

# **Fuel and Hazardous Material Spill Contingency Plan**

## **Former Nottingham Island Radio/Weather Station Site, Nunavut**

**Submitted by:** Department of Indian Affairs and Northern Development  
(DIAND), Northern Affairs Program  
(Nunavut Regional Office)

**Prepared by:** Public Works and Government Services Canada (PWGSC)  
Real Property Services  
Architectural & Engineering Services  
Environmental Services  
Western Region

*July, 2013*

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## **1 Site Description and characteristics**

- 1.1 Nottingham Island site is located at approximately 63° 06' 43" N latitude and 77° 56' 19" W longitude in the Qikiqtani (or Qikiqtaaluk) region of Nunavut. The nearest communities, to the site, are Ivujivik and Salluit (both in Quebec), and Cape Dorset (Nunavut). The site is about 140 km south of Cape Dorset and about 80 km north of Ivujivik. The Department of Transport (DOT) built a radio/navigational aid station on Nottingham Island in 1927 to provide accurate data for the opening of the Hudson Strait to shipping. The station was abandoned in 1970. Throughout the period of use by DOT, there was no reserve in place for the site.
- 1.2 Nottingham site is located at an elevation of approximately 10 metres above sea level (masl) having a relatively flat topography that slopes gently toward Hudson Strait. The bedrock in the area is Archean metamorphic rock.

The Island is located within an arctic region with extreme average daily temperatures - 26°C in February and 7.4°C in July based on data from nearby Cape Dorset, Nunavut (Environment Canada 2010). With the wind chill, temperatures have been as low as - 58°C during the winter. Daily average temperatures are above 0°C during four months of the year (June to September). The region typically experiences rainfall between April and October, with monthly averages ranging from 0.1 and 55 mm. Precipitation in the form of snow can occur at any time throughout the year but is not common in July. Maximum snowfall typically occurs in November, at an average amount of 50 cm. The water equivalent of the average annual precipitation in this area is 403 mm.

The site is located in an area of continuous permafrost (90-100%). Summer active layer depths above the permafrost typically range from about 15 cm depth in areas supporting a thick organic mat to more than 120 cm in areas where vegetation cover is thin. The site footprint is relatively compact. Drainage paths vary across the site and are commonly determined by local topography, which generally drains toward Hudson Strait via the shortest path. The most significant surface water body located within close proximity to site is Hudson Strait.

Indigenous mammals at the site include lemming, arctic fox, polar bear, short-tailed weasel, different kinds of seals and whales. Nottingham Island is also home to birds such as seagulls, ptarmigans, snowy owl, ravens, larks and so on.

- 1.3 Environmental Site Assessments (ESAs) completed on the Nottingham Island site in 2008, 2011 and 2012/13 showed that the site contained substances that require remediation. The current site features identified by the ESAs include:
- 17 buildings most of which are in disrepair having collapsed roofs, missing walls and collapsed floors. Other buildings have some of their portions constructed with asbestos containing materials or other materials constituting hazards to humans, wildlife and the environment.
  - A number of antennae both standing and collapsed;

- A large amount of debris scattered around the site - empty fuel drums, fuel lines, scrap metal, wood, tin cans, machine parts, bricks, electrical wire, batteries, radio equipment and concrete;
- Contaminated Soils (mainly metals and PHCs)
- Two large (empty) above-ground storage tanks (AST);

Consequently, a Remedial Action Plan (RAP) recommending options to clean-up the site was written for the site. The RAP has been scheduled for implementation within the next three (3) years.

- 1.4 Details of the site location, characteristics/features, topography and other details are contained in the drawings attached to this Spill Contingency Plan. The drawings also contain the proposed locations of the camp that will be set up during site remediation to accommodate the site workers.

## **2 Fuel and Hazardous Material Spills - General Information**

- 2.1 This Spill Contingency Plan presents the prescribed course of action to be followed in the case of unanticipated *fuel or chemical spills* during the remediation of the former radio/weather station site at Nottingham Island, Nunavut. The plan will enable persons in a particular spill emergency situation to maximize the effectiveness of the environmental response and meet all regulatory requirements for reporting to the appropriate authorities. The plan also describes the locations where hydrocarbons (fuel) and spill response equipment will be stored at the site.

- 2.2 This current plan follows the standard procedure adopted by PWGSC / AANDC on Crown lands to address unanticipated spills. The procedure has been customised and made specific to the Nottingham Island and made available for regulatory approvals pre-contract award. After the selection of a contractor for the project, the successful contractor will develop a more detailed Spill Contingency Plan which will be included as a component of the Site Specific Health and Safety Plan (SSHSP). The SSHSP is always prepared prior to the commencement of site construction (remediation) activities and it will be posted on-site during the remediation activities. Also, a copy of the SSHSP will be submitted to Nunavut Water Board (NWB) as soon as it is completed. The following information will be included in the SSHSP:

1. a description of pre-emergency planning;
2. personnel roles, lines of authority and communication;
3. emergency alerting and response procedures;
4. evacuation routes and procedures, safe distances and places of refuge;
5. emergency alerting and response procedures;
6. directions/methods of getting to the nearest medical facility;
7. emergency decontamination procedure;

8. emergency medical treatment and first aid;
9. emergency equipment and materials;
10. emergency protective equipment;
11. procedures for reporting incidents; and
12. spill response and containment plans for all materials that could potentially be spilled.

