ANNUAL REPORT
FOR THE HAMLET OF NAUJAAT

YEAR BEING REPORTED: 2015

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence No. **3BM-REP1520** issued to the **Hamlet of Repulse Bay**.

i)- iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are results for Monitoring station REP-1 (water supply volume) and REP-3 (sewage discharge volume), as well as detailed chemical, physical and biological analysis required at REP-2, REP-4, REP-6 and REP-7.

Month Reported	Quantity of Water Obtained from all Sources (m^3)	Quantity of Sewage Waste Discharged (m^3)
January	2,973.13	Same
February	2,583.97	Same
March	2,885.93	Same
April	2,685.72	Same
May	2,879.81	Same
June	2,938.68	Same
July	3,071.64	Same
August	3,170.04	Same
September	3,166.65	Same
October	3,338.75	Same
November	3,189.32	Same
December	3,093.43	Same
ANNUAL TOTAL	35,977.06	35,977.06

Note: No meter exists to measure the sewage discharge volume, therefore water consumption volume is considered as equal volume to the Sewage discharge volume.

iv. a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;

- No modifications and/or major work were carried out at the Water Truck Fill Station, Sewage Treatment Wetlands, or Solid Waste Site or the Sewage in 2015.
- Construction of the new Water Treatment Plant did not commence in 2015 as scheduled. The project is being tendered as of February 2016 and is scheduled to begin summer 2016 and be completed by the end of 2016.
- Construction of the Sewage Lagoon was cancelled.
- Improved segregation at the Solid Waste Site is taking place. Batteries have been collected and are being stored in battery boxes located in a seacan.

v. a list of unauthorized discharges and summary of follow-up action taken;

- Spills:
  - 2015392, 2015-09-09, Tusaruis School (behind), Diesel, 30L

vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

- The existing Water Truck Fill Station will be demolished in 2015. The site will not be abandoned and restored because the new Water Treatment Plant will be constructed in the same location.

vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

- A study of the Naujaat sewage wetlands area will be conducted by Dalhousie University during summer 2016. This report will be submitted to the NWB with the 2016 Annual Report.

viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

- Signage for the Monitoring Program Stations will be ordered over the winter for

installation summer 2015. Pictures of the signage at Monitoring Program Stations will be included in the 2015 Annual Report.

ix. updates or revisions to the approved Operation and Maintenance Plans.

- The Water Treatment System O&M Plan will be submitted to the NWB for approval upon completion of the new Water Treatment Plant.
- The Solid Waste Site and Sewage Treatment System O&M Plans are currently being reviewed and updated. Changes/updates will be included in the 2016 Annual Report as an addendum.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- The Hamlet of Repulse Bay changed its name to its traditional Inuktitut name, Naujaat, on July 2, 2015. The community is referred to as the Hamlet of Naujaat from that point forward. Samples were labelled NAU- instead of REP-.
- The Hamlet is working with the Water Compliance Working Group to implement the Solid Waste Workplan goals.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

- The AANDC Inspection took place on August 24, 2015. The report can be found in the appendix.
- The AANDC Inspection Report was used on December 22, 2015. Waste oil drums are to be sealed and palletized by July 15, 2016, prior to the 2016 inspection.

List of Appendixes:

Appendix A: REP-6 Effluent Quality Limits – 1 page
Appendix B: Weekly Inspection at Monitoring Stations – 1 page
Appendix C: Certificate of Analysis June 25, 2015 – 18 pages
Appendix D: Certificate of Analysis July 29, 2015 – 14 pages
Appendix E: Certificate of Analysis August 25, 2015 – 19 pages

Appendix F: Certificate of Analysis August 27, 2015 – 9 pages
Appendix G: Hazardous Materials Spill Database, Repulse Bay 2014 – 1 page
Appendix H: AANDC Inspection Report – 1 page

2015 Naujaat Monitoring Stations and Sampling Parameters Summary for Water License No. 3BM-REP1520
Part D, Item 2; REP-6 Effluent Quality Limits

Parameter	Maximum Concentration of any Grab sample	REP-6		
		25-Jun-15	29-Jul-15	25-Aug-15
BOD_5	80 mg/L	12.7	<20	26.2
Total Suspended Solids	70 mg/L	6.0	35.0	42.0
Faecal Coliforms	1 x 10^6 CFU/100 mL (1 x 10^6 CFU/dl)	9300	<3	<3
Oil & Grease	No visible sheen	<2.0	<2.0	<2.0
pH	between 6 and 9	7.25	7.96	9.14

exceeds effluent quality limits

Nunavut Water Board Licence No. 3BM-REP1520

Repulse Bay, NU

Part H: Weekly Inspections at Monitoring Program Stations, June to August

Week	Starting Date	REP-2			REP-2a			REP-5			REP-6			Checked By
		Water Present (check)			Water Present (check)			Water Present (check)			Water Present (check)			
		Yes	No	Frozen	Yes	No	Frozen	Yes	No	Frozen	Yes	No	Frozen	
1	01-Jun-15		X			X		X					X	Kevin
2	08-Jun-15		X			X		X					X	Kevin
3	15-Jun-15	X			X			X					X	Kevin
4	22-Jun-15													
5	29-Jun-15													
6	06-Jul-15													
7	13-Jul-15													
8	20-Jul-15													
9	27-Jul-15													
10	03-Aug-15													
11	10-Aug-15													
12	17-Aug-15													
13	24-Aug-15													
14	31-Aug-15													

Monitoring Program Station Locations:

REP-2: Runoff from the Solid Waste Disposal Facility culvert

REP-2a: Runoff from the Solid Waste Disposal Facility boulder seepage

REP-5: Effluent discharged from the Contaminated Soil Storage Facility

REP-6: Discharge from Vegetated Filter Strip Wetlands

Hamlet of Repulse Bay
ATTN: KEVIN TEGUMIAR
PO Box 10
Repulse Bay NU X0C 0H0

Date Received: 27-JUN-15
Report Date: 27-JUL-15 07:32 (MT)
Version: FINAL

Client Phone: 867-462-9952

Certificate of Analysis

Lab Work Order #: L1634254

Project P.O. #: NOT SUBMITTED
Job Reference: REPULSE BAY
C of C Numbers:
Legal Site Desc:

Hua Wo
Chemistry Laboratory Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-1 REP-2							
Sampled By: CLIENT on 25-JUN-15 @ 13:35							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
Toluene	<0.0010		0.0010	mg/L		08-JUL-15	R3221792
Ethyl benzene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
o-Xylene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
m+p-Xylenes	0.00075		0.00050	mg/L		08-JUL-15	R3221792
F1 (C6-C10)	<0.10		0.10	mg/L		08-JUL-15	R3221792
Surrogate: 4-Bromofluorobenzene (SS)	92.4		70-130	%		08-JUL-15	R3221792
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-JUL-15	
F2-Naphth	<0.25		0.25	mg/L		08-JUL-15	
F3-PAH	<0.25		0.25	mg/L		08-JUL-15	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		08-JUL-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
F3 (C16-C34)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
F4 (C34-C50)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
Surrogate: 2-Bromobenzotrifluoride	107.5		60-140	%	04-JUL-15	07-JUL-15	R3221524
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		08-JUL-15	
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Acenaphthene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Acenaphthylene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Anthracene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Acridine	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(a)anthracene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Chrysene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Fluoranthene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Fluorene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Naphthalene	<0.000050		0.000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Phenanthrene	<0.000050		0.000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Pyrene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Quinoline	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	07-JUL-15	07-JUL-15	R3221586
Surrogate: Acenaphthene d10	90.2		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Acridine d9	108.5		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Chrysene d12	94.4		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Naphthalene d8	79.1		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Phenanthrene d10	91.5		40-130	%	07-JUL-15	07-JUL-15	R3221586
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	102		1.2	mg/L		13-JUL-15	
Alkalinity, Carbonate							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-1 REP-2							
Sampled By: CLIENT on 25-JUN-15 @ 13:35							
Matrix: Wastewater							
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		13-JUL-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		13-JUL-15	
Ammonia by colour							
Ammonia, Total (as N)	<0.010		0.010	mg/L		30-JUN-15	R3218142
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		27-JUN-15	R3225488
Chloride in Water by IC							
Chloride (Cl)	10.0		0.50	mg/L		30-JUN-15	R3225241
Conductivity							
Conductivity	213		1.0	umhos/cm		10-JUL-15	R3224269
Fecal Coliform							
Fecal Coliforms	<3	PEHT	3	MPN/100mL		27-JUN-15	R3218196
Hardness Calculated							
Hardness (as CaCO3)	95.2		0.30	mg/L		08-JUL-15	
Mercury Total							
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221935
Nitrate in Water by IC							
Nitrate (as N)	0.277		0.020	mg/L		30-JUN-15	R3225241
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.277		0.070	mg/L		14-JUL-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		30-JUN-15	R3225241
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	06-JUL-15	06-JUL-15	R3221515
Phenol (4AAP)							
Phenols (4AAP)	0.0016		0.0010	mg/L		08-JUL-15	R3222283
Phosphorus, Total							
Phosphorus (P)-Total	0.013		0.010	mg/L		06-JUL-15	R3220337
Sulfate in Water by IC							
Sulfate (SO4)	14.1		0.30	mg/L		30-JUN-15	R3225241
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	83.4		1.0	mg/L		10-JUL-15	R3224269
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.380		0.0050	mg/L	07-JUL-15	07-JUL-15	R3221453
Arsenic (As)-Total	<0.00020		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221453
Calcium (Ca)-Total	29.4		0.10	mg/L	07-JUL-15	07-JUL-15	R3221453
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	07-JUL-15	07-JUL-15	R3221453
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Copper (Cu)-Total	0.00235		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Iron (Fe)-Total	0.38		0.10	mg/L	07-JUL-15	07-JUL-15	R3221453
Lead (Pb)-Total	0.000216		0.000090	mg/L	07-JUL-15	07-JUL-15	R3221453
Magnesium (Mg)-Total	5.31		0.010	mg/L	07-JUL-15	07-JUL-15	R3221453
Manganese (Mn)-Total	0.00875		0.00030	mg/L	07-JUL-15	07-JUL-15	R3221453
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	07-JUL-15	07-JUL-15	R3221453
Potassium (K)-Total	2.15		0.020	mg/L	07-JUL-15	07-JUL-15	R3221453
Sodium (Na)-Total	9.69		0.030	mg/L	07-JUL-15	07-JUL-15	R3221453
Zinc (Zn)-Total	<0.0020		0.0020	mg/L	07-JUL-15	07-JUL-15	R3221453
Total Organic Carbon							
Total Organic Carbon	3.5		1.0	mg/L		22-JUL-15	R3231067
Total Suspended Solids							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-1 REP-2							
Sampled By: CLIENT on 25-JUN-15 @ 13:35							
Matrix: Wastewater							
Total Suspended Solids							
Total Suspended Solids	5.0		5.0	mg/L		02-JUL-15	R3219144
pH							
pH	8.04		0.10	pH units		10-JUL-15	R3224269
L1634254-2 REP-5							
Sampled By: CLIENT on 25-JUN-15 @ 13:00							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
Toluene	<0.0010		0.0010	mg/L		08-JUL-15	R3221792
Ethyl benzene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
o-Xylene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
m+p-Xylenes	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
F1 (C6-C10)	<0.10		0.10	mg/L		08-JUL-15	R3221792
Surrogate: 4-Bromofluorobenzene (SS)	94.5		70-130	%		08-JUL-15	R3221792
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-JUL-15	
F2-Naphth	<0.25		0.25	mg/L		08-JUL-15	
F3-PAH	<0.25		0.25	mg/L		08-JUL-15	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		08-JUL-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
F3 (C16-C34)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
F4 (C34-C50)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
Surrogate: 2-Bromobenzotrifluoride	108.1		60-140	%	04-JUL-15	07-JUL-15	R3221524
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		08-JUL-15	
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Acenaphthene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Acenaphthylene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Anthracene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Acridine	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(a)anthracene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Chrysene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Fluoranthene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Fluorene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Naphthalene	<0.000050		0.000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Phenanthrene	<0.000050		0.000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Pyrene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Quinoline	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	07-JUL-15	07-JUL-15	R3221586
Surrogate: Acenaphthene d10	85.3		40-130	%	07-JUL-15	07-JUL-15	R3221586

