

UMA Engineering Ltd.  
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March 31, 2006

Project Number: FOX-5 (3.6)

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

Dear Ms. Beaulieu:

**Re: 2005 Annual Report: Water Use License #NWB5QIK0207**

UMA Engineering Ltd. is pleased to submit this annual letter report as per the requirements of Part B.1 of water use license NWB5QIK0207. The report was prepared on behalf of Defence Construction Canada and the Department of National Defence.

**Water Usage**

At the FOX-5 site, both water supply and sewage disposal are provided by the Hamlet of Qikiqtarjuaq. No samples of the sewage effluent were collected as it is being treated by the Hamlet's Municipal services. No other samples are required by the Monitoring Plan, which was submitted to the NWB in April 2005. The following table provides a summary of the quantity of water supplied by the Hamlet, as well as the quantity of effluent that was collected and treated by the Hamlet.

Month	Quantity of Water Extracted (cubic metres)	Quantity of Effluent (cubic metres)
June	205	164
July	285	228
August	310	248
September	216	173

**Summary of Completed Work**

**Demolition:** The module train was demolished in 2005, which included completion of PAP removal and asbestos abatement. PAP materials were packaged and are currently stored in the Temporary PCB Storage Area, which holds 11 barge containers. The asbestos was wrapped and disposed of in the NHW Landfill.

**Contaminated Soil Removal:** All Tier I and Tier II contaminated soil was excavated and placed in the appropriate disposal facility.

**Non-Hazardous Waste Landfills:** The waste in the NHW Landfills consists of Tier I contaminated soils and non-hazardous demolition debris. The NHW Landfill at the Lower Site contains approximately 4000 m<sup>3</sup> of waste material and intermediate cover. The final landfill cap was placed in 2005, and no further work remains at this landfill. The Middle Site NHW Landfill contains 5460 m<sup>3</sup> of waste materials. Although no further waste disposal will occur at this landfill, it will require final capping in 2006.

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**Tier II Soil Disposal Facility:** Approximately 1500 m<sup>3</sup> of Tier II contaminated soil was placed in the facility in 2005. No further placement of Tier II contaminated soils will be required, as all contaminated areas have been excavated. Work remaining in 2006 includes placement and compaction of the final granular material cap. .

**Main Landfill:** The key trench excavation and liner installation at the Main Landfill was completed in 2005. Remaining work includes placement of the final landfill cap and regrading.

**Landfarms:** All hydrocarbon contaminated soils were excavated and placed in either the Airstrip Landfarm or the Station Landfarm. The Airstrip Landfarm contains a total of 6000 m<sup>3</sup> of hydrocarbon contaminated soils and the Station Landfarm contains 8000 m<sup>3</sup> of hydrocarbon contaminated soil, respectively. The soils at the Airstrip Landfarm were successfully remediated to the criterion of 2500 ppm by the end of the 2005 season, and the landfarm will require final closure in 2006. The soils at the Station landfarm will be tested and additionally treated in 2006, as required. Once the remediation criterion is achieved, this landfarm will also be closed.

**Debris Removal:** Debris removal was essentially completed in 2005; however, a final inspection will occur in 2006 to ensure completion.

### **Community Meetings**

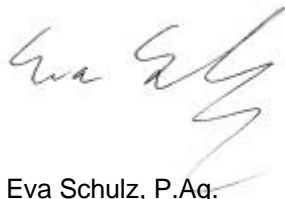
A pre-season meeting is held by the contractor at the start up of each construction year, which includes the contractor, the DCC Site Representatives and any interested community members. No further meetings are conducted by the project team.

Drawings including an overall site plan, project layout and camp location are attached.

We trust the information provided is consistent with the requirements of Water Use License #NWB5QIK0207. Please feel free to contact the undersigned if you have any questions or comments.

Sincerely,

**UMA Engineering Ltd.**



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

Encl. Site Drawings

cc: Philip Warren, DCC  
Sarah Gagné, NWB

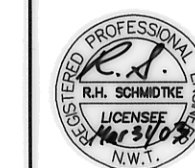
General Notes:

1. ALL NON-HAZARDOUS WASTE FROM UPPER SITE SOURCES TO BE PLACED IN STATION AREA NON-HAZARDOUS WASTE LANDFILL.
2. ALL NON-HAZARDOUS WASTE FROM SOURCES TO THE WEST OF AND ALONG THE WATER SUPPLY LAKE ACCESS ROAD TO BE PLACED IN MIDDLE SITE NON-HAZARDOUS WASTE LANDFILL.
3. REMOVAL OF SURFICIAL BOULDERS WILL BE REQUIRED IN THE BORROW AREAS.

