

## Ground-Water Wells by County

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### Ground-Water Levels



Ground-water observation well at Glacial Ridge, 2003

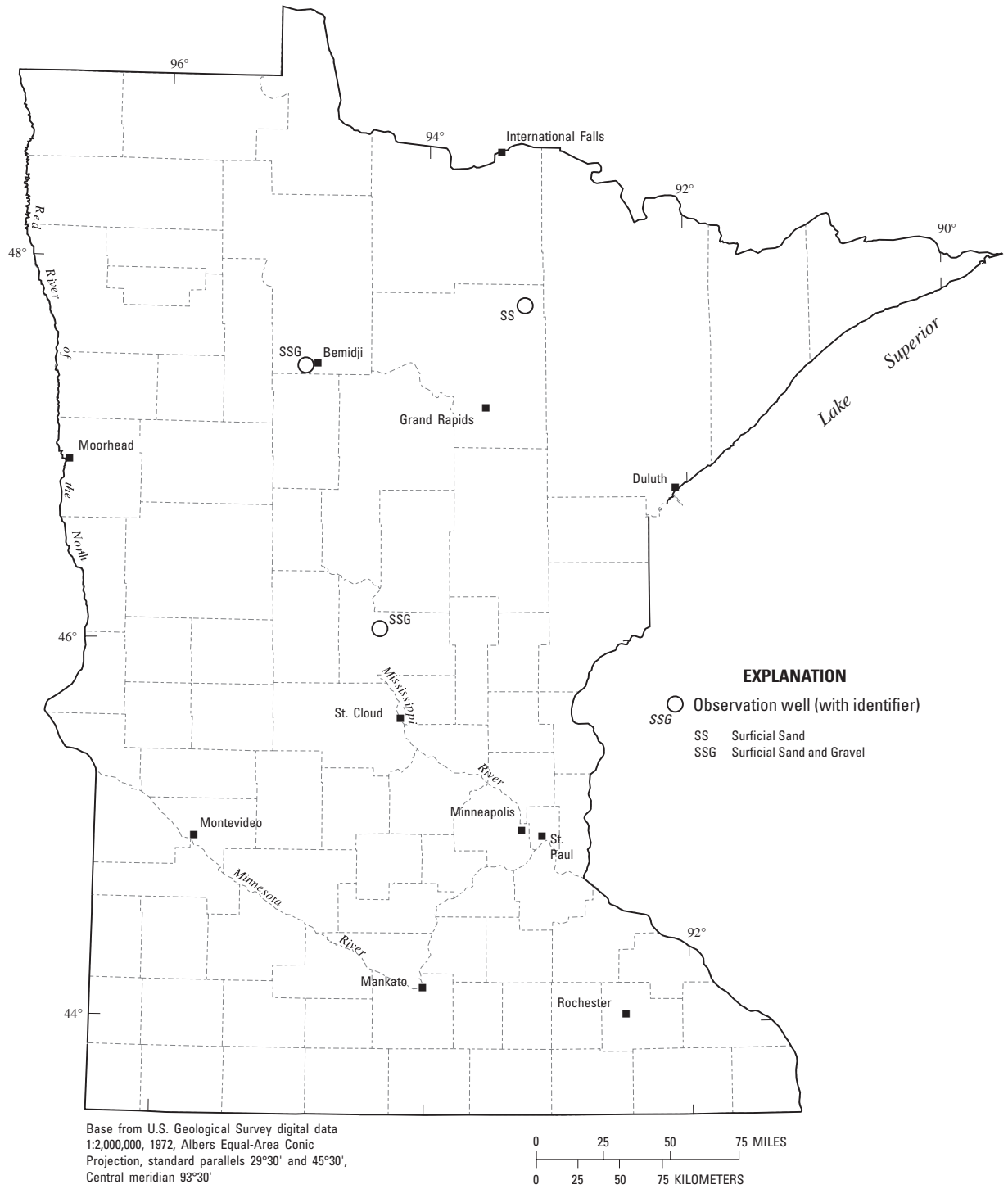


Figure 8. Location of ground-water wells.

473423095053301. Local number, 147N35W02CDCBDD.

LOCATION.-- Lat 47°34'23", long 95°05'33", in SW 1/4 SE 1/4 SW 1/4 sec.2, T.147 N., R.35 W., Hydrologic Unit 07010101, northwest of Bemidji.

Owner: U.S. Geological Survey

AQUIFER.-- Surficial outwash sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.-- Drilled observation well, diameter 2 in., depth 34.83 ft., screened 30 to 33 ft.

INSTRUMENTATION.-- Monthly measurements by USGS; continuous recordings with a datalogger.

DATUM.-- Land-surface datum is 1,420.49 ft above sea level. Measuring point: 2.70 ft above land-surface datum.

REMARKS.-- Well number 310D, at crude-oil spill site near Bemidji.