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-2 REP-5							
Sampled By: CLIENT on 25-JUN-15 @ 13:00							
Matrix: Wastewater							
Polyaromatic Hydrocarbons (PAHs)							
Surrogate: Acridine d9	105.4		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Chrysene d12	81.5		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Naphthalene d8	76.9		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Phenanthrene d10	87.2		40-130	%	07-JUL-15	07-JUL-15	R3221586
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	167		1.2	mg/L		13-JUL-15	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		13-JUL-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		13-JUL-15	
Ammonia by colour							
Ammonia, Total (as N)	0.026		0.010	mg/L		30-JUN-15	R3218142
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		27-JUN-15	R3225488
Chloride in Water by IC							
Chloride (Cl)	8.97		0.50	mg/L		30-JUN-15	R3225241
Conductivity							
Conductivity	305		1.0	umhos/cm		10-JUL-15	R3224269
Fecal Coliform							
Fecal Coliforms	<3	PEHT	3	MPN/100mL		27-JUN-15	R3218196
Hardness Calculated							
Hardness (as CaCO3)	160		0.30	mg/L		08-JUL-15	
Mercury Total							
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221935
Nitrate in Water by IC							
Nitrate (as N)	<0.020		0.020	mg/L		30-JUN-15	R3225241
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.070		0.070	mg/L		14-JUL-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		30-JUN-15	R3225241
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	06-JUL-15	06-JUL-15	R3221515
Phenol (4AAP)							
Phenols (4AAP)	0.0033		0.0010	mg/L		08-JUL-15	R3222283
Phosphorus, Total							
Phosphorus (P)-Total	0.045		0.010	mg/L		06-JUL-15	R3220337
Sulfate in Water by IC							
Sulfate (SO4)	19.8		0.30	mg/L		30-JUN-15	R3225241
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	137		1.0	mg/L		10-JUL-15	R3224269
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.348		0.0050	mg/L	07-JUL-15	07-JUL-15	R3221453
Arsenic (As)-Total	0.00036		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221453
Calcium (Ca)-Total	49.1		0.10	mg/L	07-JUL-15	07-JUL-15	R3221453
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	07-JUL-15	07-JUL-15	R3221453
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Copper (Cu)-Total	0.00405		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Iron (Fe)-Total	0.29		0.10	mg/L	07-JUL-15	07-JUL-15	R3221453
Lead (Pb)-Total	0.000309		0.000090	mg/L	07-JUL-15	07-JUL-15	R3221453
Magnesium (Mg)-Total	9.10		0.010	mg/L	07-JUL-15	07-JUL-15	R3221453

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-2 REP-5							
Sampled By: CLIENT on 25-JUN-15 @ 13:00							
Matrix: Wastewater							
Total Metals by ICP-MS							
Manganese (Mn)-Total	0.00525		0.00030	mg/L	07-JUL-15	07-JUL-15	R3221453
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	07-JUL-15	07-JUL-15	R3221453
Potassium (K)-Total	3.07		0.020	mg/L	07-JUL-15	07-JUL-15	R3221453
Sodium (Na)-Total	5.68		0.030	mg/L	07-JUL-15	07-JUL-15	R3221453
Zinc (Zn)-Total	0.0020		0.0020	mg/L	07-JUL-15	07-JUL-15	R3221453
Total Organic Carbon							
Total Organic Carbon	12.6		1.0	mg/L		22-JUL-15	R3231067
Total Suspended Solids							
Total Suspended Solids	<5.0		5.0	mg/L		02-JUL-15	R3219144
pH							
pH	8.12		0.10	pH units		10-JUL-15	R3224269
L1634254-3 REP-6							
Sampled By: CLIENT on 25-JUN-15 @ 11:36							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
Toluene	<0.0010		0.0010	mg/L		08-JUL-15	R3221792
Ethyl benzene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
o-Xylene	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
m+p-Xylenes	<0.00050		0.00050	mg/L		08-JUL-15	R3221792
F1 (C6-C10)	<0.10		0.10	mg/L		08-JUL-15	R3221792
Surrogate: 4-Bromofluorobenzene (SS)	92.1		70-130	%		08-JUL-15	R3221792
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-JUL-15	
F2-Naphth	<0.25		0.25	mg/L		08-JUL-15	
F3-PAH	0.75		0.25	mg/L		08-JUL-15	
Total Hydrocarbons (C6-C50)	1.01		0.44	mg/L		08-JUL-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
F3 (C16-C34)	0.75		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
F4 (C34-C50)	0.26		0.25	mg/L	04-JUL-15	07-JUL-15	R3221524
Surrogate: 2-Bromobenzotrifluoride	107.3		60-140	%	04-JUL-15	07-JUL-15	R3221524
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		08-JUL-15	
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Acenaphthene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Acenaphthylene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Anthracene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Acridine	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(a)anthracene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Chrysene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Fluoranthene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-3 REP-6							
Sampled By: CLIENT on 25-JUN-15 @ 11:36							
Matrix: Wastewater							
Polyaromatic Hydrocarbons (PAHs)							
Fluorene	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Naphthalene	<0.000050		0.000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Phenanthrene	<0.000050		0.000050	mg/L	07-JUL-15	07-JUL-15	R3221586
Pyrene	<0.000010		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221586
Quinoline	<0.000020		0.000020	mg/L	07-JUL-15	07-JUL-15	R3221586
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	07-JUL-15	07-JUL-15	R3221586
Surrogate: Acenaphthene d10	73.9		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Acridine d9	85.5		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Chrysene d12	75.8		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Naphthalene d8	101.7		40-130	%	07-JUL-15	07-JUL-15	R3221586
Surrogate: Phenanthrene d10	71.9		40-130	%	07-JUL-15	07-JUL-15	R3221586
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	141		1.2	mg/L		13-JUL-15	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		13-JUL-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		13-JUL-15	
Ammonia by colour							
Ammonia, Total (as N)	10.7	DLA	1.0	mg/L		02-JUL-15	R3218855
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	12.7		2.0	mg/L		27-JUN-15	R3225488
Chloride in Water by IC							
Chloride (Cl)	16.6		0.50	mg/L		30-JUN-15	R3225241
Conductivity							
Conductivity	298		1.0	umhos/cm		10-JUL-15	R3224269
Fecal Coliform							
Fecal Coliforms	9300	PEHT	3	MPN/100mL		27-JUN-15	R3218196
Hardness Calculated							
Hardness (as CaCO3)	71.7		0.30	mg/L		08-JUL-15	
Mercury Total							
Mercury (Hg)-Total	<0.00020	DLM	0.00020	mg/L	07-JUL-15	07-JUL-15	R3221935
Nitrate in Water by IC							
Nitrate (as N)	0.038		0.020	mg/L		30-JUN-15	R3225241
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.070		0.070	mg/L		14-JUL-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		30-JUN-15	R3225241
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	06-JUL-15	06-JUL-15	R3221515
Phenol (4AAP)							
Phenols (4AAP)	0.0067		0.0010	mg/L		08-JUL-15	R3222283
Phosphorus, Total							
Phosphorus (P)-Total	1.96	DLA	0.050	mg/L		06-JUL-15	R3220337
Sulfate in Water by IC							
Sulfate (SO4)	7.07		0.30	mg/L		30-JUN-15	R3225241
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	116		1.0	mg/L		10-JUL-15	R3224269
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.0282		0.0050	mg/L	07-JUL-15	07-JUL-15	R3221453
Arsenic (As)-Total	0.00026		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1634254-3 REP-6							
Sampled By: CLIENT on 25-JUN-15 @ 11:36							
Matrix: Wastewater							
Total Metals by ICP-MS							
Cadmium (Cd)-Total	0.000012		0.000010	mg/L	07-JUL-15	07-JUL-15	R3221453
Calcium (Ca)-Total	21.0		0.10	mg/L	07-JUL-15	07-JUL-15	R3221453
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	07-JUL-15	07-JUL-15	R3221453
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Copper (Cu)-Total	0.0111		0.00020	mg/L	07-JUL-15	07-JUL-15	R3221453
Iron (Fe)-Total	0.39		0.10	mg/L	07-JUL-15	07-JUL-15	R3221453
Lead (Pb)-Total	0.000215		0.000090	mg/L	07-JUL-15	07-JUL-15	R3221453
Magnesium (Mg)-Total	4.68		0.010	mg/L	07-JUL-15	07-JUL-15	R3221453
Manganese (Mn)-Total	0.0296		0.00030	mg/L	07-JUL-15	07-JUL-15	R3221453
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	07-JUL-15	07-JUL-15	R3221453
Potassium (K)-Total	5.75		0.020	mg/L	07-JUL-15	07-JUL-15	R3221453
Sodium (Na)-Total	15.2		0.030	mg/L	07-JUL-15	07-JUL-15	R3221453
Zinc (Zn)-Total	0.0130		0.0020	mg/L	07-JUL-15	07-JUL-15	R3221453
Total Organic Carbon							
Total Organic Carbon	9.8		1.0	mg/L		24-JUL-15	R3232635
Total Suspended Solids							
Total Suspended Solids	6.0		5.0	mg/L		02-JUL-15	R3219144
pH							
pH	7.25		0.10	pH units		10-JUL-15	R3224269

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHT	Parameter Exceeded Recommended Holding Time Prior to Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.

ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L

ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.

ALK-TITR-WP	Water	Total Alkalinity as CaCO3	APHA 2320B

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-WP	Water	Biochemical Oxygen Demand (BOD)	APHA 5210 B

Samples are diluted and seeded and then incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA 8260C / EPA 5021A

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

C-TOT-ORG-WP	Water	Total Organic Carbon	APHA 5310 B-INSTRUMENTAL-WP

This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.

The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.
TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.

CL-IC-N-WP	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-WP	Water	Conductivity	APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

ETL-HARDNESS-TOT-WP	Water	Hardness Calculated	HARDNESS CALCULATED
F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-FID-WP	Water	F2-F4 PHC method	CWS (CCME)

Petroleum Hydrocarbons (F2-F4) in Water Method is adapted from US EPA Method 3511: Organic Compounds in Water by Micro-extraction" (Nov 2002) with instrumental analysis as per the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method" (CCMS, Dec 2000) Water samples (in their entirety) are extracted using hexane prior to capillary column gas chromatography with flame ionization detection (GC/FID).

FC-MPN-WP	Water	Fecal Coliform	APHA 9221E

The Most Probable Number (MPN) method is based on the Multiple Tube Fermentation technique. The results of examination of replicate tubes and dilutions of a sample are reported after confirmations specific to total coliform, fecal coliform and E. coli are performed. Results are reported in MPN/100 mL for water and MPN/gram for food and solid samples.

HG-T-CVAF-WP	Water	Mercury Total	EPA245.7 V2.0

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

MET-T-L-MS-WP	Water	Total Metals by ICP-MS	APHA 3030E/EPA 6020A-TL

This analysis involves preliminary sample treatment by hotblock acid digestion (APHA 3030E). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F

Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.

NO2+NO3-CALC-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-N-WP	Water	Nitrite in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B

Sample is extracted with hexane, extract is then evaporated and the residue is weighed to determine total oil and grease.

P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PAH,PANH-WP	Water	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PH-WP	Water	pH	APHA 4500H

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
SO4-IC-N-WP	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
SOLIDS-TOTSUS-WP	Water	Total Suspended Solids	APHA 2540 D (modified)
Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105°C.			
XYLENES-SUM-CALC-WP	Water	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
Total xylenes represents the sum of o-xylene and m&p-xylene.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

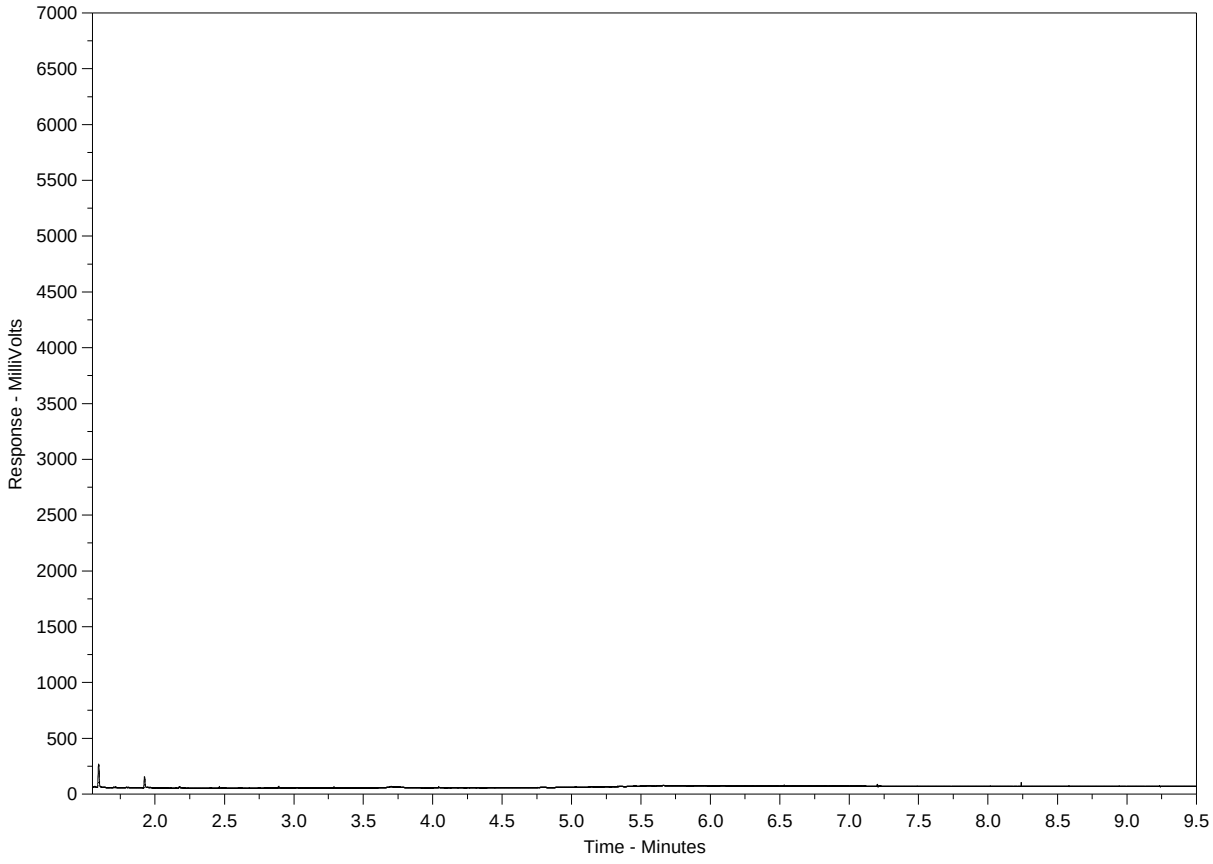
GLOSSARY OF REPORT TERMS

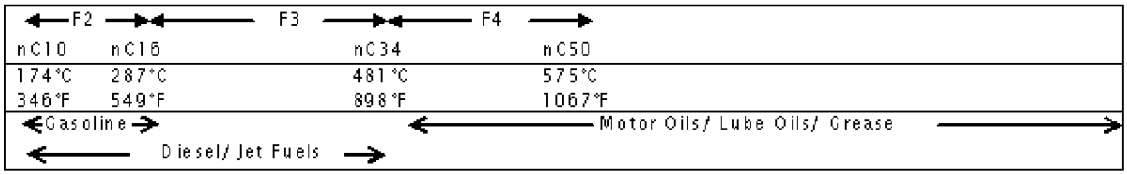
Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1634254-1
Client Sample ID: REP-2





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

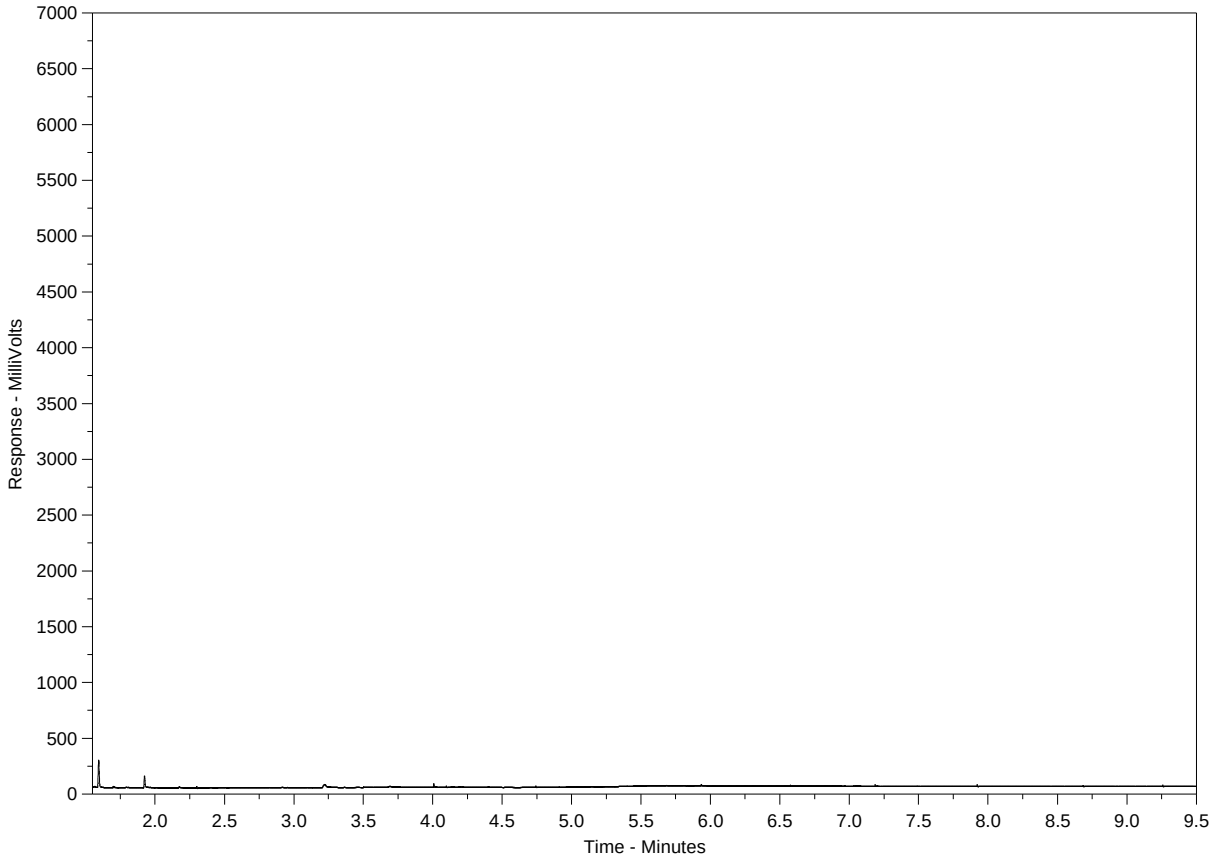
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

