

UMA Engineering Ltd.
2540 Kensington Road NW
Calgary, Alberta T2N 3S3
T 403.270.9200 F 403.270.0399 www.uma.aecom.com

March 28, 2008

File Name: FOX-M (3.6)

Phyllis Beaulieu
Licensing Manager
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Ms. Beaulieu:

Re: Water Use License 1BR-HAL0308, 2007 Annual Report

UMA Engineering Ltd. is pleased to submit this annual report as per the requirements of Part B.1 of water use license 1BR-HAL0308. The report was prepared on behalf of Defence Construction Canada and the Department of National Defence.

Water Usage

The following table provides a summary of the water usage for construction purposes at FOX-M. Domestic water usage was not tracked, as the contractors workforce was either staying in a hotel in the Hamlet or were based in Hall Beach and staying at home. The sewage effluent is collected and treated by the Hamlet, therefore, no samples were collected, and quantities were not tracked.

Month	Total Quantity of Water Used (cubic metres)
July	344
August	658
September	186
Total	1188

Summary of Completed Work in 2007

All clean up work at FOX-M was completed in 2007, which included debris removal, contaminated soil excavation, closure of the Non Hazardous Waste Landfill, Tier II Soil Disposal Facility and Landfarm, final remediation of the East Beach Landfill, and excavation and backfilling of the buried debris areas at the West Communications Area. A summary of the work completed for each task is provided below, and selected site photographs are attached.

Demolition: Demolition of the remaining fuel tanks and concrete footings was completed. PCB contaminated waste containers were inspected for condition and labeling and were taken by the Hazardous Waste Transport contractor on September 30, 2007.

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Landfarm: The landfarm was decommissioned in 2007, which included removal of the liner (placed in the Non-Haz Landfill), leveling of the perimeter berms, grading of the area for positive drainage, and decommissioning of the monitoring wells. A total volume of 20,800 m³ of hydrocarbon impacted soils was treated in the landfarm.

Tier II Soil Disposal Facility: The Tier II Soil Disposal Facility at FOX-M consists of two cells. Cell 1 was completed and closed in 2006. The construction of Cell 2 began in 2006, and was completed and closed in 2007, including placement and compaction of a granular fill cover. A total of 32,170 m³ of Tier II impacted soils were placed in this facility.

Non-Hazardous Waste Landfill: The Non-Hazardous Waste Landfill was completed and capped in 2007. A total volume of 19,700 m³ of compacted material is in this landfill.

Contaminated Soil Removal: The only contaminated soil removal activities completed in 2007 were from the west communications area. Approximately 160 cubic metres of Tier I, 340 cubic metres of Tier II and 60 cubic metres of CEPA contaminated soils were identified. The Tier I and Tier II soils were appropriately disposed of in on-site landfills. The CEPA contaminated soils were packaged and transported off-site for disposal.

East Beach Landfill Remediation: Most of the work associated with the remediation of the East Beach Landfill was completed in 2006. The work that was completed in 2007 included the placement and compaction of granular materials along the edge of the south lobe to keep surface water away from the landfill toe.

West Communication Area: Five areas of excavation were completed, backfilled and graded to promote positive drainage.

Debris Removal: Removal of submerged debris was completed in 2007 in the area along the east beach shore line. Debris removal from all other areas on-site, including the west communications area, was completed. The debris was disposed of in the Non-Hazardous Waste Landfill if deemed non-hazardous, or packaged for off-site disposal if determined to be hazardous.

Community Meetings

In 2007 the contractor held two community meetings in Hall Beach; the first one was on June 24 before the start of the season and the second one was on September 16 before the closing of the project.

Spill Incidences

There was one spill incident which occurred on July 8 and was reported to the spill report line on July 9. A copy of the spill report is attached.

Inspections

An inspection was completed on August 22, 2007 by Mr. Andrew Keim of INAC's Water Resources Division in Iqaluit. A copy of the inspection letter dated January 31, 2008, as well as the response from Defence Construction Canada dated February 25, 2008, are attached. Please note, the attachments in the response from DCC have not been included, as they were previously submitted to the NWB.

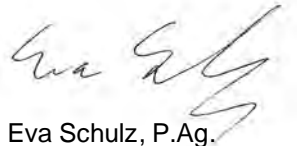
Record drawings for the project are in progress, but are not yet complete. Several site plans of the project have been included for reference.

Phyllis Beaulieu
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We trust the information provided is consistent with the requirements of Water Use License #1BR-HAL0308.
Please feel free to contact the undersigned if you have any questions or comments.

Sincerely,

UMA Engineering Ltd.

A handwritten signature in dark ink, appearing to read 'Eva Schulz', is positioned above the printed name.

Eva Schulz, P.Ag.
Environmental Scientist
eva.schulz@uma.aecom.com

Encl: Site Figures, Photographs, Spill Report, Inspection Letter & DCC Response

cc: Douglas Craig, DCC

NWB Annual Report

Year being reported: 2007 ▼

License No: 1BR-HAL0308 Issued Date: April 18, 2003
 Expiry Date: April 30, 2008

Project Name: FOX-M, Hall Beach DEW Line Clean Up

Licensee: Defence Construction Canada

Mailing Address: Suite 1720, Constitution Square
 350 Albert Street
 Ottawa, ON K1A 0K3

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

UMA Engineering Ltd. on behalf of Defence Construction Canada
 2540 Kensington Road NW
 Calgary, AB T2N 3S2

General Background Information on the Project (*optional):

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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):	Community Water Supply		
Water Quantity:		Quantity Allowable Domestic (cu.m)	
		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:

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Additional Details:

See attached.

