

## Ground-Water Wells by County

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### Ground-Water Levels



Water-quality sampling of groundwater well, July, 2002.

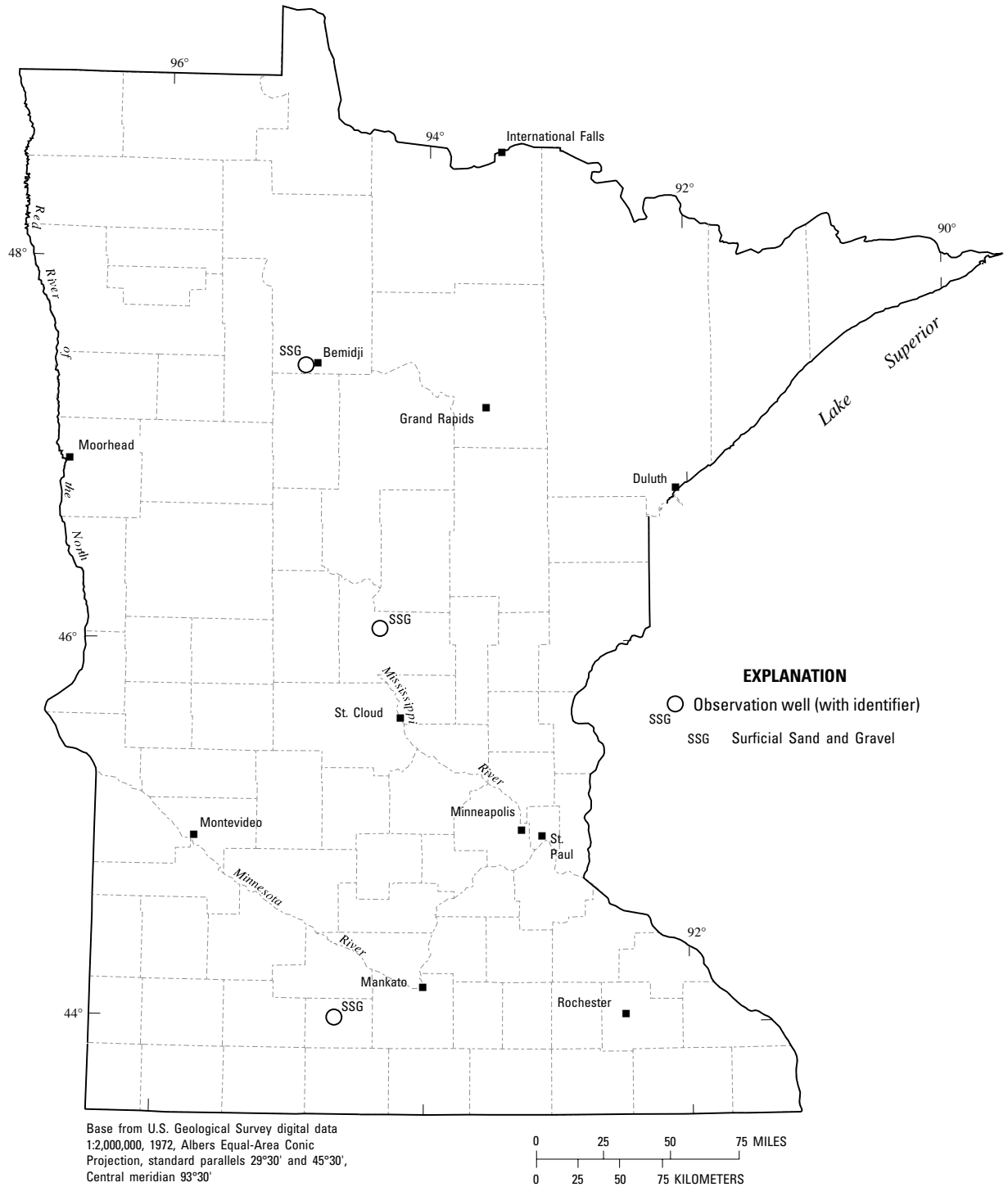


Figure 8. Location of ground-water wells.

# GROUND WATER LEVELS

## BELTRAMI COUNTY

473423095053301. Local number, 147N35W02CDCBDD.

LOCATION.-- Lat 47°34'23", long 95°05'33", in SW ¼ SE ¼ SW ¼ 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 water-table observation well, diameter 2 in., depth 34.83 ft., screened 30 to 33 ft.

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

DATUM.-- Land-surface datum is 1,420.49 ft above sea level. Measuring point: floor of shelter, 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, 28.89 ft. below land-surface datum, Oct. 29; lowest observed, 29.54 ft. below land-surface datum, Mar 22.