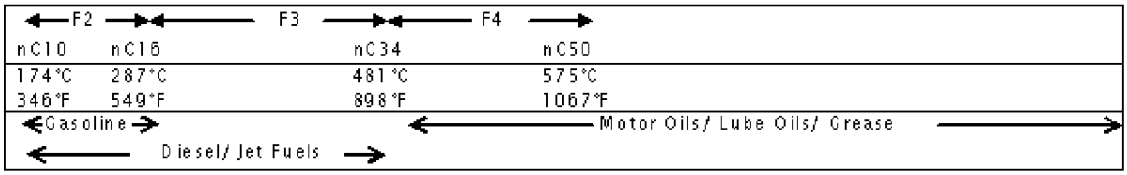
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1634254-2
Client Sample ID: REP-5





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

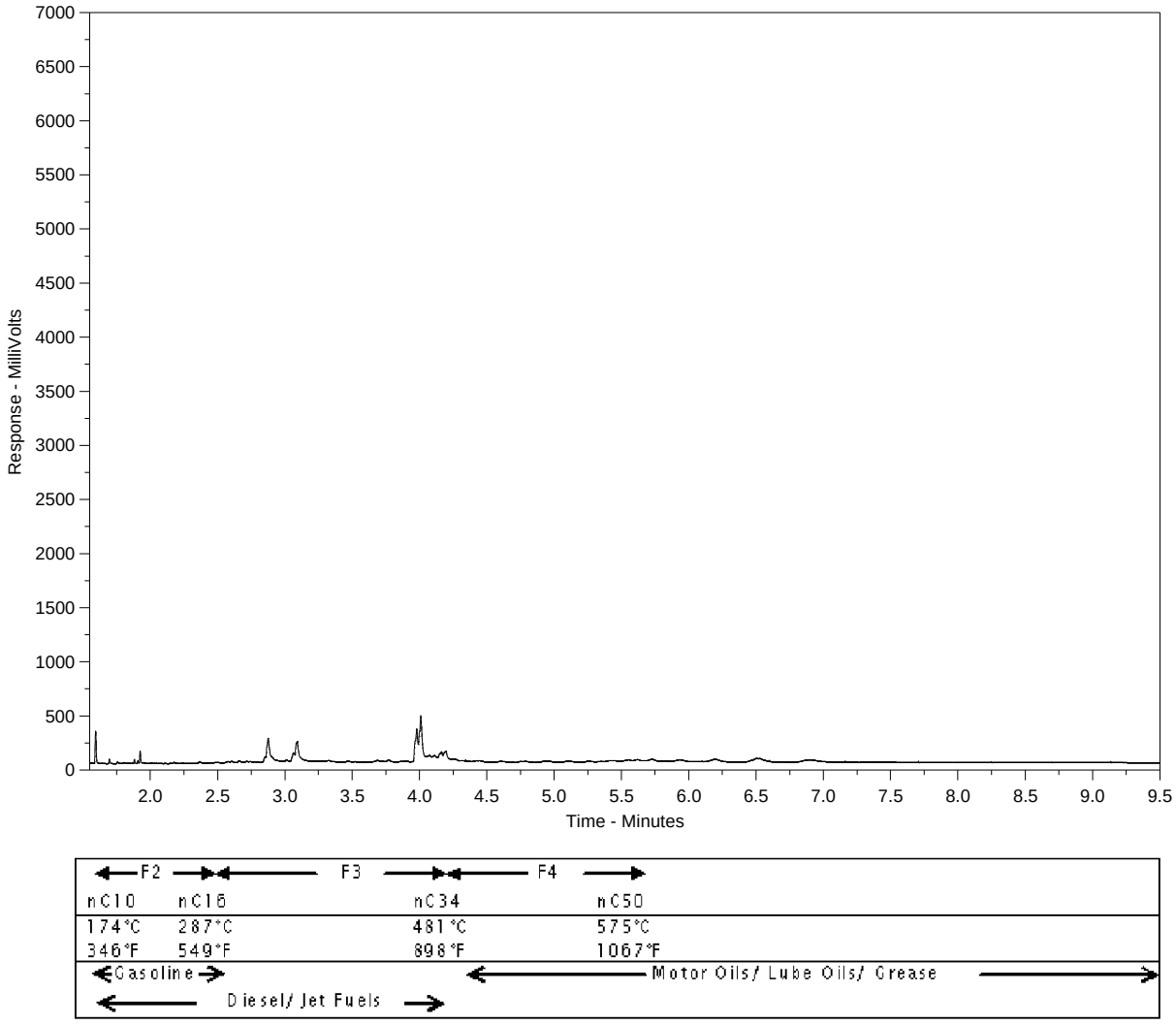
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1634254-3
Client Sample ID: REP-6



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1634254-COFC

COC Number: 14 - 454493

Page ___ of ___

Report To	
Company:	Hamlet of Repulse Bay
Contact:	Kevin Teguminar
Address:	P.O. Box 10 Repulse Bay, NU X0C 0H0
Phone:	867 462 9952

Report Format / Distribution

Select Report Format: ☐ PDF ☐ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ Yes ☐ No

☐ Criteria on Report - provide details below if box checked

Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Service Requested (Rush Turnaround Time (TAT) is not available for all tests)

- R ☐ Regular (Standard TAT if received by 3pm)
- P ☐ Priority (2-4 business days if received by 3pm)
- E ☐ Emergency (1-2 business days if received by 3pm)
- E2 ☐ Same day or weekend emergency if received by 10am – contact ALS for surcharge.

Specify Date Required for E2,E or P:

Invoice To		
Same as Report To	☒ Yes	☐ No
Copy of Invoice with Report	☒ Yes	☐ No
Company:	Hamlet of Repulse Bay	
Contact:	mmos@repulsebay.ca	

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Project Information

ALS Quote #:

Job #:

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

Approver ID: | Cost Center:

GL Account: | Routing Code:

Activity Code:

Location:

ALS Lab Work Order # (lab use only)

ALS Contact: | Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	* Nunavut WW-4(P1-4)	* PAH	* BTEX	Number of Containers
	Rep-2	25 JUN	13:35					
	Rep-5	↓	13:00					
	Rep-6	↓	11:??					

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ Yes ☐ No

Are samples for human drinking water use? ☐ Yes ☐ No

Special Instructions / Specify Criteria to add on report (client Use)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice packs Yes ☐ No ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C | FINAL COOLER TEMPERATURES °C

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: DTS	Date: 27JUN15	Time: 11:25	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0326e v08 Front/03 October 2013

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

4.8°C

Field Log

Name of Sampler(s): Kevin Tegumear & Pio Kopak

Date of Sampling: June 25, 2015

Time of Sampling: [redacted] 1135 pm

Monitoring Station Number: REP-2

GPS Coordinates: N 66° 32' 596" W 086° 13' 541"

Weather Conditions: Windy

Samples:

- [x] 500 mL BOD
- [x] 1 L Routine
- [x] 250 mL Metals + Pres
- [x] 40 mL Glass Mercury Vial + Pres
- [x] 250 mL Amber Nutrients + Pres
- [x] 250 mL Amber Phenols + Pres
- [x] 125 mL Sterile Bacteria Bottle
- [x] **2 x** 500 mL Glass Oil & Grease + Pres
- [x] 1 L Amber PAH + Pres
- [x] **3 x** 40 mL BTEX, F1 Vials + Pres
- [x] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

Field Log

L1634254-COFC

Name of Sampler(s): Kevin Tegumier & Rio Kopak

Date of Sampling: June 25, 2015

Time of Sampling: 1:00 pm

Monitoring Station Number: REP-5

GPS Coordinates: N 66 ° 31 '711 " W 086 ° 13 '515"

Weather Conditions: Windy

Samples:

- [x] 500 mL BOD
- [x] 1 L Routine
- [x] 250 mL Metals + Pres
- [x] 40 mL Glass Mercury Vial + Pres
- [x] 250 mL Amber Nutrients + Pres
- [x] 250 mL Amber Phenols + Pres
- [x] 125 mL Sterile Bacteria Bottle
- [x] **2 x** 500 mL Glass Oil & Grease + Pres
- [x] 1 L Amber PAH + Pres
- [x] **3 x** 40 mL BTEX, F1 Vials + Pres
- [x] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

Field Log

Name of Sampler(s): Kevin Tegumiar & Pio Kopak

Date of Sampling: June 25, 2015

Time of Sampling: 11:36 am

Monitoring Station Number: ~~BG-1~~ REP-6

GPS Coordinates: N 66° 30' 994" W 048° 12' 344"

Weather Conditions: Windy

Samples:

- [x] 500 mL BOD
- [x] 1 L Routine
- [x] 250 mL Metals + Pres
- [x] 40 mL Glass Mercury Vial + Pres
- [x] 250 mL Amber Nutrients + Pres
- [x] 250 mL Amber Phenols + Pres
- [x] 125 mL Sterile Bacteria Bottle
- [x] **2 x** 500 mL Glass Oil & Grease + Pres
- [x] 1 L Amber PAH + Pres
- [x] **3 x** 40 mL BTEX, F1 Vials + Pres
- [x] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

