

RegenesiS Remediation Services™ – LNAPL Recovery with RegenOx®

Remediation of Residual LNAPL and a Dissolved-Phase Plume at a Former Gasoline Service Station

*Fairview, Michigan*

RegenesiS Remediation Services (RRS) was contracted to remediate a residual LNAPL and dissolved phase petroleum plume from a historic fuel release at this former gasoline service station. RegenOx PetroCleanze™ (PetroCleanze) was chosen as the primary remediation technology to facilitate recovery of residual LNAPL and chemically oxidize contaminants without negatively impacting sensitive infrastructure.

Twenty-six (26) direct-push injection points were used during each of the four (4) application events to apply the remediation chemistry in the sandy-silt aquifer and smear zone soils. Vacuum extraction was conducted after each PetroCleanze application to recover residual free-phase petroleum hydrocarbons liberated from the soils. Reagent distribution monitoring confirmed PetroCleanze was present across the targeted source area during each application event. Direct-push injection points were advanced using a bottom-up approach between 25 and 20 feet below ground surface (bgs). The injection interval focused on the highest concentrations of contaminants identified in the upper saturated soils and smear zone soils. A total of 13,230 pounds of PetroCleanze were injected via DPT injection points over the course of the project with low pressures and moderate flow rates.

Remediation Details:

Site Type: Former Gasoline Service Station

Remediation Approaches: In Situ Chemical Oxidation, Vacuum Extraction

Technologies: RegenOx Petrocleanze

Geology: Sand, Silt

Medium: Groundwater, Saturated Soil

COCs: Petroleum Hydrocarbons, Petroleum LNAPL

Surficial Treatment: 1,700 ft²

Treatment Interval: 20-25 ft. bgs

Cubic Yards Treated: 315

Cost Per Cubic Yard: \$79.00 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.