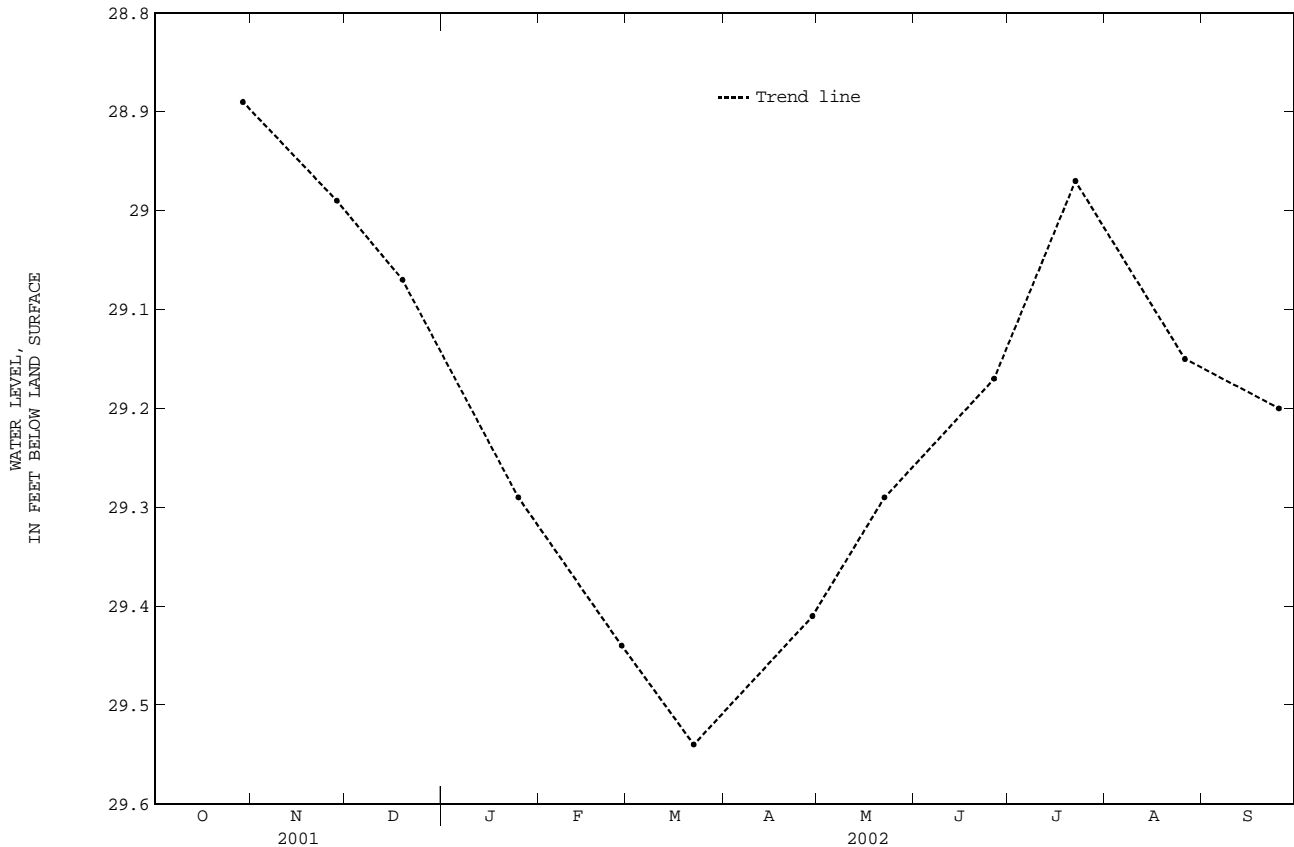
REVISIONS.-- Ground-water levels for water year 2001 were published in meters, those values are reported in feet below land-surface datum in the following table.

### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	29.38	DEC 28	29.06	FEB 19	29.33	APR 30	28.89	JUN 21	27.59	AUG 27	28.46
NOV 29	28.89	JAN 23	29.20	MAR 15	29.44	MAY 30	28.05	JUL 26	28.14	SEP 25	28.69
WATER YEAR 2001		HIGHEST	27.59	JUN 21, 2001		LOWEST	29.44	MAR 15, 2001			

### WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	28.89	DEC 19	29.07	FEB 27	29.44	APR 29	29.41	JUN 26	29.17	AUG 26	29.15
NOV 28	28.99	JAN 25	29.29	MAR 22	29.54	MAY 22	29.29	JUL 22	28.97	SEP 25	29.20
WATER YEAR 2002		HIGHEST	28.89	OCT 29, 2001		LOWEST	29.54	MAR 22, 2002			



GROUND WATER LEVELS-Continued

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 water-table observation well, diameter 2 in., depth 59 ft, screened 56 to 59 ft.

INSTRUMENTATION.-- Monthly measurements by observer.

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.