### 3 Types and Quantities of Materials that will be stored on-site

3.1 The types and approximate quantities of fuels that will be stored on-site are:

**Gasoline:** Approximately 1025 L stored in five 205 L barrels;

**Diesel:** Approximately 3075 L stored in fifteen 205 L barrels;

**Oil:** Approximately 40 L of hydraulic oil (two 20 L pails) and 40 L of motor oil (two 20 L pails);

**Propane:** Three (3) 45 kg tanks; and

**Grease:** Approximately 20 tubes stored within two 4 kg cases.

3.2 Method of Storage & MSDS Sheets:

All liquid fuels will be stored in barrels on pallets within a containment area surrounded by a 0.5 m berm and lined with hydrocarbon resistant material. Refueling activities will occur directly from the barrels in the containment area into the respective vehicle. The containment area will be located on flat, even ground at a distance of no less than 30 m away from the camp and any natural drainage area or water body.

Propane will be stored in 45 kg (100 lb) certified tanks near the kitchen tent.

The above quantities are estimates. Upon award of contract, the successful contractor will provide more specific information on the types and actual quantities, of all fuels and chemicals on site.

Contractor will comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding employee training, use, handling, storage and disposal of hazardous materials.

Under the Crown's contracting procedure, the provision of Material Safety Data Sheets (MSDS), as required by WHMIS, is the responsibility of the successful

contractor. Upon the award of contract for the remediation of Nottingham Island project, the successful contractor will prepare the MSDS sheets for all fuels and chemicals he is bringing to site and include the MSDS sheets in the SSHSP which will be submitted to NWB before work can start on the site.

#### **4 Fuel and Hazardous Material Spills Contingency Plan**

- 4.1 The objective of the fuel-related contingency plan is to protect the environment and human health by minimizing the impacts of spill events through clear and concise instructions to all personnel.
- 4.2 A variety of fuels (diesel, gasoline and lubricating oils) will be used during the site remediation of the Nottingham Island remediation site. Fuels will be stored in either barrels of 205 liters or smaller capacity or in double walled tanks. For either storage option, it is anticipated that any spill quantity would likely be small.
- 4.3 Transportation of fuels must comply with the *Transportation of Dangerous Goods Act and Regulations*.
- 4.4 The most common pollution incidents would probably involve spills of diesel or gasoline onto land resulting from: human error during transfer, rupture of barrels from deterioration or damage, seepage from fittings or valves, or equipment failure. Daily checking of equipment and preventative maintenance would identify damage to the fuel system and reduce the risk of spills or leaks.
- 4.5 In the event of a spill, protection of human health and safety is paramount. Contamination of personnel involved in clean up is a real possibility as is contamination of the surrounding workplace and environment.

The individual responding to a spill shall:

- i. Ensure personnel are appropriately trained.
  - a. All employees working on the Nottingham Island Remediation Project, including contractors and sub-contractors, will be trained in the safe operation of all machinery and tools, as well as in the handling of materials to help prevent and respond to hazardous material spills in a timely and effective manner. All employees on site will also be trained for initial spill response in the event of a spill. The recommended training for these purposes consists initially of the 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) course offered by various environmental firms and the 8-Hour HAZWOPER refresher course every two (2) years thereafter.
- ii. Make use of materials and equipment available for adequate response to fuel

spills, such as excavators for creating earthen dykes and hydrocarbon absorbent booms.

- iii. Warn people in the immediate vicinity and evacuate the area if necessary.
- iv. Wear protective clothing as required for handling spills.
- v. Isolate and eliminate all ignition sources.
- vi. Identify the spilled material if possible, and take all safety precautions before approaching it.
- vii. Attempt to immediately stop the leakage and contain the spill, if safe to do so, by implementing the Spill Response Actions summarized in Section 2.5.1 below.
- viii. Report to the Field Team Leader on the spill location, type of material, volume and extent, status of spill (direction of movement), and prevailing meteorological conditions.
- ix. Follow all applicable federal/territorial regulations and guidelines or the disposal of spill materials.
- x. Document all events and actions taken. Include information required by applicable regulations and guidelines.
- xi. Notify appropriate government agencies using the contact list in Table 1 below. Report spills immediately on the 24-Hour Spill Report Line (867) 920-8130.

#### 4.6 Spill Response Actions on Different Media:

##### On Land

- Do not flush into ditches or drainage systems.
- Block entry into waterways and contain with earth, snow or other barrier.
- Remove small spills with sorbent pads.
- On tundra use peat moss and leave in place to degrade, if practical.

##### On Snow & Ice

- Block entry into waterways and contain with snow or other barrier.
- Remove minor spills with sorbent pads and/or snow.
- Use ice augers and pump to recover diesel under ice.
- Slots in ice can be cut over slow moving water to contain oil.

- Burn accumulated diesel from the surface using Tiger Torches if feasible and safe to do so.

#### On Muskeg

- Do not deploy personnel and equipment on marsh or vegetation.
- Remove pooled diesel with pumps and skimmers.
- Flush with low pressure water to herd diesel to collection point.
- Burn only in localized areas, e.g., trenches, piles or windrows.
- Do not burn if root systems can be damaged (low water table).
- Minimize damage caused by equipment and excavation.

#### On Water

- Contain spill as close to release point as possible.
- Use spill containment boom to concentrate slicks for recovery.
- On small spills, use sorbent pads to pick up contained oil.
- On larger spills, use skimmer on contained slicks.
- Do not deploy personnel and equipment onto mudflats or into wetlands

#### Rivers & Streams

- Prevent entry into water, if possible, by building berm or trench.
- Intercept moving slicks in quiet areas using (sorbent) booms.
- Do not use sorbent booms/pads in fast currents and turbulent water.

