

Case 6: Oil & Gas Site, Canada

This site is an oil & gas production site located in northern British Columbia that was contaminated through the use of a historical flare pit.

Table 7. Oil & Gas Site 1

Parameter	Applicable Standard	Pre-Treatment	Post-Treatment
Benzene	5 ug/L	1580 ug/L	354 ug/L
Toluene	60 ug/L	9 ug/L	1140 ug/L
Ethylbenzene	140 ug/L	349 ug/L	34 ug/L
Xylenes	90 ug/L	4890 ug/L	1730 ug/L
C6-C10	15000 ug/L	8040 ug/L	5140 ug/L

Solution:

- The groundwater at the site was bioremediated using a combination of electrokinetics, biosurfactants, and hydrocarbon degrading bacteria and fungi.
- **EKOGRID™** was used for three days to oxygenate the groundwater and microbes were allowed an additional three weeks to degrade hydrocarbons.

Results:

- While a significant decrease in hydrocarbons was observed, toluene was found to increase. This is due to methylation of benzene under anerobic conditions.