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

Spill No.: (as reported to the Spill Hot-line)
 Date of Spill:
 Date of Notification to an Inspector:
 Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed



Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed



Additional Details:

Progressive Reclamation Work Undertaken

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

See attached.

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 attached



Additional Details:

See attached figures.

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 attached



Additional Details:

See attached figures.

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

No additional sampling requested by an Inspector or the Board ▼

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)

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)

A copy of the inspection report and response from the Licensee are attached.

Any additional comments or information for the Board to consider

Date Submitted:

March 31, 2008

Submitted/Prepared by:

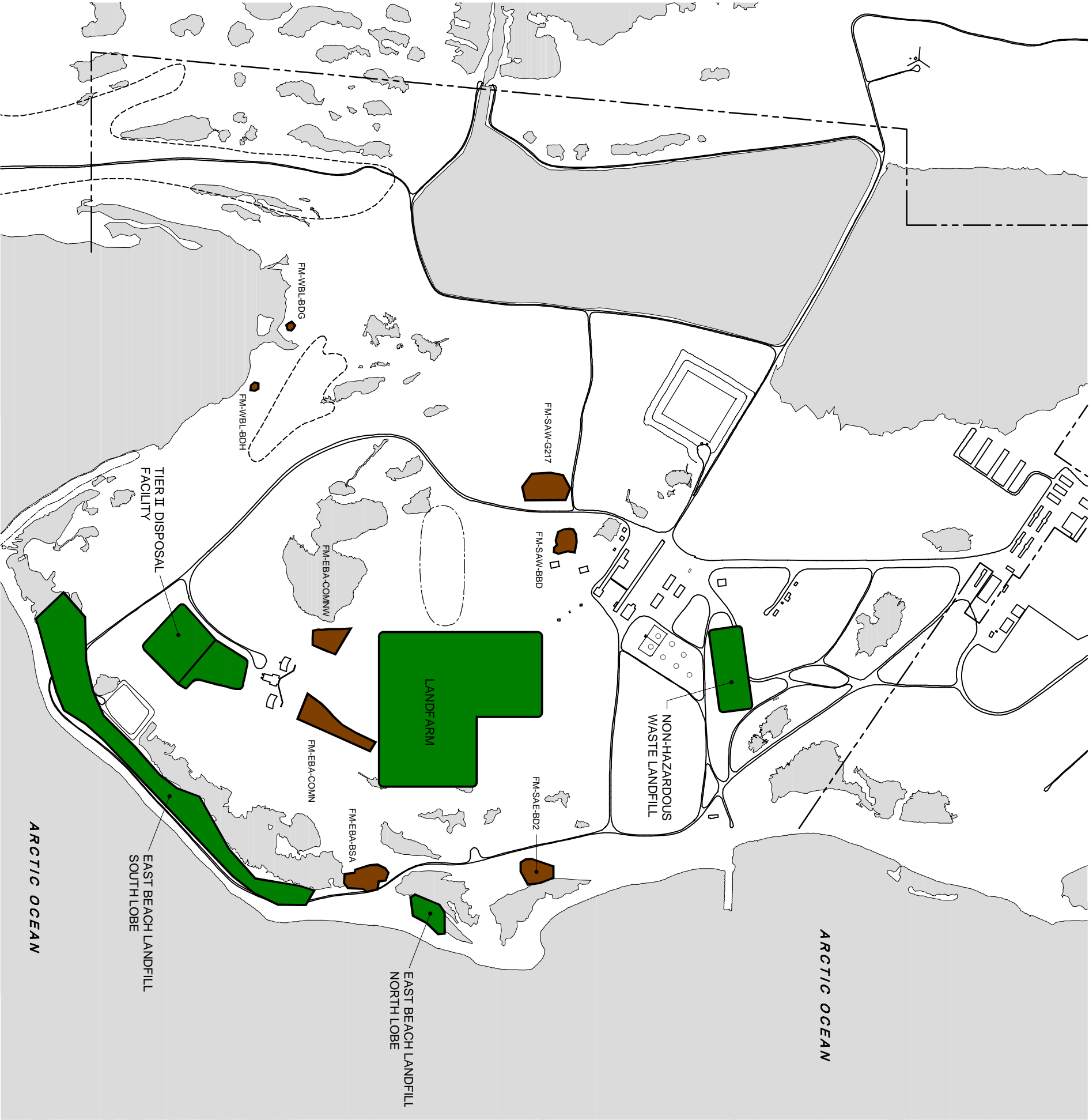
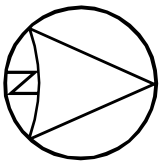
Eva Schulz

Contact Information:

Tel: 403-270-9200

Fax: 403-270-0399

email: eva.schulz@uma.aecom.com



LEGEND:

LANDFILL FACILITY

REGRADED AREA

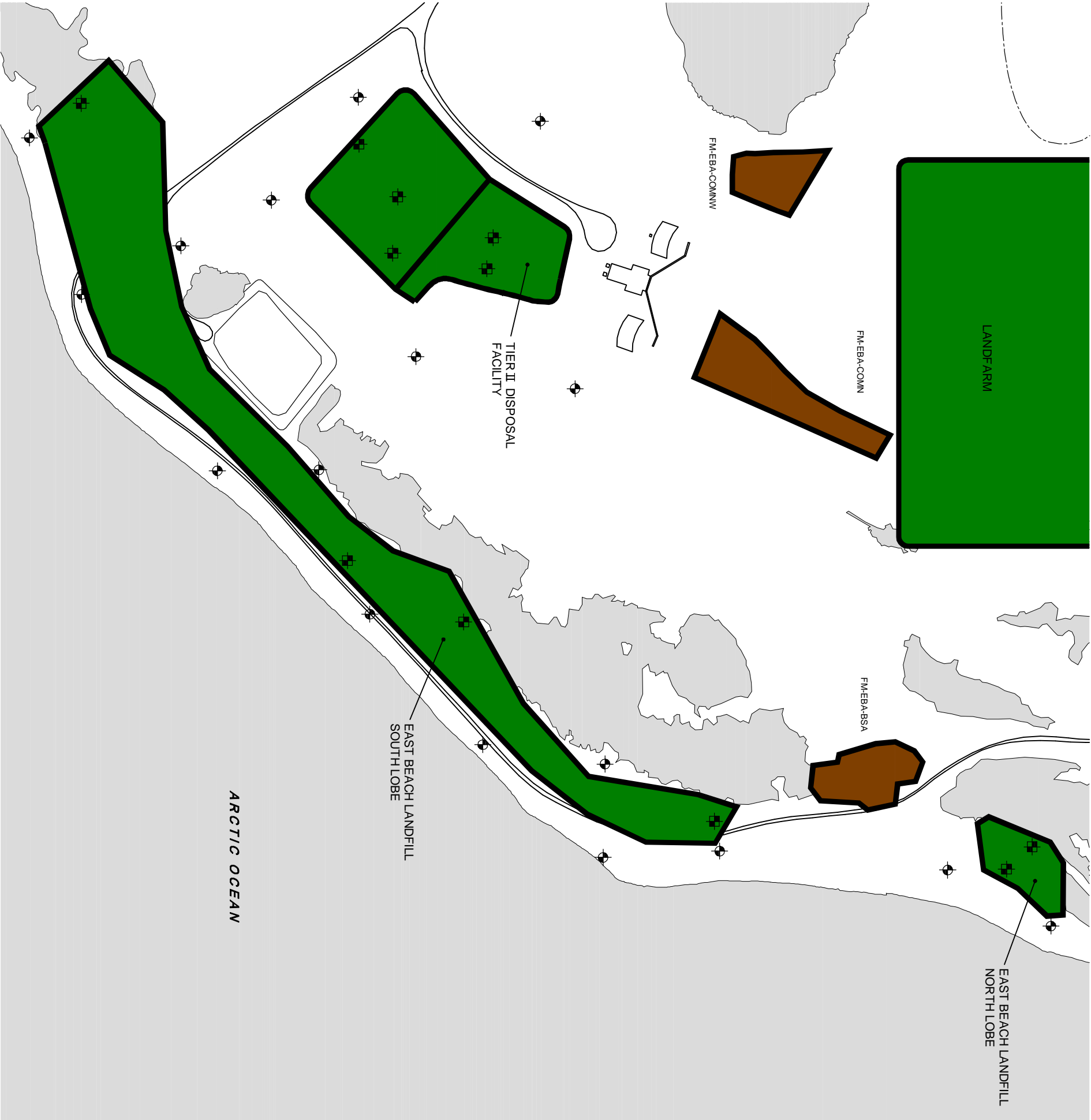
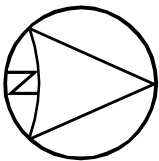


National Defence
Défense nationale

DEW LINE CLEAN UP

FOX-M HALL BEACH

2007 CLOSE-OUT INSPECTION
OVERALL SITE PLAN



LANDFARM

FM-EB-A-COMN

FM-EB-A-COMNW

TIER II DISPOSAL FACILITY

FM-EB-A-BSA

EAST BEACH LANDFILL SOUTH LOBE

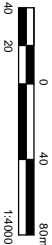
EAST BEACH LANDFILL NORTH LOBE

ARCTIC OCEAN

LEGEND:

