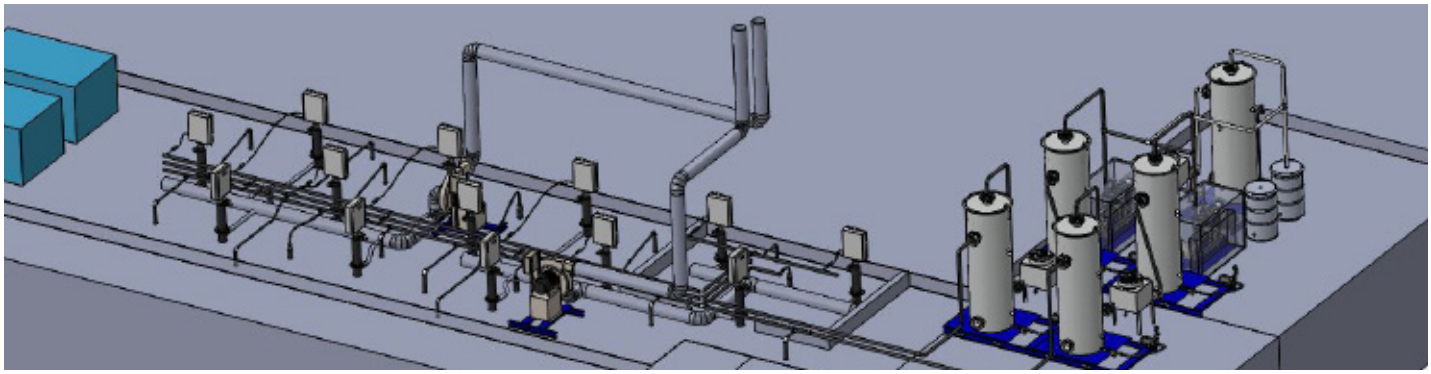
GTR | Case Study:

St. Bruno, Québec



In Situ Thermal Treatment was utilized to reduce volatile organic compounds (PCE and daughter products) and TPH-d from saturated and unsaturated soils at a former dry cleaners in the region of Quebec, Canada. The site required expedited and final remedial actions to facilitate redevelopment and protect the indoor air quality of surrounding business tenants.

Project Description

33 TCH wells were installed on site to a maximum depth of 25 feet. 18 MPE wells provided effluent extraction of contaminated off-gas and liquids during the project. The target temperature specified for this application was on the range of 80 to 100 ˚C.

Remediation Results

The remediation goal was achieved after approximately 5 months of operation and saw a >99% reduction in contaminants from soil and groundwater (arithmetic mean, PCE by mass). Hot “confirmation” soil samples were collected to optimize system performance after 4 months of operation and final sampling indicated the elimination of LNAPL (TPH-d) and the reduction of PCE and chlorinated VOCs to levels < 5 mg/kg.

In Situ Thermal Treatment

Setting: Industrial, Urban

Heater Wells: 33

Volume: 2,800 yds^3

Target Temp: 80 - 100 ˚C

Heating Period: 135 Days

Target Remediation Goal:
< 5 mg/kg (PCE in soil) &
Elimination of LNAPL

COC Removal Efficiency:
>99%

Contaminant:
PCE, TPH-d

Geology:
Silty Clay, Silt, Gravel