_____

_____

_____

_____

_____

Hamlet of Repulse Bay
ATTN: KEVIN TEGUMIAR
PO Box 10
Repulse Bay NU X0C 0H0

Date Received: 02-AUG-15
Report Date: 14-AUG-15 15:10 (MT)
Version: FINAL

Client Phone: 867-462-9952

Certificate of Analysis

Lab Work Order #: L1651799

Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Craig Riddell, B.Sc.Ag
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1651799-1 NAV-2							
Sampled By: CLIENT on 29-JUL-15 @ 10:57							
Matrix: WATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
Toluene	<0.0010		0.0010	mg/L		06-AUG-15	R3241740
Ethyl benzene	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
o-Xylene	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
m+p-Xylenes	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
F1 (C6-C10)	<0.10		0.10	mg/L		06-AUG-15	R3241740
Surrogate: 4-Bromofluorobenzene (SS)	90.3		70-130	%		06-AUG-15	R3241740
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		12-AUG-15	
F2-Naphth	<0.25		0.25	mg/L		12-AUG-15	
F3-PAH	<0.25		0.25	mg/L		12-AUG-15	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		12-AUG-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	06-AUG-15	06-AUG-15	R3241681
F3 (C16-C34)	<0.25		0.25	mg/L	06-AUG-15	06-AUG-15	R3241681
F4 (C34-C50)	<0.25		0.25	mg/L	06-AUG-15	06-AUG-15	R3241681
Surrogate: 2-Bromobenzotrifluoride	98.0		60-140	%	06-AUG-15	06-AUG-15	R3241681
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		07-AUG-15	
Miscellaneous Parameters							
Total Organic Carbon	5.8		1.0	mg/L		07-AUG-15	R3241850
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Acenaphthene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Acenaphthylene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Anthracene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Acridine	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(a)anthracene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Chrysene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Fluoranthene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Fluorene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Naphthalene	<0.000050		0.000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Phenanthrene	<0.000050		0.000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Pyrene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Quinoline	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	10-AUG-15	11-AUG-15	R3245018
Surrogate: Acenaphthene d10	87.8		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Acridine d9	92.2		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Chrysene d12	92.1		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Naphthalene d8	80.8		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Phenanthrene d10	88.4		40-130	%	10-AUG-15	11-AUG-15	R3245018
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	190		1.2	mg/L		14-AUG-15	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1651799-1 NAV-2							
Sampled By: CLIENT on 29-JUL-15 @ 10:57							
Matrix: WATER							
Alkalinity, Carbonate							
Carbonate (CO3)	1.92		0.60	mg/L		14-AUG-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		14-AUG-15	
Ammonia by colour							
Ammonia, Total (as N)	0.014		0.010	mg/L		05-AUG-15	R3240609
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		05-AUG-15	R3245651
Carbonaceous BOD							
BOD Carbonaceous	<2.0		2.0	mg/L		05-AUG-15	R3245651
Chloride in Water by IC							
Chloride (Cl)	13.9		0.50	mg/L		05-AUG-15	R3241793
Conductivity							
Conductivity	352		1.0	umhos/cm		12-AUG-15	R3246377
Fecal Coliform							
Fecal Coliforms	<3	PEHR	3	MPN/100mL		02-AUG-15	R3241416
Hardness Calculated							
Hardness (as CaCO3)	151		0.30	mg/L		07-AUG-15	
Mercury Total							
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	06-AUG-15	06-AUG-15	R3241950
Nitrate in Water by IC							
Nitrate (as N)	0.050		0.020	mg/L		05-AUG-15	R3241793
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.070		0.070	mg/L		07-AUG-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		05-AUG-15	R3241793
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	06-AUG-15	06-AUG-15	R3242827
Phenol (4AAP)							
Phenols (4AAP)	<0.0010		0.0010	mg/L		12-AUG-15	R3245440
Phosphorus, Total							
Phosphorus (P)-Total	0.011		0.010	mg/L		10-AUG-15	R3243538
Sulfate in Water by IC							
Sulfate (SO4)	10.6		0.30	mg/L		05-AUG-15	R3241793
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	159		1.0	mg/L		12-AUG-15	R3246377
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.0182		0.0050	mg/L	06-AUG-15	06-AUG-15	R3241643
Arsenic (As)-Total	<0.00020		0.00020	mg/L	06-AUG-15	06-AUG-15	R3241643
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	06-AUG-15	06-AUG-15	R3241643
Calcium (Ca)-Total	47.0		0.10	mg/L	06-AUG-15	06-AUG-15	R3241643
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	06-AUG-15	06-AUG-15	R3241643
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	06-AUG-15	06-AUG-15	R3241643
Copper (Cu)-Total	0.00076		0.00020	mg/L	06-AUG-15	06-AUG-15	R3241643
Iron (Fe)-Total	<0.10		0.10	mg/L	06-AUG-15	06-AUG-15	R3241643
Lead (Pb)-Total	<0.000090		0.000090	mg/L	06-AUG-15	06-AUG-15	R3241643
Magnesium (Mg)-Total	8.10		0.010	mg/L	06-AUG-15	06-AUG-15	R3241643
Manganese (Mn)-Total	0.0148		0.00030	mg/L	06-AUG-15	06-AUG-15	R3241643
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	06-AUG-15	06-AUG-15	R3241643
Potassium (K)-Total	2.14		0.020	mg/L	06-AUG-15	06-AUG-15	R3241643
Sodium (Na)-Total	15.7		0.030	mg/L	06-AUG-15	06-AUG-15	R3241643
Zinc (Zn)-Total	<0.0020		0.0020	mg/L	06-AUG-15	06-AUG-15	R3241643
Total Suspended Solids							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1651799-1 NAV-2							
Sampled By: CLIENT on 29-JUL-15 @ 10:57							
Matrix: WATER							
Total Suspended Solids							
Total Suspended Solids	9.0		5.0	mg/L		06-AUG-15	R3241826
pH							
pH	8.30		0.10	pH units		12-AUG-15	R3246377
L1651799-2 NAV-6							
Sampled By: CLIENT on 29-JUL-15 @ 08:50							
Matrix: WATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
Toluene	<0.0010		0.0010	mg/L		06-AUG-15	R3241740
Ethyl benzene	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
o-Xylene	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
m+p-Xylenes	<0.00050		0.00050	mg/L		06-AUG-15	R3241740
F1 (C6-C10)	<0.10		0.10	mg/L		06-AUG-15	R3241740
Surrogate: 4-Bromofluorobenzene (SS)	92.3		70-130	%		06-AUG-15	R3241740
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		12-AUG-15	
F2-Naphth	<0.25		0.25	mg/L		12-AUG-15	
F3-PAH	0.35		0.25	mg/L		12-AUG-15	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		12-AUG-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	06-AUG-15	06-AUG-15	R3241681
F3 (C16-C34)	0.35		0.25	mg/L	06-AUG-15	06-AUG-15	R3241681
F4 (C34-C50)	<0.25		0.25	mg/L	06-AUG-15	06-AUG-15	R3241681
Surrogate: 2-Bromobenzotrifluoride	97.5		60-140	%	06-AUG-15	06-AUG-15	R3241681
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		07-AUG-15	
Miscellaneous Parameters							
Total Organic Carbon	35.5		1.0	mg/L		13-AUG-15	R3245737
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Acenaphthene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Acenaphthylene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Anthracene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Acridine	0.000023		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(a)anthracene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Chrysene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Fluoranthene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Fluorene	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Naphthalene	<0.000050		0.000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Phenanthrene	<0.000050		0.000050	mg/L	10-AUG-15	11-AUG-15	R3245018
Pyrene	<0.000010		0.000010	mg/L	10-AUG-15	11-AUG-15	R3245018
Quinoline	<0.000020		0.000020	mg/L	10-AUG-15	11-AUG-15	R3245018
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	10-AUG-15	11-AUG-15	R3245018

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1651799-2 NAV-6							
Sampled By: CLIENT on 29-JUL-15 @ 08:50							
Matrix: WATER							
Polyaromatic Hydrocarbons (PAHs)							
Surrogate: Acenaphthene d10	64.9		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Acridine d9	76.6		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Chrysene d12	81.9		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Naphthalene d8	55.7		40-130	%	10-AUG-15	11-AUG-15	R3245018
Surrogate: Phenanthrene d10	69.7		40-130	%	10-AUG-15	11-AUG-15	R3245018
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	160		1.2	mg/L		14-AUG-15	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		14-AUG-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		14-AUG-15	
Ammonia by colour							
Ammonia, Total (as N)	2.95	DLA	0.10	mg/L		05-AUG-15	R3240609
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<20	DLA	20	mg/L		05-AUG-15	R3245651
Carbonaceous BOD							
BOD Carbonaceous	10.5		2.0	mg/L		05-AUG-15	R3245651
Chloride in Water by IC							
Chloride (Cl)	21.3		0.50	mg/L		05-AUG-15	R3241793
Conductivity							
Conductivity	350		1.0	umhos/cm		12-AUG-15	R3246377
Fecal Coliform							
Fecal Coliforms	<3	PEHR	3	MPN/100mL		02-AUG-15	R3241416
Hardness Calculated							
Hardness (as CaCO3)	108		0.30	mg/L		07-AUG-15	
Mercury Total							
Mercury (Hg)-Total	<0.00020	DLM	0.00020	mg/L	06-AUG-15	06-AUG-15	R3241950
Nitrate in Water by IC							
Nitrate (as N)	0.680		0.020	mg/L		05-AUG-15	R3241793
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.860		0.070	mg/L		07-AUG-15	
Nitrite in Water by IC							
Nitrite (as N)	0.179		0.010	mg/L		05-AUG-15	R3241793
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	06-AUG-15	06-AUG-15	R3242827
Phenol (4AAP)							
Phenols (4AAP)	<0.0010		0.0010	mg/L		13-AUG-15	R3245735
Phosphorus, Total							
Phosphorus (P)-Total	1.86		0.010	mg/L		10-AUG-15	R3243538
Sulfate in Water by IC							
Sulfate (SO4)	11.0		0.30	mg/L		05-AUG-15	R3241793
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	131		1.0	mg/L		12-AUG-15	R3246377
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.0344		0.0050	mg/L	06-AUG-15	06-AUG-15	R3241643
Arsenic (As)-Total	0.00030		0.00020	mg/L	06-AUG-15	06-AUG-15	R3241643
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	06-AUG-15	06-AUG-15	R3241643
Calcium (Ca)-Total	32.9		0.10	mg/L	06-AUG-15	06-AUG-15	R3241643
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	06-AUG-15	06-AUG-15	R3241643
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	06-AUG-15	06-AUG-15	R3241643
Copper (Cu)-Total	0.00436		0.00020	mg/L	06-AUG-15	06-AUG-15	R3241643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1651799-2 NAV-6							
Sampled By: CLIENT on 29-JUL-15 @ 08:50							
Matrix: WATER							
Total Metals by ICP-MS							
Iron (Fe)-Total	0.42		0.10	mg/L	06-AUG-15	06-AUG-15	R3241643
Lead (Pb)-Total	0.000103		0.000090	mg/L	06-AUG-15	06-AUG-15	R3241643
Magnesium (Mg)-Total	6.27		0.010	mg/L	06-AUG-15	06-AUG-15	R3241643
Manganese (Mn)-Total	0.0309		0.00030	mg/L	06-AUG-15	06-AUG-15	R3241643
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	06-AUG-15	06-AUG-15	R3241643
Potassium (K)-Total	5.68		0.020	mg/L	06-AUG-15	06-AUG-15	R3241643
Sodium (Na)-Total	18.8		0.030	mg/L	06-AUG-15	06-AUG-15	R3241643
Zinc (Zn)-Total	0.0095		0.0020	mg/L	06-AUG-15	06-AUG-15	R3241643
Total Suspended Solids							
Total Suspended Solids	35.0		5.0	mg/L		06-AUG-15	R3241826
pH							
pH	7.96		0.10	pH units		12-AUG-15	R3246377

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHR	Parameter Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.

ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L

ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.

