



**2010 Annual Report
to the
Nunavut Water Board**

**Licensee: Department of National Defence,
Government of Canada**

Licence: 3BC-BAF0919 – Type “B”

**Location: BAF-3 North Warning System Site,
Brevoort Island, Qikiqtani Region, Nunavut**

**Report prepared by: Nasittuq Corporation,
25 March 2011**



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Executive Summary

This 2010 Annual Report to the Nunavut Water Board (NWB) is submitted as required by the licence issued 10 September 2009 3BC-BAF0919 – Type “B”, Part B. General Conditions, paragraph 1.

BAF-3 is an unattended (unmanned) North Warning System radar site on Brevoort Island, Nunavut. The site is visited quarterly for preventive maintenance inspections and as required for other work by Nasittuq staff based out of the Logistics Support Site - Iqaluit (LSS-Q), Iqaluit, Nunavut. The site was temporarily attended (manned) due to project activity from June to November. One main project was the clean-up and remediation of a fuel spill that occurred in 2007; this was the fourth year of this work.

The annual water usage was 802.9 cubic meters. This is below the 1,750 cubic meters annual maximum allowed by the current licence.

The water contained in the berms of fuel storage facilities was sent for laboratory analysis and confirmed to be within effluent quality limits before the water was pumped out of the berms.

Hazardous waste was removed from the site for disposal outside of Nunavut. The waste went to Recyclex Inc, 8381 Place Marien, Montreal, QC, H1B 5W6. The waste was 235 drums of assorted waste (fuel, fuel soaked absorbent, oil, glycol, etc.) and 3 crates of batteries. Most of the drums were from the fuel spill clean-up.

Nonhazardous domestic solid waste was flown out to LSS-Q and disposed of at Iqaluit's landfill.



The sewage effluent was sent for laboratory analysis. A sump for the sewage outfall was built as described in the submitted Sewage Disposal Update.

One outdoor spill (2 liters Jet A1 fuel) occurred and was cleaned up immediately. It is NT-NU Spill Line # 10-325.

The Spill Contingency Plan was not revised.

2010 was Year 4 of the on-going clean-up and remediation of the January 2007 Jet A1 fuel spill (reported in the 2007 Annual Report). From 2011 onward, monitoring will be the main activity.



Introduction

This 2010 Annual Report to the Nunavut Water Board (NWB) is submitted as required by the licence issued 10 September 2009 3BC-BAF0919 – Type “B”, Part B. General Conditions, paragraph 1.

BAF-3 is an unattended (unmanned) North Warning System radar site on Brevoort Island, Nunavut. The site is visited quarterly for preventive maintenance inspections and as required for other work by Nasittuq staff based out of the Logistics Support Site - Iqaluit (LSS-Q), Iqaluit, Nunavut. The site was temporarily attended (manned) due to project activity from June to November. One main project was the clean-up and remediation of a fuel spill that occurred in 2007; this was the fourth year of this work.

Water Drawn from BAF-1

The annual water usage was 802.9 cubic meters. This is below the 1,750 cubic meters annual maximum allowed by the current licence.

Table 1. Monthly and annual raw water drawn in 2010.

Month	Raw water drawn in cubic meters (m³)
January	0
February	0
March	0
April	0
May	0
June	0
July	166.5
August	0
September	49.0
October	512.0
November	75.4
December	0
TOTAL	802.9

Hazardous Waste and Waste Oil Disposal

Hazardous waste and waste oil were sent to an approved hazardous waste disposal site outside of Nunavut as required by the licence. The waste was sent to Recyclex, 8381 Place Marien, Montreal-Est, QC, H1B 5W6. The waste receiver number for Recyclex is 7610-06-01-01723111-40086392.

See Annex A for 2010 shipping documents: the completed movement documents for waste regulated under the Transportation of Dangerous Goods Regulations (TDGR) and Nasittuq Manifests for non-regulated waste.

Table 2 below lists the items sent for disposal.

Table 2. Summary of waste sent for disposal in 2010.

Site	Description, TDG shipping name	Quantity	Movement Document or Nasittuq Manifest #
BAF-3	Waste gasoline	2 drums	Mov. Doc. 2464234-0
BAF-3	Waste fuel contaminated soil Waste solids containing flammable liquid, n.o.s. (fuel, aviation, turbine engine)	2 drums	Mov. Doc. 2464234-0
BAF-3	Waste batteries, wet, filled with acid	2 crates	Mov. Doc. 2464234-0
BAF-3	Waste batteries, wet, non-spillable	1 crate	Mov. Doc. 2464234-0
BAF-3	Waste POL soaked absorbent Waste solids containing flammable liquid, n.o.s. (fuel, aviation, turbine engine)	36 drums	Mov. Doc. 2464245-6
BAF-3	Waste fuel Waste fuel, aviation, turbine engine	182 drums	Mov. Doc. 2464245-6
BAF-3	Waste oily rags Waste solids containing flammable liquid, n.o.s. (fuel, aviation, turbine engine)	1 drum	Mov. Doc. 2464246-4
BAF-3	Waste oil	10 drums	Nas. Man. 23617, 23620, 23621
BAF-3	Waste glycol	2 drums	Nas. Man. 23620

Nonhazardous Solid Waste Disposal

Nonhazardous domestic solid waste was flown out to LSS-Q and disposed of at Iqaluit's landfill. July waste included 726 kg of waste wood. The BAF-3 landfill still exists (see Annex F).

Table 3. Monthly and annual nonhazardous domestic solid waste sent for disposal in 2010.

Month	Waste generated (kg)
January	280
February	90
March	141
April	0
May	179
June	653
July	2,848
August	30
September	0
October	110
November	20
December	0
TOTAL	4,351

Monitoring Program

See Annex B for the location of the sewage effluent outfall, BAF-2. A sump for the sewage outfall was built as described in the submitted Sewage Disposal Update.

See Annex C for analysis of the treated sewage effluent.

See Annex D for the list of bermed fuel storage facilities with GPS coordinates.

See Annex E for analysis of berm water (water contained in the berms of fuel storage facilities). The results were confirmed to be within effluent quality limits before the water was pumped out of the berms.

Spills (Unauthorized Discharges)

One outdoor spill occurred. It is listed in Table 4 below.

Table 4. Outdoor spill in 2010.

Date, Spill #	Product	Quantity	Cause and follow-up action	Location at BAF-3
30 Jul 2010, Spill # 10-325	Jet A1 fuel	2 liters	Faulty dry break coupling at helipad refueller. Replaced faulty dry break coupling. Impacted soil was removed and placed into a drum for retrograde.	Helipad refueller

* Drums are retrograded to a licensed waste disposal company outside of Nunavut.

Revisions to the Spill Contingency Plan

The Spill Contingency Plan was not revised.

Progressive reclamation work undertaken

2010 was Year 4 of the on-going clean-up and remediation of the January 2007 Jet A1 fuel spill (reported in the 2007 Annual Report). From 2011 onward, monitoring will be the main activity. Annex G contains the 2010 field results and the plan for 2011.

