

Sand and gravel aquifers (glaciated regions)
Glacial Buried Sand & Gravel
Yellow Medicine County, MN

LOCATION.--Lat 44°44'23.58", long 95°31'22.72" referenced to North American Datum of 1983, in SW ¼ SW ¼ NW ¼ sec.26, T.115 N., R.39 W., Yellow Medicine County, MN, Hydrologic Unit 07020004, 4.6 miles south of Granite Falls, Minnesota.

GROUND-WATER RECORDS

WELL CHARACTERISTICS.--Depth 100 ft. Upper casing diameter 2.04 in; top of first opening 85 ft, bottom of last opening 100 ft. The hole for well US-02 was drilled with a hydraulic rotary drill-rig to a depth of 120 feet. The well is constructed of a 15-foot-long, 2-inch-diameter, schedule-80 PVC screen glued to about 87 feet of 2-inch-diameter, schedule-80 PVC casing. This casing had a stick-up of 2.56 feet above land surface on 24 April 2007.

DATUM.--Land-surface datum is 1032 ft above National Geodetic Vertical Datum of 1929. Measuring point: MP is top of casing, not protection post, 2.00 ft above land-surface datum, Oct. 4, 2006, to present. Water levels are in depth below land surface and feet above sea level. Water levels are accurate to within 0.01 feet below land surface. Water-level elevations are accurate to plus-or-minus 5 feet, based on the elevation of the land surface from the USGS topographic map. Water-level differences are accurate to plus-or-minus 0.001 feet.

PERIOD OF RECORD.--Apr. 24, 2007 to the present.

GAGE.--Water level was measured with a Design Analysis H-310 submersible pressure transducer. Data are recorded hourly by a Campbell Scientific, Inc. CR206 data logger. The data logger is housed in a 12-inch X 14-inch grey fiberglass shelter attached to an antenna mast. The gage is powered by a 10W solar panel and telemetered by radio and telephone.

COOPERATION.--Well US-02 is operated by the U.S. Geological Survey in cooperation with the Upper Sioux Community.

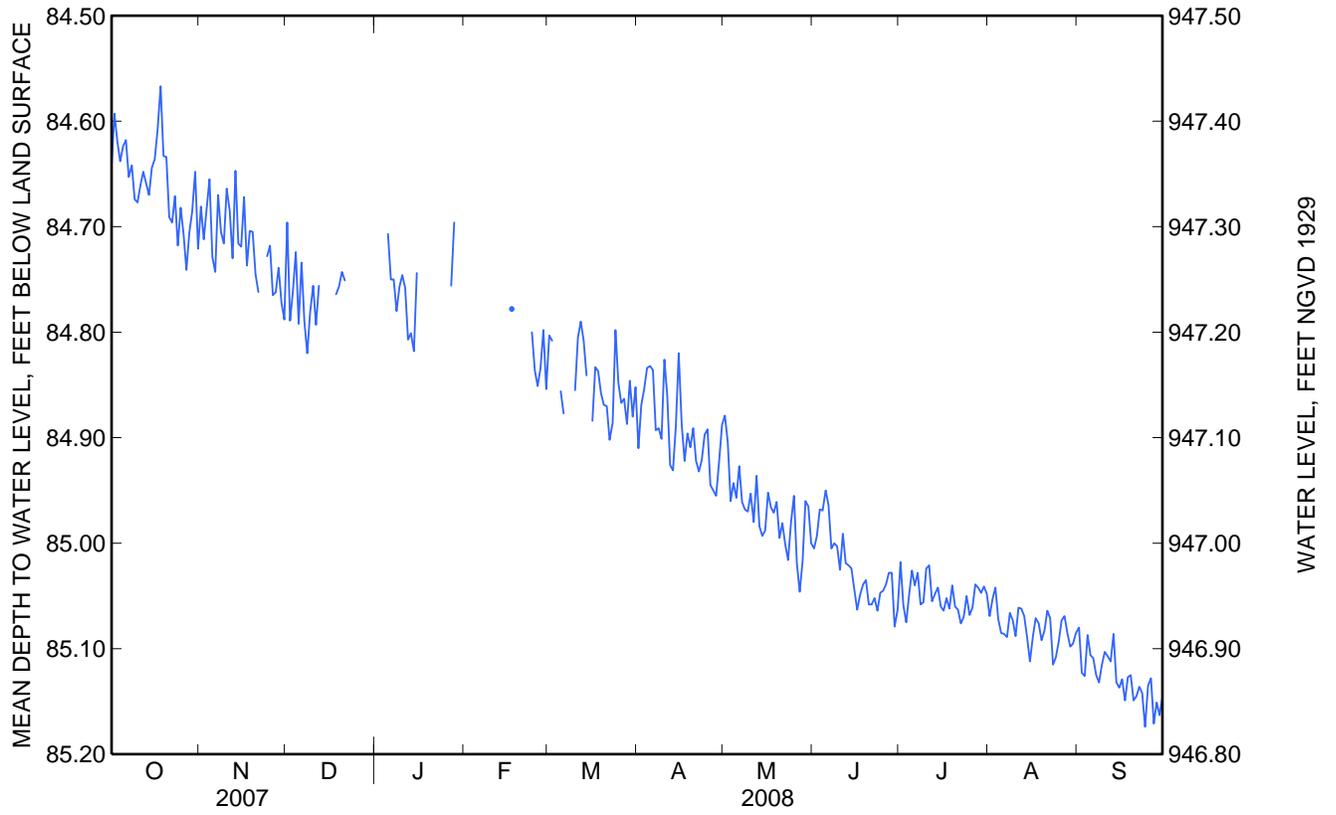
REMARKS.--The instrument stopped recording data after Nov. 22, 2007 at 21:00 CST. It resumed recording on Nov. 23, 2007 at 10:00 CST. The instrument stopped recording again after Dec. 13, 2007 at 20:00 CST after which it resumed intermittantly until it stopped completely on Dec. 22, 2007 at 17:00 CST. The instrument stopped recording data after Jan. 16, 2008 at 16:00 CST. It resumed recording on Jan. 17, 2008 at 10:00 CST. The instrument stopped recording again after Jan. 18, 2008 at 16:00 CST. It resumed recording on Jan. 19, 2008 at 10:00 CST. The instrument stopped recording again after Jan. 20, 2008 at 21:00 CST. It resumed recording Jan. 21, 2008 at 13:00 CST. Thereafter, the instrument recorded with intermittent gaps, which ended on Mar. 9, 2008 at 10:00 CST for unknown reasons.