## **5 Notification & Reporting Procedure on Nottingham Island (Crown Site)**

- 5.1.1 Report to the Project Manager / Site Supervisor, the spill location, type of material, volume and extent of spill, status of spill (direction of movement), and prevailing meteorological conditions.
- 5.2 A person shall immediately report the spill, where there is a spill, or where there is a reasonable likelihood of a spill, in an amount equal to or greater than the amount set out in Schedule B of the NWT / Nunavut *Spill Contingency Planning and Reporting Regulations* or in Schedule A of the *Yukon Spill Regulations*.



- 5.3 Notify appropriate government agencies using the contact list provided below (Table 1)
- 5.4 When reporting a spill, a person shall give as much of the following information as possible:
- i. date and time of spill;
  - ii. location of spill;
  - iii. direction spill is moving;
  - iv. name and phone number of a contact person close to the location of spill;
  - v. type of hazardous product/material spilled and quantity spilled;
  - vi. cause of spill;
  - vii. whether spill is continuing or has stopped;
  - viii. description of existing containment;
  - ix. action taken to contain, recover, clean up and dispose of spilled material;
  - x. name, address and phone number of person reporting spill; and
  - xi. name of owner or person in charge, management or control of hazardous materials at the time of the spill.

## **6 Key Contacts' List**

### **6.1 24-Hour Spill Report Line**

1. In the event of a spill, contact the 24-Hour Spill Report Line and provide them with all the relevant details (as stated in section 5 above). The contact details are:  
Telephone: (867) 920-8130 Fax: (867) 873-6924
2. Environment Canada, as lead agency, shall then be contacted by officials to ensure the appropriate response. The lines are staffed 24 hours a day and can also be used to co-ordinate a response in the event of a non-spill emergency outside of normal working hours.

### **6.2 Other Contacts**

1. Detailed list of contacts in the event of spill emergency or a non-spill emergency (e.g. related to wildlife, fisheries, heritage resources etc.), are provided in Table 1 below.

**Table 1: Contact List**

<b>Resource</b>	<b>Location</b>	<b>Phone Number</b>	<b>Fax Number</b>
24 Hour Spill Line	NWT/Nunavut	(867) 920-8130	(867) 873-6924
Local Fire Department	Luc Grandmaison, Director / Fire Chief Emergency and Protective Services, Government of Nunavut, Iqaluit, Nunavut	(867) 976-5657	(867) 979-0680
Environment Canada, Enforcement Branch	Curtis Didham Enforcement Officer, Environment Canada, Iqaluit, Nunavut	(867) 975-4644	(867) 975-4645
Aboriginal Affairs and Northern Development Canada – Operations Department	Murray Ball Manager, Water Resources, AANDC Iqaluit, Nunavut	867-975-4550	867-975-4286
Government of Nunavut	Robert Eno Director, Environmental Protection, Government of Nunavut Iqaluit, Nunavut	(867) 975-7729	867) 975-7739
Fisheries and Ocean Canada (DFO)	Director, Fisheries and Oceans Canada P.O. Box 2208 Iqaluit, X0A 0H0	(867) 979-8000	(867) 979-8039
Qikiqtani Inuit Association (QIA), Rankin Inlet	Bernie MacIsaac Director of Lands, Qikiqtani Inuit Association (QIA) Igluvut Building, 2nd floor P.O. Box 1340, Iqaluit, NU X0A 0H0	(867) 975-8400	(867) 979-3238
Aboriginal Affairs and Northern Development Canada – Project Proponent	HQ – Gatineau: Dele Morakinyo, AANDC Project Manager OR Iqaluit Office: Natalie Plato, Director, Contaminated Sites & Lands (NRO)	(819) 934-9224  (867) 975-4730	(819) 934-9229  (867) 975-4736
Public Works and Government Services Canada – Project Manager	Program Manager – Jessie Hoyt, PWGSC Project Manager	(780) 497-3786	(780) 497-3842

## **7 NT-NU Spill Report Form**



# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

EMAIL: [spills@gov.nt.ca](mailto:spills@gov.nt.ca)

## REPORT LINE USE ONLY

REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER
		STATION OPERATOR		YELLOWKNIFE, NT	(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					

