Water-Data Report 2013

05117500 SOURIS RIVER ABOVE MINOT, ND

Souris Basin
Upper Souris Subbasin

LOCATION.--Lat 48°14′45″, long 101°22′15″ referenced to North American Datum of 1927, in NW ¼ NW ¼ SE ¼ sec.17, T.155 N., R.83 W., Ward County, ND, Hydrologic Unit 09010001, on right bank 180 ft downstream from county highway bridge, 3.5 mi west of Minot, 7 mi downstream from Des Lacs River, and at mile 388.5.

DRAINAGE AREA.--10,600 mi^2 of which 6,700 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--DAILY DISCHARGE--May 1903 to current year. Monthly discharge only for some periods, published in WSP 1308. Published as Mouse River at Minot, 1903-24, Souris River at Minot, 1927-28, 1929-34, and Souris River near Minot, 1928-29.

PERIOD OF RECORD.--DAILY GAGE HEIGHT--October 2000 to current year.

REVISED RECORDS.--WSP 1308: 1905, 1909-14, 1918, 1924-25, 1927. WSP 1338: 1903-4, 1906, 1917, 1928, 1929(M). WSP 2113: Drainage area. WDR-ND-2002.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,545.75 ft above National Geodetic Vertical Datum of 1929. May 5, 1903, to September 30, 1928; October 1, 1929, to September 30, 1934; nonrecording gages at mile 377.6 in Minot, at datum 12.5 ft lower, October 1, 1928, to September 30, 1929, nonrecording gages at Saugstad bridge at mile 366.8, 5 mi southeast of Minot and at datum 19.2 ft lower than present datum. Records equivalent except those for periods of extreme low flow, as some industrial and sanitary waste enters the river between the sites.

REMARKS.--Records good except those for estimated daily discharge, which are poor.

REGULATION.--Flow regulated by reservoirs on Souris and Des Lacs Rivers, combined capacity, about 700,000 acre-ft; some small diversions for irrigation and municipal supply.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage in Minot occurred in 1881, and was at least 3 ft higher than 1904 peak of 21.9 ft (site and datum then in use), according to April 20, 1904, issue of Minot Daily Optic. Review of weather records and additional historic flood information suggest that the 1881 peak may have actually occurred in 1882.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 05117500, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/05117500.2013.pdf