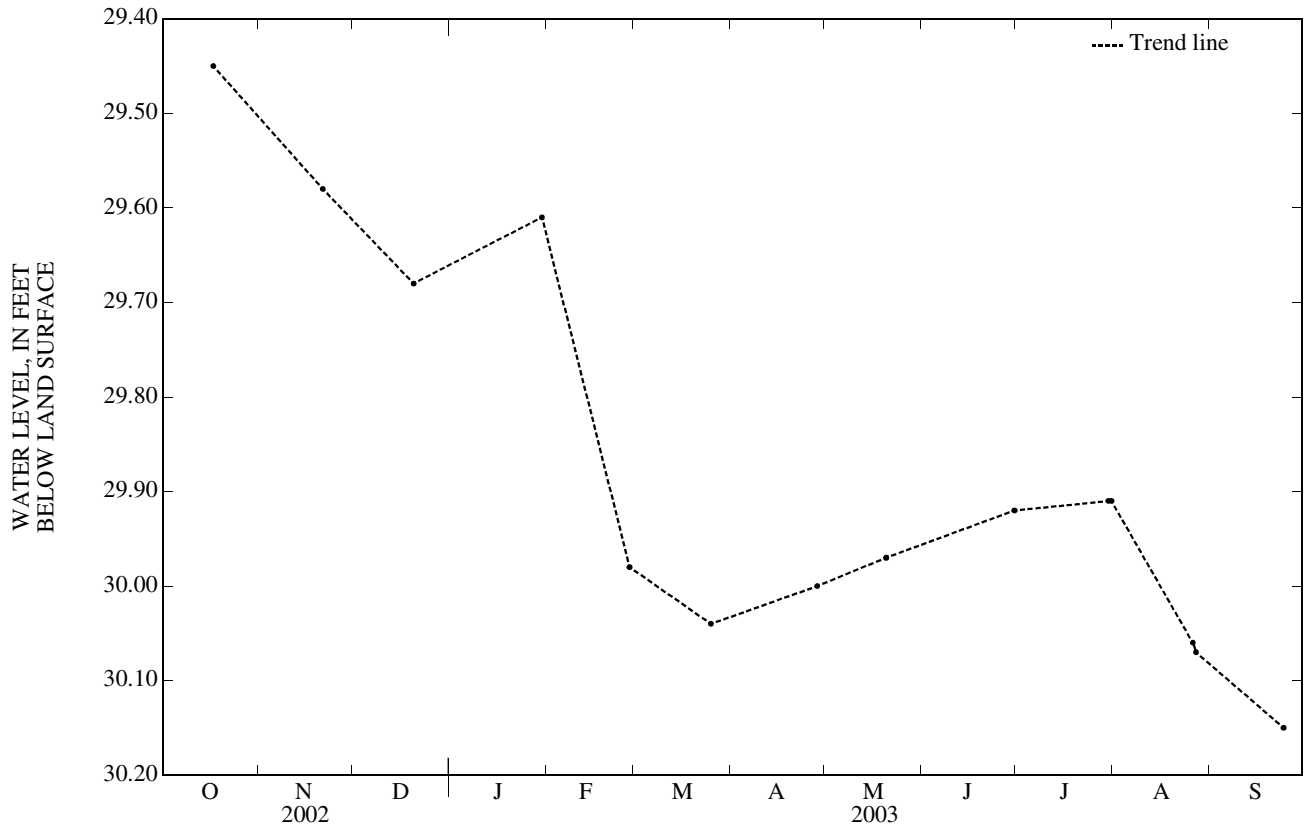
PERIOD OF RECORD.-- Apr. 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level observed, 27.59 ft. below land-surface datum Jun. 21, 2001; lowest observed, 30.69 ft. below land-surface datum, Feb. 27, 1997.

EXTREMES FOR CURRENT WATER YEAR.-- Highest water level observed, 29.45 ft. below land-surface datum, Oct. 17; lowest observed, 30.15 ft. below land-surface datum, Sep 24.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	29.45	DEC 20	29.68	FEB 27	29.98	APR 28	30.00	JUN 30	29.92	AUG 26	30.06
NOV 21	29.58	JAN 30	29.84	MAR 25	30.04	MAY 20	29.97	JUL 30	29.91	27	30.07
								31	29.91	SEP 24	30.15



ITASCA COUNTY

474921093144001. Local number 062N23W26CDC.

LOCATION.-- Lat 47°49'21", Long 93°14'40", SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec. 26, T. 062 N, R. 23 W, Hydrologic Unit 09030002, near Togo, Minn.

Owner: U.S. Geological Survey

AQUIFER.-- Surficial sand of Pleistocene Age

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 31.20 ft.

INSTRUMENTATION.-- Measurements by USGS personnel.

