Project Summary



BOS 100[®] Injection Facilitates Time Sensitive Real Estate Transaction At Canadian Industrial Property

SUMMARY

Historic industrial activities resulted in two separate chlorinated volatile organic compound (cVOCs) plumes in the groundwater at the site. An upcoming property transaction (in <6 months) required treatment of the groundwater impacts to meet stringent Ministry standards.

CHALLENGES & OBJECTIVES

The site is an operating manufacturing facility and injections needed to be conducted inside and outside of the main warehouse. Inside of the warehouse, space limitations, injection point access, and forklift traffic were challenges that had to be addressed. Outside of the warehouse, managing site traffic for forklifts and freight trucks was paramount. The remedial objective was to reduce PCE and total cVOC concentrations at the source area from historic high PCE concentrations of 47,000 ug/L.

KEY DETAILS

Location: Industrial property in Greater Toronto Area

Contaminant: Chlorinated ethenes and ethanes

Concentration: Dissolved phase groundwater impacts (up to 1,000 μ g/L)

Lithology: 10ft thick layer of saturated silty sands above limestone bedrock

APPROACH

- Trap and Treat[®] BOS 100[®] was selected due to the short time frame (<6 months) and stringent Ministry standards.
- Acquired all relevant permits to complete the insitu remediation program.
- Injected 5,400 lbs of BOS 100[®] into a grid of 135 temporary points over 14 days onsite.
- Field schedule spread out the injection over 2 months to allow for consultant interim sampling.
- Adjusted injection program based on pilot-test results and interim sampling results.

LOCATION

Toronto, Canada

SOLUTION

- Data analysis/design (fall 2013)
- Initial Injection of BOS-200[®] (April 2014)
- 2nd Injection of BOS-200[®] (January 2015)
- No Further Action Washington DOE August 2017

Treatment Areas (total) – 1,145 sq. ft. Depth to groundwater – 8 to 19 feet BLS Contaminants – Gasoline-range hydrocarbons and associated constituents

RESULTS

- · Site remediation completed on time.
- · All cVOCs impacts treated to Ministry standards
- Real-estate transaction successful

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