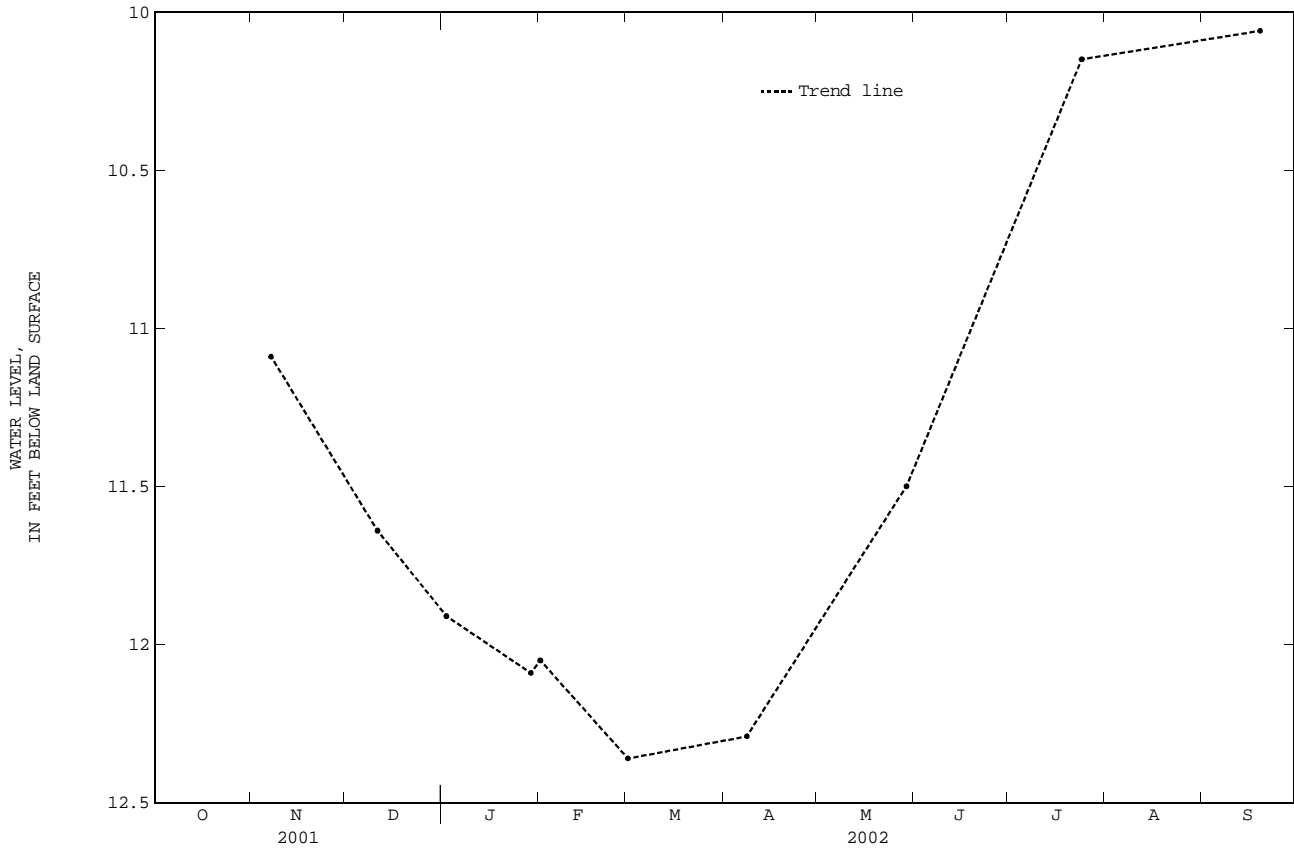
PERIOD OF RECORD.-- Apr. 1949 to current year.

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, 10.06 ft below land-surface datum, Sep. 19; lowest observed, 12.36 ft below land-surface datum, Mar. 1.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07	11.09	JAN 02	11.91	FEB 01	12.05	APR 08	12.29	JUL 24	10.15
DEC 11	11.64	29	12.09	MAR 01	12.36	MAY 29	11.50	SEP 19	10.06



GROUND WATER LEVELS--Continued

WATONWAN COUNTY

440037094372601. Local number, 106N32W01DDB01.

LOCATION.-- Lat 44°00'37", long 94°37'26", in NW 1/4 SE 1/4 SE 1/4 sec.1, T.106 N., R.32 W., Hydrologic Unit 07020010, north of St. James. Owner: U.S. Geological Survey.

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

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 22 ft, screened 19 to 22 ft.

INSTRUMENTATION.-- Monthly measurements by observer.

DATUM.-- Land-surface datum is 1,056.2 ft above sea level. Measuring point: Top of casing, 4.80 ft above land-surface datum.

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

PERIOD OF RECORD.-- Nov. 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.-- Highest observed water level, 4.11 ft below land-surface datum, Apr. 27, 1969; lowest observed, 16.22 ft below land-surface datum, Mar. 7, 1990.

EXTREMES FOR CURRENT WATER YEAR.-- Highest water level observed, 9.20 ft below land-surface datum, Jul. 30; lowest observed, 12.20 ft below land-surface datum, Sep. 30.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	10.50	DEC 30	11.00	APR 30	11.74	JUN 30	11.70	AUG 30	10.20
NOV 30	10.66	MAR 30	11.76	MAY 30	11.80	JUL 30	9.20	SEP 30	12.20