05117500 SOURIS RIVER ABOVE MINOT, ND—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.5	9.2	e60	e57	e80	e75	e746	2,180	2,510	1,430	316	130
2	3.6	9.5	e60	e57	e82	e69	e785	1,660	2,440	1,380	343	125
3	3.8	18	e60	e58	e82	e63	e937	1,510	2,050	1,270	310	123
4	4.2	26	e59	e58	e83	e63	e1,250	1,320	2,540	1,040	277	123
5	5.9	28	e59	e58	e83	e63	e1,610	933	3,690	841	269	122
6	7.0	29	e59	e58	e83	e62	e1,900	734	3,810	827	265	119
7	5.6	29	e58	e58	e83	e61	e2,140	528	3,220	822	264	121
8	5.1	29	e58	e58	e83	e63	2,330	367	2,490	836	304	126
9	4.6	29	e58	e58	e82	e64	2,390	222	2,080	811	354	128
10	5.2	27	e63	e58	e84	e66	2,570	148	2,040	567	364	130
11	5.1	e26	e70	e58	e85	e61	2,580	146	2,210	380	351	125
12	7.9	e26	e86	e58	e86	e58	2,570	137	2,160	343	287	124
13	40	e27	e97	e59	e87	e55	2,570	131	1,880	347	152	123
14	63	e28	e99	e60	e87	e69	2,550	126	1,740	348	78	123
15	67	e29	e98	e60	e87	e91	2,560	125	1,680	337	69	123
16	65	e30	e98	e60	e88	e108	2,590	133	1,750	339	60	120
17	52	e30	e98	e62	e86	e134	2,550	155	1,650	284	83	118
18	29	e30	e98	e68	e84	e163	2,550	163	1,580	274	145	121
19	16	e31	e96	e76	e83	e200	2,550	157	1,550	271	162	123
20	12	e32	e90	e82	e82	e246	2,540	455	1,540	405	163	123
21	10	e33	e75	e81	e82	e293	2,600	840	1,550	527	181	120
22	9.4	e39	e55	e81	e83	e349	2,670	764	1,570	452	197	119
23	10	e51	e45	e81	e83	e419	2,420	702	1,600	652	226	125
24	11	e60	e47	e81	e83	e492	1,500	979	1,580	806	239	134
25	10	e62	e49	e81	e83	e545	711	1,090	1,560	819	238	135
26	9.3	e61	e52	e82	e83	e600	437	1,110	1,540	819	236	133
27	8.0	e60	e53	e82	e82	e642	e574	1,110	1,520	817	233	135
28	12	e60	e55	e82	e80	e683	2,180	1,130	1,490	812	229	136
29	12	e59	e56	e82	---	e719	2,540	1,130	1,470	539	232	135
30	11	e60	e57	e81	---	e742	2,610	1,160	1,450	328	173	129
31	10	---	e57	e80	---	e746	---	1,750	---	290	136	---
Total	517.2	1,067.7	2,125	2,115	2,339	8,064	60,510	23,095	59,940	20,013	6,936	3,771
Mean	16.7	35.6	68.5	68.2	83.5	260	2,017	745	1,998	646	224	126
Max	67	62	99	82	88	746	2,670	2,180	3,810	1,430	364	136
Min	2.5	9.2	45	57	80	55	437	125	1,450	271	60	118
Ac-ft	1,030	2,120	4,210	4,200	4,640	15,990	120,000	45,810	118,900	39,700	13,760	7,480