Annex A

2010 Movement documents for regulated waste and Nasittuq manifests for non-regulated waste.

Note: On some completed movement documents (i.e. Parts A, B, and C completed), the shipping names in Part A are too faint to read. In such cases, another copy of the movement document with a legible Part A has been included.



2464234-0

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courrier électronique Tel. No. / N° de tél. Shipping site address / Adresse du lieu de l'expédition City / Ville Province Postal code / Code postal Intended Receiver / consignee Réceptionnaire / destinataire prévu Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courrier électronique Tel. No. / N° de tél. Receiving site address / Adresse du lieu de l'expédition City / Ville Province Postal code / Code postal	B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courrier électronique Tel. No. / N° de tél. Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{er} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Registration No. / N° d'immatriculation Port of entry / Point d'entrée International use only Port of exit / Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au récepteur / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) : Year / Année Month / Mois Day / Jour Signature	Reference Nos. of other movement documents (if applicable) used / N° de référence des autres documents de mouvement (si applicables) utilisés C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A. Les renseignements du récepteur / destinataire est le même qu'à la Partie A. <input checked="" type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courrier électronique Tel. No. / N° de tél. Receiving site address / Adresse du lieu de destination Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Quantity received / Quantité reçue</th> <th>Units / Unités</th> <th>Comments / Commentaires</th> <th>Handling Code / Code de manutention</th> <th>Shipment / Envoi</th> <th>Accepted / Accepté</th> <th>Refused / Refusé</th> <th>Pack. Cont.</th> <th>Discont. / Ve. Cont.</th> </tr> </thead> <tbody> <tr> <td>300</td> <td>Lt</td> <td></td> <td>O1</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>350</td> <td>N</td> <td></td> <td>O1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>400</td> <td>N</td> <td></td> <td>O1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>425</td> <td>Kg</td> <td></td> <td>O1</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Quantity received / Quantité reçue	Units / Unités	Comments / Commentaires	Handling Code / Code de manutention	Shipment / Envoi	Accepted / Accepté	Refused / Refusé	Pack. Cont.	Discont. / Ve. Cont.	300	Lt		O1	X					350	N		O1						400	N		O1						425	Kg		O1	X				
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Prov. code	Shipping name / Appellation réglementaire	Class / Classe / Sub class / Sous-classe	UN No. / N° UN	Packing / Risk gr. / Gr. d'emballage / de risque	Quantity shipped / Quantité expédiée	Units / Lor. / ou kg / Lbs	Packaging / Content Codes / N° / N°	Phys. state / État phys.
(I)	WASTE GARBAGE	3	303	II	300	L	2	01
(II)	HAZARDOUS WASTE	4.1	3175	II	350	Kg	01	5
(III)	HAZARDOUS WASTE	5	324	III	450	Kg	2	07
(IV)	HAZARDOUS WASTE	5	324	III	425	Kg	1	07

Notice No. / N° de notification	Notice Line No. / N° de ligne de la notification	Shipment / Envoi	Off / Dé	D or R code / Code D ou R	C code / Code C	Base Annex VII or OECD Code / Annexe VIII de Bâle ou Code OCDE	H code / Code H	Y code / Code Y	Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes
(I)	24 HR NUMBER CERTIFIED										
(II)	USE IN CASE OF DANGEROUS GOODS EMERGENCY										

INTERNATIONAL USE ONLY

*for / consigneur certification: I certify that the information contained in Part A is correct and true / producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et véridiques.

Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie):

Signature:

Tel. No. / N° de tél.:

Mailed by Consignee to Consignor - Postée par le destinataire à l'expéditeur

Copy / Copie 6 (brown / brun)



2464234-0

A Generator / consigneur Producteur / expéditeur Company name / Nom de l'entreprise <u>NUG 10003</u> <u>DND / C/o NASIHUO CORP.</u> <u>22 KING ST. #101, MORNELL HEIGHTS ON POH-16</u> Email / Courriel électronique : _____ Shipping site address / Adresse du lieu d'expédition <u>NWS LRR BAF-3</u> <u>BREVORT ISLAND, N.V.</u> Intended receiver / consignee Réceptionnaire / destinataire prévu <u>RECYCLEX INC.</u> <u>8381 PLACE MARIE, MONTREAL PQ H1B 5W6</u> Receiving site address / Adresse du lieu de réception <u>RECYCLEX INC.</u> <u>8381 PLACE MARIE, MONTREAL, PQ H1B 5W6</u>	B Carrier Transporteur Company name / Nom de l'entreprise Mailing address / Adresse postale : _____ City/Ville : _____ Province : _____ Postal code / Code postal : _____ E-mail / Courriel électronique : _____ Tel. No. / N° de tél. : _____ Vehicle / Véhicule Trailer - Rail car No. 1 2 ^e remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Port of entry / Point d'entrée : International use only Port of exit / Point de sortie : International use only Carrier Certification : I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au récepteur / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print) : _____ Tel. No. / N° de tél. : _____ Nom de l'agent autorisé (caractères d'imprimerie) : _____ Year / Année : _____ Month / Mois : _____ Day / Jour : _____ Signature : _____	C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial : _____ Receiver / consignee information same as in Part A Les renseignements du récepteur / destinataire est la même qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale : _____ City/Ville : _____ Province : _____ Postal code / Code postal : _____ E-mail / Courriel électronique : _____ Tel. No. / N° de tél. : _____ Receiving site address / Adresse du lieu de destination : _____ Date received / Date de réception : Year / Année : _____ Month / Mois : _____ Day / Jour : _____ Time / Heure : _____ AM PM If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire : _____ Registration ID No. / N° d'immatriculation/d'id provincial : _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Quantity received / Quantité reçue</th> <th>Units / Unités</th> <th>Comments / Commentaires</th> <th>Handling / Code de manipulation</th> <th>Shipment / Envoi</th> <th>Decort. / Pack. Vot.</th> </tr> </thead> <tbody> <tr> <td>()</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>()</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>()</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>()</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> If handling code "Other" (specify) Si code de manipulation « autre » (spécifier) : _____ Receiver / consignee certification : I certify that the information contained in Part C is correct and complete. Attestation du récepteur / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets. Name of authorized person (print) : _____ Tel. No. / N° de tél. : _____ Nom de l'agent autorisé (caractères d'imprimerie) : _____ Signature : _____ Special handling / Manipulation spéciale <input type="checkbox"/> Attached CI joint : _____ <input type="checkbox"/> As follows / Ci contre : _____ Date shipped / Date d'expédition : Year / Année : _____ Month / Mois : _____ Day / Jour : _____ Time / Heure : _____ AM PM Scheduled arrival date / Date d'arrivée prévue : Year / Année : _____ Month / Mois : _____ Day / Jour : _____	Quantity received / Quantité reçue	Units / Unités	Comments / Commentaires	Handling / Code de manipulation	Shipment / Envoi	Decort. / Pack. Vot.	()						()						()						()					
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()	WASTE GASOLINE	3	UN 1203	II	300	L	2 01 L	
()	WASTE OILS CONTAINING FLAMMABLE SOLIDS	4.1	UN 3175	II	350	Kg	2 01 S	
()	WASTE BATTERIES, wet, FILLER WITH ACID	*	UN 2794	III	450	Kg	2 07 S	
()	WASTE BATTERIES, wet, NON SPILLABLE	*	UN 2800	III	425	Kg	1 07 S	

