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2014 ANNUAL NUNAVUT WATER BOARD REPORT FOR CAM-M FOR THE North Warning System

Contract # W8485-100224/001/NX
CDRL 16.F.5.d

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Prepared for
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CHANGE HISTORY

This sheet is a record of each issue of this document. When the revised document is issued, the previous issue is automatically superseded.

Version	Date	Configuration Management	Pages Changed	Reason for Change
1	16-Mar-2015	-	-	Initial Document Release.
Document Title: 2014 Annual Nunavut Water Board Report for CAM-M				Document Number: FM-EHS-13



EXECUTIVE SUMMARY

This 2014 Annual Report for the Nunavut Water Board (NWB) has been prepared by Raytheon Canada Limited (RCL) for the Department of National Defence in order to meet the requirements of the Nunavut Water Board licence issued 10 September 2009 3BC-CAM0919 – Type “B”, Part B. General Conditions, paragraph 1. This report covers the period from 01 January to 31 December 2014.

The Operation and Maintenance (O&M) Contractor for the North Warning System (NWS) changed in 2014. Nasittuq was the O&M Contractor of the NWS from 01 January to 31 July 2014 and had Care, Custody, and Control (CC&C) of the site. On 01 August 2014, RCL became the O&M Contractor and took over CC&C of the NWS sites, including the CAM-M Long Range Radar site.

CAM-M is an attended (manned) North Warning System radar site located at Cambridge Bay, Nunavut. The site population increases due to project activity at CAM-M and similarly at other radar sites within CAM-M's zone.

The water usage for 2014 was 2,176.2 cubic meters. This is an average of 5.96 cubic meters per day, below the maximum of 10 cubic meters per day allowed by the licence. On occasion, more than the daily maximum was drawn due to increased site activity. The licensee has made application to the NWB in order to change the water usage metric from a daily value to an annual value aligning the CAM-M NWB licence with the other 5 NWB licenced NWS sites.

Sewage is processed by the tertiary wastewater treatment system. Some of the treated effluent is recycled as on site urinal/toilet flush water. The discharged treated effluent is of potable water quality. The treated effluent was sent for laboratory analysis.

The water contained in the berms of fuel storage facilities was sent for laboratory analysis and confirmed to be within effluent quality limits of the NWB licence 3BC-CAM0919, Part D, item 10 before the water was pumped out of the berms.

No hazardous waste and waste oil were disposed of in 2014.

Non-hazardous domestic solid waste was disposed of through a contract with the Hamlet of Cambridge Bay and at the local landfill. RCL has documented authorization from the community for receiving the waste.

Two outdoor spills occurred at CAM-M in 2014. The spills were:

- a. NT-NU Spill Report # 14-167. On 17 May 2014, site personnel discovered that approximately 5 liters of engine oil had leaked through the floor of the power plant. The oil was contained by ice and snow under the building and did not penetrate to the ground. The oil impacted snow and ice were removed. The pillar where the oil leaked down was cleaned. Used sorbents, contaminated snow, and contaminated ice were placed in a container for future disposal at a licensed hazardous waste disposal facility outside of Nunavut.
- b. NT-NU Spill Report # 14-316. On 29 August 2014, Kitnuna was transferring fuel from a bulk fuel storage tank at CAM-M. NWS staff were monitoring the transfer when they noticed that the Kitnuna hose connection was leaking, the transfer was stopped and the fuel contaminated soil was



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placed in 4 salvage drums. The drums were taken by Kitnuna for disposal. Kitnuna used a new fuel pump and good hoses on subsequent fuel transfers.

The Spill Contingency Plan was successfully implemented.

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1.0 INTRODUCTION

This 2014 Annual Report for the Nunavut Water Board (NWB) has been prepared by Raytheon Canada Limited (RCL) for the Department of National Defence in order to meet the requirements of the licence issued 10 September 2009 3BC-CAM0919 – Type “B”, Part B. General Conditions, paragraph 1. This report covers the period from 01 January to 31 December 2014.

The Operation and Maintenance (O&M) Contractor for the North Warning System (NWS) changed in 2014. Nasittuq was the O&M Contractor of the NWS from 01 January to 31 July 2014 and had Care, Custody, and Control (CC&C) of the site. On 01 August 2014, RCL became the O&M Contractor and took over CC&C of the NWS sites, including the CAM-M Long Range Radar site.

CAM-M is an attended (manned) North Warning System radar site located at Cambridge Bay, Nunavut. The site population increases due to project activity at CAM-M and similarly at other radar sites within CAM-M's zone.

