BACKGROUND:

A train derailment occured upgradient of a beach site in Northwestern Ontario. The derailed train released LNAPL into the subsurface, the spill of which required delineation and recovery to understand plume dynamics and remediate the site. Periodic occurance of discoloured sand and sediment, as well as a biogenic sheen were observed after the spill at the beach.



Industry:

TRANSPORTATION

General Scope of Work:

- Complete a MiHPT program to delineate the upgradient hydrocarbon plume:
 - 1) Delivery of 30 MiHPT points over a 5-day program.
 - 2) Report to the stakeholders new conceptual site model of plume dynamics.
- SCG in collaboration with the consultant developed a design for a bio-sparge pilot test.
- Design and installation of conveyance piping based on consultant's requirements.
- Design, installation and commissioning of fullscale bio-sparge system.
- Periodic site maintenance, visits, and provision of remote technical assistance.



Full Cycle Remediation

Consultation with the client and provision of recommended remedial strategies. A comprehensive high-resolution site characterization program delivery, to better understand plume dynamics and stratygraphy.

Coordinated development of a pilot protocol and implementation of a bio-sparge pilot tests.

Development and implementation of a full-scale bio-sparge system.

Reduction to
dissolve
phase petroleum
hydrocarbons
adjacent to the
bio-sparge system
observed.