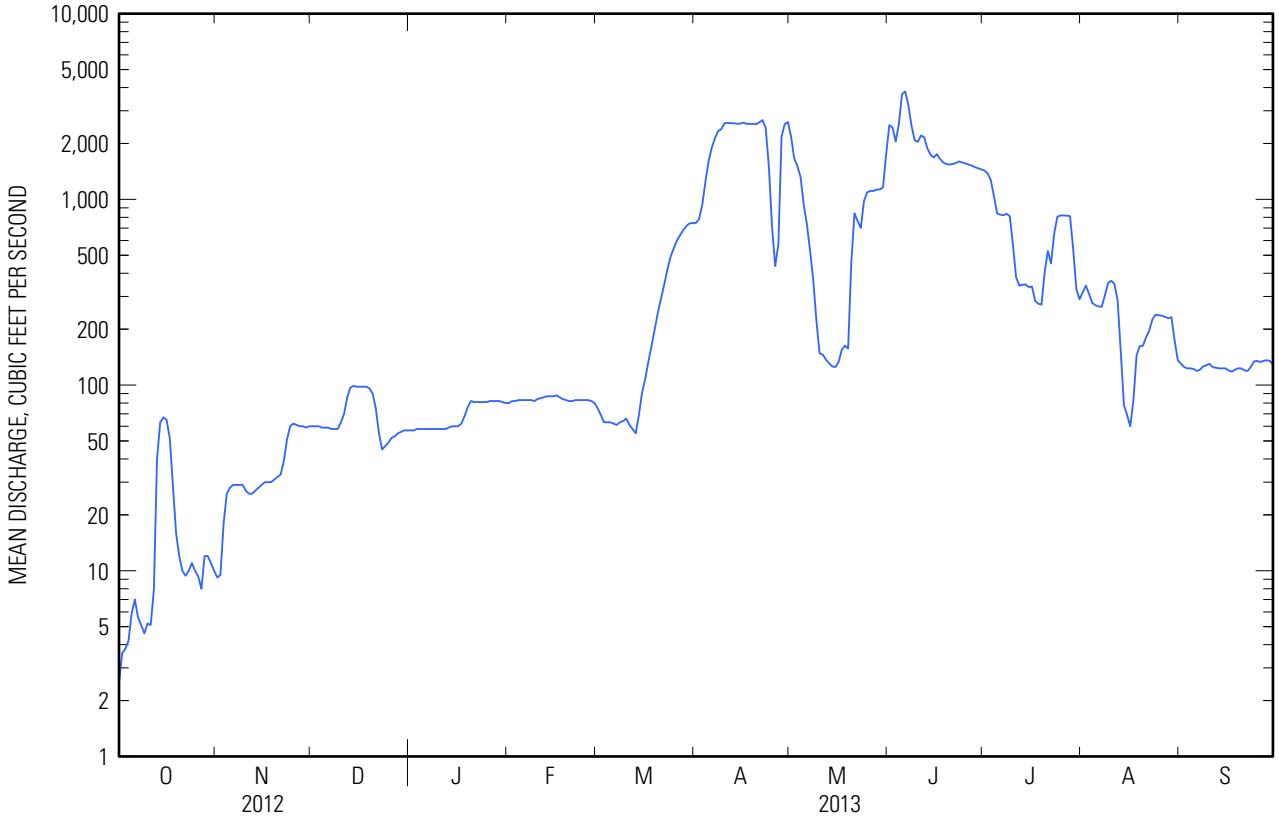
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	36.3	29.0	25.9	22.5	31.5	141	659	573	305	190	78.2	56.8
Max	266	159	337	198	475	1,272	6,209	5,468	11,330	7,251	1,614	838
(WY)	(1904)	(1952)	(2012)	(2011)	(2011)	(1976)	(1976)	(2011)	(2011)	(2011)	(2011)	(2011)
Min	0.00	0.00	0.00	0.00	0.00	0.00	1.27	0.31	0.00	0.00	0.00	0.00
(WY)	(1935)	(1935)	(1935)	(1935)	(1935)	(1936)	(1937)	(1993)	(1938)	(1937)	(1937)	(1935)

05117500 SOURIS RIVER ABOVE MINOT, ND—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1903 - 2013	
Annual total	26,526.7		190,492.9			
Annual mean	72.5		522		179	
Highest annual mean					2,717	2011
Lowest annual mean					1.30	1931
Highest daily mean	435	May 16	3,810	Jun 6	26,500	Jun 25, 2011
Lowest daily mean	2.5	Sep 29	2.5	Oct 1	0.00	Sep 26, 1917
Annual seven-day minimum	2.6	Sep 25	4.7	Oct 1	0.00	Sep 26, 1917
Maximum peak flow			3,890	Jun 6	26,900	Jun 25, 2011
Maximum peak stage			17.07	Jun 6	24.37	Jun 25, 2011
Annual runoff (ac-ft)	52,620		377,800		129,600	
10 percent exceeds	173		1,750		326	
50 percent exceeds	47		123		21	
90 percent exceeds	5.5		29		0.20	