Legend:

- (16) PHOTOGRAPHIC VIEWPOINT
- BODY OF WATER
- APPROXIMATE EXTENT OF DEBRIS AREAS
- APPROXIMATE EXTENT OF BORROW AREAS
- APPROXIMATE LOCATION OF PROPERTY BOUNDARIES

No.	DATE	REVISION	REVISION	APPR.
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THE ASSOCIATION OF  
PROFESSIONAL ENGINEERS,  
GEOLOGISTS AND GEOPHYSICISTS  
OF THE NORTHWEST TERRITORIES  
PERMIT NUMBER  
P. 007  
UMA ENGINEERING  
M. 31/03

UMA SNE  
SCALE - ECHELLE 400 200 0 400 800 1200m

PROJECT - PROJET  
FOX-5 BROUGHTON ISLAND

DEW LINE CLEAN UP

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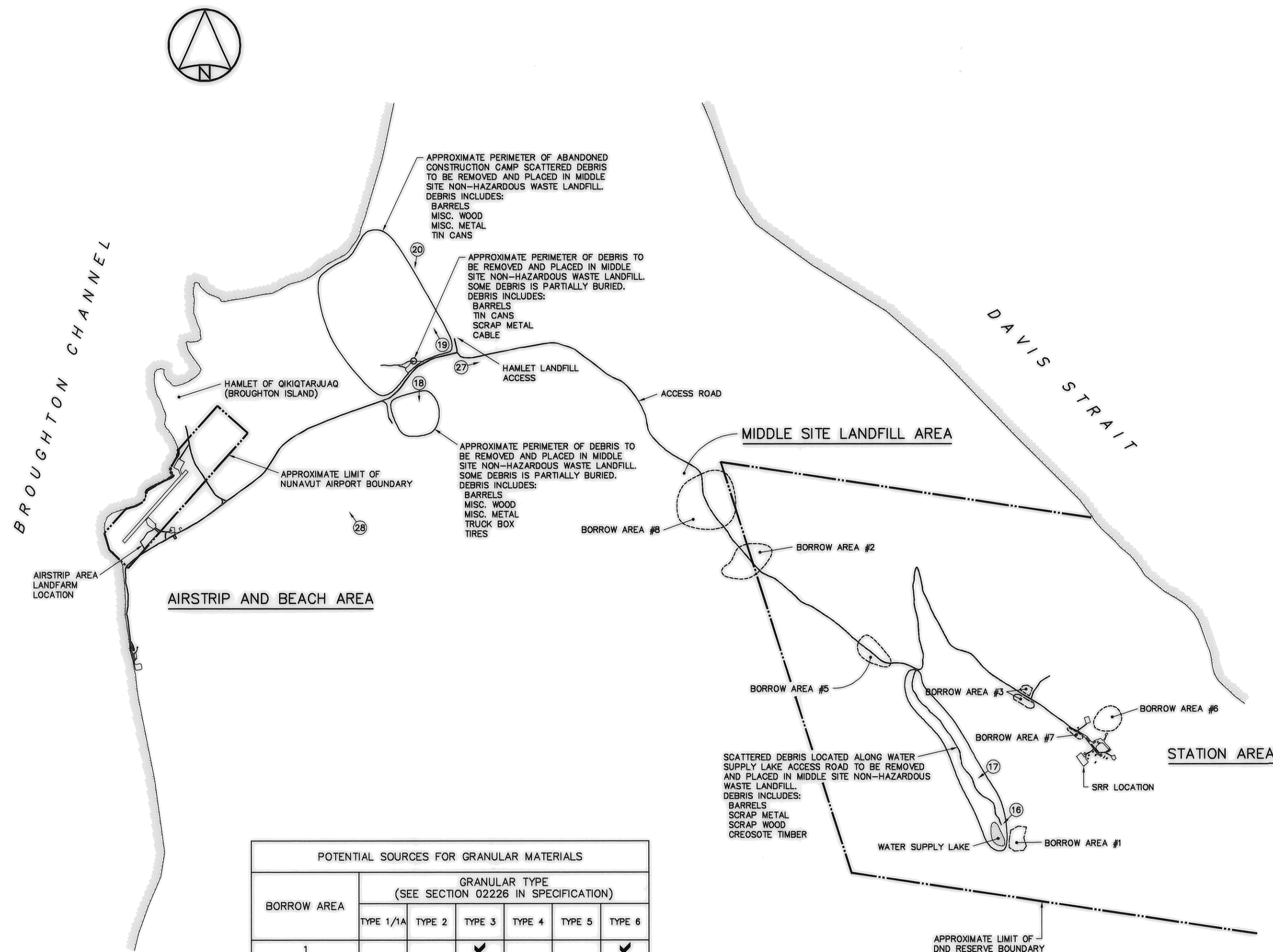
TRADE - METIER SITING DATE 2003-03-31  
SUBJECT - SUJET