## **8      MAPS - Site Location, Features and Topography Maps**



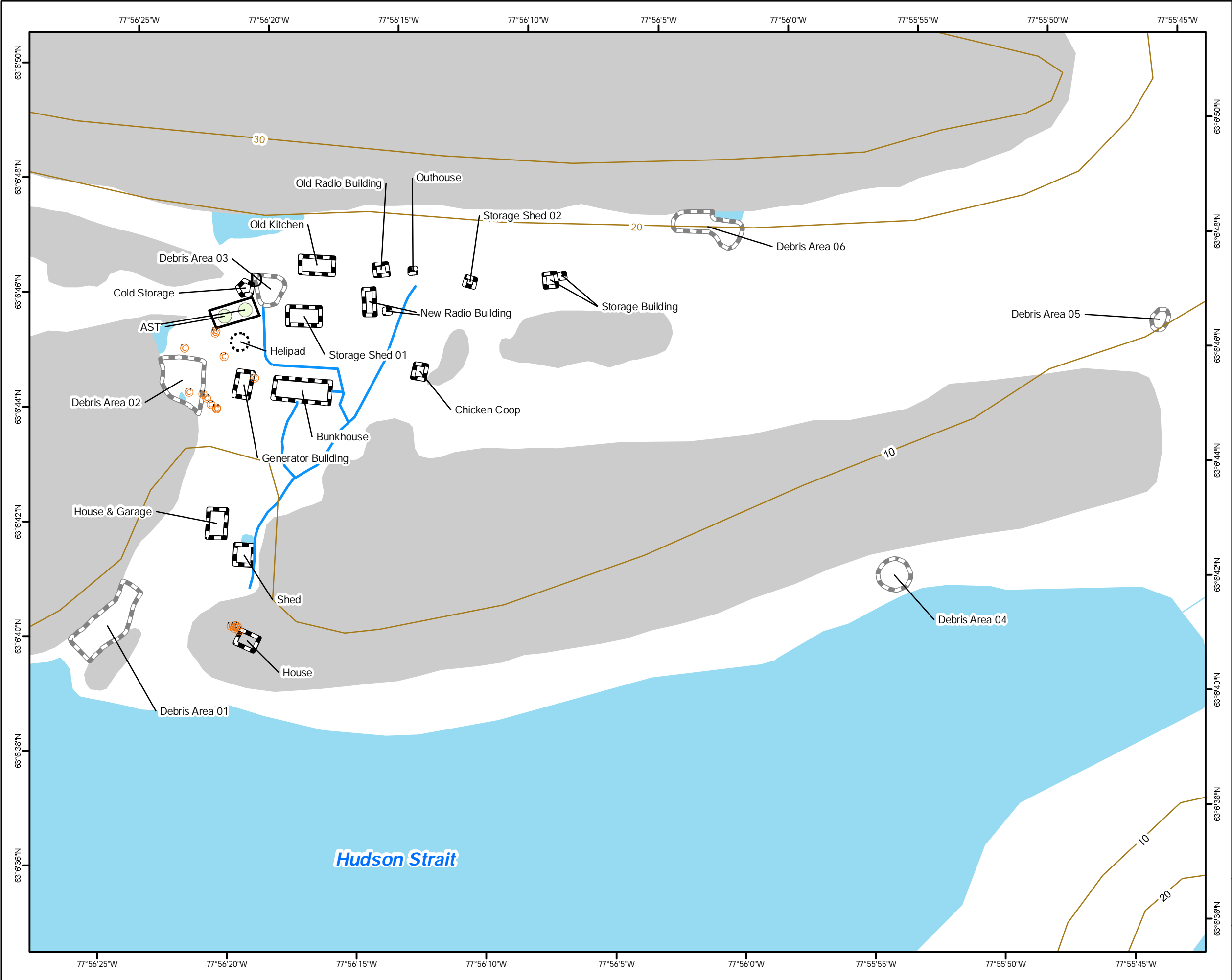
SOURCE: 1:250,000 NATIONAL TOPOGRAPHIC DATA BASE

### Legend

X SITE COORDINATES



**Cape Dorset 2 (Nottingham Island) Site Location - South Baffin (Qikiqtaaluk) surrounded by three communities (Cape Dorset (Nunavut); and Ivujivik & Salluit (Quebec))**

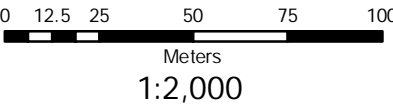


LEGEND

- Contours (masl)
- Features**
  - Drum(s)
  - Burn Pit
  - Drainage Channel
  - Structure Footprint
  - Debris Area
  - Ponded Water