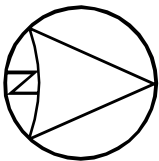
- LANDFILL FACILITY
- REGRADED AREA

- MONITORING WELL
- GROUND TEMPERATURE CABLE

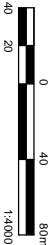
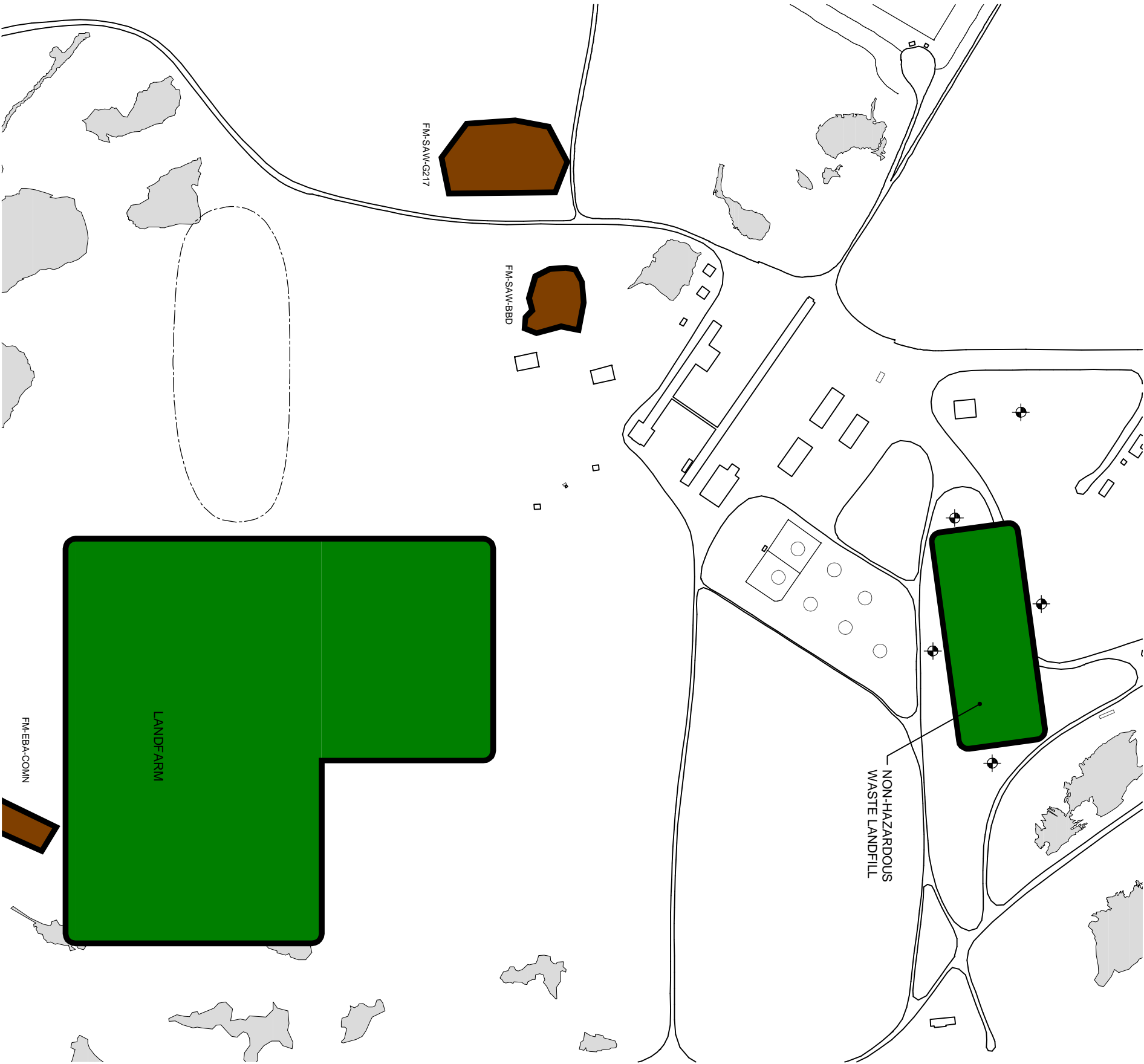


National Defence nationale
DEW LINE CLEAN UP
FOX-M HALL BEACH

2007 CLOSE-OUT INSPECTION
INSTRUMENTATION PLAN 1



- LEGEND:**
- LANDFILL FACILITY
 - REGRADED AREA
 - MONITORING WELL



 **National Defence**
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DEW LINE CLEAN UP
FOX-M HALL BEACH

2007 CLOSE-OUT INSPECTION INSTRUMENTATION PLAN 2



Picture #1 - Tier II Disposal Facility, During Construction, Viewing South – July 25, 2007



Picture #2 - Completed Tier II Disposal Facility, Viewing South – August 9, 2007



Picture #3 - Construction of Intermediate Berm of Tier II Facility, Viewing South – July 5, 2007



Picture #4 - Construction of Intermediate Berm of Tier II Facility, Viewing South – July 11, 2007



Picture #5 - Installation of Cover Liner of Tier II Disposal Facility, Viewing North – August 25, 2007



Picture #6 - Placement of Granular Fill to Promote Positive Drainage at the East Beach Landfill, Viewing West – July 12, 2007



Picture #7 - Placement of Type 3 Granular Fill to Promote Positive Drainage at the East Beach Landfill, Viewing East – July 13, 2007



Picture #8 - Completed Swale Between East Beach Landfill North and South Lobes, Viewing South West – September 11, 2007