ALK-TITR-WP	Water	Total Alkalinity as CaCO3	APHA 2320B

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP	Water	Carbonaceous BOD	APHA 5210 B

Samples are diluted and seeded, have TCMP added to inhibit nitrogenous demands, and then are incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BOD-WP	Water	Biochemical Oxygen Demand (BOD)	APHA 5210 B

Samples are diluted and seeded and then incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA 8260C / EPA 5021A

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

CL-IC-N-WP	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-WP	Water	Conductivity	APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

ETL-HARDNESS-TOT-WP	Water	Hardness Calculated	HARDNESS CALCULATED
F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-FID-WP	Water	F2-F4 PHC method	CWS (CCME)

Petroleum Hydrocarbons (F2-F4) in Water Method is adapted from US EPA Method 3511: Organic Compounds in Water by Micro-extraction" (Nov 2002) with instrumental analysis as per the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method" (CCMS, Dec 2000) Water samples (in their entirety) are extracted using hexane prior to capillary column gas chromatography with flame ionization detection (GC/FID).

FC-MPN-WP	Water	Fecal Coliform	APHA 9221E

The Most Probable Number (MPN) method is based on the Multiple Tube Fermentation technique. The results of examination of replicate tubes and dilutions of a sample are reported after confirmations specific to total coliform, fecal coliform and E. coli are performed. Results are reported in MPN/100 mL for water and MPN/gram for food and solid samples.

HG-T-CVAF-WP	Water	Mercury Total	EPA245.7 V2.0

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

MET-T-L-MS-WP	Water	Total Metals by ICP-MS	APHA 3030E/EPA 6020A-TL

This analysis involves preliminary sample treatment by hotblock acid digestion (APHA 3030E). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F

Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.

NO2+NO3-CALC-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-N-WP	Water	Nitrite in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B

Sample is extracted with hexane, extract is then evaporated and the residue is weighed to determine total oil and grease.

P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PAH,PANH-WP	Water	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PH-WP	Water	pH	APHA 4500H

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

SO4-IC-N-WP	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

SOLIDS-TOTSUS-WP	Water	Total Suspended Solids	APHA 2540 D (modified)

Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105°C.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

XYLENES-SUM-CALC-WP	Water	Sum of Xylene Isomer Concentrations	CALCULATED RESULT

Total xylenes represents the sum of o-xylene and m&p-xylene.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

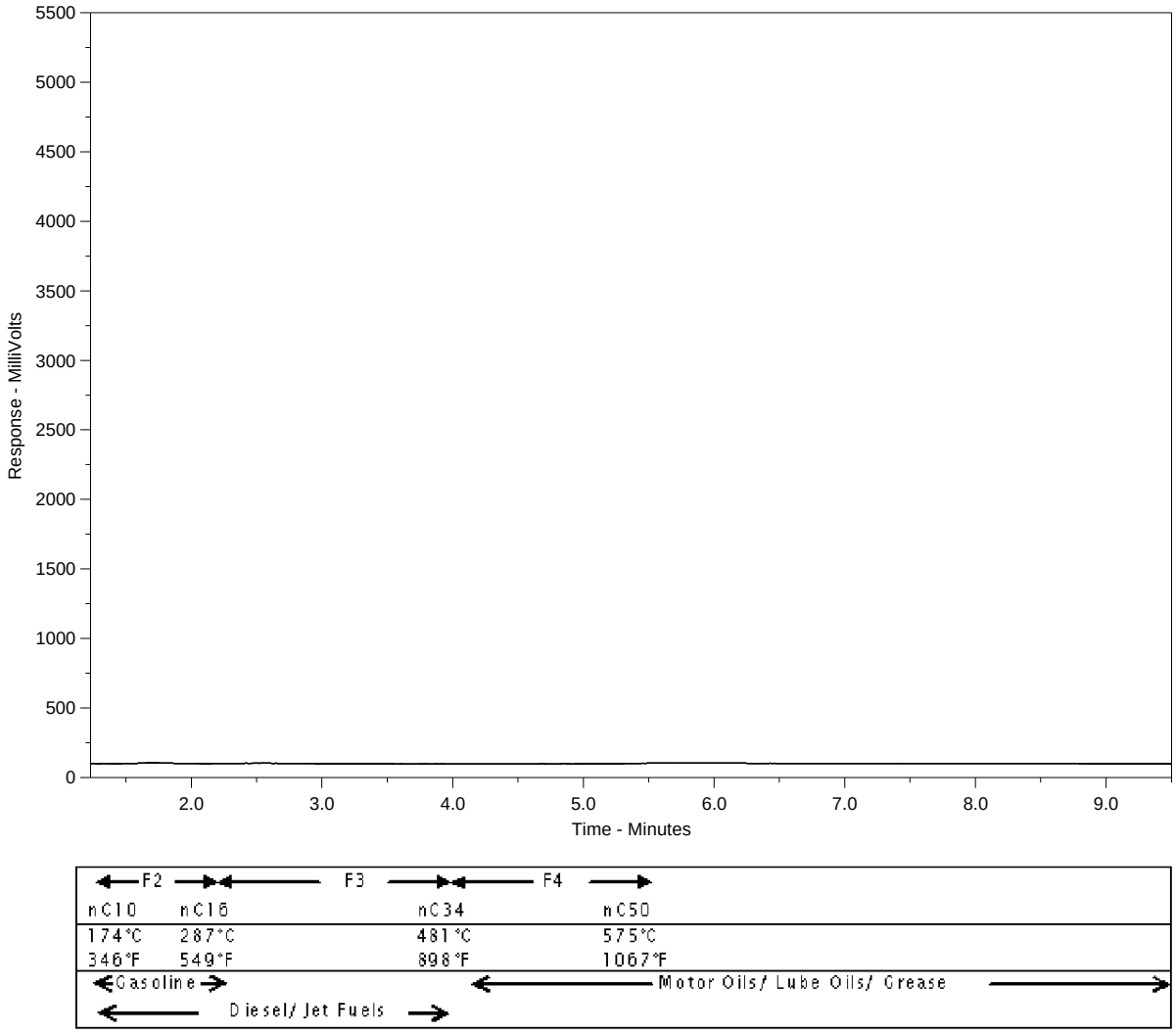
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1651799-1
Client Sample ID: NAV-2



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

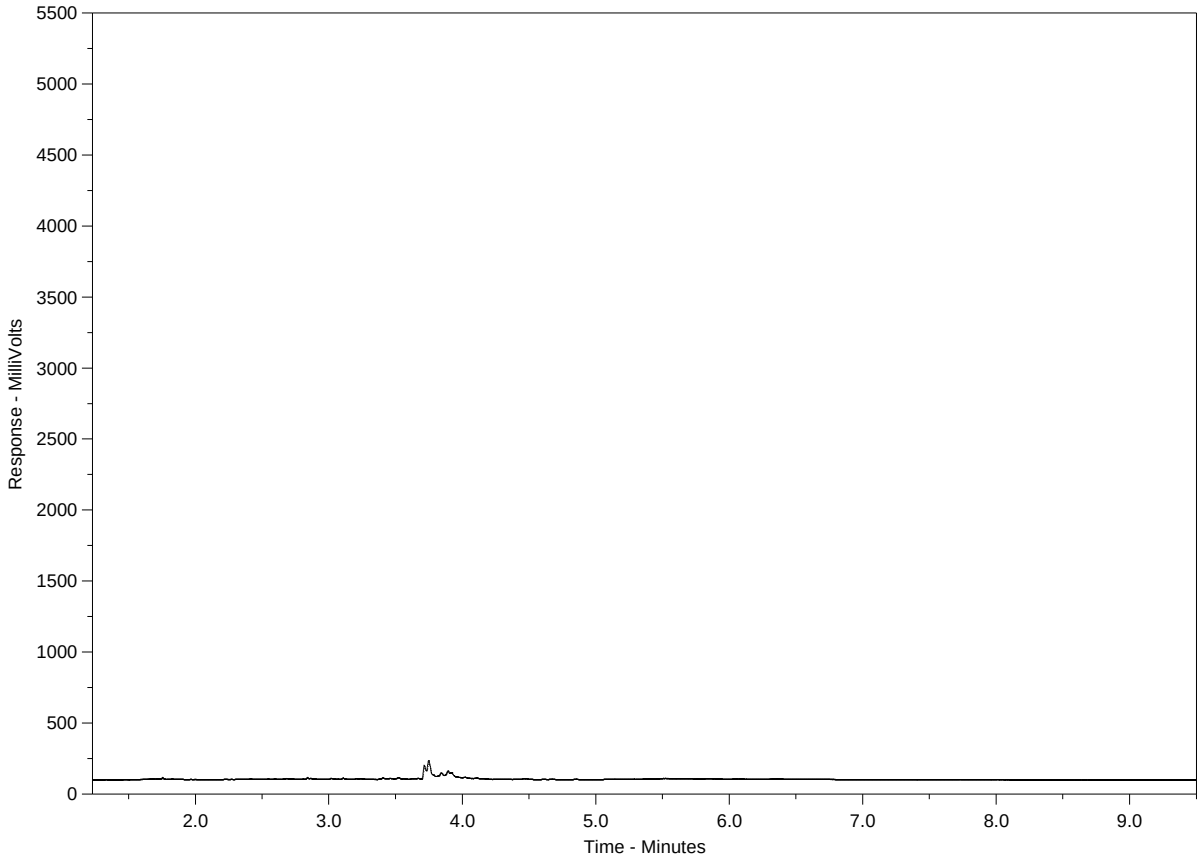
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

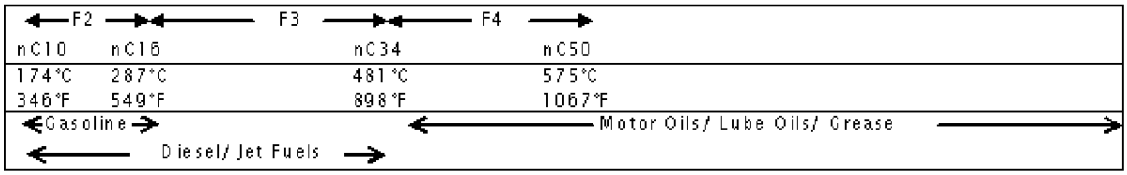
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1651799-2
Client Sample ID: NAV-6





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1651799-COFC

COC Number: 14 - 454518

Page ____ of ____

Report To Hamlet of Nanisivik	**Report Format / Distribution**	**Select Service Level Below** (Rush Turnaround Time (TAT) is not available for all tests)	
Company:	Select Report Format: ☐ PDF ☐ EXCEL ☐ EDD (DIGITAL)	R ☐	Regular (Standard TAT if received by 3pm)
Contact:	Quality Control (QC) Report with Report ☐ Yes ☐ No	P ☐	Priority (2-4 business days if received by 3pm)
Address: Hamlet of Nanisivik Box 10 X0C-0H0	☐ Criteria on Report - provide details below if box checked	E ☐	Emergency (1-2 business days if received by 3pm)
	Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	E2 ☐	Same day or weekend emergency if received by 10am – contact ALS for surcharge.
Phone: (867) 462-9958	Email 1 or Fax	Specify Date Required for E2,E or P:	
	Email 2	**Analysis Request**	
Invoice To Same as Report To ☐ Yes ☐ No	**Invoice Distribution**	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	
Copy of Invoice with Report ☐ Yes ☐ No	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Company:	Email 1 or Fax		
Contact:	Email 2		
Project Information	**Oil and Gas Required Fields (client use)**		
ALS Quote #:	Approver ID: / Cost Center:		
Job #:	GL Account: / Routing Code:		
PO / AFE:	Activity Code:		
LSD:	Location:		
ALS Lab Work Order # (lab use only)	**ALS Contact:** / **Sampler:**		