Notice No. / N° de notification	Notice Line No. / N° de ligne de la notification	Shipment / Envoi	ORI/De	D or R code / Code D ou R	C code / Code C	Basel Annex VII or OECD Code / Annexe VII de Bâle ou Code OCDE	H code / Code H	Y code / Code Y	Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes	National code in country of / Code du pays
() *	DANGEROUS goods CERTIFICATE NO. SU8074 - BY ROAD OR RAILWAY VEHICLE OR BY SHIP ON DOMESTIC VOYAGE - EXPIRY DATE JUNE 30 2012											
()	24 HR NUMBER: CADUTEL 613-994-6666 COLLECT USE IN CASE OF DANGEROUS GOODS EMERGENCY											

Generator / consigneur certification: I certify that the information contained in Part A is correct and complete.
 Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.
 Name of authorized person (print) / Nom de l'agent autorisé (caractères d'imprimerie): PAT GRAVELLE
 Signature: [Signature] Tel. No. / N° de tél.: 494-2011
 703 EXT 2299

Retained by Consignor (Generator) - Gardée par l'expéditeur

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A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Shipping site address / Adresse du lieu de l'expédition City / Ville Province Postal code / Code postal Intended Receiver / consignee Réceptionnaire / destinataire prévu Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Receiving site address / Adresse du lieu de l'expédition City / Ville Province Postal code / Code postal	B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{er} remorqueur - wagon Trailer - Rail car No. 2 2 ^e remorqueur - wagon Port of entry / Point d'entrée International use only Port of exit / Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable materials from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matériaux recyclables du producteur / expéditeur en vue de leur livraison au Réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): Year / Année Month / Mois Day / Jour Signature:	C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A Les renseignements du Réceptionnaire / destinataire est le même qu'à la Partie A <input checked="" type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Receiving site address / Adresse du lieu de destination Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matériaux recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial																																																											
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MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

2464245-6

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial #1610003 Company name / Nom de l'entreprise DND C/NASITTUQ CORP. Mailing address / Adresse postale 22 WING, Bldg 109, HOWELL HEIGHTS, QUEBEC P0H 1A9 City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Shipping site address / Adresse du lieu de l'expédition NWS LRR BAF-3 City / Ville Province Postal code / Code postal BREVORT ISLAND, NU.		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{er} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Registration No. / N° d'immatriculation Port of entry Point d'entrée Port of exit Point de sortie Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au récepteur / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie): Year / Année Month / Mois Day / Jour Signature:		C Receiver / consignee Récepteur / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A. Les renseignements du récepteur / destinataire est la même qu'à la Partie A. <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. Receiving site address / Adresse du lieu de destination Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation / d'id. provincial Quantity received / Quantité reçue Units / Unités L or / ou Kg Comments / Commentaires Handling / Code de manipulation Accepted / Refused / Accepté / Refusé Shipment / Envoi Accepted / Refused / Accepté / Refusé Decor. / Veh. Pack. / Cont. Veh. If handling code "Other" (specify) Si code de manipulation « autre » (spécifier) Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. Attestation du récepteur / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. Signature Tel. No. / N° de tél. Special handling / Manipulation spéciale <input type="checkbox"/> Attached (Ci-joint) <input type="checkbox"/> As follows / Ci-contre Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour																							
Prov. code Code prov.		Shipping name Appellation réglementaire		Class / Classe Sub. class(es) / Sous-classe(s)		UN No. N° UN		Packing / risk gr. Gr. d'emballage de risque		Quantity shipped Quantité expédiée		Units Unités		Packaging/Container No. / N°		Phys. state État phys.											
(i)		WASTE SOLIDS (CAUTION: FLAMMABLE & TOXIC) (FUEL) AVIATION TURBINE ENGINE		4.1		3125		II		2472		Kg		36		01 S											
(ii)		WASTE FUEL, AVIATION TURBINE ENGINE		3		1863		III		17,820		L		182		01 L											
(iii)																											
(iv)																											
Notice No. N° de notification		Notice Line No. N° de ligne de la notification		Shipment Envoi		Of / De		D or R code Code E ou R		C code Code C		Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE		H code Code H		Y code Code Y		National code in country of / Code du pays		Export Exportation		Import Importation		Customs code(s) Code(s) de douanes		If handling code "Other" (specify) Si code de manipulation « autre » (spécifier)	
(i)																											
(ii)																											
(iii)																											
(iv)																											
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets.		Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) PAT CRAVELLE		Signature P. Cravelle		Tel. No. / N° de tél. 905 494-2011 ext. 2944																					

MOE 04-1917 (07/07)

Retained by Consignor (Generator) - Gardée par l'expéditeur

Copy / Copie 2 (green / vert)

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifeste conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

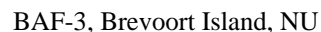
2464246-4

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

[illegible]

Mailed by Consignee to Consignor - Postée par le destinataire à l'expéditeur

Copy / Copie 6 (brown / brun)





NASITTUQ MANIFEST

Suite 100, 170 Laurier Avenue W., Ottawa, ON K1P 5V5

NON NEGOTIABLE

Filed By: PGRAVELLE	Date: 08-Jul-10	TCN-23617	
Ship To RECYCLEX INC. 8381 PLACE MARIEN MONTREAL QC H1B 5W8 514-355-4150	From BAF-3, BREVOORT ISLAND, DND Storeroom Nasittuq Corporation, NWS LSS Iqaluit, P.O. Box 1089 Iqaluit NU X0A 0H0 867-979-4818	Priority	

Attention:		Attention:			
Carrier: NEAS	Routing: 1.5 m3	Waybill #:	Type: PALLET	Total Pcs: 1	Total Weight: 844 KG

QTY	Line	Item	Description	WO or PO	B/Code or S/N	Remarks
	Order	Weight				
4	2002406		WASTE - OIL (45 GALLON DRUM)	304262,309192,308144 304264		PALLET # 4

NOTE: All claims related to this shipment have to be filled with Nasittuq within 45 hours of receipt.

Received By	Date
Received By	Date



NASITTUQ MANIFEST

Subs 100, 170 Laurier Avenue W., Ottawa, ON K1P 5V5

NON NEGOTIABLE

Filed By: P GRAVELLE	Date: 08-Jul-10	TCN-23620	
Ship To RECYCLEX INC. 8381 PLACE MARIEN MONTREAL QC H1B 5W6 514-355-4150	From BAF-3, BREVOORT ISLAND, DND Storeroom Nasittuq Corporation, NWS LSS Iqaluit, P.O. Box 1089 Iqaluit NU X0A 0H0 867-979-4818	Priority	

Attention:		Attention:			
Carrier: NEAS	Routing: 1.5 m3	Waybill #:	Type: PALLET	Total Pcs. 1	Total Weight: 844 KG

QTY	Line	Item	Description	WO or PO	B/Code or S/N	Remarks
2		2002344	WASTE - GLYCOL (DRUM)	EIN 308950,308145		PALLET # 5
2		2002406	WASTE - OIL (45 GALLON DRUM)	EIN 302716,304265		PALLET # 5

NOTE: All claims related to this shipment have to be filled with Nasittuq within 45 hours of receipt.