1.1 REPORT DETAILS

Licensee:	Department of National Defence, Government of Canada
Licence:	3BC-CAM0919 – Type “B”
Location:	CAM-M North Warning System Site, Cambridge Bay, Kitikmeot Region, Nunavut
Report prepared by:	Raytheon Canada Limited, 16 Mar 2015
Time Period Covered:	01 January to 31 December 2014

2.0 WATER USE

The water usage from January to December averaged 5.96 cubic meters per day which is below the maximum of 10 cubic meters per day allowed by the licence. See Table 2-1 for raw water usage. On occasion, more than the daily maximum was drawn due to increased site activity. The daily maximum was exceeded due to the simultaneous occurrence of: the backwash of Cycle-let membranes, backwash of raw water treatment system membranes, and filling of the raw water tank.

The average daily usage is below the daily maximum and the licensee has made application to the NWB about changing the water usage metric from a daily value to an annual value aligning the CAM-M NWB licence with the other 5 NWB licenced NWS sites.

**Table 2-1 Monthly Raw Water Usage at CAM-M in 2014**

Month	Raw water usage in cubic metres (m ³)	Company with CC&C of the site
January	227.3	Nasittuq Corporation
February	193.9	Nasittuq Corporation
March	190.5	Nasittuq Corporation
April	121.2	Nasittuq Corporation
May	139.7	Nasittuq Corporation
June	206.2	Nasittuq Corporation
July	178.9	Nasittuq Corporation
August	155.7	RCL
September	151.1	RCL
October	187.7	RCL
November	205.0	RCL
December	219.0	RCL
TOTAL	2,176.2	

3.0 TREATED SEWAGE DISCHARGE

The sewage and grey water are both processed through an advanced tertiary wastewater treatment system, *Cycle-let*®. The system was maintained by Nasittuq from 01 January to 31 July 2014, and is now maintained by RCL. Some of the treated water is recycled as urinal/toilet flush water. The remainder is of potable water quality and is discharged at the designated outfall. As noted in Table 3-1, refer to the year-end report for the volume of sewage and grey water treated by the Cycle-let system.

**Table 3-1 Monthly and Annual Volume of Sewage and Grey Water Treated at CAM-M in 2014**

Month	Volume of sewage and greywater treated then discharged or recycled in cubic metres (m ³)	Company with CC&C of the site
January	122.01	Nasittuq Corporation
February	120.11	Nasittuq Corporation
March	112.41	Nasittuq Corporation
April	113.76	Nasittuq Corporation
May	128.1	Nasittuq Corporation
June	123.58	Nasittuq Corporation
July	109.30	Nasittuq Corporation
August	101.99	RCL
September	109.88	RCL
October	115.07	RCL
November	101.63	RCL
December	137.79	RCL
Total	2,176.2	

4.0 HAZARDOUS WASTE AND WASTE OIL DISPOSAL

No hazardous waste and waste oil were disposed of in 2014. Therefore Table 4-1 is blank and Annex A for the shipping documents is blank. (Shipping documents include the completed movement documents for waste regulated under the Transportation of Dangerous Goods Regulations (TDGR) and Manifests for non-regulated waste).

Table 4-1 Hazardous Waste and Waste Oil Sent for Disposal from CAM-M in 2014

Site	Description, TDG shipping name	Quantity	Movement Document or Manifest #
CAM-M	No hazardous waste or waste oil was disposed of in 2014.	0	N/A

5.0 NON-HAZARDOUS SOLID WASTE DISPOSAL

Non-hazardous domestic solid waste was disposed of through a contract with the Municipality of Cambridge Bay and at the local landfill. RCL has documented authorization from the community for receiving the waste. See Table 5-1 for the quantity of waste generated.

Table 5-1 Non-hazardous Domestic Solid Waste Sent for Disposal from CAM-M 2014

Month	Waste Generated (kg)	Company with CC&C of the site
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Month	Waste Generated (kg)	Company with CC&C of the site
January	1,378	Nasittuq Corporation
February	1,072	Nasittuq Corporation
March	1,406	Nasittuq Corporation
April	1,720	Nasittuq Corporation
May	1,550	Nasittuq Corporation
June	2,035	Nasittuq Corporation
July	1,852	Nasittuq Corporation
August	2,326	RCL
September	2,205	RCL
October	1,988	RCL
November	2,325	RCL
December	2,149	RCL
Total	22,006	

6.0 MONITORING PROGRAM

See **Annex B** for the location of the treated sewage effluent outfall, CDL-2, with co-ordinates.

See **Annex C** for analysis of the treated sewage effluent.

See **Annex D** for the list of bermed fuel storage facilities, CDL-3, with co-ordinates.