OVERALL SITE PLAN

PRODUCTION	CONCURRENCE - ASSENTIMENT
DESIGNED ETUDIE: BWF	DES OFF AGENT CONCEPT
DRAWN DESSINE: CAE	SECT HD CHEF SECT
CHECKED VERIFIE: RRM	DES MGR GEST CONCEPT
COORDINATION SMS	REVIEWED - REVU

DWG. NO. - DESSIN NO.  
H-B233/1-9101-101

Canada







POTENTIAL SOURCES FOR GRANULAR MATERIALS

BORROW AREA	GRANULAR TYPE (SEE SECTION 02226 IN SPECIFICATION)					
	TYPE 1/1A	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6
1			✓			✓
2		✓	✓			✓
3	✓		✓			✓
5		✓	✓			✓
6	✓	✓	✓			✓
7	✓	✓	✓			✓
8	✓	✓	✓	✓	✓	✓
INFRASTRUCTURE FILL		✓				✓

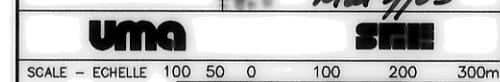
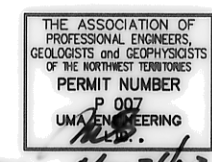
General Notes:

1. ALL ELEVATIONS ARE REFERENCED TO MEAN SEA LEVEL. (REF. DWG. AAP-2, DEPT. OF THE AIR FORCE, USAF).
2. HORIZONTAL CONTROL REFERENCED TO SURVEY CONTROL MONUMENTS.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
4. ALL SHORT RANGE RADAR (SRR) FACILITIES ARE CURRENTLY OPERATIONAL AND ARE NOT TO BE DISTURBED. SEE DWGS. H-B233/1-9101-201 AND 202 FOR ADDITIONAL DETAILS.
5. ALL NON-HAZARDOUS WASTE FROM UPPER SITE SOURCES TO BE PLACED IN STATION AREA NON-HAZARDOUS WASTE LANDFILL.
6. ALL NON-HAZARDOUS WASTE FROM SOURCES TO THE WEST OF AND ALONG THE WATER SUPPLY LAKE ACCESS ROAD TO BE PLACED IN MIDDLE SITE NON-HAZARDOUS WASTE LANDFILL.

Legend:

-  CM2 SURVEY CONTROL MONUMENT
-  TBM11 TEMPORARY BENCHMARK
-  CONTAMINATED AREA
-  BODY OF WATER

No.	DATE	REVISION	REVISION	APPR.



