	e142	e16	e15	e37	453	66	242	85
130	e17	e13							
28	14	129	e16	e14	e40	430	64	282	85
132	e17	e12							
29	13	116	e17	e14	---	405	62	290	166
122	e17	e12							
30	15	141	e18	e14	---	380	58	268	221
111	22	e12							
31	21	---	e18	e14	---	340	---	240	---
100	36	---							
TOTAL	192.9	2690	1675	563	516	8623	4073	3330	2908
3994	1111	517							
MEAN	6.22	89.7	54.0	18.2	18.4	278	136	107	96.9
129	35.8	17.2							
MAX	21	277	158	21	40	690	302	290	221
198	91	35							
MIN	1.3	21	16	14	11	44	58	42	41
71	17	12							
AC-FT	383	5340	3320	1120	1020	17100	8080	6610	5770
7920	2200	1030							

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	6.22	89.7	54.0	18.2	18.4	278	127	92.3	129
78.6	34.3	13.7							
MAX	6.22	89.7	54.0	18.2	18.4	278	136	107	161
129	35.8	17.2							
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1996
1997	1997	1997							
MIN	6.22	89.7	54.0	18.2	18.4	278	119	77.3	96.9
28.4	32.8	10.2							
(WY)	1997	1997	1997	1997	1997	1997	1996	1996	1997
1996	1996	1996							

<i>SUMMARY STATISTICS</i>	<i>FOR 1997 WATER YEAR</i>		<i>WATER YEARS 1996 - 1997</i>		
ANNUAL TOTAL	30192.9				
ANNUAL MEAN	82.7			82.7	
HIGHEST ANNUAL MEAN				82.7	1997
LOWEST ANNUAL MEAN				82.7	1997
HIGHEST DAILY MEAN	690	Mar 23	690	Mar 23	1997
LOWEST DAILY MEAN	1.3	Oct 3	1.3	Oct 3	1996
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 2	2.0	Oct 2	1996
INSTANTANEOUS PEAK FLOW	735	Mar 23	735	Mar 23	1997
INSTANTANEOUS PEAK STAGE	11.38	Mar 14	11.38	Mar 14	1997
INSTANTANEOUS LOW FLOW	.71	Oct 2	.71	Oct 2	1996
ANNUAL RUNOFF (AC-FT)	59890		59930		
10 PERCENT EXCEEDS	195		188		
50 PERCENT EXCEEDS	44		51		
90 PERCENT EXCEEDS	12		8.5		

(National Water-Quality Assessment Station)

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1996 to current year.

PERIOD OF DAILY RECORD:

WATER TEMPERATURES.-- April 1996 to current year.

SPECIFIC CONDUCTANCE.-- April 1996 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1996, provides continuous recordings. Sensor located at gage.

REMARKS.--Records represent water temperature at sensor within 0.5°C. Temperature and conductance at the sensor was compared with the average for the river by cross section at least monthly. Variation of temperature was within 0.5°C; variation of conductance was within 37% (corrections applied).

EXTREMES FOR PERIOD OF DAILY RECORD:

WATER TEMPERATURES.-- Maximum, 29.5°C, July 18, 1996; minimum, 0.0 °C, on many days during winter.

SPECIFIC CONDUCTANCE.-- Maximum, 1270 µs/cm, July 14, 1997; minimum, 249 µs/cm, Aug. 10, 1996.

EXTREMES FOR CURRENT YEAR:

WATER TEMPERATURES.-- Maximum, 28.5°C, Aug. 3; minimum, 0.0 °C, on many days during winter.

