

Remediation Plan Completed in Two Days at Former Service Station. No Further Action Received Following Successful PlumeStop[®] Application

Remediation of BTEX and PHC in the Greater Toronto Area Using PlumeStop

Project Highlights

- Regulatory standards met following single injection of PlumeStop
- Remedial injection event completed in two days with the first clean samples obtained within three weeks post-injection
- Effective design and approach led to time and cost savings for the client

Project Summary

A former gasoline retail station located in Whitby, Ontario, was the site of BTEX and PHC contaminants requiring remediation. Excavation, as well as pump and treat approaches, had been used to address contaminant levels, but groundwater remained impacted by BTEX and PHC F1 and F2 above regulatory standards. While the contractors were able to remove the majority of impacts, they were not able to remediate the site to the applicable regulatory standards.

The client hired INSITU Remediation Services LTD (IRSL), an environmental firm specializing in *in situ* remediation technologies, to reduce the levels and reach required standards safely and effectively following a tendered contract issued to a total of five contractors. IRSL was chosen based on their innovative approach and lower total cost. Using a proprietary design, IRSL injected PlumeStop Liquid Activated Carbon[™], to remediate residual BTEX and PHC F1 and F2 groundwater impacts.

Technology

PlumeStop is an innovative *in situ* remediation technology designed to rapidly reduce contaminant concentrations, stop migrating plumes, eliminate contaminant rebound, achieve stringent clean-up standards and treat back-diffusing contaminants. PlumeStop provides a unique colloidal biomatrix platform which rapidly sorbs contaminants out of the dissolved-phase. Once contaminants are concentrated within the PlumeStop biomatrix, they can be completely biodegraded in place using compatible REGENESIS bioremediation products.



Site Details

Site Type: Gas Station

Contaminant of Concern: BTEX and PHC

Remediation Approach: Direct Push Injection

Treatment Area: 110 ft²

Soil Type: Silty Sand

Technology Used: PlumeStop





Results

The remedial program was completed in two days with the first clean samples obtained within three weeks post-injection. The BTEX and PHC plumes were treated to below the regulatory standards. Sampling has been performed over four quarters and the site has been deemed remediated.

About the Client

One of Canada's most experienced remediation companies, INSITU Remediation Services Ltd. (IRSL) has designed, implemented, and maintained soil and groundwater remediation programs in diverse geological environments in North, Central, and South America, Europe and the Middle East.