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 of the NWB licence 3BC-CAM0919, Part D, item 10 before the water was pumped out of the berms.

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7.0 SPILLS (UNAUTHORIZED DISCHARGES)

Table 7-1 Outdoor Spills Reported at CAM-M in 2014

Date, Spill #	Product	Quantity	Cause and follow-up action	Location at CAM-M
17 May 2014, Spill # 14-167	Engine oil	5 litres	Site personnel discovered that approximately 5 liters of engine oil had leaked under the power plant. The leaked oil was contained by ice and snow and did not penetrate to the ground. The oil impacted snow and ice were removed. The pillar where the oil leaked down was cleaned. Used sorbents, impacted snow, and impacted ice were placed in a container for future disposal at a licensed hazardous waste disposal facility outside of Nunavut. On 30 December 2013, an indoor leak was found on a Diesel Engine Generator (DEG), was cleaned up, and repaired. Technicians traced the oil discovered on 17 May through the building to the source of the 30 Dec 2013 spill.	Under the power plant
29 August 2014 Spill # 14-316	Jet A1 fuel	20 litres	On 29 August 2014, Kitnuna was transferring fuel from a bulk fuel storage tank at CAM-M. NWS staff were monitoring the transfer when they noticed that the hose connection was leaking, the transfer was stopped and the fuel impacted soil was placed in 4 salvage drums. The drums were taken by Kitnuna for disposal. Kitnuna used a new fuel pump and good hoses on subsequent fuel transfers.	Near tank W22A

8.0 REVISIONS TO THE SPILL CONTINGENCY PLAN

The Spill Contingency Plan was successfully implemented. There were no revisions to the Spill Contingency Plan in 2014.

9.0 PROGRESSIVE RECLAMATION WORK UNDERTAKEN

None undertaken.



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10.0 ACRONYMS

Acronym	Definition
CC&C	Care, Custody, and Control
DEG	Diesel Engine Generator
DND	Department of National Defence
NWB	Nunavut Water Board
NWS	North Warning System
NWSO	North Warning System Office
O&M	Operations and Maintenance
PCB	Polychlorinated Biphenyl
RCL	Raytheon Canada Limited
TDGR	Transportation of Dangerous Goods Regulations

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ANNEX A - CAM-M - HAZARDOUS WASTE AND WASTE OIL DISPOSAL IN 2014

This annex has been left blank as no hazardous waste or waste oil were disposed of in 2014. Therefore there are no shipping documents for Annex A.

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ANNEX B - CAM-M - TREATED SEWAGE EFFLUENT OUTFALL (CDL-2) LOCATION WITH CO-ORDINATES



Coordinates of sewage treatment outfall: 69°7'3.20"N, 105°7'11.3"W

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**ANNEX C - CAM-M - ANALYSIS OF TREATED SEWAGE EFFLUENT****Table C-1 Summary of Analysis of Treated Sewage Effluent at CAM-M in 2014**

Sample Date	Parameter				
	pH	Oil and Grease (Present - P / Absent - A)	Biological Oxygen Demand (mg/L)	Total Suspended Solids (mg/L)	Faecal Coliforms*
Maximum Concentration	6.0 to 9.0 (pH units)	No visible sheen	120 mg/L	180 mg/L	10,000 CFU/100 mL
10-Jan-14	7.17	A	1	<2	1.0
17-Feb-14	7.18	A	<1	<2	0.7
19-Mar-14	7.55	A	1	<2	0
22-Apr-14	7.6	A	<1	<2	2.7
20-May-14	7.95	A	<1	<2	4
14-Jun-14	7.31	A	<1	<2	0
28-Jul-14	6.69	A	<1	4	2
28-Aug-14	6.97	A	<1	<2	16.3
Sep-14	The work order to take this sample mistakenly stated that the date was July 2014. The work order was cancelled in error because the task stated July and was assumed to be left over from a previous contractor.				
28-Oct-14	6.9	A	<1	<2	0
09-Dec 2014 ¹	5.86 ²	A	<1	3	-
29-Dec-14	7.35	A	<1	<2	0

*Average of the Cyclet 1A, Cyclet 1B, and Cyclet 1C.

¹ No sample was taken in November 2014. This sample was taken to fill the November sampling requirement. The samples arrived at the laboratory frozen. The laboratory was able to sample for pH, Oil and Grease, Biological Oxygen Demand, and Total Suspended Solids, but could not analyze these samples for Faecal Coliforms.

² The pH of this sample could have been affected because the sample arrived at the laboratory frozen.