SPECIFIC CONDUCTANCE.-- Maximum, 1270 µs/cm, July 14; minimum, 362 µs/cm, Mar. 13, 14.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
MAX	MIN	MEAN							
OCTOBER			NOVEMBER						
DECEMBER			JANUARY						
1	19.0	14.5	16.5	1.5	.0	.5	.0	.0	.0
.0	.0	.0							
2	17.0	9.5	14.5	.5	.0	.0	.0	.0	.0
.0	.0	.0							
3	12.5	9.5	11.0	3.0	.0	1.0	.0	.0	.0
.0	.0	.0							
4	10.5	9.0	10.0	3.5	1.5	2.5	.0	.0	.0
.0	.0	.0							
5	16.0	10.5	12.5	5.5	3.5	4.5	.0	.0	.0
.0	.0	.0							
6	15.0	13.0	14.0	6.0	4.5	5.5	.0	.0	.0
.0	.0	.0							
7	14.0	11.5	12.5	6.0	3.5	4.5	.0	.0	.0
.0	.0	.0							
8	11.5	9.5	10.5	4.5	3.0	4.0	.0	.0	.0
.0	.0	.0							
9	11.0	10.5	10.5	3.0	1.5	2.5	.0	.0	.0
.0	.0	.0							
10	10.5	8.5	9.5	1.5	.0	.5	.0	.0	.0
.0	.0	.0							
11	11.5	7.5	9.5	.0	.0	.0	.0	.0	.0

.0	.0	.0							
12	12.5	10.0	11.0	.0	.0	.0	.0	.0	.0
.0	.0	.0							
13	13.5	11.0	12.0	.0	.0	.0	.0	.0	.0
.0	.0	.0							
14	15.0	12.0	13.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
15	16.0	14.0	14.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
16	17.5	12.5	14.0	2.5	.0	.5	.0	.0	.0
.0	.0	.0							
17	15.0	10.5	13.0	2.5	2.0	2.0	.0	.0	.0
.0	.0	.0							
18	10.5	8.0	9.0	2.0	1.0	1.5	.0	.0	.0
.0	.0	.0							
19	9.0	6.5	8.0	1.0	.5	.5	.0	.0	.0
.0	.0	.0							
20	10.5	8.0	9.5	.5	.0	.0	.0	.0	.0
.0	.0	.0							
21	11.0	9.5	10.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
22	9.5	7.0	8.0	.0	.0	.0	.0	.0	.0
.0	.0	.0							
23	7.0	6.0	6.5	1.0	.0	.5	.0	.0	.0
.0	.0	.0							
24	7.0	5.5	6.0	.0	.0	.0	.0	.0	.0
.0	.0	.0							
25	9.5	6.5	7.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
26	13.0	9.0	10.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
27	12.0	9.5	10.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
28	9.5	6.0	8.0	.0	.0	.0	.0	.0	.0
.0	.0	.0							
29	10.0	7.5	8.5	.0	.0	.0	.0	.0	.0
.0	.0	.0							
30	9.5	3.5	6.0	.0	.0	.0	.0	.0	.0
.0	.0	.0							
31	3.5	1.0	2.0	---	---	---	.0	.0	.0
.0	.0	.0							
MONTH	19.0	1.0	10.3	6.0	.0	1.0	.0	.0	.0
.0	.0	.0							

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
MAX	MIN	MEAN							
		FEBRUARY			MARCH				
APRIL			MAY						
1	.0	.0	.0	.0	.0	.0	8.0	6.5	7.5