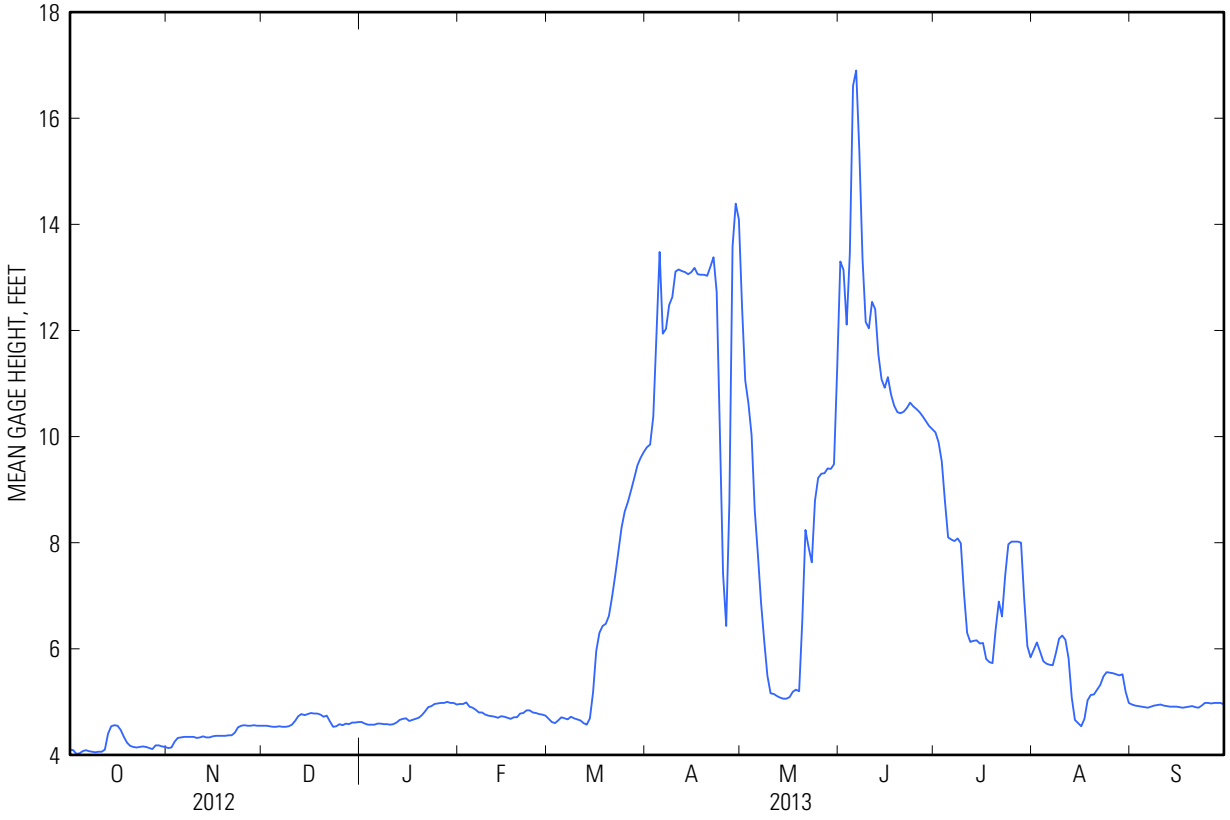


05117500 SOURIS RIVER ABOVE MINOT, ND—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.10	4.13	4.55	4.62	4.96	4.68	9.80	12.44	13.30	10.08	5.98	4.95
2	4.09	4.14	4.55	4.59	4.96	4.62	9.85	11.06	13.14	9.89	6.12	4.93
3	4.02	4.25	4.54	4.57	4.99	4.60	10.38	10.63	12.11	9.53	5.95	4.92
4	4.03	4.32	4.53	4.57	4.91	4.65	11.92	10.03	13.46	8.78	5.77	4.91
5	4.07	4.33	4.53	4.57	4.89	4.71	13.48	8.61	16.61	8.10	5.72	4.90
6	4.09	4.34	4.54	4.59	4.85	4.69	11.94	7.77	16.90	8.06	5.70	4.89
7	4.07	4.34	4.53	4.59	4.80	4.67	12.03	6.86	15.37	8.03	5.69	4.91
8	4.06	4.34	4.53	4.58	4.80	4.72	12.48	6.14	13.35	8.08	5.92	4.93
9	4.05	4.34	4.54	4.58	4.76	4.69	12.63	5.49	12.16	7.99	6.19	4.94
10	4.06	4.32	4.57	4.57	4.74	4.67	13.11	5.16	12.04	7.05	6.25	4.95
11	4.06	4.33	4.64	4.58	4.73	4.65	13.15	5.15	12.54	6.30	6.17	4.93
12	4.10	4.35	4.73	4.61	4.72	4.60	13.12	5.11	12.40	6.13	5.82	4.92
13	4.40	4.33	4.77	4.66	4.70	4.57	13.10	5.08	11.55	6.15	5.08	4.91
14	4.54	4.33	4.75	4.68	4.73	4.69	13.06	5.06	11.08	6.16	4.66	4.91
15	4.56	4.35	4.77	4.69	4.72	5.18	13.10	5.06	10.92	6.10	4.60	4.91
16	4.55	4.36	4.79	4.64	4.70	5.96	13.18	5.09	11.12	6.11	4.54	4.90
17	4.47	4.36	4.78	4.66	4.68	6.30	13.06	5.19	10.79	5.81	4.68	4.89
18	4.34	4.36	4.78	4.68	4.71	6.43	13.05	5.23	10.58	5.75	5.03	4.90
19	4.23	4.36	4.76	4.70	4.71	6.47	13.05	5.20	10.46	5.73	5.13	4.91
20	4.17	4.37	4.72	4.75	4.78	6.62	13.03	6.53	10.44	6.37	5.14	4.92
21	4.15	4.37	4.74	4.82	4.79	6.98	13.20	8.24	10.47	6.89	5.23	4.90
22	4.14	4.42	4.63	4.90	4.84	7.39	13.38	7.91	10.54	6.61	5.32	4.89
23	4.15	4.52	4.53	4.92	4.84	7.84	12.72	7.63	10.64	7.38	5.48	4.93
24	4.16	4.55	4.54	4.96	4.80	8.29	10.10	8.79	10.57	7.97	5.56	4.98