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January 2014 – Page 1 of 2

EXOVA OTTAWA

Certificate of Analysis



Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1401075
Date Submitted: 2014-01-20
Date Reported: 2014-01-21
Project: Cam Main
COC #: 173109

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1083270 Sewage	1083271 Sewage	1083272 Sewage
Group	Analyte	MRL	Units	Guideline		2014-01-10 Cam-M Cyclot 1A	2014-01-10 Cam-M Cyclot 1B	2014-01-10 Cam-M Cyclot 1C
Microbiology	Faecal Coliforms	0	ct/100mL			1	1	1

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWWQ = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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January 2014 – Page 2 of 2

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Client: Nasitug Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasitug Corp. (Ottawa)

Report Number: 1401072
Date Submitted: 2014-01-20
Date Reported: 2014-01-27
Project: CAM-MAIN
COC #: 173109

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.17
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		1
Oil & Grease	Oil & Grease - Mineral	1	mg/L		<1
	Oil & Grease - Non-mineral	1	mg/L		<1
	Oil & Grease - Total	1	mg/L		<1
Visible Sheen	Visible Sheen		P/A		A

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

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
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Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IFWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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February 2014 – 1 of 2

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160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PC#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1403155
Date Submitted: 2014-02-25
Date Reported: 2014-02-26
Project: Cam-Main
COC #: 173171

Group	Analyte	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	Guideline	1089175 Wastewater - 2014-02-17 Cam-M Cyclot 1A	1089176 Wastewater - 2014-02-17 Cam-M Cyclot 1B	1089177 Wastewater - 2014-02-17 Cam-M Cyclot 1C
Microbiology	Faecal Coliforms	0	cf/100mL			0	2	0

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

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Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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February 2014 – 2 of 2

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Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
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Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1403205
Date Submitted: 2014-02-26
Date Reported: 2014-03-03
Project: CAM-MAIN
COC #: 173171

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
					1089324 Sewage 2014-02-17 CAMM-Cyclist 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.18
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		<1
Oil & Grease	Oil & Grease - Mineral	1	mg/L		<1
	Oil & Grease - Non-mineral	1	mg/L		2
	Oil & Grease - Total	1	mg/L		2
Visible Sheen	Visible Sheen		P/A		A

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

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= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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March 2014 – 1 of 2

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160 Elgin Street, Suite 400
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K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasitug Corp. (Ottawa)

Report Number: 1407172
Date Submitted: 2014-04-25
Date Reported: 2014-04-27
Project: CAM-MAIN
COC #: 173168

Group	Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1009303 Sewage - 2014-03-19 CAM-M 1A	1009304 Sewage - 2014-03-19 CAM-M 1B	1009305 Sewage - 2014-03-19 CAM-M 1C
Microbiology	Faecal Coliforms	0	cf/100mL			0	0	0

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= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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March 2014 – 2 of 2

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Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
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K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1407180
Date Submitted: 2014-04-25
Date Reported: 2014-05-01
Project: CAM-Main
COC #: 173168

Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.					1095410 Wastewater 2014-03-19 CAM-M Cycle 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.55
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		1
	Oil & Grease - Mineral	1	mg/L		<1
Oil & Grease	Oil & Grease - Non-mineral	1	mg/L		2
	Oil & Grease - Total	1	mg/L		2
Visible Sheen	Visible Sheen		P/A		A

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional Q/AQC information available on request.

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April 2014 – 1 of 2

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K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasitluq Corp. (Ottawa)

Report Number: 1407173
Date Submitted: 2014-04-25
Date Reported: 2014-04-27
Project: CAM-MAIN
COC #: 173165

					Lab ID	1099396	1099397	1099398
					Sample Matrix	Sewage	Sewage	Sewage
					Sample Type	-	-	-
					Sampling Date	2014-04-22	2014-04-22	2014-04-22
					Sample I.D.	CAM-M 1A	CAM-M 1B	CAM-M 1C
Group	Analyte	MRL	Units	Guideline				
Microbiology	Faecal Coliforms	0	ct/100mL		2	4	2	

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= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1407181
Date Submitted: 2014-04-25
Date Reported: 2014-05-01
Project: CAM-Main
COC #: 173165

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
					1099411 Wastewater 2014-04-22 CAM-M 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.60
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		<1
Oil & Grease	Oil & Grease - Mineral	1	mg/L		<1
	Oil & Grease - Non-mineral	1	mg/L		2
	Oil & Grease - Total	1	mg/L		2
Visible Sheen	Visible Sheen		P/A		A

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
IMAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PIWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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May 2014 2014 – 1 of 2

EXOVA OTTAWA

Certificate of Analysis



Client: Nasittug Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PC#:
Invoice to: Nasittug Corp. (Ottawa)