REFERENCE

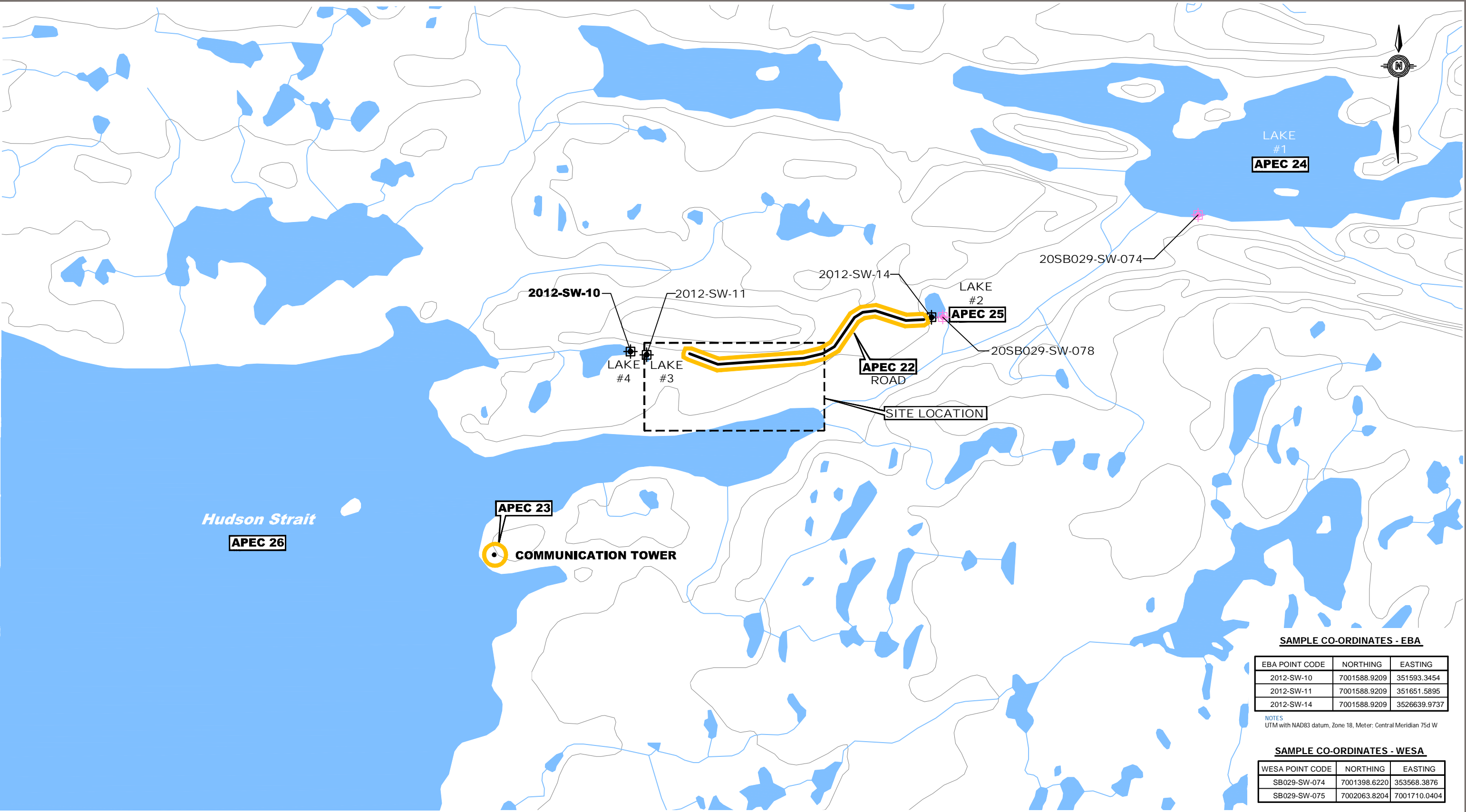


PROJECT  
2010 INAC CONTAMINATED SITES FIELD PROGRAM

TITLE  
SB029 - CAPE DORSET (NOTTINGHAM ISLAND)  
SITE OVERVIEW

 WESA A Better Environment For Business	PROJECT No. KB9326			FIGURE 2
	DESIGN	KC		
	GIS	KC	11/08/2010	
	CHECK	MC	11/08/2010	
	REVIEW	AS	11/08/2010	

Q:\Edmonton\Drafting\PROJECTS\Y221\Y22101291 Nottingham\report components\acad\Phase II\Y22101291\_Figure 1-2 FINAL.dwg (FIGURE 2) January 09, 2013 - 10:12:33 am (BY: MARSH, MAUREEN)



**SAMPLE CO-ORDINATES - EBA**

EBA POINT CODE	NORTHING	EASTING
2012-SW-10	7001588.9209	351593.3454
2012-SW-11	7001588.9209	351651.5895
2012-SW-14	7001588.9209	3526639.9737

NOTES  
UTM with NAD83 datum, Zone 18, Meter; Central Meridian 75d W

**SAMPLE CO-ORDINATES - WESA**

WESA POINT CODE	NORTHING	EASTING
SB029-SW-074	7001398.6220	353568.3876
SB029-SW-075	7002063.8204	7001710.0404

**LEGEND**

- APEC - AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- SURFACE WATER SAMPLE LOCATION - EBA
- SURFACE WATER SAMPLE LOCATION - WESA

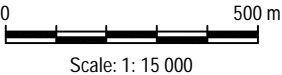
**EBA SAMPLE  
(EBA SAMPLE ID IN BLACK)**

- BELOW APPLICABLE PHC CRITERIA
- ABOVE APPLICABLE PHC CRITERIA

**WESA SAMPLE  
(WESA SAMPLE ID IN GREY)**

- BELOW APPLICABLE PHC CRITERIA
- ABOVE APPLICABLE PHC CRITERIA

**ISSUED FOR USE**



**CLIENT**

Public Works and Government Services Canada  
Travaux publics et Services gouvernementaux Canada