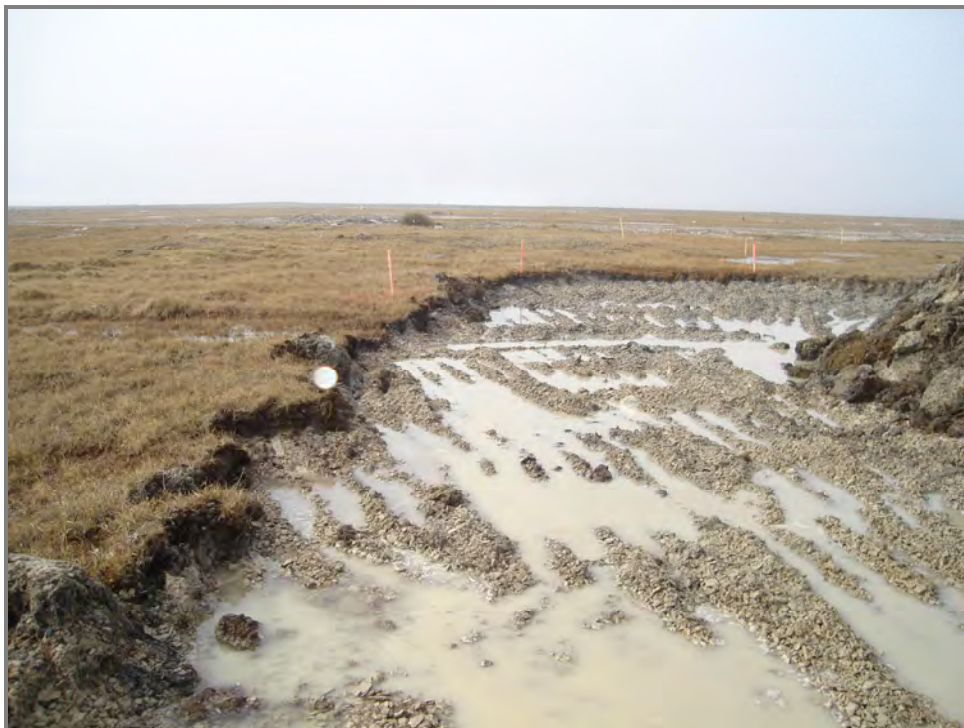
Picture #9 - Completed Swale Between East beach Landfill North and South Lobes, Viewing South – September 11, 2007



Picture # 10 - Hydrocarbon Contaminated Soil Landfarm, Viewing North – July 25, 2007



Picture #11 - West Communications Area Excavation, Viewing North West – July 11, 2007



Picture #12 - West Communications Area Excavation FM-WCA-CO3, Viewing West – July 11, 2007



Picture #13 – Backfilled West Communications Excavation FM-WCA-CO3, Viewing North West – September 9, 2007



Picture #14 - Construction of Final Cover Layer of NHW Landfill, Viewing East – August 6, 2007



Picture #15 - Construction of Final Cover Layer of NHW Landfill, Viewing North West – August 8, 2007



Picture # 16 - Construction of Final Cover Layer of NHW Landfill, Viewing North East – August 8, 2007



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR July 9, 2007	REPORT TIME 14:00	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR July 8, 2007	OCCURRENCE TIME 9:00 am		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) N2005X0041	WATER LICENCE NUMBER (IF APPLICABLE) NWB5HAL0308		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION FOX-Main DEW Line Site		REGION <input checked="" type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES 68 MINUTES 45 SECONDS 54		LONGITUDE DEGREES 81 MINUTES 13 SECONDS 25	
F	RESPONSIBLE PARTY OR VESSEL NAME Defence Construction Canada	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION 350 Albert Street, Suite 1720, Ottawa, ON K1A 0K3		
G	ANY CONTRACTOR INVOLVED Kudlik Construction Ltd.	CONTRACTOR ADDRESS OR OFFICE LOCATION 1519 Federal Road, P.O. box 727, Iqaluit, NT X0A 0H0		
H	PRODUCT SPILLED Waste Gasoline/Diesel mixture	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 150 litres	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE Storage Tank	SPILL CAUSE impact to tank valve	AREA OF CONTAMINATION IN SQUARE METRES 25 square metres (max)	
J	FACTORS AFFECTING SPILL OR RECOVERY none known	DESCRIBE ANY ASSISTANCE REQUIRED none	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT none known	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS Impact damage to the valve at the base of a storage tank, used for storage of gasoline/diesel consolidated from barrels processed in 2006, resulted in the discharge of approximately 150 litres of material to ground. The spill was quickly contained. As part of the emergency response, a container was placed under the damaged valve, and absorbent material placed around the discharge area. The impacted soils will be excavated and transported to the TIER II landfill, and confirmatory samples taken to ensure no contamination remains from this incident.			
L	REPORTED TO SPILL LINE BY Douglas Craig	POSITION Environmental Officer	EMPLOYER DCC	LOCATION CALLING FROM Ottawa
				TELEPHONE (613) 998-7288
M	ANY ALTERNATE CONTACT Nahed Farah	POSITION Assoc. Proj. Manager	EMPLOYER DCC	ALTERNATE CONTACT Ottawa
				ALTERNATE TELEPHONE (613) 998-7917
REPORT LINE USE ONLY				
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT
				REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN	
			FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED	
AGENCY	CONTACT NAME		CONTACT TIME	REMARKS
LEAD AGENCY				
FIRST SUPPORT AGENCY				
SECOND SUPPORT AGENCY				
THIRD SUPPORT AGENCY				



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

INAC, Nunavut District
P.O. Box 2200
Qimuggjuk Building
Iqaluit, NU, X0A 0H0

Submitted Via E-Mail
Our File: 1BR-HAL0308
Your File: _____
CIDM #194504

January 31st, 2008

Douglas Craig, M.Sc.
Environmental Officer
DEW Line Clean Up
Defence Construction Canada
Constitution Square, Suite 1720, 350 Albert St.,
Ottawa, Ontario K1A 0K3
Phone: (613) 998-7288
Fax: (613) 998-0468

RE: Water License Inspection of Hall Beach L.R.R. Station – August 22nd, 2007

The Water Resources Officer (WRO) appreciates the assistance and cooperation provided by Douglas Craig, Environmental Officer for Defence Construction Canada and Project Supervisor, Patricia O'Donnell, who accompanied the Inspector during the inspection of the site.