25	4.15	4.56	4.58	4.97	4.79	8.59	7.42	9.22	10.52	8.02	5.55	4.98
26	4.13	4.55	4.56	4.98	4.77	8.77	6.43	9.30	10.46	8.02	5.54	4.97
27	4.11	4.55	4.59	4.98	4.76	8.99	8.76	9.31	10.38	8.02	5.52	4.98
28	4.18	4.56	4.58	5.00	4.74	9.22	13.58	9.40	10.29	8.00	5.50	4.98
29	4.18	4.55	4.61	4.98	---	9.46	14.39	9.39	10.20	6.94	5.52	4.98
30	4.16	4.55	4.61	4.98	---	9.60	14.09	9.48	10.14	6.05	5.19	4.95
31	4.15	---	4.62	4.95	---	9.71	---	11.27	---	5.84	4.98	---
Mean	4.18	4.38	4.63	4.74	4.79	6.36	12.09	7.64	11.82	7.29	5.47	4.93
Max	4.56	4.56	4.79	5.00	4.99	9.71	14.39	12.44	16.90	10.08	6.25	4.98
Min	4.02	4.13	4.53	4.57	4.68	4.57	6.43	5.06	10.14	5.73	4.54	4.89

05117500 SOURIS RIVER ABOVE MINOT, ND—Continued



05117500 SOURIS RIVER ABOVE MINOT, ND—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; +, improper preservation; @, holding time exceeded; c, see result laboratory comment; d, diluted sample: method hi range exceeded; n, below the LRL and above the LT-MDL]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Discharge, ft^3/s (00060)	Discharge, instantaneous, ft^3/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, µS/cm at 25°C (90095)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)
10-29-2012	**1030**	721	--	12	12.6	99	8.2	8.3	1,580	1,590
01-02-2013	**1245**	725	E 57	--	12.0	86	--	8.1	1,190	1,200
04-22-2013	**1545**	730	--	2,670	12.5	96	7.9	8.2	908	922
05-07-2013	**1415**	716	--	498	11.3	114	8.3	8.1	825	834
05-21-2013	**1540**	719	--	863	10.1	98	7.9	8.0	1,020	1,050
05-29-2013	**1545**	712	--	--	9.0	98	8.2	--	--	796
06-13-2013	**0930**	723	--	1,900	7.6	89	8.0	8.2	776	787
07-08-2013	**1045**	719	--	834	6.9	88	8.2	8.4	988	1,030
08-29-2013	**0700**	716	--	235	6.3	81	8.0	8.1	1,030	1,060