PROJECT - PROJET  
**FOX-5 BROUGHTON ISLAND**

**DEW LINE CLEAN UP**  
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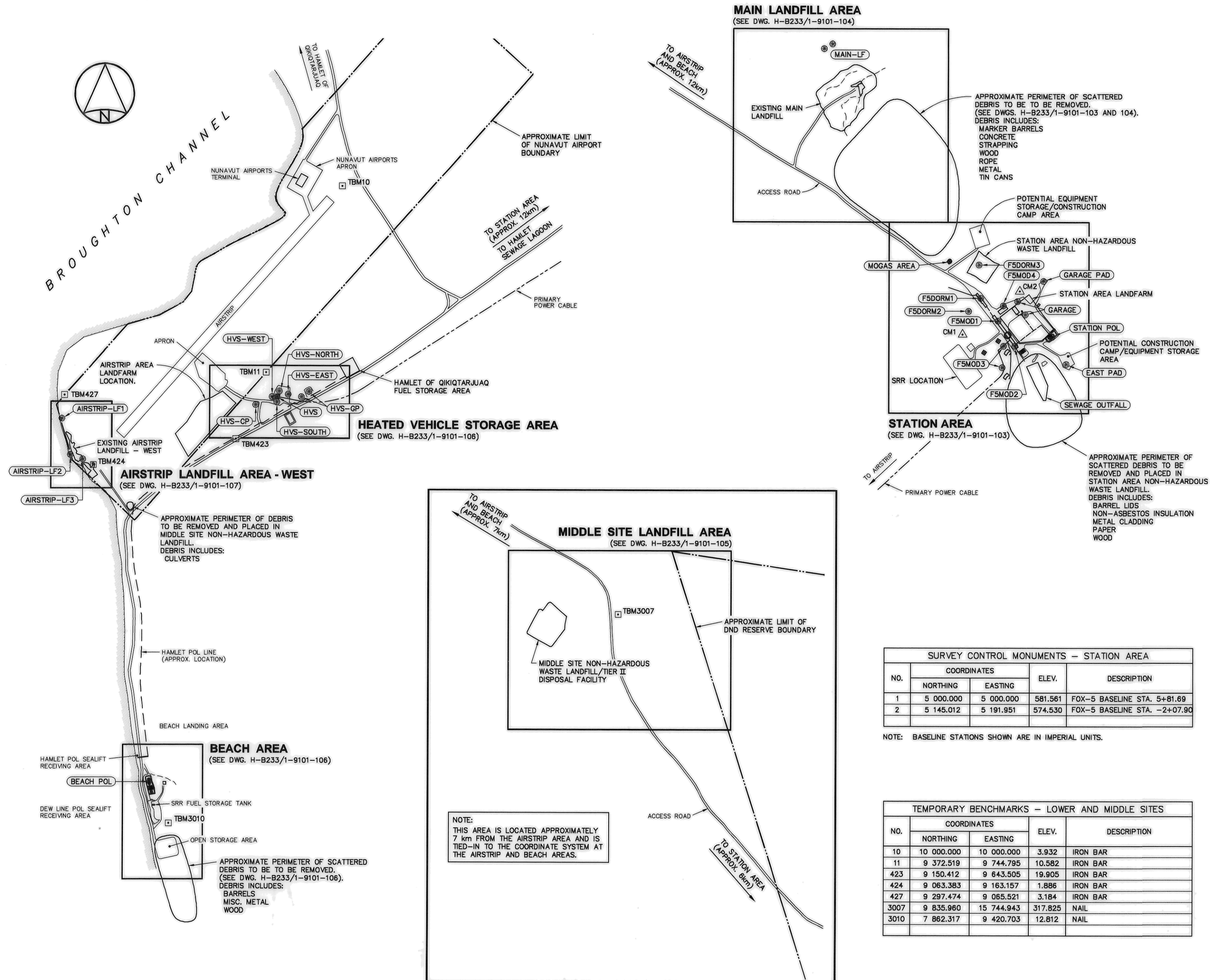
TRADE - METIER **SITING** DATE **2003-03-31**

SUBJECT - SUJET

PROJECT LAYOUT

PRODUCTION	CONCURRENCE - ASSENTIMENT
DESIGNED <b>BNF</b>	DES OFF AGENT CONCEPT
ETUDIE	SECT HD CHEF SECT
DRAWN <b>CAE</b>	DES MOR GEST CONCEPT
DESSINE	
CHECKED <b>RRM</b>	
VERIFIE	
COORDINATION <b>SMS</b>	REVIEWED - REVJ

