Appendix J

Progressive and Final Reclamation Work Undertaken
Year: 2014
Reference: 3BC-ALT1015, Part B, Item 1e.

Progressive Reclamation Work Undertaken in 2014:

A. Contaminated Sites In-Situ Bioremediation Work:

The National Research Council of Canada, on behalf of DND, collected soil samples 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 by rotation to increase oxygen content in the contaminated soil. This effective method promotes microbial and bacterial degradation of contaminants to remediate contaminated soils within the landfarm.

C. Glycol Monitoring of Runway De-Icing Area:

The sampling team collected three water runoff samples down gradient of the runway de-icing area in July 2014. The samples were sent to the CALA accredited laboratory for analysis. The results indicated that glycol was not detected at all three sampling points.

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

DND submitted a Licence Amendment Application in 2014 (which is being replaced by the accompanying Renewal & Amendment Application) that identified the newly constructed landfarm at ALT-10 as "ALT-10 Landfarm". The purpose of the "ALT-10 Landfarm" is to conduct remediation work of fuel contaminated soils at the area excavated to the footprint of the Day Tank Facility. 500 cubic metres of fuel contaminated soil is undergoing treatment; however, no physical work was conducted in 2014.

Future works proposed for 2015:

A. Contaminated Sites In-Situ Bioremediation Work:

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 (ALT-10-11) Treatment Facilities:
Continuation of the aeration process in summer 2014 to increase oxygen content in the contaminated soil to promote microbial and bacterial activity within the landfarms. This will be conducted at the ALT-10 and ALT-11 Landfarms.

C. Glycol Monitoring of Runway De-Icing Area:
To continue monitoring the effects of de-icing activities on the areas immediately adjacent to, and down gradient of, the runway de-icing area.