

RegenesiS Remediation Services™ – LNAPL Plume Treated at Iowa Service Station

PetroCleanze and ORC Advanced Remediate Historic Petroleum Hydrocarbon Contamination



Swisher, Iowa

RRS was contracted to remediate a dissolved phase LNAPL petroleum hydrocarbon plume petroleum fuel releases at a former service station. PetroCleanze® was chosen as the primary remediation technology to facilitate recovery of residual LNAPL and chemically oxidize contaminants without negatively impacting sensitive infrastructure. ORC Advanced was also applied with the final PetroCleanze application enhanced aerobic bioremediation of hydrocarbons.

Eighteen direct-push injection points were used to apply the reagents in the silty sand aquifer and application events. Three vacuum extraction conducted after each PetroCleanze application to recover residual free phase petroleum hydrocarbons liberated from the soils.

Reagent distribution monitoring confirmed PetroCleanze was dispersed across the targeted source area during events.

Direct-push injection points were advanced to 15 feet below ground surface where bottom-up injections were performed to 5 feet. A total of 4,470 pounds of PetroCleanze and 720 pounds were injected.

Remediation Details:

Site Type: Former Service Station

Remediation Approaches: In Situ Chemical Oxidation, LNAPL Recovery, Enhanced Aerobic Bioremediation

Technologies: PetroCleanze, ORC Advanced

Geology: Sand, Silt

Medium: Groundwater, Saturated Soil

COCs: Petroleum Hydrocarbons, Petroleum LNAPL

Surficial Treatment: 1,800 ft²

Treatment Interval: 5-15 ft. bgs

Cubic Yards Treated: 667

Cost Per Cubic Yard: \$71 Applied

About RRS:

RegenesiS Remediation Services (RRS) is a dedicated team of scientists and engineers whose primary function is to provide environmental engineering and consulting firms with specialized groundwater and soil remediation planning, design, verification and application services.

This uniquely qualified group of remediation professionals combine excellence in field activity management and RegenesiS' class-leading technologies to bring sites to closure. RRS draws from REGENESIS' 19+ years of experience working with hundreds of leading environmental engineering firms on thousands of remediation projects around the world.