Received By	Date
Received By	Date



NASITTUQ MANIFEST

Suite 100, 170 Laurier Avenue W., Ottawa, ON K1P 5V5

NON NEGOTIABLE

Filled By: PGRUELLE		Date: 08-Jul-10		TCN-23621	
Ship To		From		Priority	
RECYCLEX INC. 8381 PLACE MARIEN MONTREAL QC H1B 5W6 514-355-4150		BAF-3, BREVOORT ISLAND, DND Storeroom Nasittuq Corporation, NWS LSS Iqaluit, P.O. Box 1089 Iqaluit NU X0A 0H0 867-979-4618			

Attention:		Attention:			
Carrier: NEAS	Routing: 1.5 m3	Waybill #:	Type: PALLET	Total Pcs. 1	Total Weight: 844 KG

QTY	Line	Item	Description	WO or PO	BI/Code or S/N	Remarks
Order Weight						
4	2002406		WASTE - OIL (45 GALLON DRUM)	308648,308648,308191 301509		PALLET # 6

NOTE: All claims related to this shipment have to be filled with Nasittuq within 45 hours of receipt.

Received By	Date
Received By	Date

Annex B

BAF-3 Sewage Outfall Location (BAF-2) with GPS Co-ordinates





Annex C

Analysis of Sewage Effluent in 2010



August 2010 – page 2 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1018885
Date: 2010-09-31
Date Submitted: 2010-09-10
Project: FOX-3

Chain of Custody Number: 735772

P.O. Number:
Matrix: Sewage

			LAB ID: 818674					GUIDELINE		
			Sample Date: 2010-08-04							
			Sample ID: BAF-3 Sewage Outfall							
PARAMETER	UNITS	MRL						TYPE	LIMIT	UNITS
Oil & Grease										
Oil & Grease - Mineral	mg/L	1	8							
Oil & Grease - Non-mineral	mg/L	1	130							
Oil & Grease - Total	mg/L	1	138							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Charlie Qu
Organic Lab Team Leader

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



August 2010 – page 3 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1018895
Date: 2010-08-31
Date Submitted: 2010-08-10
Project: FOX-3

Chain of Custody Number: 735772

P.O. Number:
Matrix: Sewage

			LAB ID:	818674							
			Sample Date:	2010-08-04							
			Sample ID:	BAF-3 Sewage Outfall							
PARAMETER	UNITS	MRL								TYPE	LIMIT
Biochemical Oxygen Demand	mg/L	1	260								
Conductivity	uS/cm	5	820								
N-NH3 (Ammonia)	mg/L	2	53.4								
NO2 + NO3 as N	mg/L	0.1	<0.10								
pH			7.94								
Phenols	mg/L	0.001	1.06								
Sulphate	mg/L	1	17								
Total Suspended Solids	mg/L	2	136								
Calcium	mg/L	1	6								
Magnesium	mg/L	1	2								
Potassium	mg/L	1	24								
Sodium	mg/L	2	98								
Arsenic	mg/L	0.05	<0.05								
Cadmium	mg/L	0.01	<0.01								
Chromium	mg/L	0.05	<0.05								
Copper	mg/L	0.01	1.43								
Iron	mg/L	0.1	1.8								
Lead	mg/L	0.01	0.06								
Mercury	mg/L	0.0001	<0.0001								
Nickel	mg/L	0.01	0.01								
Zinc	mg/L	0.05	0.48								

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:
818674: Metals analysis performed on aqua-regia digest of sample. Mercury was analysed at Exova Pointe Claire.

APPROVAL: _____
Ewan McRobbie
Inorganic Lab Supervisor

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.

Annex D

BAF-3 - Bermed Fuel Storage Facilities with GPS Coordinates

Licence	Location	Monitoring Station # (Final Discharge Point of Bermed Fuel Storage Facility)	Berm's Location On- site	Berm's GPS co-ordinates
3BC-BAF0919 Type "B"	BAF-3 North Warning System Site, Brevoort Island, Qikiqtani Region, Nunavut	BAF-4	- Summit	63° 20' 23" N
			- Berm of tanks W22A and W22B	64° 09' 18" W
			- Beach	63° 19' 52" N
			- Berm of tanks W22C and W22D	64° 10' 40" W

Annex E

BAF-3 - Analysis of Berm Water (Effluent from Bermed Fuel Storage Facilities)



28 June 2010
Summit, Berm of tank W22A and W22B
Page 1 of 4

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1015483
Date: 2010-07-13
Date Submitted: 2010-07-08

Project: Brevoort (B-3)

P.O. Number:
Matrix: Water

Chain of Custody Number: 122612

			LAB ID:	810307					GUIDELINE		
			Sample Date:	2010-06-29							
			Sample ID:	BRE-W22 AB-1							
PARAMETER	UNITS	MRL							TYPE	LIMIT	UNITS
Polychlorinated Biphenyls - PCBs	ug/L	0.1	<0.1								
Polychlorinated Biphenyls (PCBs)											

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Mina Nasirai
Organic Lab Supervisor

8-146 Colonade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



28 June 2010
Summit, Berm of tank W22A and W22B
Page 3 of 4

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1015483
Date: 2010-07-13
Date Submitted: 2010-07-08
Project: Brevoort (B-3)

P.O. Number:
Matrix: Water

Chain of Custody Number: 122612

				GUIDELINE		
LAB ID: 810307						
Sample Date: 2010-06-29						
Sample ID: BRE-W22 AB-1						
PARAMETER	UNITS	MRL				
VOLATILE ORGANIC COMPOUNDS - VOCs						
Benzene	ug/L	0.5	<0.5			
Ethylbenzene	ug/L	0.5	<0.5			
Toluene	ug/L	0.5	<0.5			
VOC SURROGATES						
Toluene-d8	%		85			
Oil & Grease						
Oil & Grease - Total	mg/L	1	<1			

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Mina Nasirai
Organic Lab Supervisor



28 June 2010
Summit, Berm of tank W22A and W22B
Page 4 of 4

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1015484
Date: 2010-07-08
Date Submitted: 2010-07-08

Project: Brevoort (B-3)

P.O. Number:
Matrix: Water

Chain of Custody Number: 122612

				GUIDELINE			
LAB ID: 810308							
Sample Date: 2010-07-08							
Sample ID: BRE-W22 AB-1							
PARAMETER	UNITS	MRL					
Cadmium	mg/L	0.0001	<0.0001				
Chromium	mg/L	0.001	<0.001				
Cobalt	mg/L	0.0002	<0.0002				
Copper	mg/L	0.001	0.002				
Lead	mg/L	0.001	<0.001				
Nickel	mg/L	0.005	<0.005				

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

810308: Sample was filtered prior to Metals analysis.