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Number of Containers
	NAV-2	7-29-2015	10:57		
	NAV-6	"	7:50		

Drinking Water (DW) Samples[1] (client use)	**Special Instructions / Specify Criteria to add on report (client Use)**	**SAMPLE CONDITION AS RECEIVED (lab use only)**
Are samples taken from a Regulated DW System? ☐ Yes ☐ No		Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human drinking water use? ☐ Yes ☐ No		Ice packs Yes ☐ No ☐ Custody seal intact Yes ☐ No ☐
		Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
			11.5	10.8	11.0

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
							28 15	10:05

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM 0329e v08 Front/03 October 2013

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Field Log

Name of Sampler(s): Pio Kopak

Date of Sampling: 07-29-2015

Time of Sampling: 16:50

Monitoring Station Number: Nau-6

GPS Coordinates: N 66 ° 31 '004 " W 086 ° 12 '358"

Weather Conditions: Cloudy and no wind

Samples:

- [X] 500 mL BOD
- [✓] 1 L Routine
- [X] 250 mL Metals + Pres
- [X] 40 mL Glass Mercury Vial + Pres
- [X] 250 mL Amber Nutrients + Pres
- [X] 250 mL Amber Phenols + Pres
- [X] 125 mL Sterile Bacteria Bottle
- [X] **2 x** 500 mL Glass Oil & Grease + Pres
- [X] 1 L Amber PAH + Pres
- [X] **3 x** 40 mL BTEX, F1 Vials + Pres
- [X] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

Field Log

Name of Sampler(s): Rio Kupak

Date of Sampling: 07-29-2015

Time of Sampling: 10:57 AM

Monitoring Station Number: MW-2

GPS Coordinates: N 66 ° 32 ' 603 " W 086 ° 13 ' 532 "

Weather Conditions: Cloudy and no wind

Samples:

- [X] 500 mL BOD
- [X] 1 L Routine
- [X] 250 mL Metals + Pres
- [ ] 40 mL Glass Mercury Vial + Pres
- [X] 250 mL Amber Nutrients + Pres
- [X] 250 mL Amber Phenols + Pres
- [X] 125 mL Sterile Bacteria Bottle
- [X] **2 x** 500 mL Glass Oil & Grease + Pres
- [X] 1 L Amber PAH + Pres
- [X] **3 x** 40 mL BTEX, F1 Vials + Pres
- [X] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

Hamlet of Repulse Bay
ATTN: KEVIN TEGUMIAR
PO Box 10
Repulse Bay NU X0C 0H0

Date Received: 27-AUG-15
Report Date: 09-SEP-15 15:02 (MT)
Version: FINAL

Client Phone: 867-462-9952

Certificate of Analysis

Lab Work Order #: L1664119

Project P.O. #: NOT SUBMITTED
Job Reference: REPULSE BAY - NAUJAAT
C of C Numbers:
Legal Site Desc:

Craig Riddell, B.Sc.Ag
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-1 NAU - 2							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 11:28							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
Toluene	<0.0010		0.0010	mg/L		02-SEP-15	R3260085
Ethyl benzene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
o-Xylene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
m+p-Xylenes	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
F1 (C6-C10)	<0.10		0.10	mg/L		02-SEP-15	R3260085
Surrogate: 4-Bromofluorobenzene (SS)	90.0		70-130	%		02-SEP-15	R3260085
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-SEP-15	
F2-Naphth	<0.25		0.25	mg/L		08-SEP-15	
F3-PAH	<0.25		0.25	mg/L		08-SEP-15	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		08-SEP-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F3 (C16-C34)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F4 (C34-C50)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
Surrogate: 2-Bromobenzotrifluoride	97.2		60-140	%	02-SEP-15	04-SEP-15	R3260571
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		04-SEP-15	
Miscellaneous Parameters							
Total Organic Carbon	8.2		1.0	mg/L		01-SEP-15	R3258047
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Acridine	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Chrysene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluoranthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluorene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Naphthalene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Phenanthrene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Quinoline	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acenaphthene d10	85.1		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acridine d9	95.2		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Chrysene d12	97.7		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Naphthalene d8	80.7		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Phenanthrene d10	85.2		40-130	%	02-SEP-15	04-SEP-15	R3259940
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	248		1.2	mg/L		03-SEP-15	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-1 NAU - 2							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 11:28							
Matrix: Wastewater							
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		03-SEP-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		03-SEP-15	
Ammonia by colour							
Ammonia, Total (as N)	<0.010		0.010	mg/L		01-SEP-15	R3258956
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		28-AUG-15	R3259418
Carbonaceous BOD							
BOD Carbonaceous	<2.0		2.0	mg/L		28-AUG-15	R3259418
Chloride in Water by IC							
Chloride (Cl)	25.6		0.50	mg/L		29-AUG-15	R3257127
Conductivity							
Conductivity	447		1.0	umhos/cm		02-SEP-15	R3259217
Fecal Coliform							
Fecal Coliforms	<3	PEHR	3	MPN/100mL		27-AUG-15	R3259058
Hardness Calculated							
Hardness (as CaCO3)	200		0.30	mg/L		01-SEP-15	
Mercury Total							
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	28-AUG-15	28-AUG-15	R3256847
Nitrate in Water by IC							
Nitrate (as N)	0.297		0.020	mg/L		29-AUG-15	R3257127
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.297		0.070	mg/L		31-AUG-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		29-AUG-15	R3257127
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	31-AUG-15	31-AUG-15	R3258884
Phenol (4AAP)							
Phenols (4AAP)	0.0013	DLM	0.0010	mg/L		09-SEP-15	R3262830
Phosphorus, Total							
Phosphorus (P)-Total	0.010		0.010	mg/L		03-SEP-15	R3259378
Sulfate in Water by IC							
Sulfate (SO4)	10.2		0.30	mg/L		29-AUG-15	R3257127
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	204		1.0	mg/L		02-SEP-15	R3259217
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.0514		0.0050	mg/L	31-AUG-15	31-AUG-15	R3257288
Arsenic (As)-Total	0.00022		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	31-AUG-15	31-AUG-15	R3257288
Calcium (Ca)-Total	60.3		0.10	mg/L	31-AUG-15	31-AUG-15	R3257288
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	31-AUG-15	31-AUG-15	R3257288
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Copper (Cu)-Total	0.00115		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Iron (Fe)-Total	0.11		0.10	mg/L	31-AUG-15	31-AUG-15	R3257288
Lead (Pb)-Total	<0.000090		0.000090	mg/L	31-AUG-15	31-AUG-15	R3257288
Magnesium (Mg)-Total	11.9		0.010	mg/L	31-AUG-15	31-AUG-15	R3257288
Manganese (Mn)-Total	0.00640		0.00030	mg/L	31-AUG-15	31-AUG-15	R3257288
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	31-AUG-15	31-AUG-15	R3257288
Potassium (K)-Total	2.95		0.020	mg/L	31-AUG-15	31-AUG-15	R3257288
Sodium (Na)-Total	21.4		0.030	mg/L	31-AUG-15	31-AUG-15	R3257288
Zinc (Zn)-Total	<0.0020		0.0020	mg/L	31-AUG-15	31-AUG-15	R3257288
Total Suspended Solids							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-1 NAU - 2							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 11:28							
Matrix: Wastewater							
Total Suspended Solids							
Total Suspended Solids	8.0		5.0	mg/L		01-SEP-15	R3258791
pH							
pH	8.28		0.10	pH units		02-SEP-15	R3259217
L1664119-2 NAU - 2 NEW							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 13:11							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
Toluene	0.0022		0.0010	mg/L		02-SEP-15	R3260085
Ethyl benzene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
o-Xylene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
m+p-Xylenes	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
F1 (C6-C10)	<0.10		0.10	mg/L		02-SEP-15	R3260085
Surrogate: 4-Bromofluorobenzene (SS)	94.2		70-130	%		02-SEP-15	R3260085
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-SEP-15	
F2-Naphth	0.42		0.25	mg/L		08-SEP-15	
F3-PAH	1.51		0.25	mg/L		08-SEP-15	
Total Hydrocarbons (C6-C50)	2.48		0.44	mg/L		08-SEP-15	
F2-F4 PHC method							
F2 (C10-C16)	0.42		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F3 (C16-C34)	1.51		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F4 (C34-C50)	0.55		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
Surrogate: 2-Bromobenzotrifluoride	94.7		60-140	%	02-SEP-15	04-SEP-15	R3260571
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		04-SEP-15	
Miscellaneous Parameters							
Total Organic Carbon	266	DLA	10	mg/L		01-SEP-15	R3258047
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthene	<0.000030	DLM	0.000030	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Acridine	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Chrysene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluoranthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluorene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Naphthalene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Phenanthrene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Quinoline	<0.000080	DLM	0.000080	mg/L	02-SEP-15	04-SEP-15	R3259940
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	02-SEP-15	04-SEP-15	R3259940