DATUM.-- Land-surface datum is 1,390.0 feet above sea level. Measuring point: Top of casing, 2.25 ft. above land surface datum. Surficial

PERIOD OF RECORD.-- Aug. 1999 to Sep. 2001, Oct. 2002 to Sep. 2003 (discontinued).

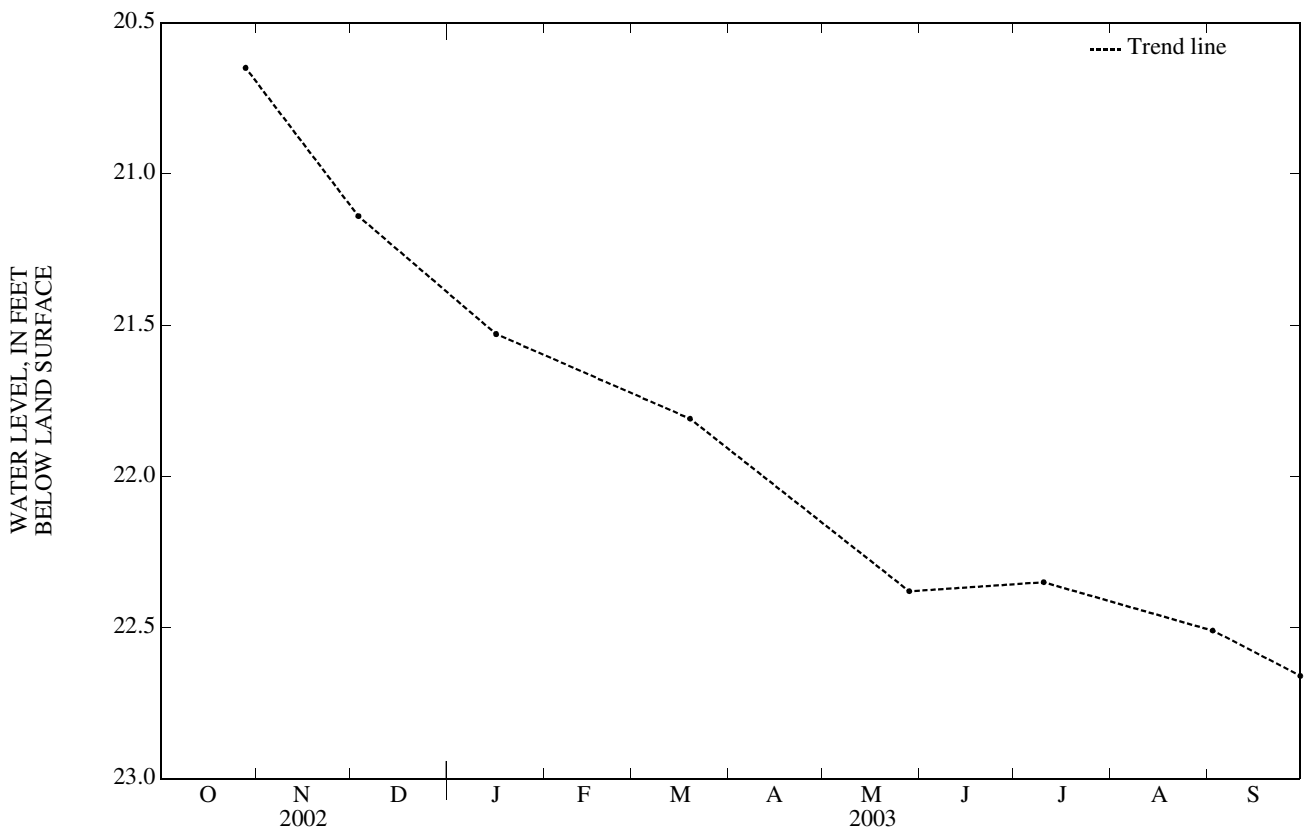
REMARKS.--

EXTREMES FOR PERIOD OF RECORD.-- Highest water level observed, 19.4 ft. below land-surface datum, Nov. 23 and Apr. 24, 1999; lowest observed, 22.66 ft. below land-surface datum, Sep. 30, 2003

EXTREMES FOR CURRENT WATER YEAR.-- Highest water level observed, 20.65 ft. below land-surface datum, Oct.. 23 ; lowest observed, 22.66 ft. below land-surface datum, Sep. 30.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	20.65	DEC 03	21.14	JAN 16	21.53	MAR 19	21.81	JUL 10	22.35	SEP 02	22.51
						MAY 28	22.38			SEP 30	22.66



GROUND-WATER LEVELS  
MORRISON COUNTY

460444094212501. Local number, 130N29W08DCC01.

LOCATION.-- Lat 46°04'44", long 94°21'25", in SW 1/4 SW 1/4 SE 1/4 sec.8, T.130 N., R.29 W., Hydrologic Unit 07010104, at Camp Ripley.