Report Number: 1409960
Date Submitted: 2014-05-29
Date Reported: 2014-05-30
Project: CAMMAIN
COC #: 173170

					Lab I.D.	1106734	1106735	1106736
					Sample Matrix	Sewage	Sewage	Sewage
					Sample Type	-	-	-
					Sampling Date	2014-05-20	2014-05-20	2014-05-20
					Sample I.D.	CAM-M Cyclot 1A	CAM-M Cyclot 1B	CAM-M Cyclot 1C
Group	Analyte	MRL	Units	Guideline				
Microbiology	Faecal Coliforms	0	cf/100mL		0	2	10	

Guideline = * = Guideline Exceedence
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MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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May 2014 – Page 2 of 2

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Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittug Corp. (Ottawa)

Report Number: 1409991
Date Submitted: 2014-05-29
Date Reported: 2014-06-03
Project: CAM-MAIN
COC #: 173170

				Lab I.D.	1106809
				Sample Matrix	Wastewater
				Sample Type	-
				Sampling Date	2014-05-20
				Sample I.D.	CAMM-Cyclet 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.95
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		<1
Oil & Grease	Oil & Grease - Mineral	1	mg/L		<1
	Oil & Grease - Non-mineral	1	mg/L		<1
	Oil & Grease - Total	1	mg/L		<1
Visible Sheen	Visible Sheen		P/A		A

Guideline = * = Guideline Exceedence
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Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412859
Date Submitted: 2014-06-27
Date Reported: 2014-06-29
Project:
COC #: 173166

Group	Analyte	MRL	Units	Guideline	Lab I.D.	Sample Matrix	Sample Type	Sampling Date	Sample I.D.
					1115053	Sewage	-	2014-06-14	Cam M Cylelet #4
Microbiology	Faecal Coliforms	0	cf/100mL		1115054	Sewage	-	2014-06-14	Cam M Cylelet #5
					1115055	Sewage	-	2014-06-14	Cam M Cylelet #6
					0	0	0		

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Page 2 of 2

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
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Concentration, STD = Standard, FWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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June 2014 – 2 of 2

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160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PC#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412867
Date Submitted: 2014-06-27
Date Reported: 2014-07-03
Project:
COC #: 173166

Group		Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
General Chemistry		pH	1.00			1115059 Sewage
		Total Suspended Solids	2	mg/L		2014-06-14 CAN-M Cyclelet
Nutrients		BOD5	1	mg/L		
		Oil & Grease - Mineral	1	mg/L		
Oil & Grease		Oil & Grease - Non-mineral	1	mg/L		
		Oil & Grease - Total	1	mg/L		
		Visible Sheen		mg/L		

Guideline - * - Guideline Exceedence
** - Analysis completed at Mississauga, Ontario.
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= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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EXOVA ENVIRONMENTAL ONTARIO

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Client: Nasitug Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasitug Corp. (Ottawa)

Report Number: 1416181
Date Submitted: 2014-08-01
Date Reported: 2014-08-05
Project: Cam-Main
COC #: 173172

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1123682 Sewage 2014-07-28 Cam-M 1A	1123683 Sewage 2014-07-28 Cam-M 1B	1123684 Sewage 2014-07-28 Cam-M 1C
Group	Analyte	MRL	Units	Guideline				
Microbiology	Faecal Coliforms	0	cf/100mL			1	1	4

Guideline = * = Guideline Exceedence
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Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1416212
Date Submitted: 2014-08-02
Date Reported: 2014-08-08
Project: CAM-Main
COC #: 173172

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
					1123752 Wastewater CAM-M Cycle# 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			6.69
	Total Suspended Solids	2	mg/L		4
Nutrients	BOD5	1	mg/L		<1
	Oil & Grease - Mineral	1	mg/L		<1
Oil & Grease	Oil & Grease - Non-mineral	1	mg/L		<1
	Oil & Grease - Total	1	mg/L		<1
Visible Sheen	Visible Sheen		P/A		A

Guideline - * = Guideline Exceedence
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= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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August 2014 – 1 of 2

EXOVA ENVIRONMENTAL ONTARIO

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Client: Canadian Base Operators
400 Cooper St., Suite 3000
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1419292
Date Submitted: 2014-09-09
Date Reported: 2014-09-10
Project: CAM-MAIN
COC #: 173167

Group	Analyte	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1132282	1132283	1132284
					Sewage	Sewage	Sewage
Microbiology	Faecal Coliforms	0	ct/100mL	2014-08-28 CAM-M Cyclot 1A	2014-08-28 CAM-M Cyclot 1B	2014-08-28 CAM-M Cyclot 1C	
					13	18	18