**PHASE III ENVIRONMENTAL SITE ASSESSMENT  
FORMER WEATHER STATION  
NOTTINGHAM ISLAND, NU**

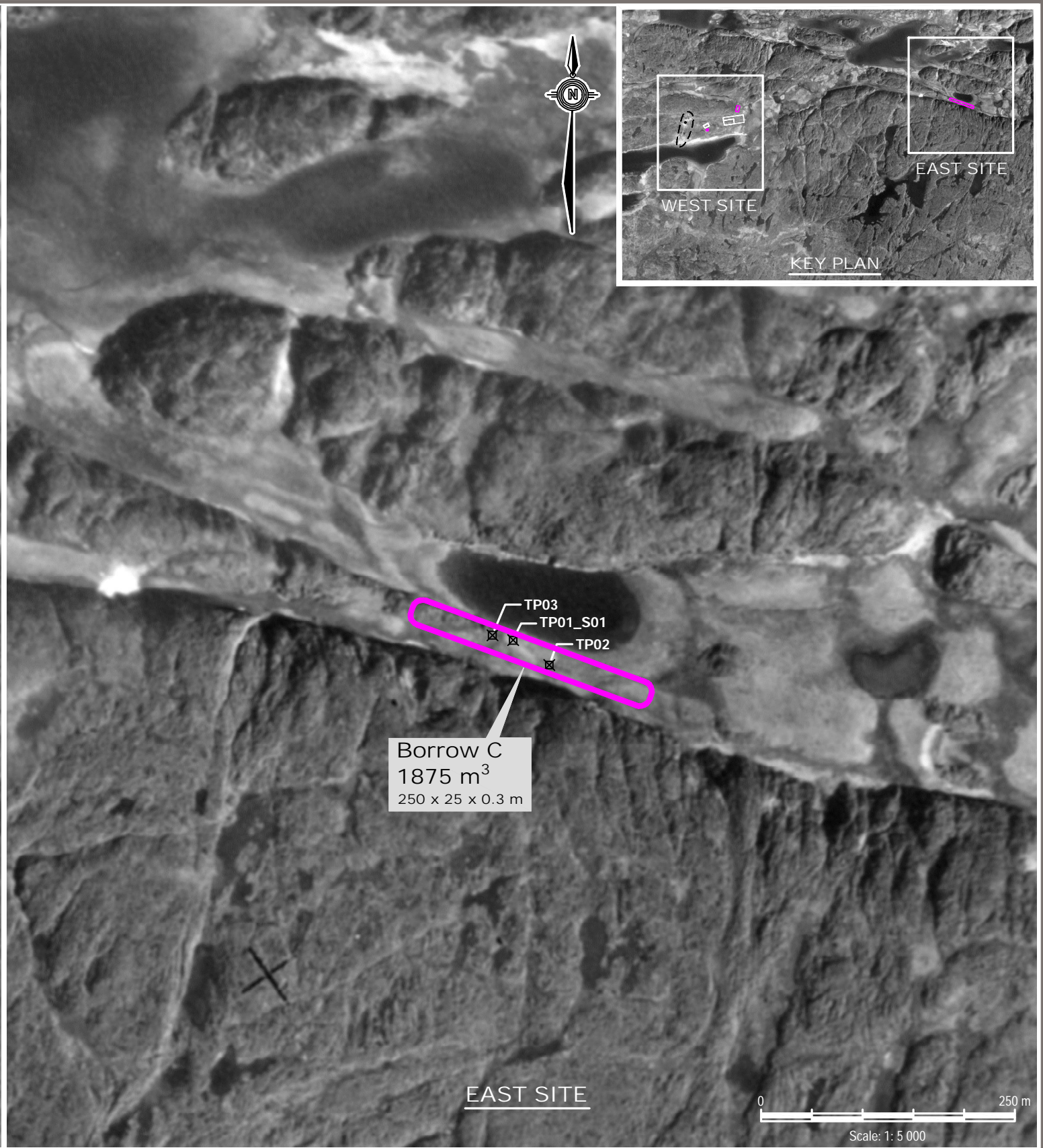
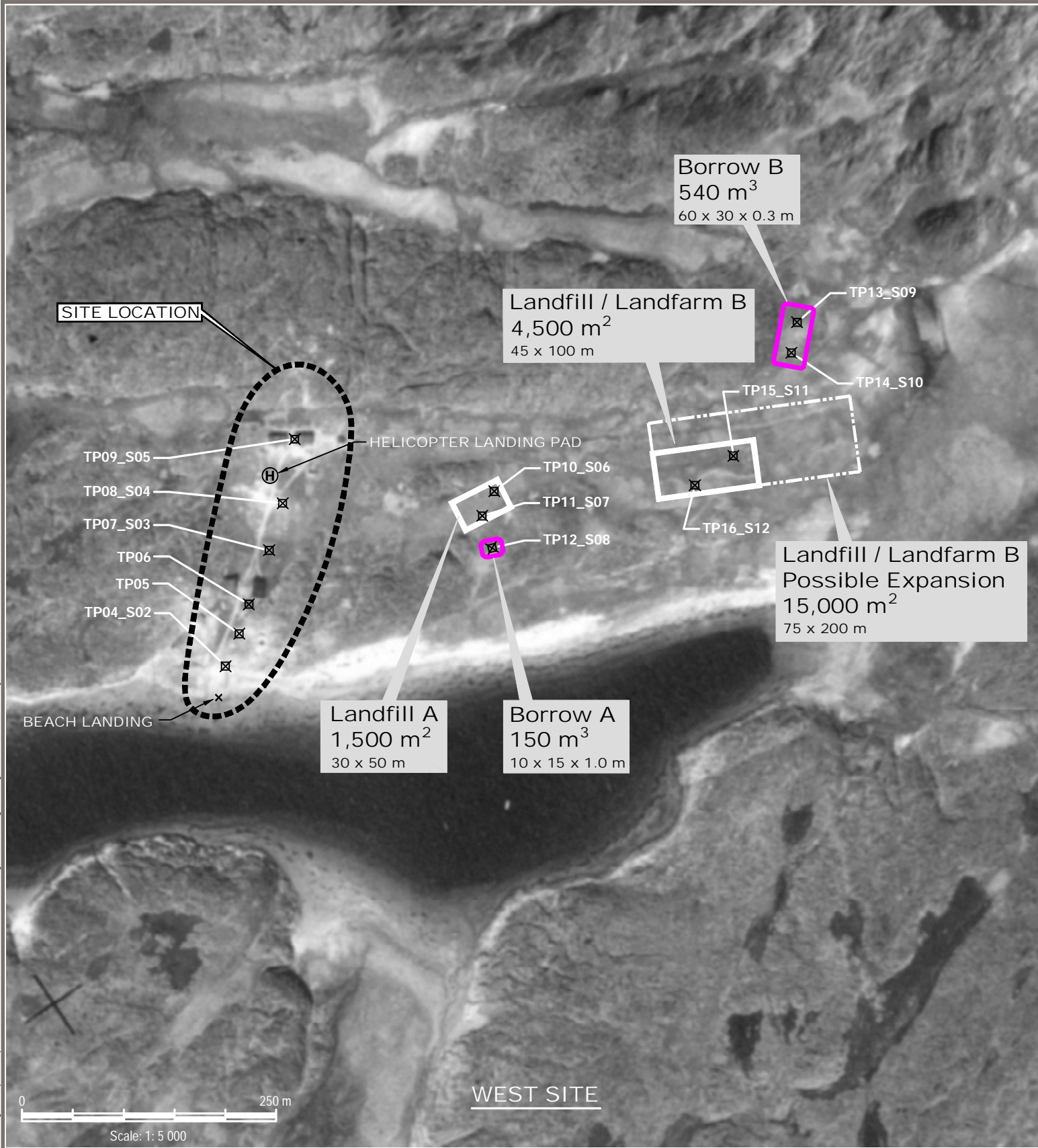
**SITE PLAN  
SHOWING AREAS OF INTEREST  
OUTSIDE OF PROJECT LOCATION**

