

# PROJECT HIGHLIGHT

## MULTI-SERVICE EFFORT ADDRESSES FUELING STATION CONTAMINANTS

Schedule, budget, and safety are all positively affected when a single contractor performs multiple services on a remediation project. Project logistics including health & safety, communications and accountability were keystones to success when well installation and in situ chemical oxidation (ISCO) injection are implemented by one vendor.

**CLIENT:** Bristol Environmental Remediation Services

**PROJECT:** Former Fueling Station

**LOCATION:** Native American Reservation in Ft. Thompson, South Dakota

**TECHNOLOGY:** Mobile Drill™ B-59 auger rig, and Cascade's custom injection manifold

**SERVICE:** Well installation and ISCO injection



## PROJECT OVERVIEW

The consultant selected Cascade to perform drilling and injection services to complete this remediation effort in South Dakota. At the beginning of the project, the drilling team advanced hollow stem augers 30 feet below ground surface for installation of two-inch injection wells. Each well was completed with 10 feet of 10-slot screen, silica sand, and grouted with concrete slurry.

Once the wells cured, the technical services team mobilized to complete an ISCO event to address dissolved-phase petroleum hydrocarbon in the groundwater, originating from former site activities. At each location, 1,950 gallons of 10% caustic-activated persulfate solution was injected at flow rates ranging from 4 to 10 gallons per minute. They manifolded a custom-built injection system for simultaneous injection at five locations. Multiple locations simultaneously injected created efficiencies both for our crews and clients.



## RESULTS

Cascade completed the work ahead of schedule, on-budget and with no safety incidents. The single contractor approach to deliver integrated drilling and injection services provided peace of mind, stress-free logistics coordination, and allowed our client more control over site operations and communications.



EXCELLENCE ON EVERY LEVEL™

425-527-9700 | [www.cascade-env.com](http://www.cascade-env.com)

Nationwide Office Locations | Headquartered in Washington