

# Cucamonga Valley Water District Well Development

Rancho Cucamonga, California

## CLIENT

Cucamonga Valley  
Water District

## HIGHLIGHTS

- Supervised drilling, construction development, groundwater sampling, isolated zone testing, and pumping tests
- Identified target zones for aquifer isolation zone tests
- Developed final well design based on pilot-hole lithology, particle size analyses, and geophysical logging results
- Completed well to depth of 1,166 feet with 24-inch diameter casing and 365 feet of stainless steel louver screen
- Produced 3,500 gpm with 41 gpm/foot specific capacity

DBS&A supported the Cucamonga Valley Water District by providing well evaluation, and hydrogeologic and construction support services for the development of several water supply wells (wells 33, 47 and 48) for over 10 years. Most recently, DBS&A provided inspection and design services for the drilling, construction, development, and testing of Well No. 48, Water of Life Church Well.

DBS&A reviewed construction plans and specifications; provided comments and recommendations, and supervision of drilling; prepared a lithologic log of drill cuttings; and oversaw geophysical logging. Using these data, we identified target zones for aquifer isolation zone tests and a recommended analytical suite. We provided oversight of isolated zone sampling for three zones and oversight of well construction, development, and pump testing.

DBS&A developed the final well design based on analysis of pilot-hole lithology, particle size analyses, and geophysical logging results. Gravel pack specifications were developed for two custom gradations based on particle size analyses of selected composite samples from targeted screen intervals. Well performance, aquifer parameters, and production sustainability were evaluated based on the results of a 12-hour step-drawdown test and a 12-hour constant rate pumping test. DBS&A provided input on pump design and prepared a summary report of drilling, construction, development, and testing operations. The well was completed to a depth of 1,166 feet with 24-inch diameter casing and 365 feet of stainless steel louver screen. Tested capacity was 3,500 gallons per minute (gpm) with a specific capacity of 41 gpm/foot.



Installing 24-inch diameter stainless steel screen