

Appendix H

Progressive and Final Reclamation Work Undertaken

Year: 2012

Reference: 3BC-ALT1015, Part B, Item 1e.

Progressive Reclamation Work Undertaken in 2012:

Reference: Appendix H in the 2011 Annual Report.

A. Contaminated Sites In-Situ Bioremediation Work:

Soil samples were collected for chemical and microbiological analyses. This work included laboratory studies involving microcosm mineralization assays for the in-situ bioremediation study on petroleum hydrocarbon biodegradation at the following sites:

- 1) Oxidator Building;
- 2) Baker's Dozen.

B. Rotation of Soils in the ALT-11 Landfarm (Biopile) Treatment Facility:

Soils contained at ALT-11 were aerated to increase oxygen content in the contaminated soil. This promotes microbial and bacterial activities that biologically remediate contaminated soils within the landfarm.



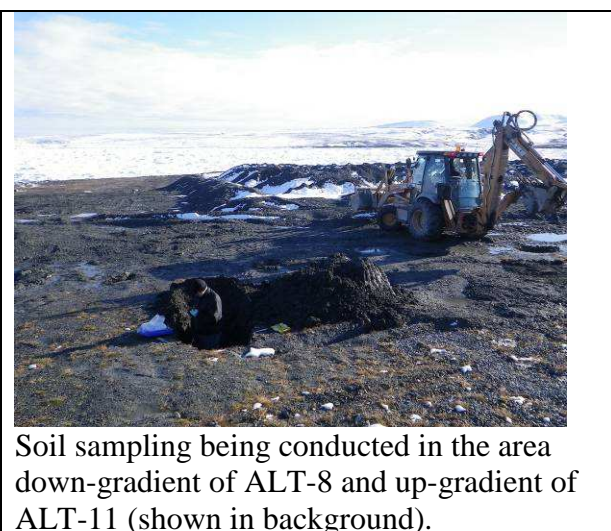
Photo of ALT-11 with wind rows after soil rotation on 18 Aug 2012.

C. Glycol Monitoring of Runway De-Icing Area:

The sampling team arrived in July 2012, however, due to the dry conditions, no surface water samples could be collected for analysis. This task was cancelled.

D. Airfield Tank Farm Lower Area Delineation

A panoramic photo of the Airfield Tank Farm Lower Area (adjacent to ALT-8) was produced to investigate the possibility of down-gradient water flow in reference to Appendix H of the 2011 Annual Report. This area is a Federal Contaminated Site registered under the Federal Contaminated Sites Action Plan (FCSAP) as S-10193 due to concentrations of naturally occurring Arsenic. In 2011, DND raised Construction & Engineering Project Files (PF) to repair or replace the secondary containment at ALT-8 (PF#78106) and to remove the lead-based paint (PF#78092). At the time of this Annual Report submission, these PFs remain open due to contractual and logistical procedures.



Future works proposed for 2013:

A. Contaminated Sites In-Situ Bioremediation Work:

Description: Continuation of the pilot scale in-situ bioremediation study for petroleum hydrocarbon biodegradation at the following sites:

- 1) Oxidator Building;
- 2) Baker's Dozen.

Soil samples will be collected for chemical and microbiological analyses including laboratory studies involving microcosm mineralization assays.

B. Rotation of Soils in the Landfarm (Biopile) Treatment Facility:

Description: Continuation of the aeration process in summer 2013 to increase oxygen content in the contaminated soil to promote microbial and bacterial activity within the landfarm.

C. Glycol Monitoring of Runway De-Icing Area:

Description: To monitor the effects of de-icing activities on the areas immediately adjacent to, and down gradient of, the runway de-icing area. Samples will be collected and analysed for glycol to determine subsurface migration.

D. Main Station Day Tank (ALT-10) Area

Description: A Construction & Engineering PF was raised to replace the existing Fuel Storage Day (Day Tank), the re-construction of the secondary containment will require remediation work of the area by excavation and placement of contaminated soils into the Landfarm (ALT-11) or the creation of another landfarm facility (if this becomes a requirement, notifications to the NWB and AANDC will be sought in advance by DND). The area is a Federal Contaminated Site registered under the FCSAP as S-10214.