

PROJECT:

Environmental Remediation of an Abandoned Drum Storage Site



SANEXEN

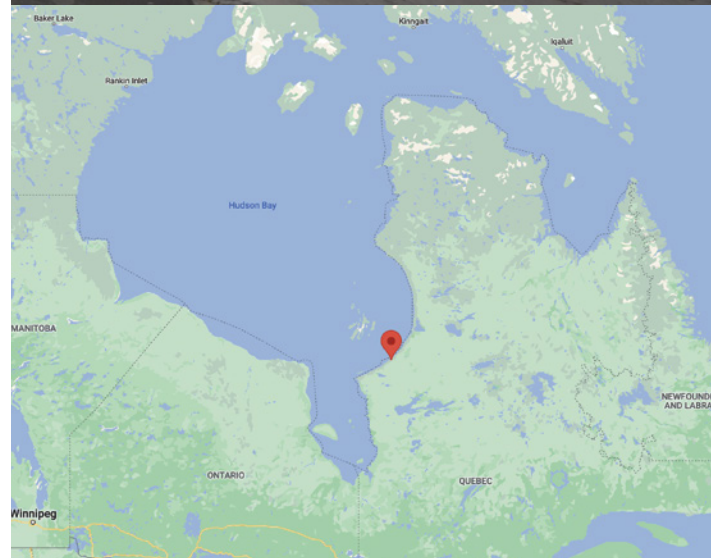
CHALLENGES

More than 2,000 drums from the former Mid-Canada Line Great Whale River-400 radar base, in Kuujjuarapik, Nunavik, were abandoned in the 1950s. Most drums were filled with liquid tar. The majority of these drums, some of which were partially buried, showed evidence of leaks. Consequently, a large quantity of tar spilled onto the soil surface, forming patches which were more or less solid. These patches liquefy during the summer, making them extremely difficult to handle. A small quantity of tar also infiltrated into the soils.

Considering the location of the site (remote region) and the number of barrels (2000+), planning and logistics were complex and required specific experience in northern operations.

BACKGROUND

Avataani was retained by the Kativik Regional Government (KRG) to decontaminate a barrel storage site located in the remote region of Kuujjuarapik. This project was completed with the cooperation of the municipality of Kuujjuarapik. All the drums (2000+), and 1,500 bags of soils and solid tar, were transported by ship from Kuujjuarapik to the Port of Sainte-Catherine, where they were transferred to authorized



ENVIRONMENTAL REMEDIATION

Project location: Kuujjuarapik, Nunavik

Quantity of soil excavated: 349 m³

Project date: 2011

disposal facilities. These operations were vital to reducing soil and water contamination in the area and Avataani's experience in this field proved decisive in carrying out the work.

SOLUTION DEVELOPED

Specific handling and packaging techniques adapted to the climate conditions in the area were developed. Work continued with the placement of spilled solid tar in Quatrex-type bags and the packaging of the drums in appropriate custom-made bags.

In order to carry out this type of work in a remote region, Avataani uses planning and logistics tools adapted to the isolated environment. This results in a considerable reduction of time and cost, and an increase in the quality of the work carried out. In addition, the training and use of local labour go hand in hand with Avataani's sustainable development objectives.

Constant coordination between the field teams in Kuujjuarapik, the shipping company, and Avataani's managers in the south of the province provides increased monitoring of regulated materials. This ensures a disposal that meets all the regulatory requirements in force.

Characterization of the underlying soils was conducted following the removal of the solid and liquid hazardous materials. This step, which involved the excavation of 46 test pits and the installation of 9 monitoring wells, revealed the presence of soils contaminated by PAHs and PH (C10-50) at concentrations exceeding Criteria B of the Policy.

The following volumes of soil were excavated:

- 98 m³ presenting concentrations in the B-C range of the Policy;
- 54 m³ presenting concentrations exceeding Criteria C of the Policy, but in compliance with the limit values of Schedule I of the RRBCS;
- 197 m³ presenting concentrations exceeding the limit values of Schedule I of the RRBCS.



CONTACT



KARL CÔTÉ

Director, Northern and Indigenous Affairs
SANEXEN

kcote@sanexen.com
514 207-1230