



OVERVIEW

At a remote residence, petroleum hydrocarbons leaked from a UST into the underlying groundwater and soil creating a health and ecology risk to the residents and local environment. Soil concentrations of PHCs included:

- BTEX (maximum concentration of 152 $\mu\text{g/g}$)
- F1 & F2 (maximum concentration of $> 7,000 \mu\text{g/g}$)
- F3 & F4 (maximum concentration of $> 6,200 \mu\text{g/g}$)

SCOPE OF WORK

- Acquired all relevant permits to complete the remediation program.
- Designed and optimized an *in-situ* program to maximize treatment efficiencies.
- Implemented a program that minimized capital expenditures and infrastructure.



THE VERTEX APPROACH

- Chemical oxidation and enhanced aerobic biodegradation
- Multiple applications
 - Under floor slab and footing
- Injection of chemical oxidant
 - $> 1,350 \text{ kg}$ of RegenOx
- Injections completed using:
 - Horizontal & vertical wells

OUTCOME

- Over 5,500 L of oxidant solution delivered to impacted areas
- Residents able to remain in house
- Structure not affected
- RegenOx solution effectively distributed throughout impacts areas
- Remediation objectives met for:
 - BTEX
 - F1 & F2
 - F3 & F4

