PROJECT HIGHLIGHT

EXTREME DRILLING CONDITIONS REQUIRE ROBUST EQUIPMENT AND EXPERIENCED CREWS

With extreme weather conditions and challenging sites, the selection of drilling equipment and crew is critical to ensure work is completed correctly and safely.

LOCATION: Southeastern California

TECHNOLOGY: Dual Rotary

SERVICE: Well installation

PROJECT OVERVIEW

When groundwater contamination was discovered on the client's site, a remedy was chosen that required the installation of 20 injection and extraction wells. The wells were required to be 10-inch diameter, and achieve depths ranging from 180 to 260 feet below ground surface (bgs) in the alluvial formation. A robust drilling method was required to meet those requirements, which is why dual rotary was selected.

Cascade crews were brought in for the drilling and well installation, but encountered multiple challenges on site. They faced extreme weather conditions—namely, 120-degree plus daytime temperatures. These conditions required the implementation of additional safety measures for the crew's well-being, such as shade tents and an increased number of crew breaks to prevent heat-related illness or dehydration. The work day hours were also altered, allowing crews to work during cooler parts of the day.

Drilling conditions also proved challenging. The well depths required telescoping 24-inch casing to 60 feet, then 18-inch casing to the total depth before installing each well. Numerous drilling locations were in close proximity to a river, which meant water levels varied significantly. That proximity to water required additional care to ensure there was no danger of potentially contaminated cuttings or extracted water making its way into the river.

These safety and logistical challenges were compounded by the presence of multiple contractors on site at one time, requiring coordination and a high level of situational awareness.

RESULTS

Despite harsh weather conditions, the challenges of drilling close to water and sharing a work site with other contractors, Cascade crews were able to install the 20 injection and extraction wells on-time and on-budget.

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