

Monitored natural attenuation of TCE (anaerobic conditions)

Problems:

- TCE contaminated groundwater over an area of 60 000 m²
- TCE source 5000 m² at concentrations of 80 000 µg/litre
- Additional acetone and methanol spills
- Glacial till overburden over fractured bedrock
- Shallow groundwater with seasonal fluctuations

Our Responses:

- VOC measurements indicated that expected reductive dechlorination daughter products of TCE (cis-1,2-DCE and VC) as well as ethene are present
- A bioremediation feasibility study indicated that concentrations of acetone and methanol, present in site groundwater, are sufficient to initiate reductive dechlorination of TCE to ethene

Location:

Initial cost estimates using standard technologies: mill US\$

Actual costs using *in-situ* bioremediation: k US\$

Time for active *in-situ* remediation : years