



### OVERVIEW

A chlorinated solvent plume (PCE) was migrating onto a commercial site in Toronto area and a lending institution required mitigative measures implemented. An in-situ approach was required due to the proximity of the property boundary, on-site building and depth to water table (~5 m). The dissolved concentrations of the compounds of concern were:

- PCE (maximum concentration of 450 µg/L)
- TCE (maximum concentration of 47 µg/L)
- cis 1,2- DCE (maximum concentration of 50 µg/L)
- Vinyl chloride (maximum concentration of 12 µg/L)

### 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 impact to the Site given the presence of buildings and property boundary.



### THE VERTEX APPROACH

- Reductive dechlorination
- Reactive Zone including
  - Permanent Injection Wells
  - Temporary Injection Points
- Injection of multiple reactive compounds
  - > 225 kg of EHC®
  - > 80 kg of EHC®-A

### OUTCOME

- Successful installation of a reactive zone
- Reductive dechlorination conditions created:
  - Redox reductions of up to -175 mV
  - PCE decreased from 450 µg/L to 60 µg/L
  - No vinyl chloride generation

