

## Description of aquifer test for town of Minden # 4 well.

A single-well constant-rate test was conducted by Sargent Irrigation Company of Reno, Nevada. The well is located at 38° 57' 50.7"N, 119° 46' 59.5"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 Resource Concepts, Inc.(RCI), the engineering firm in charge of the water-supply system for the town of Minden (Bruce Scott, RCI, 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 was 2,500 GPM for 24 hours from 7/17/86 to 7/18/86. After 5 PM, rates were decreased by various steps through 10:45 AM on 6/13/95. The well was flowing prior to the test with a static water level of 3 ft below land surface after the test. 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 7/18/86, and development of the well and a step-drawdown test 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 indicate a hydraulic conductivity and transmissivity of 83 ft/day and 31,000 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.