13.5	7.5	10.5							
2	.0	.0	.0	.0	.0	.0	8.5	7.5	8.0
12.5	11.0	11.5							
3	.0	.0	.0	.0	.0	.0	9.5	7.5	8.5
14.0	9.5	11.5							
4	.0	.0	.0	.0	.0	.0	10.0	9.0	9.5
15.5	10.0	13.0							
5	.0	.0	.0	.0	.0	.0	10.5	9.5	10.0
17.0	13.5	15.0							
6	.0	.0	.0	.0	.0	.0	10.0	4.0	7.5
17.5	12.0	15.0							
7	.0	.0	.0	.0	.0	.0	4.0	2.0	3.0
16.0	13.5	14.0							
8	.0	.0	.0	.0	.0	.0	2.0	.5	1.0
13.5	11.0	12.5							
9	.0	.0	.0	.0	.0	.0	3.5	.0	1.5
14.5	9.5	11.5							
10	.0	.0	.0	.0	.0	.0	3.5	2.5	3.0
16.0	11.0	13.5							
11	.0	.0	.0	.0	.0	.0	4.0	2.0	3.0
15.0	12.0	14.0							
12	.0	.0	.0	.0	.0	.0	5.5	3.0	4.0
12.5	9.5	11.0							
13	.0	.0	.0	.0	.0	.0	8.0	3.5	5.5
10.5	8.5	9.5							
14	.0	.0	.0	.0	.0	.0	9.5	5.0	7.0
11.0	8.5	9.5							
15	.0	.0	.0	.0	.0	.0	9.5	7.0	8.0
11.5	7.5	9.5							
16	.0	.0	.0	.0	.0	.0	7.5	5.0	6.5
13.5	9.0	11.0							
17	.0	.0	.0	.0	.0	.0	9.0	4.0	6.5
17.0	11.0	14.0							
18	.0	.0	.0	.0	.0	.0	9.0	7.0	8.0
19.5	15.5	17.5							
19	.0	.0	.0	.0	.0	.0	12.0	7.0	9.5
18.0	14.0	15.5							
20	.0	.0	.0	.0	.0	.0	14.5	10.0	12.5
16.5	12.0	14.5							
21	.0	.0	.0	.0	.0	.0	14.5	12.5	13.5
18.0	12.0	15.0							
22	.0	.0	.0	1.5	.0	.5	14.5	11.0	13.0
18.0	14.0	16.0							
23	.0	.0	.0	2.0	.0	1.0	13.5	11.5	12.5
18.0	15.0	16.5							
24	.0	.0	.0	.5	.0	.0	12.5	10.0	11.5
17.0	12.0	14.0							
25	.0	.0	.0	2.0	.0	1.0	13.0	9.5	11.5
13.0	11.0	12.0							
26	.0	.0	.0	5.0	.5	2.5	13.0	10.5	12.0
13.5	12.5	13.0							

27	.0	.0	.0	7.5	4.0	6.0	13.5	11.0	12.5
13.5	12.5	13.0							
28	.0	.0	.0	7.5	5.5	6.5	16.0	10.5	13.0
13.5	12.0	12.5							
29	---	---	---	7.0	4.5	6.0	17.0	13.0	15.0
12.0	11.5	12.0							
30	---	---	---	7.0	6.0	6.5	15.0	10.0	12.5
14.5	11.5	13.0							
31	---	---	---	7.0	5.0	6.0	---	---	---
17.5	14.5	16.0							
MONTH	.0	.0	.0	7.5	.0	1.2	17.0	.0	8.6
19.5	7.5	13.1							

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
MAX	MIN	MEAN							
		JUNE			JULY				
AUGUST			SEPTEMBER						
1	20.0	17.0	18.5	24.0	20.0	22.0	24.5	21.5	22.5
26.0	22.5	24.0							
2	20.5	18.5	19.5	23.5	20.0	21.5	27.0	22.5	24.5
24.5	22.0	23.5							
3	20.5	19.0	19.5	20.0	17.5	18.5	28.5	24.5	26.0
22.0	18.5	20.5							
4	21.0	19.0	20.0	18.5	16.5	17.0	27.5	24.5	26.0
20.0	17.5	18.5							
5	22.5	20.0	21.0	19.5	16.5	18.0	25.5	22.0	24.0
20.0	17.0	18.0							
6	22.5	19.5	21.0	21.0	17.5	19.0	25.0	21.5	23.5
23.0	18.5	20.5							
7	22.0	19.5	20.5	20.0	18.0	19.0	25.5	21.5	23.5
21.5	20.0	20.5							
8	22.0	18.5	20.0	20.5	18.0	19.0	25.5	22.0	23.5
22.5	20.0	21.0							
9	22.5	18.5	20.5	21.0	18.5	19.5	24.5	21.0	23.0
21.5	19.0	20.0							
10	23.0	19.0	21.0	22.0	18.5	20.0	23.0	20.5	21.0
20.5	16.5	18.5							
11	22.5	19.5	21.0	24.5	20.0	22.0	22.5	19.0	20.5
20.5	15.5	18.0							
12	23.5	19.5	21.5	26.0	22.5	24.0	21.5	19.5	20.5
20.5	16.0	18.5							
13	24.0	20.0	22.0	27.5	24.0	25.5	22.5	18.5	20.5
20.0	18.0	19.0							
14	24.0	20.0	22.0	25.5	23.0	24.0	20.5	18.5	19.5
21.0	18.5	19.5							
15	23.5	20.5	22.0	25.0	22.0	23.5	25.0	20.0	22.0
22.0	19.5	20.5							
16	23.0	20.0	21.5	26.5	23.5	25.0	25.0	21.5	23.5
22.0	20.0	21.0							

