



Water-Data Report 2007

473945096202402 Local number E01S-R 148N45W01CBDD L000

0000249810

Sand and gravel aquifers (glaciated regions)

Glacial Surficial Sand & Gravel

Polk County, MN

LOCATION.--Lat 47°39'44.97", long 96°20'24.24" referenced to North American Datum of 1983, in SE ¼ NW ¼ SW ¼ sec.1, T.148 N., R.45 W., Polk County, MN, Hydrologic Unit 09020303.

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Depth 19.77 ft. Upper casing diameter 2.12 in., top of first opening 13.01 ft, bottom of last opening 17.31 ft.

DATUM.--Land-surface datum is 1075.41 ft above North American Vertical Datum of 1988. Measuring point: MP is top of threaded casing., 3.14 ft above land-surface datum, Oct. 20, 2001, to present.

PERIOD OF RECORD.--Oct. 26, 2002 to Mar. 31, 2007 at 23:00.

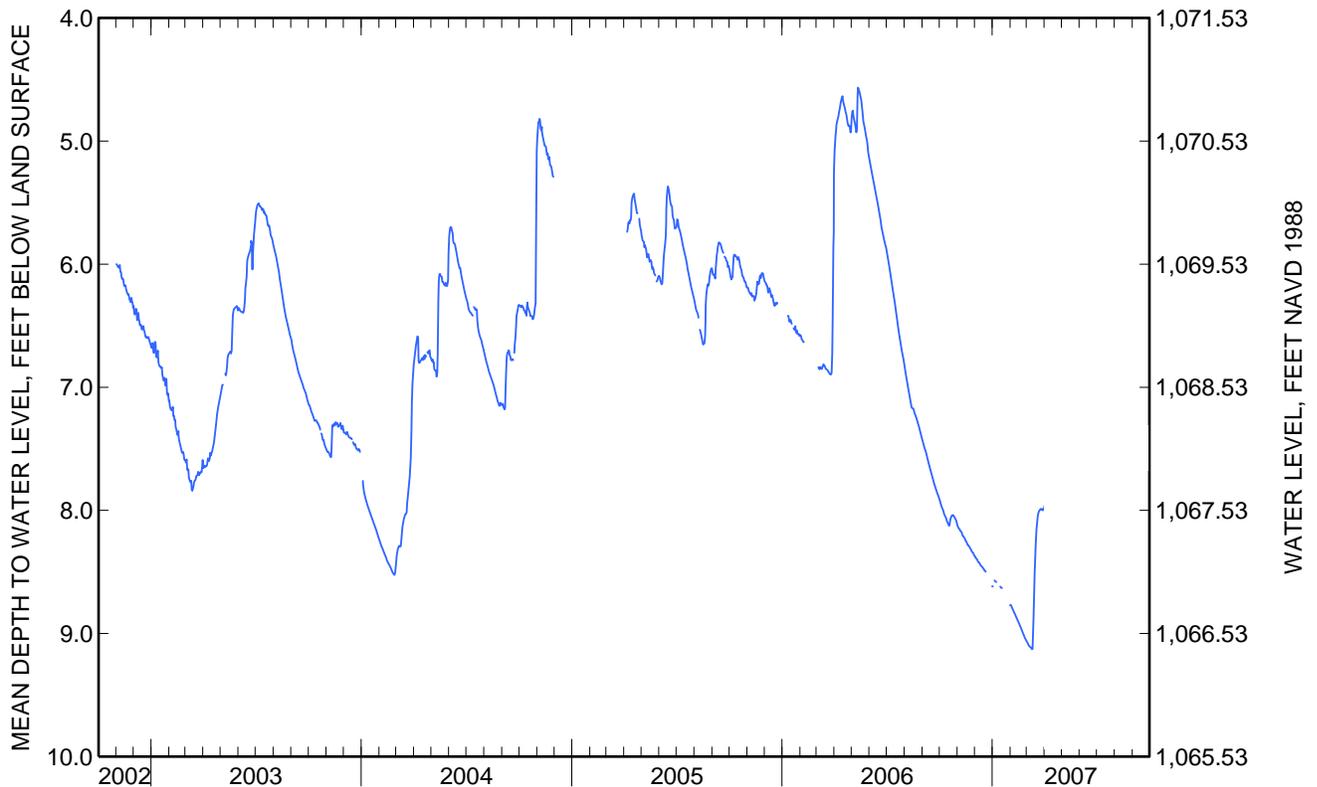
GAGE.--Measurements by USGS personnel. Water-stage recorder.

COOPERATION.--This site operated in cooperation with Red Lake Watershed District and The Nature Conservancy.

REMARKS.--Well No. E01S at Glacial Ridge near Crookston, Minn. Owner: Minnesota Department of Natural Resources.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.554 ft. below land surface datum, May 12, 2006; lowest recorded, 9.134 ft. below land surface datum, Mar. 11, 2007 at 13:00.

EXTREMES FOR CURRENT YEAR.—(through Mar. 31, 2007) Highest water level, 7.913 ft below land surface datum, Oct. 1 at 1:00; lowest water level, 9.134 ft below land surface datum, Mar. 11 at 13:00.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Oct. 26, 2002 to Mar. 31, 2007 at 23:00.