APPROVAL:
Ewan McRobbie
Inorganic Lab Supervisor

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



29 June 2010
Beach, Berms of tanks W22C and W22D
Page 2 of 4

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1015485
Date: 2010-07-13
Date Submitted: 2010-07-08
Project: Brevoort (B-3)

Chain of Custody Number: 122611

P.O. Number:
Matrix: Water

			LAB ID:	810309					GUIDELINE		
			Sample Date:	2010-08-29							
			Sample ID:	BRE-W22 CD-1							
PARAMETER	UNITS	MRL							TYPE	LIMIT	UNITS
pH				7.19							
Phenols	mg/L	0.001		<0.001							
Arsenic	mg/L	0.05		<0.05							
Mercury	mg/L	0.0001		<0.0001							
Zinc	mg/L	0.05		0.08							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

810309: Metals analysis performed on aqua-regia digest of sample material.

APPROVAL:

Ewan McRobbie
Inorganic Lab Supervisor

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



29 June 2010
Beach, Berms of tanks W22C and W22D
Page 3 of 4

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1015485
Date: 2010-07-13
Date Submitted: 2010-07-08
Project: Brevoort (B-3)

P.O. Number:
Matrix: Water

Chain of Custody Number: 122611

			LAB ID:	810309						
			Sample Date:	2010-08-29						
			Sample ID:	BRE-W22 CD-1						
PARAMETER	UNITS	MRL							TYPE	LIMIT
VOLATILE ORGANIC COMPOUNDS - VOCs										
Benzene	ug/L	0.5	<0.5							
Ethylbenzene	ug/L	0.5	<0.5							
Toluene	ug/L	0.5	<0.5							
VOC SURROGATES										
Toluene-d8	%		81							
Oil & Grease										
Oil & Grease - Total	mg/L	1	<1							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Mina Nasirai
Organic Lab Supervisor

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



29 June 2010
Beach, Berms of tanks W22C and W22D
Page 4 of 4

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1015480
Date: 2010-07-13
Date Submitted: 2010-07-08
Project: Brevoort (B-3)

P.O. Number:
Matrix: Water

Chain of Custody Number: 122611

			LAB ID:	810310							
			Sample Date:	2010-08-29							
			Sample ID:	BRE-W22 CD-1							
PARAMETER	UNITS	MRL							TYPE	LIMIT	UNITS
Cadmium	mg/L	0.0001	<0.0001								
Chromium	mg/L	0.001	<0.001								
Cobalt	mg/L	0.0002	<0.0002								
Copper	mg/L	0.001	0.001								
Lead	mg/L	0.001	0.002								
Nickel	mg/L	0.005	<0.005								

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

810310: Sample was filtered prior to Metals analysis.

APPROVAL:

Ewan McRobbie
Inorganic Lab Supervisor

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



01 September 2010
Summit, Berms of tanks W22A and W22B
Page 1 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1021354
Date: 2010-09-13
Date Submitted: 2010-09-03
Project: BAF 3

P.O. Number:
Matrix: Water

Chain of Custody Number: 115446

			LAB ID:	825997							
			Sample Date:	2010-09-01							
			Sample ID:	W22A W22B							
PARAMETER	UNITS	MRL							TYPE	LIMIT	UNITS
Benzene	ug/L	0.5	<0.5								
Ethylbenzene	ug/L	0.5	<0.5								
Toluene	ug/L	0.5	<0.5								
Toluene-d8	%	1	97								
Polychlorinated Biphenyls (PCBs)	ug/L	0.1	<0.1								
Oil & Grease - Total	mg/L	1	2								

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Mina Nasirai
Organic Lab Supervisor



01 September 2010
Summit, Berms of tanks W22A and W22B
Page 2 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1021354
Date: 2010-09-13
Date Submitted: 2010-09-03

Project: BAF 3

P.O. Number:
Matrix: Water

Chain of Custody Number: 115446

			LAB ID:	825957						
			Sample Date:	2010-09-01						
			Sample ID:	W22A W22B						
PARAMETER	UNITS	MRL							TYPE	LIMIT
pH				7.50						
Phenols	mg/L	0.001		<0.001						
Arsenic	mg/L	0.05		<0.05						
Mercury	mg/L	0.0001		<0.0001						
Zinc	mg/L	0.05		0.08						

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

825957: Arsenic and Zinc analysis performed on aqua-regia digest of sample material.

APPROVAL:

Ewan McRobbie
Inorganic Lab Supervisor



01 September 2010
Summit, Berms of tanks W22A and W22B
Page 3 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1021352
Date: 2010-09-13
Date Submitted: 2010-09-03

Project: BAF 3

P.O. Number:
Matrix: Water

Chain of Custody Number: 115439

		LAB ID:	825955					GUIDELINE		
		Sample Date:	2010-09-01							
		Sample ID:	W22A W22B							
PARAMETER	UNITS	MRL						TYPE	LIMIT	UNITS
Cadmium	mg/L	0.0001	<0.0001							
Chromium	mg/L	0.001	<0.001							
Cobalt	mg/L	0.0002	<0.0002							
Copper	mg/L	0.001	0.002							
Lead	mg/L	0.001	<0.001							
Nickel	mg/L	0.005	<0.005							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Ewan McRobbie
Inorganic Lab Supervisor



01 September 2010
Beach, Berms of tanks W22C and W22D
Page 1 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1021355
Date: 2010-09-13
Date Submitted: 2010-09-03
Project: BAF 3

Chain of Custody Number: 115446

P.O. Number:
Matrix: Water

LAB ID: 825958								GUIDELINE		
Sample Date: 2010-09-01										
Sample ID: W22C W22D										
PARAMETER	UNITS	MRL						TYPE	LIMIT	UNITS
Benzene	ug/L	0.5	<0.5							
Ethylbenzene	ug/L	0.5	<0.5							
Toluene	ug/L	0.5	<0.5							
Toluene-d8	%	1	112							
Polychlorinated Biphenyls (PCBs)	ug/L	0.1	<0.1							
Oil & Grease - Total	mg/L	1	3							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Mina Nasirai
Organic Lab Supervisor



01 September 2010
Beach, Berms of tanks W22C and W22D
Page 2 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1021355
Date: 2010-09-13
Date Submitted: 2010-09-03
Project: BAF 3

Chain of Custody Number: 115446

P.O. Number:
Matrix: Water

			LAB ID:	825958					GUIDELINE		
			Sample Date:	2010-09-01							
			Sample ID:	W22C W22D							
PARAMETER	UNITS	MRL							TYPE	LIMIT	UNITS
pH				7.22							
Phenols	mg/L	0.001		0.012							
Arsenic	mg/L	0.05		<0.05							
Mercury	mg/L	0.0001		<0.0001							
Zinc	mg/L	0.05		0.06							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

825958: Arsenic and Zinc analysis performed on aqua-regia digest of sample material.