Guideline = * = Guideline Exceedence
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Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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August 2014 – 2 of 2

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Client: Canadian Base Operators
400 Cooper St., Suite 3000
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1419295
Date Submitted: 2014-09-09
Date Reported: 2014-09-16
Project: CAM-MAIN
COC #: 173167

Group		Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
General Chemistry		pH	1.00			1132287 Sewage
		Total Suspended Solids	2	mg/L		2014-08-28 CAM-M Cylet 1
Nutrients		BOD5	1	mg/L		
		Oil & Grease - Mineral	1	mg/L		
Oil & Grease		Oil & Grease - Non-mineral	1	mg/L		
		Oil & Grease - Total	1	mg/L		
Visible Sheen		Visible Sheen		P/A		A

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
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= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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September 2014 – The work order to take this sample mistakenly stated that the date was July 2014. The work order was cancelled in error because the task stated July and was assumed to be left over from a previous contractor.

Such omissions will not occur in the future.

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October 2014 – 1 of 2

EXOVA ENVIRONMENTAL ONTARIO

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Client: Canadian Base Operators
400 Cooper St., Suite 3000
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1424036
Date Submitted: 2014-11-07
Date Reported: 2014-11-09
Project: Cam-Main
COC #: 177053

					Lab I.D.	1145493	1145494	1145495
					Sample Matrix	water	water	water
					Sample Type	-	-	-
					Sampling Date	2014-10-28	2014-10-28	2014-10-28
					Sample I.D.	Cam-M Cyclot 1A	Cam-M Cyclot 1B	Cam-M Cyclot 1C
Group	Analyte	MRL	Units	Guideline				
Microbiology	Faecal Coliforms	0	ct/100mL		0	0	0	0

Guideline = ODWSOG

* = Guideline Exceedence

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Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

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MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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October 2014 – 2 of 2

EXOVA ENVIRONMENTAL ONTARIO

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Client: Canadian Base Operators
400 Cooper St., Suite 3000
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1424047
Date Submitted: 2014-11-07
Date Reported: 2014-11-13
Project: Cam-Main
COC #: 177053

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1145517 Sewage - 2014-10-28 CAM-M Cycled 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			6.90
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		<1
Oil & Grease	Oil & Grease - Mineral	1	mg/L		<1
	Oil & Grease - Non-mineral	1	mg/L		<1
	Oil & Grease - Total	1	mg/L		<1
Visible Sheen	Visible Sheen		P/A		A

Guideline =

*** = Guideline Exceedence**

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Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

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MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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November 2014 –1 of 1

No sample was taken in November 2014. This sample was taken to fill the November sampling requirement

EXOVA ENVIRONMENTAL ONTARIO

Certificate of Analysis



Client: Canadian Base Operators
400 Cooper St., Suite 3000
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1502845
Date Submitted: 2015-02-25
Date Reported: 2015-03-02
Project: CAM-MAIN
COC #: 177060

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
					1161497 Sewage 2014-12-09 CAM-M Cyclot 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			5.86
	Total Suspended Solids	2	mg/L		3
Nutrients	BOD5	1	mg/L		<1
	Oil & Grease - Mineral	1	mg/L		<1
Oil & Grease	Oil & Grease - Non-mineral	1	mg/L		2
	Oil & Grease - Total	1	mg/L		2
Visible Sheen	Visible Sheen		P/A		A

Guideline = * = **Guideline Exceedence**
All analysis completed in Ottawa, Ontario (unless otherwise indicated by ** which indicates analysis was completed in Mississauga, Ontario).
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

146 Colonnade Rd. Unit 8, Ottawa, ON K2E 7Y1

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December 2014 – 1 of 2

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Client: Canadian Base Operators
400 Cooper St., Suite 3000
Ottawa, ON
K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1501353
Date Submitted: 2015-01-28
Date Reported: 2015-01-29
Project: CAM-MAIN
COC #: 177037

					Lab I.D.	1157347	1157348	1157349
					Sample Matrix	Sewage	Sewage	Sewage
					Sample Type			
					Sampling Date	2014-12-29	2014-12-29	2014-12-29
					Sample I.D.	CAM-M Cyclot 1A	CAM-M Cyclot 1B	CAM-M Cyclot 1C
Group	Analyte	MRL	Units	Guideline				
Microbiology	Faecal Coliforms	0	ct/100mL			0	0	0

Guideline = * = **Guideline Exceedence**
All analysis completed in Ottawa, Ontario (unless otherwise indicated by ** which indicates analysis was completed in Mississauga, Ontario).
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.
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MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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December 2014 – 2 of 2