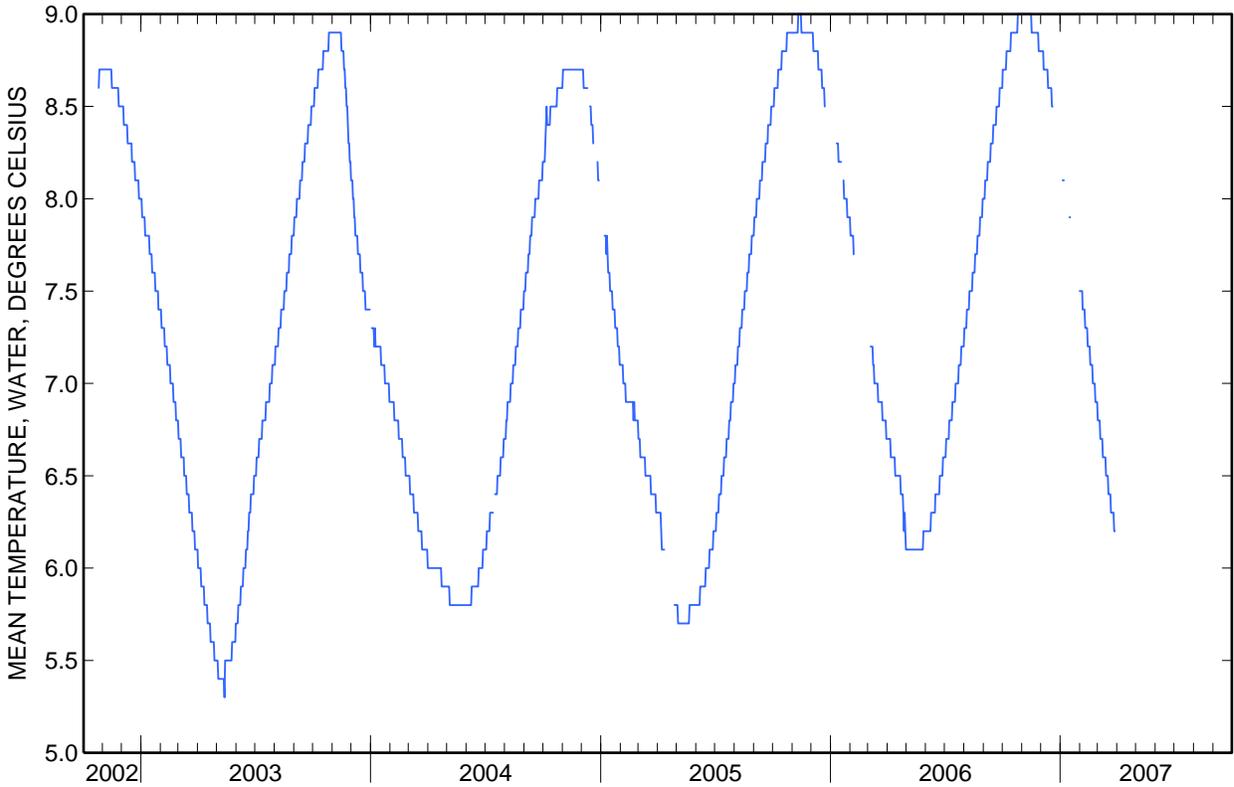
REMARKS.--Water temperature is measured by a submersible pressure transducer and is uncalibrated.

COOPERATION.--This site operated in cooperation with Red Lake Watershed District and The Nature Conservancy.

EXTREMES FOR PERIOD OF RECORD.--Highest water temperature recorded, 9.0°C on Nov. 10-14, 2005 and Oct. 25-Nov. 15, 2006; lowest recorded, 5.5°C on May 12-25, 2003.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: (through Mar. 31, 2007) Maximum, 9.0°C, Oct. 25-Nov. 15, 2006; minimum, 6.1°C, Mar 31, 2007 at 18:00.



WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 2

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf μ S/cm 25 degC (00095)	Temperature, air, deg C (00020)
Oct												
17...	0930	Environmental	19.77	1,075.41	.14	36	16.5	723	4.4	7.2	587	7.5
Apr												
24...	1030	Environmental	19.77	1,075.41	--	--	--	741	5.1	7.3	525	--
24...	1105	Blank	19.77	1,075.41	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 2

[Remark codes: <, less than; E, estimated.]

Date	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Data base number
Oct											
17...	9.8	295	359	.0	E.017	1.47	<.002	1.70	E.005	E.004	01
Apr											
24...	6.5	243	296	--	E.020	1.37	E.001	1.59	E.005	<.006	01
24...	--	--	--	--	<.020	<.06	<.002	<.06	<.006	<.006	77

CLIMATOLOGICAL RECORDS

COOPERATION.--This site operated in cooperation with Red Lake Watershed District and The Nature Conservancy.

PERIOD OF RECORD.--Apr. 28, 2003 at 18:00 to Mar. 31, 2007 at 23:00.

REMARKS.--Precipitation gage is NOT covered in the winter nor is the record corrected. Any precipitation recorded during freezing periods may represent snow or ice which fell earlier, and melted through the gage when recorded.

EXTREMES FOR PERIOD OF RECORD.--Maximum hourly precipitation: Water year 2007 (through Mar. 31, 2007): 0.32 inches on Oct. 17, 2006 at 8:00; Water year 2006: 1.11 inches on Jun. 23, 2006 at 20:00; Water year 2005: 1.16 inches on Aug. 17, 2005 at 10:00; Water year 2004: 0.83 inches on May 12, 2004 at 1:00; Water year 2003: 0.24 inches on May 18, 2003 at 20:00.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.71 in., Oct. 17; minimum precipitation, 0.00 in., on many days.