APPROVAL:

Ewan McRobbie
Inorganic Lab Supervisor



01 September 2010
Beach, Berms of tanks W22C and W22D
Page 3 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1021353
Date: 2010-09-13
Date Submitted: 2010-09-03
Project: BAF 3

Chain of Custody Number: 115446

P.O. Number:
Matrix: Water

				LAB ID:	825956						GUIDELINE		
				Sample Date:	2010-09-01								
				Sample ID:	W22C W22D								
PARAMETER	UNITS	MRL									TYPE	LIMIT	UNITS
Cadmium	mg/L	0.0001	<0.0001										
Chromium	mg/L	0.001	<0.001										
Cobalt	mg/L	0.0002	<0.0002										
Copper	mg/L	0.001	0.006										
Lead	mg/L	0.001	0.006										
Nickel	mg/L	0.005	<0.005										

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

APPROVAL: _____
Ewan McRobbie
Inorganic Lab Supervisor

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.



28 October 2010
Beach, Berms of tanks W22C and W22D
Page 1 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1026921
Date: 2010-11-10
Date Submitted: 2010-11-01
Project: BAF 3

Chain of Custody Number: 127321

P.O. Number:
Matrix: Water

Chain of Custody Number: 121321			LAB ID: 841516						matrix:			water		GUIDELINE			
			Sample Date: 2010-10-28														
			Sample ID: BAF 3 W22C + 22D														
PARAMETER			UNITS	MRL								TYPE	LIMIT	UNITS			
Benzene			ug/L	0.5	<0.5												
Ethylbenzene			ug/L	0.5	<0.5												
Toluene			ug/L	0.5	<0.5												
Toluene-d8			%	1	116												
Polychlorinated Biphenyls (PCBs)			ug/L	0.1	<0.1												
Oil & Grease - Total			mg/L	1	<1												

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration
Comment:

Methods references and/or additional QA/QC information available on request.

8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

APPROVAL:

Mina Nasirai
Organic Lab Supervisor

Results relate only to the parameters tested on the samples submitted.



28 October 2010
Beach, Berms of tanks W22C and W22D
Page 2 of 3

EXOVA ACCUTEST

REPORT OF ANALYSIS



Client: Nasittuq Corp. (Ottawa)
100-170 Laurier Ave. West
Ottawa, ON
K1P 5V5
Attention: Ms. Barb Thomson

Report Number: 1026921
Date: 2010-11-10
Date Submitted: 2010-11-01
Project: BAF 3

P.O. Number:
Matrix: Water

Chain of Custody Number: 127321

								GUIDELINE		
LAB ID: 841516										
Sample Date: 2010-10-28										
Sample ID: BAF 3 W22C + 22D										
PARAMETER	UNITS	MRL						TYPE	LIMIT	UNITS
pH			7.04							
Phenols	mg/L	0.001	<0.001							
Arsenic	mg/L	0.05	<0.05							
Mercury	mg/L	0.0001	<0.0001							
Zinc	mg/L	0.05	0.08							

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

Comment:

841516: Metals analysis performed on aqua-regia digest of sample material.

APPROVAL:

Ewan McRobbie
Inorganic Lab Supervisor

Methods references and/or additional QA/QC information available on request.

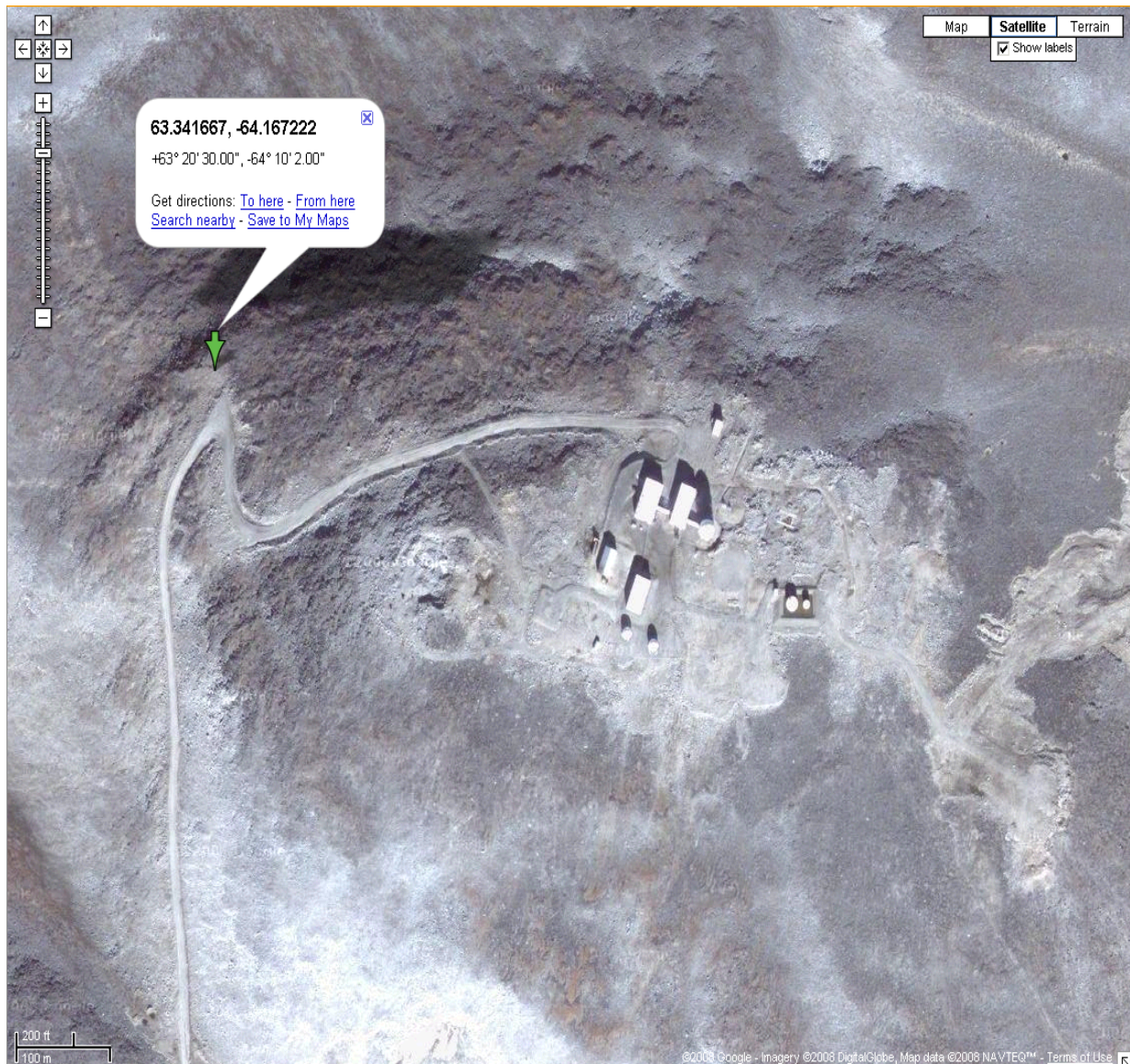
8-146 Colonnade Road, Ottawa, ON, K2E 7Y1

1 of 1

Results relate only to the parameters tested on the samples submitted.