17	21.5	18.5	20.0	27.0	24.5	25.5	24.5	20.0	21.5	
20.0	17.0	18.5								
18	21.0	19.0	20.0	26.0	25.0	25.5	21.0	19.0	20.0	
21.5	18.0	19.5								
19	22.5	18.5	20.5	25.5	24.5	24.5	20.0	18.5	19.0	
21.5	17.5	20.0								
20	24.0	21.0	22.5	26.0	24.0	25.0	21.5	18.5	19.5	
17.5	14.5	15.5								
21	25.5	22.0	23.5	27.0	25.0	25.5	22.0	17.5	20.0	
15.0	12.0	13.5								
22	26.5	22.0	24.0	25.5	23.0	24.5	22.0	18.0	20.0	
14.5	14.0	14.0								
23	27.0	22.5	24.5	24.5	22.0	23.0	23.5	19.0	21.0	
15.5	13.5	14.5								
24	26.0	24.0	24.5	25.5	23.0	24.0	23.0	20.5	22.0	
16.5	12.5	14.5								
25	25.0	22.0	23.5	26.0	23.5	25.0	23.0	20.0	21.5	
18.0	14.5	16.0								
26	25.5	21.0	23.5	26.5	24.5	25.5	24.5	21.5	22.5	
18.0	14.5	16.5								
27	26.5	22.0	24.0	26.0	25.0	25.5	23.0	21.5	22.5	
18.5	17.0	18.0								
28	26.5	22.5	24.5	26.0	24.0	25.0	25.0	20.5	22.5	
18.5	15.5	16.5								
29	22.5	18.0	19.5	25.0	23.0	24.0	24.5	22.0	23.0	
16.5	14.5	15.5								
30	20.5	17.0	18.5	24.5	21.5	23.0	26.5	22.0	24.0	
16.0	14.0	15.0								
31	---	---	---	23.5	21.0	22.5	26.0	22.0	24.0	---
---	---	---								
MONTH	27.0	17.0	21.5	27.5	16.5	22.8	28.5	17.5	22.2	
26.0	12.0	18.3								

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
MAX	MIN	MEAN							
OCTOBER			NOVEMBER						
DECEMBER			JANUARY						
1	623	594	610	727	691	708	731	727	729
804	795	799							
2	618	588	606	740	701	713	749	731	740
797	787	791							
3	625	598	611	746	715	731	772	748	760
788	780	783							
4	620	586	607	742	714	731	774	768	772
781	763	773							
5	602	575	587	740	725	732	776	762	769

763	756	759							
6	607	582	595	732	721	724	763	755	759
769	760	763							
7	610	584	601	723	703	712	763	756	758
781	754	767							
8	604	586	593	713	704	708	775	762	769
781	775	778							
9	603	587	594	727	713	717	775	767	771
780	775	778							
10	604	594	601	740	727	734	775	770	773
793	779	784							
11	610	595	603	779	740	754	775	763	772
802	793	797							
12	612	596	606	797	774	785	763	753	757
817	799	805							
13	616	607	612	801	785	792	755	743	749
831	817	825							
14	617	603	609	812	801	807	751	745	749
843	831	838							
15	612	604	608	814	768	794	771	751	764
848	843	846							
16	621	610	617	768	681	723	773	762	768
849	846	847							
17	618	584	594	687	653	670	784	772	780
851	847	849							
18	603	593	597	697	655	673	795	783	789
852	848	850							
19	624	603	615	725	697	712	793	786	790
854	850	852							
20	636	618	630	730	724	728	823	790	808
856	853	854							
21	641	633	636	731	723	726	825	819	822
858	855	857							
22	652	641	647	736	731	734	819	809	813
859	857	858							
23	647	602	618	736	731	734	812	805	809
857	849	853							
24	638	604	624	747	731	737	811	806	808
852	844	848							
25	631	604	622	772	747	760	810	797	804
844	836	840							
26	607	598	603	791	772	784	815	789	805
837	831	834							
27	618	600	609	797	788	794	817	813	815
832	830	831							
28	670	611	652	800	790	795	818	809	814
834	831	833							
29	690	653	668	796	766	785	809	803	805
843	834	839							
30	681	658	672	766	727	741	808	803	805
847	843	845							