EXTREMES FOR PERIOD OF RECORD.--Highest water level: 84.419 ft BLS on June 7, 2007 at 4:00 CDT; lowest water level: 85.198 ft BLS on Sept. 24, 2008 at 9:00 CDT.

EXTREMES FOR CURRENT YEAR.--Highest water level, 84.545 ft below land surface datum, Oct. 18; lowest water level, 85.198 ft below land surface datum, Sept. 24.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	84.642	84.681	84.696	---	---	84.803	84.910	84.879	85.005	85.018	85.069	85.080
2	84.593	84.712	84.789	---	---	84.808	84.869	84.904	84.993	85.059	85.053	85.123
3	84.619	84.683	84.761	---	---	---	84.854	84.960	84.968	85.075	85.042	85.126
4	84.638	84.655	84.724	---	---	---	84.834	84.943	84.969	85.049	85.072	85.087
5	84.624	84.729	84.792	84.707	---	84.856	84.832	84.957	84.950	85.026	85.085	85.106
6	84.618	84.743	84.734	84.750	---	84.877	84.836	84.927	84.964	85.040	85.086	85.109
7	84.653	84.670	84.790	84.750	---	---	84.893	84.961	85.005	85.028	85.089	85.125
8	84.642	84.705	84.820	84.780	---	---	84.891	84.968	85.000	85.058	85.066	85.132
9	84.674	84.716	84.781	84.757	---	---	84.901	84.970	85.003	85.056	85.073	85.115
10	84.677	84.664	84.756	84.746	---	84.855	84.826	84.953	85.025	85.024	85.088	85.103
11	84.661	84.685	84.793	84.758	---	84.805	84.860	84.980	84.991	85.021	85.061	85.107
12	84.648	84.730	84.756	84.807	---	84.790	84.926	84.936	85.019	85.055	85.062	85.112
13	84.659	84.647	---	84.801	---	84.808	84.931	84.984	85.021	85.048	85.069	85.086
14	84.670	84.716	---	84.818	---	84.841	84.889	84.993	85.024	85.042	85.089	85.132
15	84.644	84.719	---	84.744	---	---	84.820	84.988	85.044	85.060	85.112	85.137
16	84.636	84.672	---	---	---	84.884	84.888	84.952	85.063	85.064	85.089	85.129
17	84.608	84.737	---	---	84.778	84.833	84.922	84.966	85.049	85.052	85.071	85.149
18	84.567	84.704	84.764	---	---	84.837	84.896	84.971	85.039	85.062	85.076	85.127
19	84.633	84.705	84.757	---	---	84.858	84.909	84.961	85.035	85.040	85.092	85.125
20	84.634	84.745	84.743	---	---	84.869	84.891	84.995	85.058	85.060	85.083	85.149
21	84.691	84.762	84.751	---	---	84.870	84.922	84.981	85.058	85.063	85.064	85.145
22	84.696	---	---	---	---	84.902	84.932	85.001	85.052	85.076	85.071	85.136
23	84.671	---	---	---	---	84.886	84.921	85.016	85.064	85.070	85.115	85.142
24	84.718	84.728	---	---	84.800	84.798	84.897	84.979	85.047	85.050	85.108	85.174
25	84.682	84.718	---	---	84.836	84.848	84.892	84.955	85.045	85.068	85.093	85.135
26	84.707	84.765	---	---	84.851	84.867	84.945	85.019	85.039	85.061	85.073	85.128
27	84.741	84.762	---	84.756	84.834	84.863	84.950	85.046	85.028	85.039	85.069	85.171
28	84.706	84.739	---	84.696	84.798	84.887	84.955	85.017	85.028	85.042	85.085	85.151
29	84.686	84.772	---	---	84.854	84.846	84.922	84.960	85.079	85.047	85.098	85.163
30	84.648	84.788	---	---	---	84.880	84.888	84.965	85.063	85.041	85.095	85.146
31	84.721	---	---	---	---	84.852	---	85.000	---	85.048	85.085	---
Mean	84.658	---	---	---	---	---	84.893	84.971	85.024	85.050	85.080	85.128
Max	84.741	---	---	---	---	---	84.955	85.046	85.079	85.076	85.115	85.174
Min	84.567	---	---	---	---	---	84.820	84.879	84.950	85.018	85.042	85.080



WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: Apr. 24, 2007 to the present.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Apr. 25, 2007 to the present.

INSTRUMENTATION.--Water temperature was measured with a Design Analysis H-310 submersible pressure transducer accurate to 0.1°C.

REMARKS.--The instrument stopped recording data after Nov. 22, 2007 at 21:00 CST. It resumed recording on Nov. 23, 2007 at 10:00 CST. The instrument stopped recording again after Dec. 13, 2007 at 20:00 CST after which it resumed intermittantly until it stopped completely on Dec. 22, 2007 at 17:00 CST. The instrument stopped recording data after Jan. 16, 2008 at 16:00 CST. It resumed recording on Jan. 17, 2008 at 10:00 CST. The instrument stopped recording again after Jan. 18, 2008 at 16:00 CST. It resumed recording on Jan. 19, 2008 at 10:00 CST. The instrument stopped recording again after Jan. 20, 2008 at 21:00 CST. It resumed recording Jan. 21, 2008 at 13:00 CST. Thereafter, the instrument recorded with intermittant gaps, which ended on Mar. 9, 2008 at 10:00 CST for unknown reasons.

COOPERATION.--Well US-02 is operated by the U.S. Geological Survey in cooperation with the Upper Sioux Community.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum: 8.2°C during Apr. 24-May 12, 2007 and Oct.22, 2007-Sep. 30, 2008; minimum: 8.1°C during May 9-Oct. 21, 2007.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum: 8.2°C during Apr. 25-May 11, 2007 and Oct. 22, 2007-Sep. 30, 2008; minimum: 8.1°C during May 12-Oct. 21, 2007.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 8.2°C, on many days; minimum, 8.1°C, on many days.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	8.1	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
2	8.1	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
3	8.1	8.2	8.2	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2
4	8.1	8.2	8.2	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2
5	8.1	8.2	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
6	8.1	8.2	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
7	8.1	8.2	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2
8	8.1	8.2	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2
9	8.1	8.2	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2
10	8.1	8.2	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
11	8.1	8.2	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
12	8.1	8.2	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
13	8.1	8.2	---	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
14	8.1	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
15	8.1	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
16	8.1	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
17	8.1	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
18	8.1	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
19	8.1	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
20	8.1	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
21	8.1	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
22	8.2	---	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
23	8.2	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
24	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
25	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
26	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
27	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
28	8.2	8.2	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
29	8.2	8.2	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
30	8.2	8.2	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2	8.2
31	8.2	---	---	---	---	8.2	---	8.2	---	8.2	8.2	---
Mean	8.1	---	---	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2
Max	8.2	---	---	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2
Min	8.1	---	---	---	---	---	8.2	8.2	8.2	8.2	8.2	8.2