PROJECT NO. Y22101291	DWN MM	CKD KL	REV 0
OFFICE EDM	DATE January 2013		

**Figure 2**



Q:\Edmonton\Drafting\PROJECTS\Y221\Y22101291 Nottinghamreport components\acad\Phase III\Geotech\Y22101291\_Figure G2 nottingham.dwg [FIGURE G2] January 09, 2013 - 10:38:19 am (BY: MARSH, MAUREEN)




SAMPLE CO-ORDINATES - EBA		
EBA POINT CODE	NORTHING	EASTING
TP01_S01	7,001,730.7	354,442.2
TP02	7,001,706.2	354,477.8
TP03	7,001,735.5	354,421.7
TP04_S02	7,001,337.6	351,696.7
TP05	7,001,369.5	351,710.2
TP06	7,001,398.5	351,719.8
TP07_S03	7,001,451.6	351,739.8
TP08_S04	7,001,497.9	351,753.0


EBA POINT CODE	NORTHING	EASTING
TP09_S05	7,001,560.9	351,764.9
TP10_S06	7,001,509.5	351,961.2
TP11_S07	7,001,485.5	351,949.5
TP12_S08	7,001,453.9	351,959.2
TP13_S09	7,001,675.9	352,259.5
TP14_S10	7,001,645.9	352,253.9
TP15_S11	7,001,544.5	352,196.7
TP16_S12	7,001,515.7	352,158.9

**NOTES**  
UTM with NAD83 datum, Zone 18, Meter; Central Meridian 75d W

**ISSUED FOR USE**

**CLIENT**

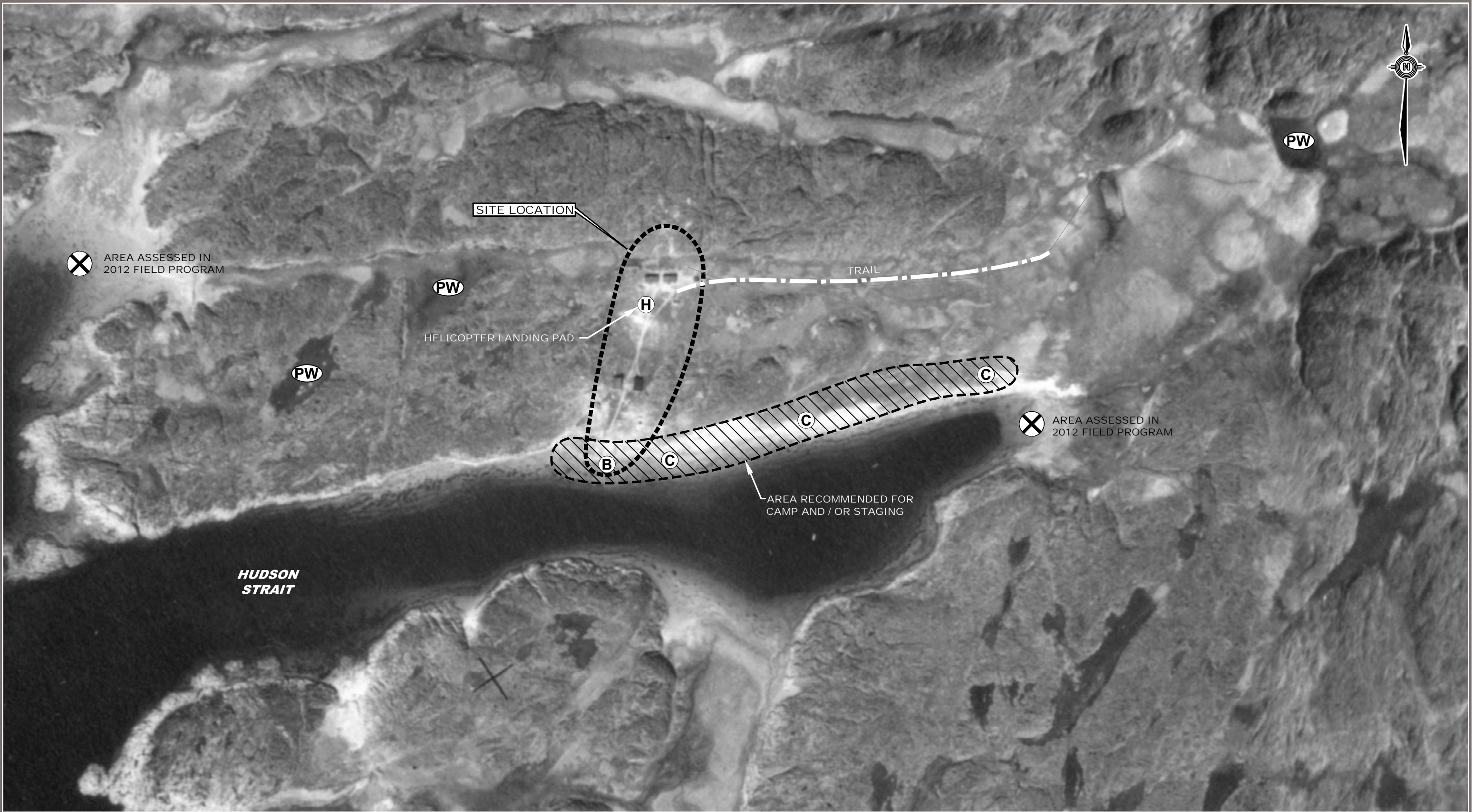
 Public Works and Government Services Canada  
Travaux publics et Services gouvernementaux Canada