Annex F

Location of Landfill at BAF-3 with GPS Co-ordinates



Annex G

2010 (Year 4) Clean-up and Remediation Activities of 2007 Jet A1 Fuel Spill

Outline of Presentation

- 2010 Field Program Results
 - Control and Mitigation – Snow Clearing
 - Control and Mitigation – Monitoring Free Product
 - Water Treatment
 - APECs 1 & 2
 - APEC 3
 - Engineered Biopiles
- Proposed way ahead
 - APEC Summary
 - Engineered Biopiles
 - Product Recovery/Disposal
 - Logistics

BAF-3



December 16, 2010

2010 Results and
Proposed Way Ahead

2011-2013



2010 Field Program Results

- 0.76 million litres of water treated by WTS
- North Tank reinstated*
- Biopile additions and reinstatement:
 - Additional 884 m³ soil from summit hauled to biopiles
 - 2,000 m³ returned to summit
 - New total of 2,800 m³ soil
- Completion of APEC 3 excavation and groundwater collection/treatment
- 42 drums and 4 crates of liner/tarp waste remain on site for retrograde

* Subject to confirmatory sampling



2010 Results: Control and Mitigation – Snow Clearing

- Reduced program: 1 week preemptive visit in late May to check and mark control structures (CS)
- Returned after melt (late June)



2010 Results: Control and Mitigation – Monitoring for Free Product

- Monitored for free product in CS: minor sheen early season, PHC absorbent booms and pads used
- Rebuilt CS (APEC 2 ‘bowl’), completed CS north of road



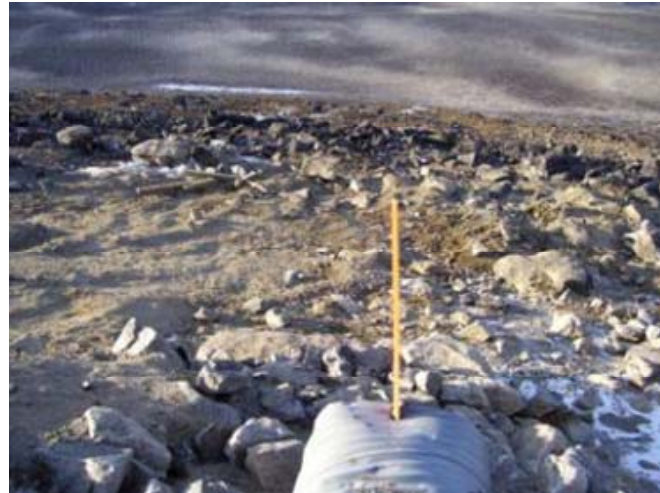
2010 Results: Water Treatment

- North Tank reinstated
- WTS fed through Flex tanks
- Collected and treated impacted water from APEC 3 excavations
- WTS emptied and left in place at end-season

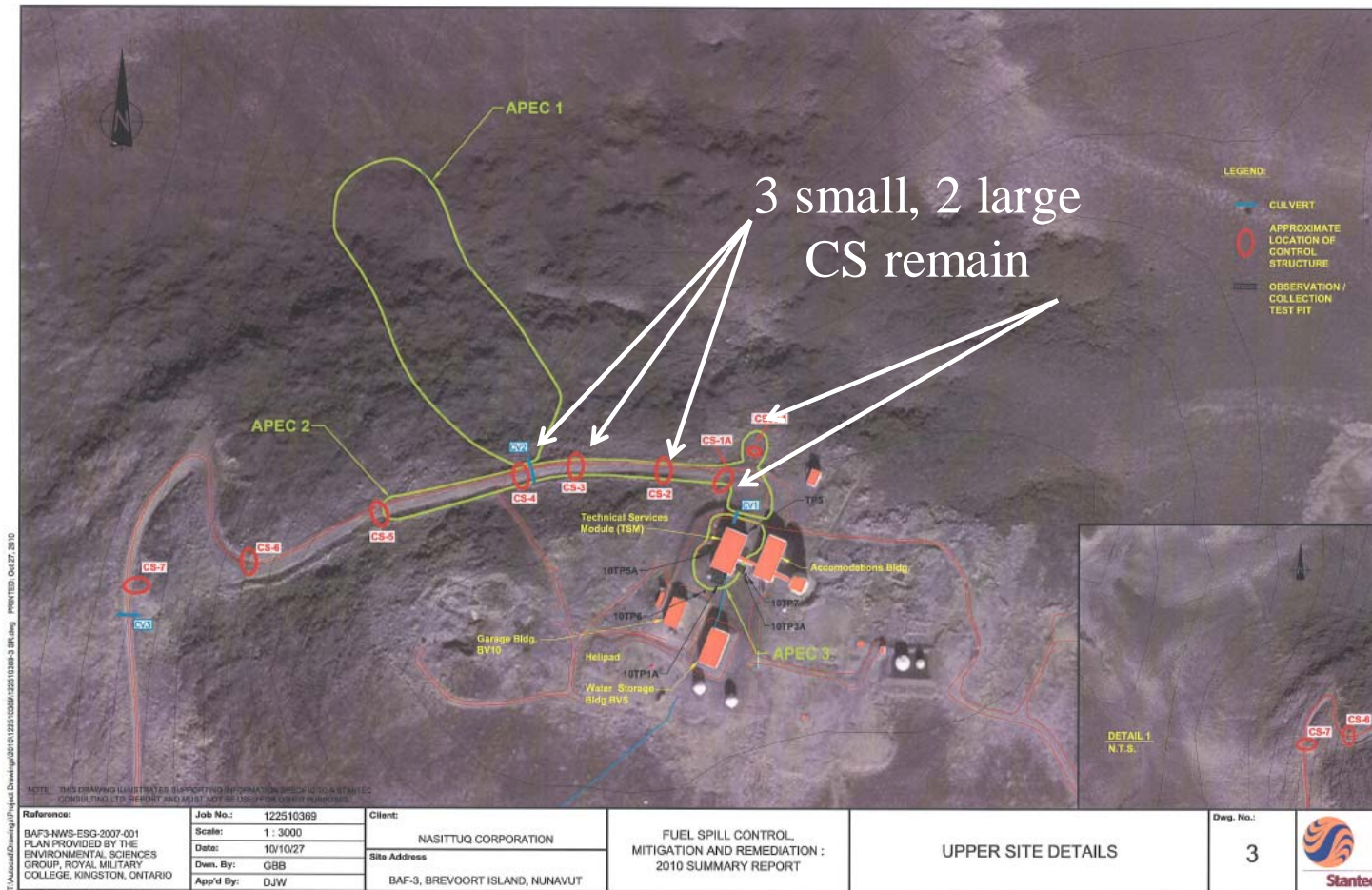


2010 Results: APECs 1 & 2

- No change from 2009:
visual monitoring showed
no sign of impacts



2010 Results: APECs 1 & 2



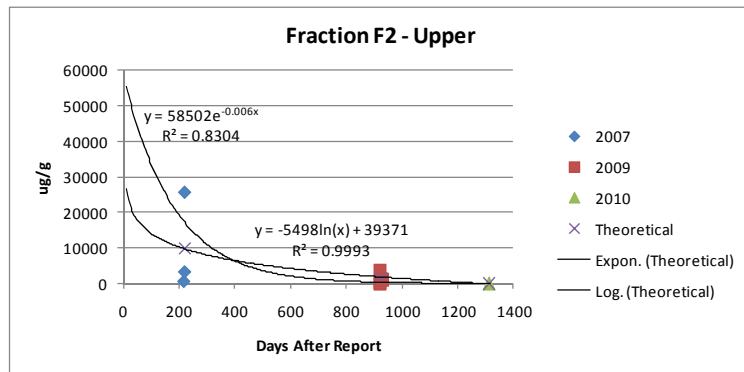
2010 Results: APEC 3

- Primary focus of 2010 program
- Open pits/trenches south of TSM
- Collected free phase product (3,224 L)
- Pumped and treated impacted groundwater
- Hauled 140 m³ soil to biopiles



