

## STREAMS TRIBUTARY TO LAKE SUPERIOR

04010520 HOLLOW ROCK CREEK NEAR RED ROCK, MN

LOCATION.--Lat 47°55'07", long 89°44'46", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec. 24, T.63 N., R.5 E., Cook County, Hydrologic Unit 04010101, on Grand Portage Indian Band property, on left bank, 800 ft upstream from U.S. Highway 61, 0.4 miles west of Red Rock, and 4.4 mi southwest of Grand Portage.

PERIOD OF RECORD.--May 2003 to September 2005 (no winter records), discontinued.

GAGE.--Water-stage recorder. Elevation of gage is 670 ft above sea level (from topographic map).

REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.62	12	---	---	---	---	---	e7.0	6.3	15	0.38	0.32
2	1.3	9.1	---	---	---	---	---	e6.4	5.0	6.4	0.30	0.32
3	0.67	7.2	---	---	---	---	---	5.9	4.3	3.9	0.27	0.26
4	0.55	6.3	---	---	---	---	---	5.4	4.5	3.1	0.28	0.23
5	0.50	5.6	---	---	---	---	43	5.1	54	3.1	0.23	0.25
6	0.49	5.0	---	---	---	---	53	22	20	2.2	0.20	0.22
7	0.47	4.4	---	---	---	---	56	14	15	1.6	0.18	0.21
8	0.47	3.6	---	---	---	---	66	49	23	1.2	0.18	0.20
9	0.47	3.3	---	---	---	---	62	68	13	0.90	0.21	0.18
10	0.40	3.3	---	---	---	---	59	90	10	0.75	0.24	0.18
11	0.40	2.9	---	---	---	---	72	39	10	0.65	0.20	0.19
12	0.38	2.8	---	---	---	---	71	23	11	0.55	0.23	0.21
13	0.36	2.5	---	---	---	---	65	37	7.6	0.49	0.21	0.96
14	0.37	2.4	---	---	---	---	60	33	19	0.42	0.18	0.50
15	0.41	2.5	---	---	---	---	57	25	32	0.39	0.18	0.31
16	0.71	2.6	---	---	---	---	66	18	12	0.39	0.18	0.26
17	0.63	2.8	---	---	---	---	61	14	7.0	0.35	0.23	0.23
18	0.66	2.6	---	---	---	---	63	12	4.7	0.87	2.9	0.22
19	0.56	2.4	---	---	---	---	66	13	3.7	0.56	0.94	8.9
20	0.59	8.7	---	---	---	---	44	12	3.1	0.47	0.56	8.6
21	0.64	7.0	---	---	---	---	29	9.9	2.5	0.39	0.35	2.8
22	0.67	5.0	---	---	---	---	23	15	1.9	0.32	0.27	1.3
23	132	4.2	---	---	---	---	18	20	1.7	0.29	0.22	0.66
24	38	---	---	---	---	---	15	12	1.3	0.28	0.21	0.55
25	21	---	---	---	---	---	13	9.3	0.88	0.24	0.20	0.58
26	10	---	---	---	---	---	13	32	0.74	0.25	1.1	0.49
27	7.0	---	---	---	---	---	12	19	1.5	0.24	3.4	0.44
28	5.5	---	---	---	---	---	9.8	13	1.3	0.27	1.2	0.43
29	7.7	---	---	---	---	---	8.8	10	1.3	0.30	0.60	0.34
30	35	---	---	---	---	---	7.9	9.8	31	0.58	0.45	0.34
31	19	---	---	---	---	---	---	7.7	---	0.61	0.35	---
TOTAL	287.52	---	---	---	---	---	---	656.5	309.32	47.06	16.63	30.68
MEAN	9.27	---	---	---	---	---	---	21.2	10.3	1.52	0.54	1.02
MAX	132	---	---	---	---	---	---	90	54	15	3.4	8.9
MIN	0.36	---	---	---	---	---	---	5.1	0.74	0.24	0.18	0.18
AC-FT	570	---	---	---	---	---	---	1,300	614	93	33	61

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2005, BY WATER YEAR (WY)

MEAN	5.28	---	---	---	---	---	---	17.8	8.66	1.24	0.42	1.45
MAX	9.27	---	---	---	---	---	---	21.2	12.4	1.52	0.54	3.01
(WY)	(2005)	---	---	---	---	---	---	(2005)	(2004)	(2005)	(2005)	(2004)
MIN	1.29	---	---	---	---	---	---	14.4	3.22	0.97	0.28	0.31
(WY)	(2004)	---	---	---	---	---	---	(2004)	(2003)	(2004)	(2004)	(2003)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2003 - 2005	
HIGHEST DAILY MEAN	139	May 31	132	Oct 23	139	May 31, 2004
LOWEST DAILY MEAN	0.17	Aug 6	a0.18	Aug 7	0.01	Aug 19, 2003
ANNUAL SEVEN-DAY MINIMUM	0.19	Aug 2	0.20	Sep 6	0.03	Aug 13, 2003
MAXIMUM PEAK FLOW			385	Oct 23	385	Oct 23, 2004
MAXIMUM PEAK STAGE			6.43	Oct 23	6.43	Oct 23, 2004
INSTANTANEOUS LOW FLOW			0.17	Aug 15	0.01	Aug 18, 2003

a Also occurred Aug. 8, 14-16, Sept. 9, 10.  
 e Estimated.