The following report is based on observations made at the time of the inspections at the Hall Beach –Fox Main- Long Range Radar Station clean up. A review of the terms and conditions of the water license was not conducted during the Inspection because a copy of the Water License could not be found on site.

During the period of Inspection it was noted that, according to information provided by the Site Manager, this site has never been inspected previously and in fact the work on site was at this point only ten days to two weeks from completion.

Immediately following the inspection a Water Use Inspection Form outlining the concerns of the inspector was signed off by the parties with the Inspector.

Part A: Scope and Conditions

No issues were found with respect to the location of the camp as it relates to the information contained within the current license. The current license was issued April 18th, 2003 to the Defence Construction Canada.

The license, as issued, is a Type “B” license classed as Camp Mobilization and Environmental Clean-up Operations.

Part B: General Conditions

The issues of water use fees and security were not included within the context of this inspection.

A review of the Nunavut Water Board FTP – Public Registry was conducted during the writing of this report. It was noted that a copy of the License was not posted on the site. An amendment (Amendment 1) was found on the site. The amendment approved an application from the Licensee to change Part C item 3 of the existing license from an allocation of 30 Cubic Meters per day of water for all purposes to 100 CMD. It was noted however that the effective date of the amendment is April 1st 2008.



During the same review of the Nunavut Water Board FTP – Public Registry an annual report for the 2006 annum, completed by UMA Engineering Ltd. was located. This report is a requirement under the terms and conditions of the Water License. The annual report must include but should not be limited to those items listed in Section 1 (i) through (xvi) of this Part. A review of the report found that items v and vi are not addressed in the report. Missing were as follows;

- No summary of data (GPS coordinates) collected under the monitoring program were provided
- An analysis of data collected during the “Monitoring Program”

The proponent is reminded that an annual report is required to be filed by March 31st 2008 for the year ending December 31st 2007. The annual report **must** include but not be limited to those items listed in Section 1 (i) through (xvi) inclusive, of this part as well as any information required by the Inspector.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

During the period of inspection the Inspector noted that flow meters had not been installed on the intake lines on the water trucks being used water down the roadways and other tasks. When asked how water volumes were being recorded there was no answer available at that time. It is assumed this quantity is added in the quantity noted in the annual reports but it is impossible to be certain. It is noted that Potable water and sewage services are provided by the Municipality of Hall Beach.

Part C: Conditions Applying To Water Use

At the time of the inspection the licensee was allocated the use of 30 Cubic meters of water per day for all purposes as per the original license. As noted an amendment was approved in 2006 allowing for an increase in water use for all purposes to 100 CMD. This amendment however has an effective date of 2008. The Nunavut Water Board is asked to provide clarity on this matter. Water of all uses is to come from the designated Water Supply Lake.

During the period of inspection it was noted that in a number of areas on site, specifically a ditch along the road side and a stream, running parallel to the roadway before exiting via a culvert, were being used as sources of water for both dust suppression and to add water to the trucks carrying crushed materials for packing contrary to the terms and conditions of the current license.

It was stated during the inspection that it was and had been the practice on site for over a year. As this project is now complete the Inspector has concerns that the Licensee conducted their operations contrary to the terms and conditions of the issued license. A review of the Nunavut Water Board FTP site did not located any requests for Modification or further Amendment to the issued license to allow the Licensee to access alternate water sources.

The licensee is cautioned that continued instances of non-compliance with the terms and conditions of issued water licenses or the Act will result in the licensee being the subject of the enforcement measures and penalties provided for under the Act.

The Licensee is reminded to ensure that the intake hoses are equipped with a screen to prevent the entrapment of fish. Samples were not collected at the time of the inspection as samples of this source had already been collected this year.

Part D: Conditions Applying to Sewage Waste Disposal



During the period of inspection it was noted that Sewage was not being processed on site via an On-site Sewage Treatment facility but these services were provided by the Municipality of Hall Beach at the Municipal Facilities.

Samples of the discharge were collected during the period of inspection of the Hall Beach Municipality and thus are not included in the context of this report.

During the period of Inspection there were no sites inspected that held Demolition rinse water used during the decontamination process. Additionally, there were no sites identified during the inspection where water from borrow pits or excavation were transferred to. It is unclear where water from either source was eventually deposited or if any testing prior to deposit was completed by the licensee.

Part E: Conditions To Solid Waste Disposal

During the period of Inspection two Land fill sites were inspected. No Plans were reviewed at the time of the inspection.

Storage containers in an area that was marked as such for storage contained the PCB (Polychlorinated Biphenyl) contaminated materials. These materials were scheduled for back-haul shipment off site on the sea-lift after the Inspection.