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 6

[%, percent; ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; +, improper preservation; @, holding time exceeded; c, see result laboratory comment; d, diluted sample: method hi range exceeded; n, below the LRL and above the LT-MDL]

Date	Sample start time	Temperature, water, °C (00010)	Turbidity, water, unfiltered, monochrome near infrared LED light, 780-900 nm, detection angle 90 +/- 2.5 degrees, FNU (63680)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Dissolved solids, water, filtered, sum of constituents, mg/L (70301)	Dissolved solids, water, tons per day (70302)	Hardness, water, mg/L as $CaCO_3$ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)
10-29-2012	**1030**	2.7	--	1,100	1,080	35.5	527	< 15	91.2
01-02-2013	**1245**	.0	--	807	777	--	427	< 15	80.5
04-22-2013	**1545**	2.5	--	609	589	4,390	343	17	59.8
05-07-2013	**1415**	12.8	--	582	--	783	--	68 d	--
05-21-2013	**1540**	11.4	--	757	728	1,760	398	166 d	80.6
05-29-2013	**1545**	16.2	16	--	--	--	--	--	--
06-13-2013	**0930**	20.4	--	524	498	2,690	271	42 d	51.7
07-08-2013	**1045**	24.3	--	686	649	1,540	332	43	64.4
08-29-2013	**0700**	25.0	--	700	682	444	323	20	60.1

05117500 SOURIS RIVER ABOVE MINOT, ND—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; +, improper preservation; @, holding time exceeded; c, see result laboratory comment; d, diluted sample: method hi range exceeded; n, below the LRL and above the LT-MDL]

Date	Sample start time	Magne-sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium adsorption ratio, water, number (00931)	Sodium fraction of cations, water, percent in equiva-lents of major cations (00932)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as $CaCO_3$ (90410)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Sulfate, water, filtered, mg/L (00945)
10-29-2012	**1030**	72.6	18.6	3.65	43	192	388 @c	38.8	0.20	436 d
01-02-2013	**1245**	54.9	16.6	2.27	34	108	334 @c	28.2	.19	287
04-22-2013	**1545**	47.0	15.8	1.69	30	71.8	260 @c	16.0 d	--	222 d
05-07-2013	**1415**	--	--	--	--	--	168 @c	11.3 d	.14 dc	261 d
05-21-2013	**1540**	47.8	14.7	1.63	28	74.7	174 @c	15.8 d	--	387 d
05-29-2013	**1545**	--	--	--	--	--	--	--	--	--
06-13-2013	**0930**	34.5	13.4	1.45	29	54.8	182 @c	10.7 d	.15 dc	223 d
07-08-2013	**1045**	41.7	13.9	2.18	36	91.3	219 @c	13.5 d	.19 dc	292 d
08-29-2013	**0700**	42.0	14.0	2.29	38	94.4	228 @c	16.9 d	.18 d	317 d

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 4 of 6

[%, percent; ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; +, improper preservation; @, holding time exceeded; c, see result laboratory comment; d, diluted sample: method hi range exceeded; n, below the LRL and above the LT-MDL]