31	708	678	699	---	---	---	808	801	804
847	846	846							
MONTH	708	575	618	814	653	741	825	727	782
859	754	820							

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
MAX	MIN	MEAN							
APRIL	FEBRUARY			MARCH			MAY		
1	847	846	846	564	544	553	532	524	528
615	599	608							
2	847	846	846	544	539	541	532	531	531
613	590	601							
3	847	844	846	540	538	539	537	532	533
590	578	585							
4	845	838	842	540	539	539	550	537	544
612	586	594							
5	838	832	835	539	538	539	554	550	552
607	586	600							
6	832	827	830	538	536	537	558	552	555
603	581	593							
7	827	824	825	539	537	538	586	558	577
619	597	608							
8	825	823	824	543	539	541	606	586	596
609	599	604							
9	825	823	824	551	543	547	618	606	613
628	608	618							
10	825	824	824	551	533	547	635	618	626
648	627	638							
11	828	825	826	533	407	486	640	635	637
653	640	647							
12	830	826	828	407	397	402	643	640	641
667	644	651							
13	833	829	831	402	362	387	645	643	645
665	638	651							
14	835	832	834	376	362	367	646	641	644
651	642	646							
15	838	834	836	414	376	395	645	642	643
659	642	652							
16	840	837	838	452	414	436	645	643	644
642	589	621							
17	841	839	840	476	452	465	645	642	644
589	544	566							

18	843	840	842	489	476	485	645	637	641
619	521	557							
19	843	835	840	502	488	496	637	626	632
671	616	642							
20	835	803	822	491	440	466	628	621	624
688	657	671							
21	803	674	733	440	404	421	621	611	614
721	657	690							
22	674	638	655	404	390	395	612	604	608
703	638	656							
23	638	597	617	404	391	398	609	603	606
644	627	634							
24	597	575	587	436	402	418	616	605	611
633	572	602							
25	575	565	569	467	436	452	624	613	619
653	633	645							
26	565	562	564	494	467	482	632	622	627
653	615	637							
27	565	562	564	506	493	500	637	628	633
645	611	627							
28	564	562	563	514	500	511	636	596	618
651	644	648							
29	---	---	---	513	511	512	608	596	604
651	647	649							
30	---	---	---	518	512	515	607	599	602
658	648	655							
31	---	---	---	524	518	521	---	---	---
667	656	663							
MONTH	847	562	769	564	362	482	646	524	606
721	521	628							

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
MAX	MIN	MEAN							
AUGUST			SEPTEMBER			JULY			
1	668	651	662	642	619	630	636	597	612
556	491	517							
2	659	634	647	658	634	647	600	574	590
584	547	570							
3	647	622	634	658	635	647	574	545	561
583	569	576							
4	638	606	626	658	642	652	545	530	539
579	567	574							
5	606	592	598	662	653	658	540	525	532
579	565	573							

6	611	590	600	668	657	662	532	504	512
576	551	563							
7	615	609	612	674	625	658	564	510	530
574	547	558							
8	631	613	620	651	627	644	592	564	579
576	550	564							
9	644	614	627	645	628	639	588	566	574
593	569	576							
10	622	606	614	648	626	634	572	561	566
594	564	574							
11	606	585	598	649	624	636	652	561	575
570	560	566							
12	605	587	601	650	635	641	567	542	550
577	567	573							
13	607	587	600	905	646	751	549	529	541
590	574	583							
14	606	584	595	1270	902	1040	544	528	534
600	589	595							
15	612	593	604	1240	611	690	530	495	515
601	588	596							
16	613	599	606	652	615	639	533	507	521
598	586	594							
17	617	610	613	653	643	649	525	482	506
587	573	582							
18	646	609	628	651	643	649	563	525	534
580	572	576							
19	632	594	606	652	642	647	595	562	583
590	577	582							
20	617	574	592	643	617	632	570	554	561
578	572	575							
21	625	536	565	628	614	620	555	537	549
580	566	574							
22	578	556	567	630	592	612	578	550	560
578	549	568							
23	581	542	565	630	613	623	576	537	555
568	548	559							
24	668	578	593	644	622	632	577	533	559
566	556	561							
25	641	586	623	642	605	626	574	531	552
572	557	566							
26	632	605	618	657	625	636	549	520	536
594	561	579							
27	630	593	612	648	628	638	532	517	524
587	562	578							
28	617	483	579	658	632	649	533	508	522
582	566	576							
29	584	552	565	648	633	642	527	514	521
623	566	599							
30	632	562	603	661	638	651	522	488	501
630	610	621							
31	---	---	---	661	634	646	502	440	480
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MONTH	668	483	606	1270	592	659	652	440	544
630	491	575							

