Background

CLIENT: National Developer  
DURATION: 1 Week  
LOCATION: Toronto, Ontario  
PROJECT VALUE: $175,000 CDN

At an active industrial brownfield site in Toronto’s Yorkdale district, chlorinated ethene groundwater impacts, in the form of TCE, DCE and vinyl chloride, were discovered through standard testing performed in preparation for redevelopment of the property. The unidentified source of the contamination originated off-site and flowed down-gradient onto the property at a groundwater flow velocity of approximately 5-10 metres per year. The developer required an expedient remediation solution in order to complete the property’s redevelopment.

Approach

The national developer hired an environmental consulting firm to characterize the site. The consultant recommended a Permeable Reactive Barrier. They contracted IRSL directly based on their extensive experience with designing and installing Permeable Reactive Barriers.

PERMEABLE REACTIVE BARRIER WITH ZERO-VALENT IRON

To capture and treat the chlorinated ethene plume flowing from an up-gradient source, IRSL designed and supervised the installation of a 40 m long Permeable Reactive Barrier (PRB), which used Zero-Valent Iron, in a silty sand unconfined aquifer.
InSitu Remediation Services Ltd. (IRSL) is one of Canada’s most experienced remediation companies. Our team has designed, implemented, and optimized, soil and groundwater remediation programs in diverse geological environments in North, Central, and South America, Asia, Europe, and the Middle East.

We confidently implement innovative solutions, based on sound knowledge, using seasoned field staff. Our pragmatic, flexible approach reduces effort, cost to our clients, and environmental risk.