DWG. NO. - DESSIN NO.  
H-B233/1-9101-102

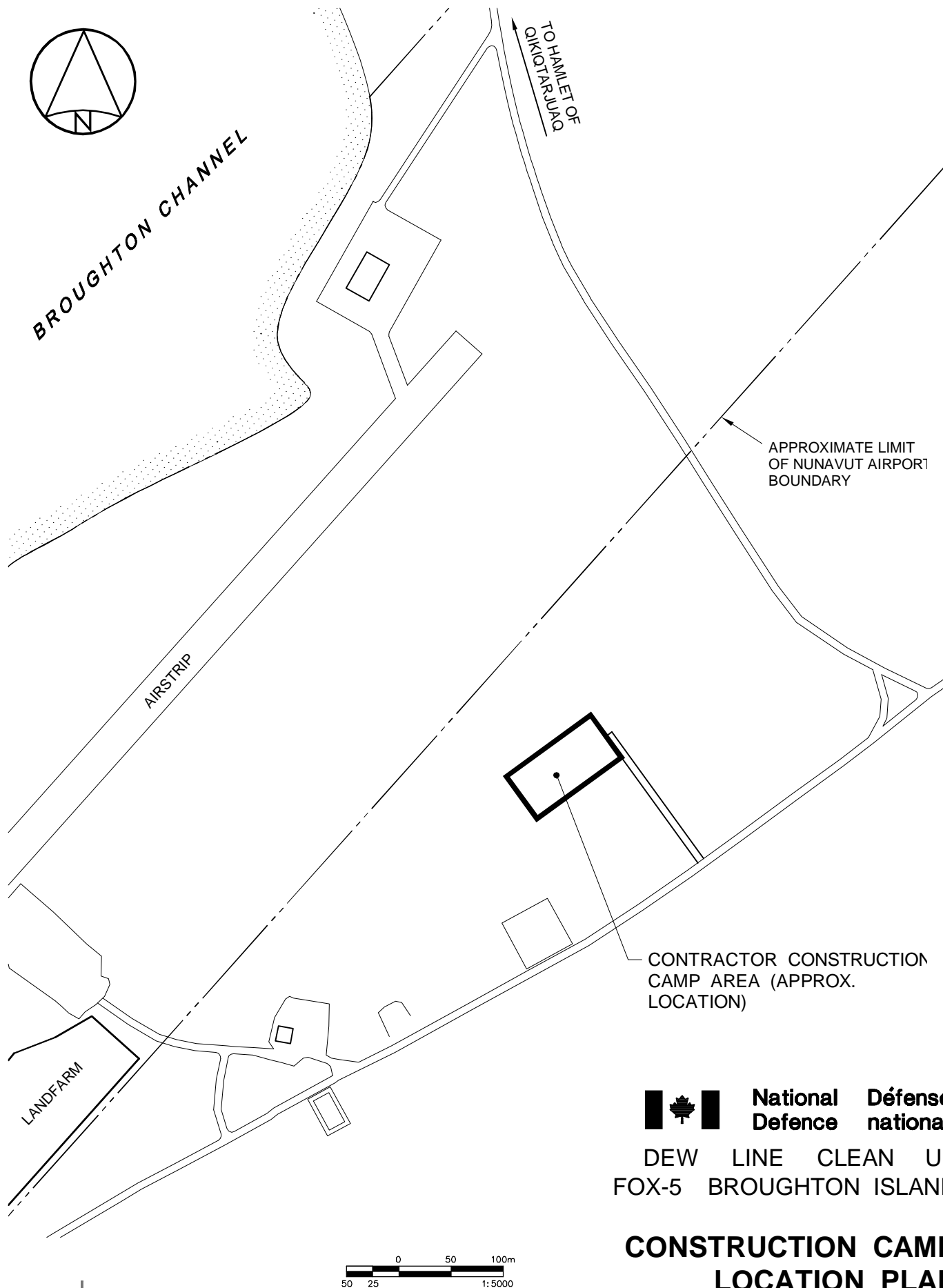


SURVEY CONTROL MONUMENTS - STATION AREA				
NO.	COORDINATES		ELEV.	DESCRIPTION
	NORTHING	EASTING		
1	5 000.000	5 000.000	581.561	FOX-5 BASELINE STA. 5+81.69
2	5 145.012	5 191.951	574.530	FOX-5 BASELINE STA. -2+07.90

NOTE: BASELINE STATIONS SHOWN ARE IN IMPERIAL UNITS.

TEMPORARY BENCHMARKS - LOWER AND MIDDLE SITES				
NO.	COORDINATES		ELEV.	DESCRIPTION
	NORTHING	EASTING		
10	10 000.000	10 000.000	3.932	IRON BAR
11	9 372.519	9 744.795	10.582	IRON BAR
423	9 150.412	9 643.505	19.905	IRON BAR
424	9 063.383	9 163.157	1.886	IRON BAR
427	9 297.474	9 065.521	3.184	IRON BAR
3007	9 835.960	15 744.943	317.825	NAIL
3010	7 862.317	9 420.703	12.812	NAIL

NOTE:  
THIS AREA IS LOCATED APPROXIMATELY 7 km FROM THE AIRSTRIP AREA AND IS TIED-IN TO THE COORDINATE SYSTEM AT THE AIRSTRIP AND BEACH AREAS.



**National** **Défense**  
**Defence** **nationale**

DEW LINE CLEAN UP  
FOX-5 BROUGHTON ISLAND

## CONSTRUCTION CAMP LOCATION PLAN