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (90095)	PH WATER WHOLE FIELD (STAND- ARD (00400)	PH WATER WHOLE LAB (STAND- ARD (00403)	TEMPER- ATURE (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)
OCT									
02...	1040	1.6	611	612	8.1	8.0	14.5	748	6.3
NOV									
04...	1110	22	729	751	8.0	8.0	3.0	736	11.9
DEC									
10...	1155	77	766	753	7.9	8.0	0.0	730	11.5
JAN									
13...	1230	20	816	833	7.1	7.5	0.0	754	6.7
FEB									
12...	1300	11	821	835	7.4	7.7	0.0	750	8.8
MAR									
05...	1250	63	457	457	7.1	7.5	0.0	745	4.6
18...	1145	679	438	463	6.9	7.4	0.0	750	5.6
APR									
08...	1150	189	600	627	7.9	7.9	1.0	751	12.7
16...	1145	92	630	656	8.4	8.1	6.0	746	12.5
24...	1250	81	616	623	8.3	8.2	11.5	738	8.3
28...	1250	65	609	614	8.4	8.3	13.0	733	11.5
MAY									
08...	1137	65	619	630	8.2	8.0	12.5	735	10.4
15...	1115	80	653	662	8.3	8.0	8.5	--	11.5
22...	1255	45	646	637	8.3	8.2	16.0	743	10.8
28...	1128	278	662	645	8.0	8.0	12.5	743	8.9
JUN									
05...	1230	134	604	598	8.1	8.2	21.5	735	8.5
09...	1300	98	623	622	8.1	7.9	20.0	746	8.1
18...	1130	45	627	606	8.2	8.0	19.0	735	7.6
23...	1158	63	564	550	7.9	8.0	23.0	743	6.7
JUL									
03...	1115	164	666	647	7.9	8.0	18.0	736	7.6
11...	1340	77	612	598	8.0	8.0	22.0	739	7.3
16...	1128	162	622	597	8.0	8.0	24.0	736	6.6
24...	1300	118	658	639	7.9	7.9	24.0	738	6.1
31...	1145	101	651	642	8.1	8.1	21.5	747	7.5
AUG									
08...	1210	35	582	577	8.3	8.2	22.5	738	7.3
15...	1140	29	516	507	8.1	8.2	20.0	--	7.9
18...	1500	35	539	--	8.3	--	21.0	--	8.9

20...	1431	34	554	553	8.3	7.7	20.0	740	8.7
26...	1222	17	535	525	8.3	8.3	21.5	740	7.9
SEP									
09...	1225	18	565	540	8.2	8.2	19.5	739	9.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

