

## **APPENDIX I: Project Description**

### **Description of Site**

FOX-2 is located on the southwest coast of Baffin Island near the tip of the Baird Peninsula. The station is 15 km inland from the airstrip on the southern tip of a small peninsula in Nauja Bay. The elevations around the site range from sea level to approximately 400 metres above sea level at the main radar facility. The nearest community is Hall Beach, 245 km to the west.

The terrain at FOX-2 consists of variable slopes (short and steep in the bedrock uplands and long and gentle in coastal region and glacial valleys). The surficial materials consist of gravel and sand with large boulders and some bedrock outcrops. Vegetation varies from 15% to 60% cover. Close to the airstrip, the wet meadows and surrounding ponds support grasses, sedges and cotton grass. At higher elevations, the vegetative cover is less and consists of willows, sedges, mosses and lichens.

Fauna typically observed or expected around the FOX-2 site includes caribou, polar bears, foxes and various avifauna. There is the potential for whale and seal sightings.

The Beach Landing Area is located southeast of the Beach POL area. It consists of a 400 metre wide disturbed area containing scattered debris.

### **Background**

In the 2002 due diligence investigation, hydrocarbon-impacted soils with total petroleum hydrocarbon concentrations in excess of the assessment criteria of 2,500 parts per million, were detected in close proximity to the shoreline. Because of this issue, it was determined that the hydrocarbon impacted soils in this area should be excavated and stored for treatment during the overall site clean up.

### **Work Plan**

Excavation and temporary storage involves the excavation of the contaminated soil, transport, and storage in a secure area. Later, as part of the full site clean up, the soil would be transferred to a constructed landfarm area and treated. This option results in the lowest risk of impact to an aquatic environment. It is estimated that 1,600 cubic metres of soil will be removed. The excavated material will be temporarily stockpiled within the existing bermed POL tank area.

## Potential Impacts and Proposed Mitigative Measures

Table 1 provides a summary of potential environmental impacts, the mitigative measures and the significance of the potential impacts.

**Table 1: Summary of Potential Impacts, Significance and Mitigative Measures**

Potential Impact	Mitigative Measures	Significance
The potential exists for accidental release of hydrocarbon contaminated soil during excavation. An accidental release could impact the local environment, including soil and water quality.	All workers to be trained in proper handling procedures for hydrocarbon contaminated soils on-site. Implement proper handling, storage and transportation procedures for hydrocarbon contaminated soils. Do not store fuel on beach. Follow the spill contingency plans. Ensure all materials and equipment to implement contingency plans are available on-site.	Not significant provided mitigation measures are implemented.
Excavation of hydrocarbon contaminated soil has the potential to degrade permafrost.	Minimize time permafrost is exposed. Minimize surface area of exposed permafrost or active zone.	Not significant.
Disturbance of the terrain and drainage may occur due to excavation of hydrocarbon contaminated soils.	Regrade and reshape disturbed areas to match existing terrain and drainage paths. Use existing roads for movement around the site.	Not significant provided mitigation measures are implemented.
Impact on aquatic habitat due to sediment and/or hazardous materials entering an aquatic environment from excavation and handling of hydrocarbon contaminated soil.	Do not excavate within 10 metres from of the ordinary high water mark. Erection of silt fences between the work area and bodies of water.	Not significant provided mitigation measures are implemented.
The potential for migration of hydrocarbon contaminants from the storage area could degrade soil and water quality.	Site facilities away from natural drainages.	Not significant due to design criteria for landfarm development and closure.