

NWB Annual Report

Year being reported: 2013 ▼

License No: 3BC-ALT1015 Issued Date: August 4, 2010
 Expiry Date: July 31, 2015

Project Name: Canadian Forces Station (CFS) Alert, Nunavut

Licensee: Department of National Defence - 1 Canadian Air Division

Mailing Address: A4 Construction Engineering
 Department of National Defence - 1 Canadian Air Division
 PO Box 17000, STN Forces, Winnipeg, MB, R3J 3Y5

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

8 Wing Environmental Management
 Room 308, Building 22, 74 Polaris Ave.
 Department of National Defence - 8 Wing/ CFB Trenton
 Box 1000, Stn Forces
 Astra, Ontario, K0K 3W0

General Background Information on the Project (*optional):

Licence Requirements: the licensee must provide the following information in accordance with

Part B ▼ Item 1 ▼

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	Upper Dumbell Lake, Nunavut.		
Water Quantity:	185	Quantity Allowable Domestic (cu.m)	
	639	Actual Quantity Used Domestic (cu.m)	
		Quantity Allowable Drilling (cu.m)	
		Total Quantity Used Drilling (cu.m)	

Waste Management and/or Disposal

- ☒ Solid Waste Disposal
☒ Sewage
☐ Drill Waste
☒ Greywater
☒ Hazardous
☒ Other:

Landfarms

Additional Details:

Appendix A: Monitoring Program Station No. ALT-1
 Appendix B: Monitoring Program Stations No. ALT-2 & ALT-3
 Appendix C: Monitoring Program Stations No. ALT-4-5-6-7
 Appendix D: Monitoring Program Stations No. ALT-8-9-10-11
 Appendix E: June Analysis Results for ALT-4-5-6-7-8-9-10

Appendix D: Monitoring Program Stations for ALT-8-9-10
 Appendix E: June Analysis Results for ALT-4-5-6-7-8-9-10
 Appendix F: July Analysis Results for ALT-4-5-8-9-10
 Appendix G: August Analysis Results for ALT-6
 Appendix H: July Analysis Results for ALT-9 Lead Treatment Filtered Effluent
 Appendix I: August Analysis Results for ALT-9 Straight Discharge Effluent
 Appendix J: Analysis Results for Gravel Samples at ALT-8-9-10
 Appendix K: Analysis Results for Lead-in-Fuel at ALT-8
 Appendix L: List of Waste Disposal Activities / Copies of Movement Documents
 Appendix M: Progressive and Final Reclamation Work Undertaken
 Appendix N: Compliance Plan
 Appendix O: Revised Operation & Maintenance (O&M) Plan for CFS Alert

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: 13-093 (as reported to the Spill Hot-line)

Date of Spill: 21-03-2013

Date of Notification to an Inspector: 21-03-2013

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

An indoor fuel release of 851L was contained within a secondary containment trench at the CFS Alert Stand-by Power Plant fuel storage room. As this release was indoors and contained, approx. 849 L was recovered into barrels for re-use, and the residuals cleaned and disposed properly by incineration. A cracked glass filter sight glass was determined to be the cause; this and all other similar sight glasses were replaced. No impacts to the water or outdoor environment.

Spill No.: N/A (as reported to the Spill Hot-line)

Date of Spill: 17-06-2013

Date of Notification to an Inspector: 18-06-2013

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

A 4L spill of hydraulic oil occurred at the CFS Alert Runway Gravel Storage Area from a broken hydraulic line on a loader. The extent of contaminated gravel was excavated and placed into drums for disposal options. There were no impacts to any water or the environment. The loader was sent back to the transport section for repairs.

Spill No.: 13-294 (as reported to the Spill Hot-line)

Date of Spill: 27-08-2013

Date of Notification to an Inspector: 27-08-2013

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

A 100L spill of domestic fuel occurred at a Fuel Pipeline Air Bridge at CFS Alert between the Main Power Plant and Supply Building. The spill was a result of a faulty air relief valve. The full extent of the contaminated gravel (21 cu.m.) was excavated and placed into the newly constructed Day Tank Landfarm (ALT-10) for bioremediation treatment. The concentration of hydrocarbon is provided in Appendix L. Fertilizer (monoammonium phosphate) was placed in the excavated area prior to back fill with clean gravel material to promote bioremediation of any residual hydrocarbon. There were no impacts to water.

Revisions to the Spill Contingency Plan

SCP addendum attached for Board consideration ▼

Additional Details:

SCP revised and can be found in Appendix O.

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed ▼

Additional Details:

No revisions required.

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

See Appendix M.

Results of the Monitoring Program including:**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;**

Details described below ▼

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Details described below ▼

Additional Details:

Results of any additional sampling and/or analysis that was requested by an Inspector

Select ▼

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (Attached or provided below)

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Any responses or follow-up actions on inspection/compliance reports

Inspection Report received by the Licensee (Date): ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

Water Use Inspection Report dated July 10, 2013; received on August 7, 2013.
See Appendix N.

Any additional comments or information for the Board to consider

A. At the time of this Annual Report submission, DND is also submitting a Water Licence amendment application to address compliance issues:

- 1) Increase Water Usage limit (Intake, Return, Consumption limits);
- 2) Addition of a new Landfarm Facility at ALT-10, DND requests similar SNP conditions as the current Landfarm at ALT-11.

B. Due to the construction of a new Landfarm at ALT-10 Fuel Day Tank Facility, the Operation & Maintenance (O&M) Plan for CFS Alert has been revised for the NWB approval. The O&M Plan (Appendix O) includes the updated Spill Contingency Plan (SCP) and Quality Assurance & Quality Control (QA&QC) Plan.

Date Submitted:

March 31, 2014

Submitted/Prepared by:

Andrew Tam, PhD

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GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	° Deg	' Min	" Sec	° Deg	' Min	" Sec
Upper Dumbell Lake	82	29	6.2	-62	28	9.5

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	Deg °	Min ,	Sec ,	Deg °	Min ,	Sec ,
Alert Battery Dump	82	29	16	-62	23	15.32
Alert Main Station Landfill	82	30	17	-62	20	14.89
Alert Dump # 3	82	29	18	-62	20	57.01
Landfarm (ALT-11)	82	30	40	-62	18	37.6
Millionaire's Dump	82	29	19	-62	21	30.4
Sewage Terrace/Outf all	82	29	56	-62	21	4.8
Landfarm (ALT-10, new)	82	29	58	-62	21	16