NITRO- GEN,AM- MONIA + ORGANIC TOTAL DATE (MG/L N) (00625)	OXYGEN, DIS- SOLVED (PER- CENT	HARD- NESS TOTAL (MG/L CACO3)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA- LITY LAB (MG/L CACO3)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	AS
	(00301)	(00900)	(39086)	(90410)	(00453)	(00452)	(00608)	(00613)	(00623)	
OCT 02...	62	290	275	275	336	--	<0.015	<0.010	0.70	1.9
NOV 04...	92	350	318	323	388	--	0.080	0.040	0.70	1.0
DEC 10...	83	420	320	338	390	--	0.080	0.040	0.70	
JAN 13...	48	420	353	367	430	--	0.230	0.070	0.90	1.1
FEB 12...	61	430	359	372	438	--	0.430	0.040	1.0	1.1
MAR 05...	32	200	190	193	232	--	0.470	0.080	1.2	1.5
APR 18...	39	220	172	184	210	--	0.440	0.120	1.2	1.3
APR 08...	90	290	245	252	299	--	0.050	0.040	0.70	1.4
APR 16...	102	320	256	274	298	7	<0.015	0.020	0.50	1.0
APR 24...	79	300	246	257	300	--	<0.015	0.032	0.45	
APR 28...	113	300	238	254	276	7	<0.015	0.035	0.45	
MAY 08...	101	300	252	263	307	--	<0.015	0.060	0.52	1.0
MAY 15...	100	330	261	281	318	--	<0.015	0.045	0.43	
MAY 22...	112	340	251	278	292	6	<0.015	0.055	0.49	1.2
MAY 28...	86	330	258	264	315	--	<0.015	0.077	0.88	1.2

JUN										
05...	99	290	228	240	278	--	<0.015	0.068	0.53	1.8
09...	92	300	244	257	298	--	<0.015	0.067	0.44	1.1
18...	85	330	263	259	321	--	<0.015	0.075	0.54	1.4
23...	80	270	205	225	250	--	0.036	0.084	0.47	1.7
JUL										
03...	84	330	258	272	315	--	<0.015	0.070	0.86	1.8
11...	86	290	256	286	312	--	<0.015	0.043	0.58	1.3
16...	81	320	233	255	281	--	<0.015	0.071	0.62	
0.99										
24...	75	330	239	281	292	--	<0.015	0.105	0.76	1.0
31...	86	330	247	288	301	--	<0.015	0.044	0.67	1.8
AUG										
08...	87	290	226	258	276	--	0.022	0.026	0.57	1.2
15...	91	250	204	225	249	--	<0.015	0.023	0.66	1.2
18...	102	--	222	--	266	2	0.015	0.030	0.74	1.2
20...	100	270	218	258	266	--	<0.015	0.031	0.76	1.7
26...	92	260	207	234	253	--	<0.015	0.022	0.71	1.4
SEP										
09...	107	280	250	255	305	--	<0.015	0.023	0.70	1.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

POTAS- SIUM, DIS- SOLVED DATE (MG/L K) (00935)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTH, DIS- SOLVED (MG/L AS P) (00671)	CARBON, CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEDED TOTAL (MG/L AS C) (00689)	MAGNE- SIUM, DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	AS K) (00935)
	OCT									
02...	0.080	0.180	0.030	0.040	9.2	4.3	69	29	16	3.2
NOV										
04...	6.50	0.160	0.100	0.110	6.9	1.5	91	31	14	2.5
DEC										
10...	10.0	0.060	0.050	0.050	5.3	0.60	110	35	12	1.9
JAN										
13...	9.50	0.110	0.070	0.080	5.9	0.20	110	35	14	2.4
FEB										
12...	680	0.110	0.100	0.100	6.6	0.30	110	37	16	2.3
MAR										
05...	6.30	0.350	0.250	0.310	7.6	0.90	54	17	5.9	3.6