2010 Results: APEC 3

- Solid case to cease active remediation at upper site



“Fuel concentrations within APEC 3 soils have shown marked drop-offs since the spill, with average concentrations in upper levels two orders of magnitude below initial concentrations”

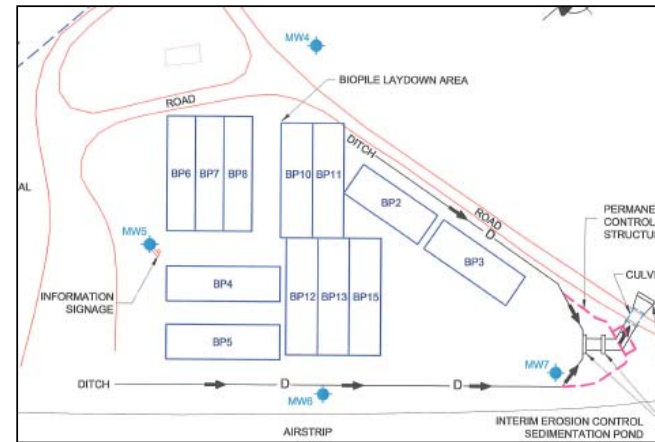


**ESTIMATED BOUNDARIES OF TPH
IMPACTED SOILS > 2500 ppm**

2010 Results: Engineered Biopiles

- Continued good functionality
- 12 biopiles: 10 now below DLCU Criteria*
- Hold 2,800 m³
- Decommissioned 2 biopiles: ahead of plan

* Excluding bottom 1 m



Proposed Way Ahead

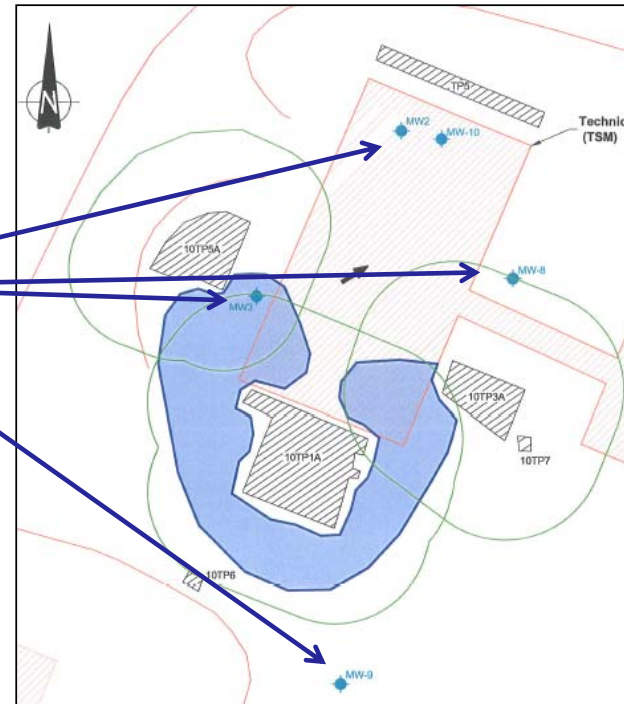
- Monitoring phase 2011-2013
- Plan to conclude reinstatement activities by 2012, 2013 as a spill over (risk mitigating) year
- Subject to length of 2011 & 2012 field seasons

Proposed Way-ahead: APEC Summary

- In summary:
 - APEC 1: no further action except visual monitoring
 - APEC 2: no further action except visual monitoring
 - APEC 3: no further action except visual and groundwater monitoring
- Action in response to ‘issue’ during monitoring:
 - Sheen observed: install booms & pads, trace to source, establish duration
 - If continuous or worsening, revisit RAP as appropriate
- Monitoring duration: 2 years (2011-2012) if no issues

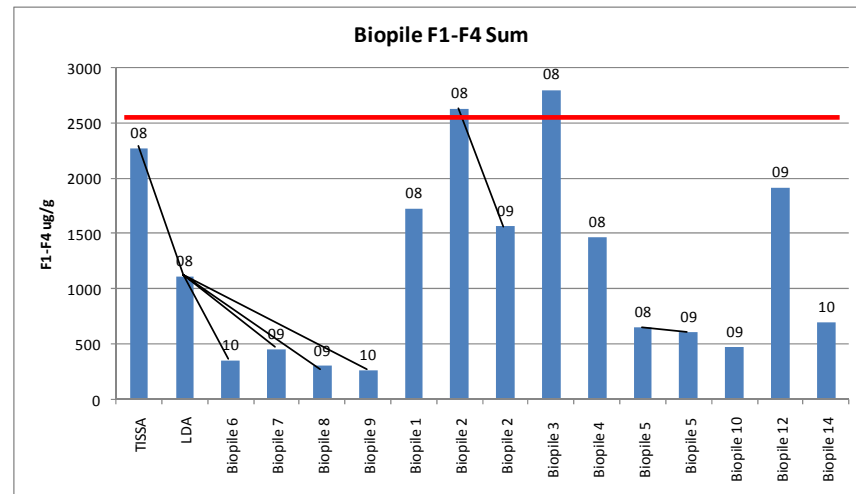
Proposed Way-ahead: APECs 1-3

- Monitoring for signs of free product post-melt
- Ensure proper functioning of CS
- Sampling of MWs
- WTS kept available should its use become necessary
- Retrograde 42 drums



Proposed Way-ahead: Engineered Biopiles

- Maintenance: cover/uncover, aeration, repairs
- Monitoring: berm water management/treatment
- Formally include water license monitoring
- Reinstatement: aim for 60% return to upper site in 2011



Proposed Way-ahead: Product Recovery/Disposal

- Solids:
 - Retrograde
 - 12 drums booms/pads
 - 4 crates liner/tarp waste
- Liquids:
 - Same; 5 drums
- Sludge
 - Same; 25 drums



Proposed Way-ahead: Logistics

- New material for 2011:
 - Lumber for crates for decommissioned liners/tarps: need approx. 8 crates for 2011
 - No. 2 silica sand (2 pallets), granular activated carbon, clay/carbon and Zeosorb (1 pallet ea.) at season start plus similar amount mid-season
 - Salvage drums and overpacks (10 ea.)
- Equipment now surplus:
 - Compressor
- Assuming 3rd ATV to be returned to site