  
**A TETRA TECH COMPANY**





PHASE III ENVIRONMENTAL SITE ASSESSMENT FORMER WEATHER STATION NOTTINGHAM ISLAND, NU				
SITE PLAN SHOWING TESTPIT LOCATIONS AND AREAS OF BORROW, LANDFARM AND LANDFILL				
PROJECT NO. Y22101291	DWN MM	CKD KK	REV 0	Figure G2
OFFICE EDM	DATE January 2013			



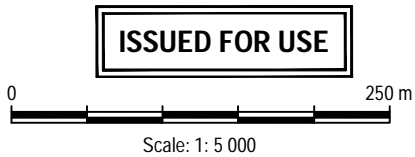
Q:\Edmonton\Drafting\PROJECTS\Y221\Y22101291 Nottinghamsite\components\cad\RAP\Y22101291\_RAP\_Figure G-1 to G-4 IFU.dwg [FIGURE G-1] April 03, 2013 - 3:14:30 pm (BY: MARSH, MAUREEN)



**LEGEND**

-  - LOCATION NOT RECOMMENDED FOR CAMP / STAGING / LANDING
-  - POTENTIAL BEACH LANDING AREA
-  - POTENTIAL CAMP STAGING AREA
-  - POTENTIAL POTABLE WATER SOURCE AREA

**NOTES**  
UTM with NAD83 datum, Zone 18, Meter; Central Meridian 75d W



**CLIENT**

 Public Works and  
Government Services  
Canada

Travaux publics et  
Services gouvernementaux  
Canada



REMEDIAL ACTION PLAN FORMER WEATHER STATION NOTTINGHAM ISLAND, NU				
SITE PLAN SHOWING RECOMMENDED LOCATION FOR CAMP AND / OR STAGING AREAS				
PROJECT NO. Y22101291	DWN MM	CKD KK	REV 0	Figure G-1
OFFICE EDM	DATE April 2013			

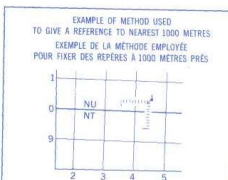
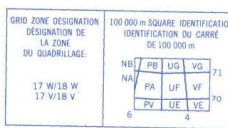




THE LIMITS OF THE LAND PARCELS WITHIN THE LAND CLAIM SETTLEMENT AREA ARE DEPICTED IN APPROXIMATE LOCATIONS. THE TERRITORIAL LIMITS OF NUNAVUT WILL COME INTO FORCE APRIL 1, 1999.

LES LIMITES DES PARCELLES DE TERRAIN SITUÉES À L'INTÉRIEUR DE LA ZONE DE RÉGLEMENT DES RÉVENDICATIONS TERRITORIALES SONT APPROXIMATIVES. LES LIMITES DÉFINISSANT LE TERRITOIRE DU NUNAVUT SERONT OFFICIELLEMENT ADOPTÉES LE 1<sup>er</sup> AVRIL 1999.

TEN THOUSAND METRE  
UNIVERSAL TRANSVERSE MERCATOR GRID  
ZONE 17-18  
QUADRILAGE UNIVERSEL TRANSVERSE DE MERCATOR  
DE DIX MILLE MÈTRES



REFERENCE POINT  
POINT DE RÉFÉRENCE CHURCH-ÉGLISE (as above)  
(ci-dessus)

SQUARE: Read letters of 100 000m square  
CARRÉ: Lire les lettres du carré de 100 000m

EASTING: Read number on grid line immediately to left of point.  
ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère.

Estimate tenths of a square from this line eastward to point.  
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est.

NORTHING: Read number on grid line immediately below point.  
ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère.

Estimate tenths of a square from this line northward to point.  
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord.

GRID REFERENCE: NU4504  
RÉFÉRENCE AU QUADRILAGE: NU4504

If reporting beyond 18° in any direction, prefix Grid Zone designation as 14VNU4504.  
Si vous faites connaître votre position à quelqu'un qui se trouve à plus de 18°, peu importe la direction, indiquez également la zone du quadrillage tel que 14VNU4504.

PRODUCED BY THE SURVEYS AND MAPPING BRANCH,  
DEPARTMENT OF ENERGY, MINES AND RESOURCES,  
INFORMATION CURRENT AS SHOWN IN DIAGRAM. PUBLISHED  
IN 1986.

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DEPARTMENT OF ENERGY, MINES AND RESOURCES, OTTAWA,  
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DEPARTMENT OF ENERGY, MINES AND RESOURCES.  
INTERIM CORRECTIONS 1996.

Information concerning bench marks and horizontal survey  
monuments can be obtained from Geomatics Survey, Survey  
and Mapping Branch, Ottawa.

Pour tout renseignement concernant les repères et bornes  
altimétriques, s'adresser aux services géomatiques, Direction  
des levés et de la cartographie, Ottawa.

ÉTABLI PAR LA DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE,  
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES,  
RÉVISIONS RÉGULIÈRES À JOUR TELS QU'INDIQUÉS AU DIAGRAMME.  
PUBLIÉE EN 1986.

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# NOTTINGHAM ISLAND

## NORTHWEST TERRITORIES TERRITOIRES DU NORD-OUEST

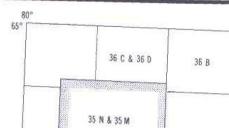
Roads:  
cart track ..... de terre .....  
trail, cut line or portage ..... sentier, percée ou portage .....

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO



CONVERSION SCALE FOR ELEVATIONS ÉCHELLE DE CONVERSION DES ALTITUDES

Metres 30 20 10 0



1966

This map was checked in 1987 and updated in all minor details.