The proponent is reminded to include in the 2007 annual report due on March 31st 2008 a list of hazardous materials (Polychlorinated Biphenyls) shipped out of the camp, and the location of the approved treatment facility to which they were sent. All of the foregoing is required information to be included in the annual report. Shipping and receiving invoices are not required so long as the records are available for inspection during the 2008 inspection season.

Part F: Conditions Applying To the Undertaking

During the period of Inspection the site was still active and work on-going. It is unclear to the inspector if the Licensee adhered to the construction parameters submitted with the initial application on January 29th, 2003. It is recommended that as-built drawings be submitted for review to the Nunavut water Board as addendums to the 2007 annual report.

During the period of Inspection the Inspector noted that the Licensee also built a road on the Airport lease to access tower equipment and materials scheduled for removal. It was stated that the Airport staff gave permission to construct the roadway. This roadway however required the installation of culverts and the crossing of a shallow river. This roadway was prone to washing out and was required to access these towers. A review of the Nunavut Water Board FTP site failed to find an application for modification to the current license to allow for the stream crossing and installation of culverts on this roadway.

Given the circumstances the Inspector looks to the Nunavut water Board for clarification on if these applications have been submitted.

Part G: Conditions Applying To Spill Prevention and Contingency Planning

A review of the Water Board FTP site could not locate an approved Emergency Response Plan / Spill Contingency Plan as required by Section 2 of this part. This plan was to have been revised annually and submitted as an addendum to the Annual report.

If the Plan has been submitted to the Nunavut Water Board, the Licensee is directed to provide a copy of the plan as well as a copy of the approval from the Nunavut Water Board to the Inspector within 30 days of receipt of this Inspection Report.



The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

The Licensee is reminded that as per Section 5 (iii) of this Part the Licensee is required to submit a detailed report on each spill occurrence no later than 30 days following the initial event.

Part H: Conditions Applying To Modifications

During the period of Inspection no modification to the exiting terms and conditions of the undertaking were identified by the Licensee. It was noted however that one of the Borrow areas was less than 30 meters from the Ocean. This was brought to the attention of the Licensee who had no response at that time.

An inspection of the undertaking post closure is recommended to verify the terms and conditions of the current license prior to closing the license.

Part I: Conditions Applying To Abandonment And Restoration

As noted in the current License issued by the Nunavut Water Board the licensee is required to submit Abandonment and Restoration Plans 6 months prior to the completion of on site activities.

It was noted that during the period of inspection that an Abandonment and Restoration Plan was not available for review. A search of the Nunavut water Board FTP during the writing of this report was also not able to locate this Plan.

If the Plan has been submitted to the Nunavut Water Board, the Licensee is directed to provide a copy of the plan as well as a copy of the approval from the Nunavut Water Board to the Inspector within 30 days of receipt of this Inspection Report.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

An inspection of the undertaking post closure is recommended to verify the terms and conditions of the current license prior to closing the license.

The licensee is cautioned that continued instances of non-compliance with the terms and conditions of issued water licenses or the Act will result in the licensee being the subject of the enforcement measures and penalties provided for under the Act.

Part H: Conditions Applying To Monitoring Programs

As noted in the current License issued by the Nunavut Water Board the licensee is required to submit a Monitoring Program to the Nunavut Water Board by September 30th, 2003.

That Plan was to include the following;

1. GPS Coordinates of all surface and subsurface sampling points
2. Specific Components of the visual, soil/water and thermal monitoring program
3. Sampling frequency
4. Physical and Chemical parameters for analysis

It was noted that during the period of inspection that the Monitoring Plan was not available for review. A search of the Nunavut water Board FTP during the writing of this report was also not able to locate this Plan.



If the Plan has been submitted to the Nunavut Water Board, the Licensee is directed to provide a copy of the plan as well as a copy of the approval from the Nunavut Water Board to the Inspector within 30 days of receipt of this Inspection Report.

The licensee is reminded that it is the responsibility of the licensee to ensure that any documentation submitted by the licensee to the Nunavut Water Board is acknowledged by the Manager of Licensing.

Additionally, as per section 3 of this Part a Quality Assurance and Quality Control Plan, approved by an analyst was to have been submitted to the Board 30 days prior to sampling. This Plan is also to be submitted with the Monitoring Plan.

The Licensee is reminded that failure to comply with the terms and conditions of the issued water license or the Direction of an Inspector constitutes an offence under the Nunavut Water and Nunavut Surface Rights Tribunals Act.

Non-Compliance:

During the inspection a number of items were and discussed with the Licensee;

- Submission of Spill Contingency Plan and approval of the Nunavut Water Board within 30 days of receipt of this report
- Submission of Monitoring Plan and sampling analysis to the Nunavut Water Board and the Inspector within 30 days of receipt of this report
- As-built drawings of constructed facilities are required to determine compliance upon final completion of project
- Diversion of water and installation of culverts into a stream bed without a license or approval of the board are contrary to the terms and conditions of the existing license and the ACT. Additionally if these water are fish habitat the Federal Fisheries Act may also have been contravened. Clarification from the Nunavut Water Board on the status of an application for modifications is requested.
- Use of water sources not approved within the License is contrary to the terms and conditions of the License and the ACT. Clarification from the Nunavut Water Board on the status of any applications for amendment or modification is requested.

