

## Remediation of a Site Impacted by a Diesel Pipeline Spill in Wemindji



### TYPE OF CLIENT:

First Nations

### COST (\$CAN):

- < 500 K
- 0.5 – 1 M
- 1 – 5 M
- 5 – 10 M
- > 10 M

### BACKGROUND

A major accidental pipeline diesel spill contaminated land as well as the underground water supply of the Wemindji Cree community in James Bay. In addition to the urgency of the situation, project challenges stemmed from the remote location of the village, which had no road access, as well as the prevailing northern climatic conditions.

### SOLUTION

Following a site characterization and treatability study, Biogénie rapidly designed a remedial solution which relied on the excavation and treatment of the contaminated soil utilizing its *ex situ* Biopile process. In addition to treating the soil, the contaminated groundwater was pumped and also treated. The active participation of the local Cree community was a key element conducive to the successful implementation of this project.

### SERVICES

- Characterization study to determine the extent and level of soil and groundwater contamination;
- Treatability study to determine the viability of a biological treatment solution as well as optimal treatment parameters;
- Design of a remedial solution;
- Design, assembly and transportation by small aircraft of treatment equipment to be set up on site;
- Construction of a treatment centre (which was operated for four years to treat contaminated soil excavated from this site as well as from other sites located in the region);
- Management of soil excavation;
- *Ex situ* Biopile treatment of 60,000 tons of diesel-contaminated soil to reach residential criteria;
- Treatment of contaminated groundwater with gravity and coalescent separators and an activated carbon filter;
- Overall project management.

Biogénie is proud of the successful completion of this project, which is one of the largest bioremediation projects ever carried out in northern Canada.