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Client: Canadian Base Operators
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K2P 2H8
Attention: Mr. Will Wyman
PO#:
Invoice to: Canadian Base Operators

Report Number: 1501364
Date Submitted: 2015-01-28
Date Reported: 2015-02-02
Project: CAM-MAIN
COC #: 177037

Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.					1157369 Sewage 2014-12-29 CAM-M Cycle1 1
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.35
	Total Suspended Solids	2	mg/L		<2
Nutrients	BOD5	1	mg/L		<1
	Oil & Grease - Mineral	1	mg/L		<1
Oil & Grease	Oil & Grease - Non-mineral	1	mg/L		<1
	Oil & Grease - Total	1	mg/L		<1
Visible Sheen	Visible Sheen		P/A		A

Guideline = * = Guideline Exceedence
All analysis completed in Ottawa, Ontario (unless otherwise indicated by ** which indicates analysis was completed in Mississauga, Ontario).
Results relate only to the parameters tested on the samples submitted.
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ANNEX D - CAM-M - LOCATION OF BERMED FUEL STORAGE FACILITIES WITH CO-ORDINATES

Licence	Location	Monitoring Station # (Final discharge point of bermed fuel storage facility)	Berm's location on-site	Berm's co-ordinates
3BC- CAM0919 Type "B"	CAM-M North Warning System Site, Cambridge Bay, Victoria Island, Kitikmeot Region, Nunavut	CDL-3	Summit, berm of tank W22A	69° 07' 03" N 105° 07' 03" W
			Airfield (near hangar) berm of tanks W20B and W20C	69° 06' 12" N 105° 07' 35" W
			Beach, berm of tanks W20D and W22C	69° 06' 11" N 105° 05' 49" W

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ANNEX E - CAM-M - ANALYSIS OF BERM WATER (EFFLUENT FROM BERMED FUEL STORAGE FACILITIES)

Table E-1 Analysis of Berm Water at CAM-M in 2014

Site Berm Date	Maximum Concentration of any Grab Sample (µg/L)	CAM-M W22A 23-Jun- 14	CAM-M W20B&C 23-Jun-14	CAM-M W20D&W22C 23-Jun-14
pH	6 to 9	7.66	7.85	7.31
Oil and Grease (ug/L)	5000	<1000	<1000	1000
Arsenic (total) (ug/L)	100	<20	<20	<20
Cadmium (dissolved) (ug/L)	10	<0.1	<0.1	<0.1
Chromium (dissolved) (ug/L)	100	<1	<1	<1
Cobalt (dissolved) (ug/L)	50	<0.2	<0.2	<0.2
Copper (dissolved) (ug/L)	200	5	3	5
Lead (dissolved) (ug/L)	50	<1	<1	<1
Mercury (total) (ug/L)	0.6	<0.1	<0.1	<0.1
Nickel (dissolved) (ug/L)	200	<5	<5	<5
PCB (total) (ug/L)	1000	<0.1	<0.1	<0.1
Phenols (ug/L)	20	<1	<1	<1
Zinc (total) (ug/L)	500	<40	50	<40
Benzene (ug/L)	370	<0.5	<0.5	<0.5
Toluene (ug/L)	2	<0.5	<0.5	<0.5
Ethyl benzene (ug/L)	90	<0.5	<0.5	<0.5

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23 June 2014

Summit, Berm of tank W22A

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EXOVA OTTAWA

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Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412930
Date Submitted: 2014-06-30
Date Reported: 2014-07-04
Project:
COC #: 115443

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	
Group		Analyte	MRL	Units	Guideline
Metals		Cd	0.0001	mg/L	<0.0001
		Co	0.0002	mg/L	<0.0002
		Cr	0.001	mg/L	<0.001
		Cu	0.001	mg/L	0.005
		Ni	0.005	mg/L	<0.005
		Pb	0.001	mg/L	<0.001

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MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, FWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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SOW REF: 16.F.5.d

23 June 2014

Summit, Berm of tank W22A

Page 2 of 2

EXOVA OTTAWA

Certificate of Analysis



Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412933
Date Submitted: 2014-06-30
Date Reported: 2014-07-07
Project:
COC #: 115443

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1115333 Sewage 2014-06-23 ML-W22A
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.66
Mercury	Hg	0.0001	mg/L		<0.0001
Metals	Aqua-Regia Digest				Y
	As	0.02	mg/L		<0.02
	Zn	0.04	mg/L		<0.04
Nutrients	Phenols	0.001	mg/L		<0.001
Oil & Grease	Oil & Grease - Total	1	mg/L		<1
PCBs	Polychlorinated Biphenyls (PCBs)	0.1	ug/L		<0.1
VOCs	Benzene	0.5	ug/L		<0.5
	Ethylbenzene	0.5	ug/L		<0.5
	Toluene	0.5	ug/L		<0.5
VOCs Surrogates (%)	Toluene-d8	0	%		101

