

**The Challenge:**

- This site was a former industrial property being redeveloped for residential land use.
- Groundwater on-site was impacted with tetrachloroethylene (TCE) associated with former industrial operations. Previous consultants monitored impairment levels in 2004 and 2005.

**The OxyTek Solution:**

- Eighty nine injection wells were installed in the area of impairment. OxyTek-L™ was injected in the wells to reduce VOC concentrations to meet Regulatory criteria in the soils and groundwater.
- OxyTek-L™ reduced VOC levels to Regulatory criteria in three injection events and project closure was achieved.



Injecting OxyTek-L™ into injection wells

**Background:**

This former industrial property was a designated Brownfield, and groundwater on-site was impacted with tetrachloroethylene (TCE). The property was being redeveloped for high density residential land use and all units were sold prior to project start-up. In 2006, Oxy Teknologies Inc. was awarded the contract to remediate the site within 45 days, to meet the stakeholders' redevelopment plans.



OxyTek-L™ at work, with the oxidation process generating oxygen in the water

**Process:**

Eighty nine injection wells were installed in the area of impairment. Multiple injections of OxyTek-L™ were required due to the dense silty clay soils on-site.

The site remediation was completed to meet Ontario Ministry of the Environment (MOE) Regulation 153, Table 2 criteria for residential / institutional / parkland property use criteria.



**OxyTek™ Case Study 100033:  
Former Industrial Manufacturing Site, Waterloo, Ontario**

**Groundwater Concentrations Pre-Treatment and Post-Treatment using OxyTek-L™**

<b>GROUNDWATER (reported in parts per million (ppm)):</b>			
<b>PARAMETER</b>	<b>Location</b>	<b>Pre-Treatment</b>	<b>Post-Treatment</b>
TCE	BH4C9	<b>20.0</b>	<0.1
	BH202	<b>17.5</b>	<0.1
	BH204	<b>21.1</b>	<0.1
	BH206	<b>7.4</b>	<0.1
	BH302A	<b>10.1</b>	<0.1
	BH302B	<b>10.2</b>	<0.1
	BH409	<b>21.0</b>	<0.1

All values in ug/L – ppb – parts per billion MDL – method detection limit

< – below detection limit **Parameter exceedence**

\*MOE O.Reg. 153/04 – Table 2 – Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential / Institutional / Parkland Property Use.

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