



## OVERVIEW

Vertex Environmental Inc. specializes in the design, implementation and optimization of remedial systems including multi-phase extraction (MPE) systems. Vertex staff designed, permitted, optimized and operated a MPE system in the Greater Vancouver Area for the containment and extraction of petroleum hydrocarbon-impacted groundwater including the extraction of free product. The system was installed in a silty sand geologic medium at a former gas station. The system was designed to handle a high flow of groundwater and vapour while responding to fluctuations in the water table. The treatment system consisted of an air stripper, particulate filter and activated carbon for both air and water.



## COMPOUNDS TREATED

Compounds treated using the MPE system included:

- Petroleum hydrocarbons
  - Benzene
  - Toluene
  - Ethylbenzene
  - Xylenes
- Free phase hydrocarbons

The keys to the successful application of a MPE system is choosing the right combination of pumps and vacuums along with proper infrastructure to minimize leaks. The system operational time was greater than 82% and within 2 weeks of reviewing the system the area of influence was increased by over 200%. The system was able to remove free phase LNAPL which was completely removed within 9 months of commission.



Vertex combines strong theoretical understanding with practical experience to properly plan and implement the right remedial program for your site. Selecting Vertex to undertake your remediation project allows you to access a wealth of experience and knowledge.