Date	Sample start time	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Organic nitrogen, water, unfiltered, mg/L (00605)	Phosphorus, water, unfiltered, mg/L as P (00665)	Aluminum, water, unfiltered, recover-able, µg/L (01105)	Barium, water, unfiltered, recover-able, µg/L (01007)	Beryllium, water, unfiltered, recover-able, µg/L (01012)	Cadmium, water, unfiltered, µg/L (01027)
10-29-2012	**1030**	1.7	0.011 n	< .040	1.7	0.18	51.7	84.7	< .02	< .016
01-02-2013	**1245**	1.2	.242	.183	1.0	.26	72.0	94.1	< .02	< .016
04-22-2013	**1545**	1.2	< .010	.223	< 1.2	.18	441	74.5	.03 n	.054
05-07-2013	**1415**	--	.109	.515	--	--	742	82.8	.06	.047
05-21-2013	**1540**	2.0	.120	.637	1.9	.37	1,490	113	.10	.093
05-29-2013	**1545**	--	--	--	--	--	--	--	--	--
06-13-2013	**0930**	1.1	.036	.079 n	1.1	.19	458	63.3	.05	.053
07-08-2013	**1045**	1.2	< .010	.102	< 1.2	.26	439	79.4	.04 n	.026 n
08-29-2013	**0700**	1.8	.052	.049 n	1.8	.29	256	89.2	.05	.034

05117500 SOURIS RIVER ABOVE MINOT, ND—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 5 of 6

[%, percent; ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; +, improper preservation; @, holding time exceeded; c, see result laboratory comment; d, diluted sample: method hi range exceeded; n, below the LRL and above the LT-MDL]

Date	Sample start time	Chromium, water, unfiltered, recoverable, µg/L (01034)	Cobalt, water, unfiltered, recoverable, µg/L (01037)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Mercury, water, unfiltered, recoverable, µg/L (71900)	Molybdenum, water, unfiltered, recoverable, µg/L (01062)	Nickel, water, unfiltered, recoverable, µg/L (01067)	Zinc, water, unfiltered, recoverable, µg/L (01092)
10-29-2012	1030	0.35 n	0.48	1.0 n	312	0.20	< .005	3.35	3.6	< 3.0
01-02-2013	1245	< .30	.19	1.6	204	.12	< .005	4.43	3.1	< 3.0
04-22-2013	1545	< .30	.64	1.7	654 d	.45	< .005	4.93	3.5	< 3.0
05-07-2013	1415	.69	1.2	2.7	1,750	1.25	.006 n	3.24	4.7	5.0 n
05-21-2013	1540	2.9	2.2	5.3	3,560	2.38	.008 n	2.53	8.2	13.8
05-29-2013	1545	--	--	--	--	--	--	--	--	--
06-13-2013	0930	.92	.71	2.2	1,020	.68	< .005	3.88	3.9	4.1 n
07-08-2013	1045	.90	.77	2.1	972	.66	< .005	6.05	4.2	3.2 n
08-29-2013	0700	.67	.74	1.7	606	.65	< .005	6.36	4.0	3.6 n

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
Part 6 of 6

[%, percent; ANC, acid neutralizing capacity; $CaCO_3$, calcium carbonate; FNU, Formazin nephelometric units; LED, light-emitting diode; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; +, improper preservation; @, holding time exceeded; c, see result laboratory comment; d, diluted sample: method hi range exceeded; n, below the LRL and above the LT-MDL]

Date	Sample start time	Arsenic, water, unfiltered, µg/L (01002)	Boron, water, unfiltered, recoverable, micrograms per liter (01022)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, water, filtered, mg/L (00681)	Organic carbon, water, unfiltered, mg/L (00680)
10-29-2012	1030	4.2	134	0.440	17.5	18.7
01-02-2013	1245	6.0	134	.406	12.3	14.1
04-22-2013	1545	4.4	137	.598	14.1	16.4
05-07-2013	1415	3.6	76	1.02	11.7	19.2
05-21-2013	1540	4.4	53	1.31	13.7	25.1
05-29-2013	1545	--	--	--	--	--
06-13-2013	0930	4.1	95	.589	10.8	11.3
07-08-2013	1045	5.5	135	.693	11.8	13.9
08-29-2013	0700	8.9	176	.541 d	13.9	17.4