Andrew Keim
Inspector's Name

Inspector's Signature

Attached under separate cover;
Photos taken during Inspection of July 13th, 2007

Cc:
Peter Kusugak – Manager Field Operations Section- Indian and Northern Affairs Canada
Phyllis Beaulieu – Manager licensing – Nunavut Water Board









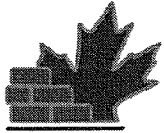












February 25, 2008

Andrew Keim
Water Resources Officer
INAC Nunavut Regional Office
P.O. Box 2200
Iqaluit, Nunavut X0A 0H0

RE: FOX-M Water Use Licence Inspection Report

Mr. Keim:

The DEW Line project team has reviewed the inspection report dated January 31, 2008, which summarized findings and observations from inspections conducted on August 22nd, 2007. Please find below our comments and response to the specific issues raised in the inspection report.

Part B: General Conditions

A copy of the Water Use Licence was on-site, but was not produced during the inspection. It is acknowledged that in the future, copies of all permits and licences should be immediately retrievable upon request.

With respect to the effective date on the 2006 amendment (referenced at the end of the second paragraph), DCC respectfully suggests that an error was made by the Nunavut Water Board (NWB) in the licence. The effective date should have read 2006, not 2008. It would not have been logical to request an amendment for a time period after the construction phase had ended. Furthermore, the cover letter accompanying the amendment was dated March 22, 2006, suggesting that the amendment was for that construction year. Perhaps the NWB can clarify.

There have been no GPS coordinates or analyses data provided to date as the monitoring program is only being initiated in 2008. Monitoring is only conducted upon the completion of the remediation work on each site. The monitoring plan and schedule was provided to the NWB on April 5, 2005.

The last paragraph in Part B states that there were no flow meters installed in the trucks used to water down the roadways. DCC wasn't aware that specific meters were required. The volume of water used for this purpose is estimated based on truck capacity and fill level (e.g., ¼ full, ½ full, etc.). The values for water used for wetting purposes are available, and will be submitted in the annual report, as required.

Part C: Conditions Applying to Water Use

It is acknowledged that DCC should have applied for an amendment to the water use licence (WUL) prior to drawing water from water bodies adjacent to the roadways. We will endeavor to ensure that this does not recur at other sites in the future.

Part D: Conditions Applying to Sewage Disposal

No issues raised.

Part E: Conditions Applying to Solid Waste Disposal

All hazardous wastes are handled as per the terms and conditions of the DND/NTI agreement, as well as according to applicable Federal legislation (and Provincial legislation according to the receiving Province). We are not aware of any conditions in the WUL stating the requirement to provide a listing of all hazardous materials (PCBs) shipped out of the camp, nor the location of the approved disposal/treatment facilities.

Part F: Conditions Applying to the Undertaking

Regarding the road constructed/upgraded on the Airport lease to access tower equipment and materials scheduled for removal, please note that a notice of modification was made to the NWB on this matter on June 5, 2007, and acknowledged by the board on July 3, 2007. The notice went out for review, and there were no comments or concerns raised.

Part G: Conditions Applying to the Spill Contingency Planning

Please find attached the Spill Contingency Plan for FOX-M, which was submitted with the original licence application on January 20, 2003. Since the NWB approved the licence application, it was assumed that the material submitted as part of that application was also approved. The plan was reviewed annually, but not submitted.

Also attached, please find the most recent (2007) contractor Contingency Plan for the FOX-M DEW line site. This plan was submitted to DCC in 2004, and remained in place until the end of the project. Note that the same contractor was on-site for the entire duration of the remediation activities.

Part H: Conditions Applying to Modifications

Borrow area #3 is situated along the West Beach area, and is adjacent to the ocean. While we could not confirm that the active borrow area was within 30 metres of the

ocean, a review of the WUL appears to indicate that the concern was for streams, rivers and lakes, and specifically focused on maintaining a vegetated area along these particular water bodies for bank stability. Please note that there was no vegetation in the vicinity of this borrow area, which is characterized by coarse gravel and cobble.

Part I: Conditions Applying to Abandonment and Restoration

The entire DEW Line Cleanup Project is an Abandonment and Restoration undertaking. Our original application to the NWB for our licence contained a brief section on abandonment and restoration, and a more detailed submission was made on June 29, 2007. A copy of this submission is enclosed for your information.

Part J: Conditions Applying to Monitoring Programs

The application to the NWB for a Water Use Licence contained a chapter pertaining to the monitoring program that is to be initiated following completion of clean up activities. A detailed Monitoring Plan was submitted on April 5, 2005, with NWB notice of receipt sent on April 21, 2005. A copy of the monitoring plan for FOX-M is attached.

Further, the Quality Control/Quality Assurance (QA/QC) Plan for the monitoring program was submitted on July 26, 2005. As a result of comments requiring modifications to the plan, a revised plan was submitted on October 7, 2005. The QA/QC Plan is also attached.

We trust the information provided is sufficient. Please feel free to contact me if you require anything further.



Douglas Craig, M.Sc.
Environmental Officer
DEW Line Clean Up
Defence Construction Canada
Constitution Square, Suite 1720, 350 Albert St.,
Ottawa, Ontario
K1A 0K3
Phone: (613) 998-7288
Fax: (613) 998-0468

cc. N. Farah (DCC)
E. Schulz (UMA)
K. White (ESG)