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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SOW REF: 16.F.5.d

23 June 2014

Airfield (near hangar), Berm of tanks W20B and W20C

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EXOVA OTTAWA

Certificate of Analysis



Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412931
Date Submitted: 2014-06-30
Date Reported: 2014-07-04
Project:
COC #: 115441

		Lab I.D.		1115331	
		Sample Matrix		Sewage	
		Sample Type		2014-06-23	
		Sampling Date		ML-W20BC	
		Sample I.D.			
Group	Analyte	MRL	Units	Guideline	
Metals	Cd	0.0001	mg/L		<0.0001
	Co	0.0002	mg/L		<0.0002
	Cr	0.001	mg/L		<0.001
	Cu	0.001	mg/L		0.003
	Ni	0.005	mg/L		<0.005
	Pb	0.001	mg/L		<0.001

Guideline = * = Guideline Exceedence
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Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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SOW REF: 16.F.5.d

23 June 2014

Airfield (near hangar), Berm of tanks W20B and W20C

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EXOVA OTTAWA

Certificate of Analysis



Client: Nasittuq Corp. (Ottawa)
150 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412934
Date Submitted: 2014-06-30
Date Reported: 2014-07-07
Project:
COC #: 115441

Group		Analyte	MRL	Units	Guideline	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
General Chemistry		pH	1.00			1115334 Sewage
Mercury		Hg	0.0001	mg/L		2014-06-23 ML-W20BC
Metals		Aqua-Regia Digest				
		As	0.02	mg/L		
		Zn	0.04	mg/L		
Nutrients		Phenols	0.001	mg/L		
Oil & Grease		Oil & Grease - Total	1	mg/L		
PCBs		Polychlorinated Biphenyls (PCBs)	0.1	ug/L		
VOCs		Benzene	0.5	ug/L		
		Ethylbenzene	0.5	ug/L		
		Toluene	0.5	ug/L		
VOCs Surrogates (%)		Toluene-d8	0	%		

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario
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Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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SOW REF: 16.F.5.d

23 June 2014

Beach, Berm of tanks W20D & W22C

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EXOVA OTTAWA

Certificate of Analysis



Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412929
Date Submitted: 2014-06-30
Date Reported: 2014-07-04
Project:
COC #: 115448

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
					1115325 Sewage 2014-06-23 ML-W20CD
Group	Analyte	MRL	Units	Guideline	
Metals	Cd	0.0001	mg/L		<0.0001
	Co	0.0002	mg/L		<0.0002
	Cr	0.001	mg/L		<0.001
	Cu	0.001	mg/L		0.005
	Ni	0.005	mg/L		<0.005
	Pb	0.001	mg/L		<0.001

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

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Page 2 of 3

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IFWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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SOW REF: 16.F.5.d

23 June 2014

Beach, Berm of tanks W20D & W22C

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Certificate of Analysis

Client: Nasittuq Corp. (Ottawa)
160 Elgin Street, Suite 400
Ottawa, ON
K2P 2C4
Attention: Ms. Barb Thomson
PO#:
Invoice to: Nasittuq Corp. (Ottawa)

Report Number: 1412932
Date Submitted: 2014-06-30
Date Reported: 2014-07-07
Project:
COC #: 115448

					Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.
					1115332 Sewage 2014-06-23 ML-W20CD
Group	Analyte	MRL	Units	Guideline	
General Chemistry	pH	1.00			7.31
Mercury	Hg	0.0001	mg/L		<0.0001
Metals	Aqua-Regia Digest				Y
	As	0.02	mg/L		<0.02
	Zn	0.04	mg/L		<0.04
Nutrients	Phenols	0.001	mg/L		<0.001
Oil & Grease	Oil & Grease - Total	1	mg/L		1
PCBs	Polychlorinated Biphenyls (PCBs)	0.1	ug/L		<0.1
VOCs	Benzene	0.5	ug/L		<0.5
	Ethylbenzene	0.5	ug/L		<0.5
	Toluene	0.5	ug/L		<0.5
VOCs Surrogates (%)	Toluene-d8	0	%		99

Guideline = * = Guideline Exceedence
** = Analysis completed at Mississauga, Ontario.
Results relate only to the parameters tested on the samples submitted.
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline,
MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable
Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO
= Interim Provincial Water Quality Objective, TDR = Typical Desired Range

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