

## Description of aquifer test for town of Gardnerville # 9 well.

A single-well constant-rate test was conducted likely by Thompson Drilling Company of Las Vegas, Nevada, who drilled the well, although not explicitly named in test-data sheets. The well is located at 38° 56' 34.1"N, 119° 43' 38.3"W, and is completed in the basin-fill aquifer of Carson Valley, Nevada. Copies of time-drawdown and pump data were obtained from files of the Gardnerville Water Company (Mark Gonzales, written commun. 2005). Results of the aquifer test will be used in the development of a numerical ground-water flow model in Carson Valley, project # 9705-BPS01. Specifically, the estimated transmissivity will be used to develop a relation between transmissivity and specific yield. The relation will then be used with data from driller's logs to develop a preliminary distribution of transmissivity for the valley.

The pump rate during the test was 1,350 GPM for a period of 24 hours on 7/7/89. Adjustments in pump rates at 9:20, 11:30, and 18:00 are likely the result of declining rates during times prior to adjustment, causing decreasing slopes on the time-drawdown plots. The methods of water-level and flow-rate measurements, location of discharge of pumped water, and pre-test water-level trends are not known. The well was reported completed on 7/8/89, and development of the well likely took place a relatively short time prior to the test period. Time-drawdown data were analyzed using an Excel spreadsheet program (Halford and Kuniansky, 2002) and the Cooper-Jacob analysis.

Results of the test indicate a hydraulic conductivity and transmissivity of 7.9 ft/day and 3,000 ft<sup>2</sup>/day, respectively.

## References Cited

Halford K.J., and Kuniansky, E.L. 2002, Documentation of spreadsheets for the analysis of aquifer pumping and slug test data: U.S. Geological Survey Open-File Report 02-197, 54 p.