18...	6.10	0.270	0.220	0.230	8.1	0.80	59	17	5.3	3.6
APR										
08...	8.10	0.190	0.070	0.080	6.1	1.8	77	24	8.1	2.0
16...	8.50	0.120	0.010	0.010	5.2	2.7	82	28	9.8	1.7
24...	6.64	0.068	<0.010	<0.010	5.4	--	76	26	9.4	1.6
28...	6.46	0.060	<0.010	<0.010	5.4	0.20	72	30	11	1.6
MAY										
08...	6.42	0.080	0.030	0.016	5.5	0.80	73	28	11	2.0
15...	8.38	0.069	0.017	0.018	4.4	1.0	82	30	11	1.5
22...	6.44	0.103	0.019	0.020	5.0	2.0	85	31	12	1.7
28...	13.1	0.188	0.087	0.096	6.5	2.5	85	28	9.5	2.2
JUN										
05...	9.92	0.160	<0.010	<0.010	5.2	>5.0	68	29	9.8	1.4
09...	10.0	0.015	<0.010	<0.010	5.0	4.9	73	30	10	1.4
18...	8.75	0.185	0.023	0.026	7.7	3.5	77	32	12	1.8
23...	7.06	0.277	0.057	0.045	5.4	>5.0	63	27	9.8	1.7
JUL										
03...	10.5	0.228	0.050	0.057	6.7	3.8	85	29	9.1	1.7
11...	7.37	0.248	<0.010	0.020	6.0	>5.0	73	27	9.2	1.4
16...	9.71	0.166	0.103	0.104	6.4	4.0	81	27	9.2	2.2
24...	7.61	0.133	0.083	0.079	6.6	>5.0	84	29	9.2	2.0
31...	7.17	0.261	0.040	0.051	7.2	3.9	83	30	10	1.7
AUG										
08...	4.22	0.171	0.041	0.052	7.0	4.4	69	28	10	1.8
15...	2.39	0.187	0.061	0.060	7.2	4.0	59	25	10	1.9
18...	2.92	0.170	0.053	0.049	8.0	3.1	--	--	--	--
20...	2.81	0.213	0.070	0.067	7.4	3.7	63	27	10	2.1
26...	1.61	0.163	0.051	0.025	7.6	3.4	62	27	11	2.0
SEP										
09...	1.87	0.180	0.119	0.084	7.8	2.7	66	29	11	2.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

SED. SUSP. SIEVE DIAM. FINER DATE THAN	SOLIDS, SOLIDS,									
	CHLO- RIDE, DIS- SOLVED (MG/L	FLUO- SULFATE DIS- SOLVED (MG/L	SILICA, DIS- SOLVED (MG/L	MANGA- IRON, DIS- SOLVED (UG/L	NESE, DIS- SOLVED (UG/L	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SEDI- MENT, SUS- PENDED (MG/L)		
.062 MM (70331)	(00940)	(00945)	(00950)	(00955)	(01046)	(01056)	(70300)	(70301)	(80154)	
OCT 02...	22	34	0.40	20	12	81	375	359	22	96

NOV											
04...	21	43	0.50	25	4.0	25	465	448	138	30	
DEC											
10...	18	36	0.50	26	<3.0	44	487	476	142	28	
JAN											
13...	21	35	0.40	26	8.0	110	514	498	144	46	
FEB											
12...	23	41	0.50	27	10	83	525	503	120	45	
MAR											
05...	11	17	0.30	18	11	59	290	270	19	98	
18...	11	20	0.30	18	12	17	295	266	13	90	
APR											
08...	13	36	0.38	19	<3.0	16	370	363	146	93	
16...	14	37	0.48	15	<3.0	13	426	379	104	50	
24...	16	36	0.45	9.4	9.2	24	385	352	97	54	
28...	16	37	0.43	8.0	4.3	14	368	348	70	74	
MAY											
08...	16	32	0.47	9.4	<3.0	31	385	352	77	62	
15...	16	31	0.51	13	4.5	15	410	378	91	66	
22...	17	30	0.50	12	<3.0	28	394	367	103	79	
28...	15	24	0.45	24	4.0	13	441	401	107	85	
JUN											
05...	15	24	0.48	14	3.5	1.7	378	343	177	95	
09...	16	25	0.49	13	<3.0	4.3	384	360	215	99	
18...	16	24	0.54	19	<3.0	3.4	384	380	252	88	
23...	17	21	0.44	21	<3.0	5.0	348	314	224	99	
JUL											
03...	14	24	0.55	28	<3.0	3.1	439	393	193	86	
11...	14	22	0.48	22	<3.0	<1.0	420	356	60	91	
16...	13	18	0.47	29	<3.0	1.8	414	362	273	95	
24...	14	19	0.48	29	<3.0	<1.0	433	365	319	91	
31...	15	18	0.55	29	<3.0	1.6	487	367	274	90	
AUG											
08...	15	20	0.45	25	<3.0	2.8	383	325	109	99	
15...	16	18	0.41	21	<3.0	9.1	326	286	83	98	
18...	--	--	--	--	--	--	--	--	103	99	
20...	17	21	0.40	22	3.3	12	326	306	78	100	
26...	17	22	0.43	22	<3.0	2.9	343	294	--	--	
SEP											
09...	17	21	0.39	21	<3.0	36	361	326	--	--	