Owner: Minnesota Army National Guard, Camp Ripley.

AQUIFER.-- Surficial outwash sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.-- Drilled observation well, diameter 2 in., depth 59 ft, screened 56 to 59 ft.

INSTRUMENTATION.-- Monthly measurements by observer. Intermittent measurements by USGS personnel. Data Collection Platform installed on Dec. 12, 2002.

DATUM.-- Land-surface datum is 1,149.0 ft above sea level. Measuring point: Top of casing, 2.10 ft above land-surface datum.

REMARKS.-- Water levels used in monthly National Water Conditions Report.

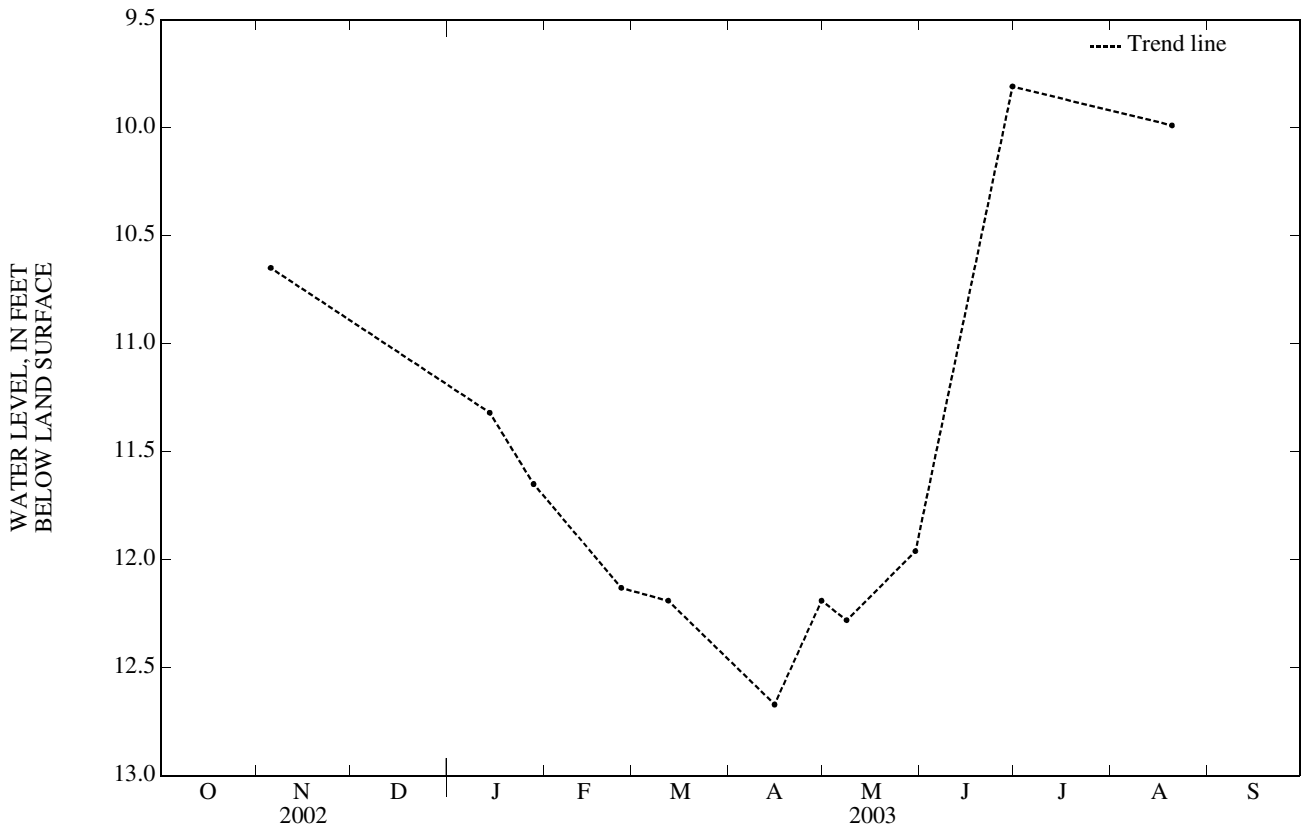
PERIOD OF RECORD.-- Apr. 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level observed, 7.35 ft below land-surface datum, July 28, 1972; lowest observed, 19.75 ft below land-surface datum, Aug. 4, 1961.

EXTREMES FOR CURRENT WATER YEAR.-- Highest water level observed, 9.81 ft below land-surface datum, Jun 30; lowest observed, 12.67 ft below land-surface datum, Apr.15.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 05	10.65	JAN 14	11.32	FEB 25	12.13	APR 15	12.67	MAY 08	12.28	JUN 30	9.81
		28	11.65	MAR 12	12.19	30	12.19	30	11.96	AUG 20	9.99



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