



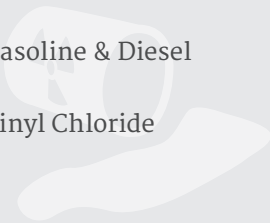
QUALIFICATIONS SOIL VAPOUR EXTRACTION

EXPERIENCE

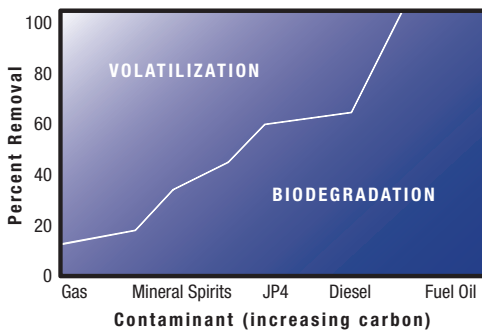
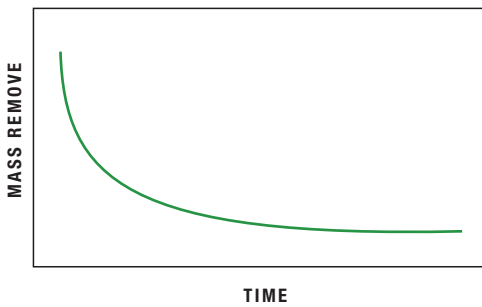


InSitu Remediation Services Ltd. (IRSL) is one of Canada’s most experienced firms in the design, implementation, operation, and optimization, of **Soil Vapour Extraction (SVE)** programs for the removal of volatile compounds from the subsurface.

WE HAVE DIRECT EXPERIENCE WITH THE FOLLOWING:

GEOLOGY ADDRESSED	TREATMENT TRAINS USED	CONTAMINATES MITIGATED
<ul style="list-style-type: none"> • Alluvial Deposits • Fluvial Deposits • Fractured Carbonate Rock • Fractured Igneous & Metamorphic Rock • Fractured Shale • Glacial Till 	<ul style="list-style-type: none"> • CATOX • Chemically-Impregnated Carbon • Regenerated Activated Carbon • Virgin Activated Carbon • Thermal 	<ul style="list-style-type: none"> • Benzene, Toluene, Ethylbenzene & Xylenes • Volatile Organic Compounds (VOCs) • Chlorinated Ethenes (including PCE & TCE) • Chlorinated Ethanes (including DCA & TCA) • Gasoline & Diesel • Vinyl Chloride 

We've built our solid reputation based on our proven ability to confidently innovate and deliver technically superior, cost-effective solutions that work better—on time and on budget.



Approach

Soil Vapour Extraction (SVE) Systems effectively remove volatile compounds from the vadose zone and can be coupled with Air Sparging to address saturated zone impacts.

A well-established remediation technology, SVE uses a vacuum to extract volatile contaminant vapours from vadose zone (unsaturated) soils. The extracted vapours are subsequently treated and released into the atmosphere.

Considerations

Comprehensive Understanding of Site Geology

Effective Soil Vapour Extraction requires a comprehensive understanding of the constraints of site geology. Airflow across a site is key to the program's success; soil moisture and subsurface heterogeneity can result in less vapour flow across some zones, thus resulting in less than acceptable remedial results. IRSL develops a detailed site conceptual model to determine placement of screens and, coupled with pilot testing, develops a site-specific design.

Careful Monitoring & Optimization

SVE systems require careful evaluation to ensure that operation is optimized and not withdrawing vapour from non-impacted zones or from the surface. Continual monitoring and adjustments of air flow and vacuums at individual well points can lead to superior contaminant removal rates in less time.

Contaminant Effectiveness

SVE is most effective for contaminants with higher Henry's Law constants, such as benzene, toluene, ethylbenzene and xylenes, TCE and PCE.

IRSL has the tools, knowledge, and experience, to complete the analytical, numerical, and field studies, necessary to effectively choose the right design and optimize remediation throughout your project.



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.