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-2 NAU - 2 NEW							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 13:11							
Matrix: Wastewater							
Polyaromatic Hydrocarbons (PAHs)							
Surrogate: Acenaphthene d10	76.9		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acridine d9	83.0		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Chrysene d12	77.0		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Naphthalene d8	102.5		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Phenanthrene d10	72.1		40-130	%	02-SEP-15	04-SEP-15	R3259940
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	767		1.2	mg/L		03-SEP-15	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		03-SEP-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		03-SEP-15	
Ammonia by colour							
Ammonia, Total (as N)	25.6		1.0	mg/L		01-SEP-15	R3258956
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	263	DLA	50	mg/L		28-AUG-15	R3259418
Carbonaceous BOD							
BOD Carbonaceous	258	DLA	50	mg/L		28-AUG-15	R3259418
Chloride in Water by IC							
Chloride (Cl)	47.0		1.0	mg/L		27-AUG-15	R3256898
Conductivity							
Conductivity	1250		1.0	umhos/cm		02-SEP-15	R3259217
Fecal Coliform							
Fecal Coliforms	240	PEHR	3	MPN/100mL		27-AUG-15	R3259058
Hardness Calculated							
Hardness (as CaCO3)	411		0.30	mg/L		01-SEP-15	
Mercury Total							
Mercury (Hg)-Total	<0.00020	DLM	0.00020	mg/L	28-AUG-15	28-AUG-15	R3256847
Nitrate in Water by IC							
Nitrate (as N)	<0.040	DLM	0.040	mg/L		27-AUG-15	R3256898
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.070		0.070	mg/L		31-AUG-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.020	DLM	0.020	mg/L		27-AUG-15	R3256898
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	31-AUG-15	31-AUG-15	R3258884
Phenol (4AAP)							
Phenols (4AAP)	0.132	DLA	0.050	mg/L		09-SEP-15	R3262830
Phosphorus, Total							
Phosphorus (P)-Total	2.21		0.10	mg/L		03-SEP-15	R3259378
Sulfate in Water by IC							
Sulfate (SO4)	26.3		0.60	mg/L		27-AUG-15	R3256898
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	629		1.0	mg/L		02-SEP-15	R3259217
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.121		0.0050	mg/L	31-AUG-15	31-AUG-15	R3257288
Arsenic (As)-Total	0.00347		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Cadmium (Cd)-Total	0.000327		0.000010	mg/L	31-AUG-15	31-AUG-15	R3257288
Calcium (Ca)-Total	142		0.10	mg/L	31-AUG-15	31-AUG-15	R3257288
Chromium (Cr)-Total	0.0073		0.0010	mg/L	31-AUG-15	31-AUG-15	R3257288
Cobalt (Co)-Total	0.00562		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Copper (Cu)-Total	0.0686		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-2 NAU - 2 NEW							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 13:11							
Matrix: Wastewater							
Total Metals by ICP-MS							
Iron (Fe)-Total	2.85		0.10	mg/L	31-AUG-15	31-AUG-15	R3257288
Lead (Pb)-Total	0.0104		0.000090	mg/L	31-AUG-15	31-AUG-15	R3257288
Magnesium (Mg)-Total	13.6		0.010	mg/L	31-AUG-15	31-AUG-15	R3257288
Manganese (Mn)-Total	0.923		0.00030	mg/L	31-AUG-15	31-AUG-15	R3257288
Nickel (Ni)-Total	0.0116		0.0020	mg/L	31-AUG-15	31-AUG-15	R3257288
Potassium (K)-Total	31.5		0.020	mg/L	31-AUG-15	31-AUG-15	R3257288
Sodium (Na)-Total	98.2		0.030	mg/L	31-AUG-15	31-AUG-15	R3257288
Zinc (Zn)-Total	0.312		0.0020	mg/L	31-AUG-15	31-AUG-15	R3257288
Total Suspended Solids							
Total Suspended Solids	54.0		5.0	mg/L		01-SEP-15	R3258791
pH							
pH	7.79		0.10	pH units		02-SEP-15	R3259217
L1664119-3 NAU - 6							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 11:54							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
Toluene	<0.0010		0.0010	mg/L		02-SEP-15	R3260085
Ethyl benzene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
o-Xylene	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
m+p-Xylenes	<0.00050		0.00050	mg/L		02-SEP-15	R3260085
F1 (C6-C10)	<0.10		0.10	mg/L		02-SEP-15	R3260085
Surrogate: 4-Bromofluorobenzene (SS)	90.6		70-130	%		02-SEP-15	R3260085
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-SEP-15	
F2-Naphth	<0.25		0.25	mg/L		08-SEP-15	
F3-PAH	0.44		0.25	mg/L		08-SEP-15	
Total Hydrocarbons (C6-C50)	0.44		0.44	mg/L		08-SEP-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F3 (C16-C34)	0.44		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F4 (C34-C50)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
Surrogate: 2-Bromobenzotrifluoride	94.3		60-140	%	02-SEP-15	04-SEP-15	R3260571
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		04-SEP-15	
Miscellaneous Parameters							
Total Organic Carbon	27.9		1.0	mg/L		01-SEP-15	R3258047
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Acridine	<0.000050	DLM	0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Chrysene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-3 NAU - 6							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 11:54							
Matrix: Wastewater							
Polyaromatic Hydrocarbons (PAHs)							
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluoranthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluorene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Naphthalene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Phenanthrene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Quinoline	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acenaphthene d10	90.2		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acridine d9	87.8		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Chrysene d12	90.1		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Naphthalene d8	84.1		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Phenanthrene d10	81.3		40-130	%	02-SEP-15	04-SEP-15	R3259940
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	144		1.2	mg/L		03-SEP-15	
Alkalinity, Carbonate							
Carbonate (CO3)	22.3		0.60	mg/L		03-SEP-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		03-SEP-15	
Ammonia by colour							
Ammonia, Total (as N)	0.038		0.010	mg/L		01-SEP-15	R3258956
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	26.2	DLA	6.0	mg/L		28-AUG-15	R3259418
Carbonaceous BOD							
BOD Carbonaceous	18.2	DLA	6.0	mg/L		28-AUG-15	R3259418
Chloride in Water by IC							
Chloride (Cl)	31.1		0.50	mg/L		27-AUG-15	R3256898
Conductivity							
Conductivity	392		1.0	umhos/cm		02-SEP-15	R3259217
Fecal Coliform							
Fecal Coliforms	<3	PEHR	3	MPN/100mL		27-AUG-15	R3259058
Hardness Calculated							
Hardness (as CaCO3)	145		0.30	mg/L		01-SEP-15	
Mercury Total							
Mercury (Hg)-Total	<0.00020	DLM	0.00020	mg/L	28-AUG-15	28-AUG-15	R3256847
Nitrate in Water by IC							
Nitrate (as N)	0.031		0.020	mg/L		27-AUG-15	R3256898
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.097		0.070	mg/L		31-AUG-15	
Nitrite in Water by IC							
Nitrite (as N)	0.066		0.010	mg/L		27-AUG-15	R3256898
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	31-AUG-15	31-AUG-15	R3258884
Phenol (4AAP)							
Phenols (4AAP)	0.0034	DLM	0.0020	mg/L		09-SEP-15	R3262830
Phosphorus, Total							
Phosphorus (P)-Total	1.32		0.010	mg/L		03-SEP-15	R3259378
Sulfate in Water by IC							
Sulfate (SO4)	14.4		0.30	mg/L		27-AUG-15	R3256898
Total Alkalinity as CaCO3							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1664119-3 NAU - 6							
Sampled By: Kevin Tegumiar on 25-AUG-15 @ 11:54							
Matrix: Wastewater							
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	155		1.0	mg/L		02-SEP-15	R3259217
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.0392		0.0050	mg/L	31-AUG-15	31-AUG-15	R3257288
Arsenic (As)-Total	0.00044		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	31-AUG-15	31-AUG-15	R3257288
Calcium (Ca)-Total	42.7		0.10	mg/L	31-AUG-15	31-AUG-15	R3257288
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	31-AUG-15	31-AUG-15	R3257288
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Copper (Cu)-Total	0.00332		0.00020	mg/L	31-AUG-15	31-AUG-15	R3257288
Iron (Fe)-Total	0.21		0.10	mg/L	31-AUG-15	31-AUG-15	R3257288
Lead (Pb)-Total	<0.000090		0.000090	mg/L	31-AUG-15	31-AUG-15	R3257288
Magnesium (Mg)-Total	9.24		0.010	mg/L	31-AUG-15	31-AUG-15	R3257288
Manganese (Mn)-Total	0.0274		0.00030	mg/L	31-AUG-15	31-AUG-15	R3257288
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	31-AUG-15	31-AUG-15	R3257288
Potassium (K)-Total	9.13		0.020	mg/L	31-AUG-15	31-AUG-15	R3257288
Sodium (Na)-Total	29.8		0.030	mg/L	31-AUG-15	31-AUG-15	R3257288
Zinc (Zn)-Total	0.0039		0.0020	mg/L	31-AUG-15	31-AUG-15	R3257288
Total Suspended Solids							
Total Suspended Solids	42.0		5.0	mg/L		01-SEP-15	R3258791
pH							
pH	9.14		0.10	pH units		02-SEP-15	R3259217

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHR	Parameter Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.

ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L

ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.

ALK-TITR-WP	Water	Total Alkalinity as CaCO3	APHA 2320B

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP	Water	Carbonaceous BOD	APHA 5210 B

Samples are diluted and seeded, have TCMP added to inhibit nitrogenous demands, and then are incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BOD-WP	Water	Biochemical Oxygen Demand (BOD)	APHA 5210 B

Samples are diluted and seeded and then incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA 8260C / EPA 5021A

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

CL-IC-N-WP	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-WP	Water	Conductivity	APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

ETL-HARDNESS-TOT-WP	Water	Hardness Calculated	HARDNESS CALCULATED
F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-FID-WP	Water	F2-F4 PHC method	CWS (CCME)

Petroleum Hydrocarbons (F2-F4) in Water Method is adapted from US EPA Method 3511: Organic Compounds in Water by Micro-extraction" (Nov 2002) with instrumental analysis as per the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method" (CCMS, Dec 2000) Water samples (in their entirety) are extracted using hexane prior to capillary column gas chromatography with flame ionization detection (GC/FID).

FC-MPN-WP	Water	Fecal Coliform	APHA 9221E

The Most Probable Number (MPN) method is based on the Multiple Tube Fermentation technique. The results of examination of replicate tubes and dilutions of a sample are reported after confirmations specific to total coliform, fecal coliform and E. coli are performed. Results are reported in MPN/100 mL for water and MPN/gram for food and solid samples.

HG-T-CVAF-WP	Water	Mercury Total	EPA245.7 V2.0

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

MET-T-L-MS-WP	Water	Total Metals by ICP-MS	APHA 3030E/EPA 6020A-TL

This analysis involves preliminary sample treatment by hotblock acid digestion (APHA 3030E). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F

Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.

NO2+NO3-CALC-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-N-WP	Water	Nitrite in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B

Sample is extracted with hexane, extract is then evaporated and the residue is weighed to determine total oil and grease.

P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PAH,PANH-WP	Water	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PH-WP	Water	pH	APHA 4500H

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

SO4-IC-N-WP	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

SOLIDS-TOTSUS-WP	Water	Total Suspended Solids	APHA 2540 D (modified)

Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105°C.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

XYLENES-SUM-CALC-WP	Water	Sum of Xylene Isomer Concentrations	CALCULATED RESULT

Total xylenes represents the sum of o-xylene and m&p-xylene.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

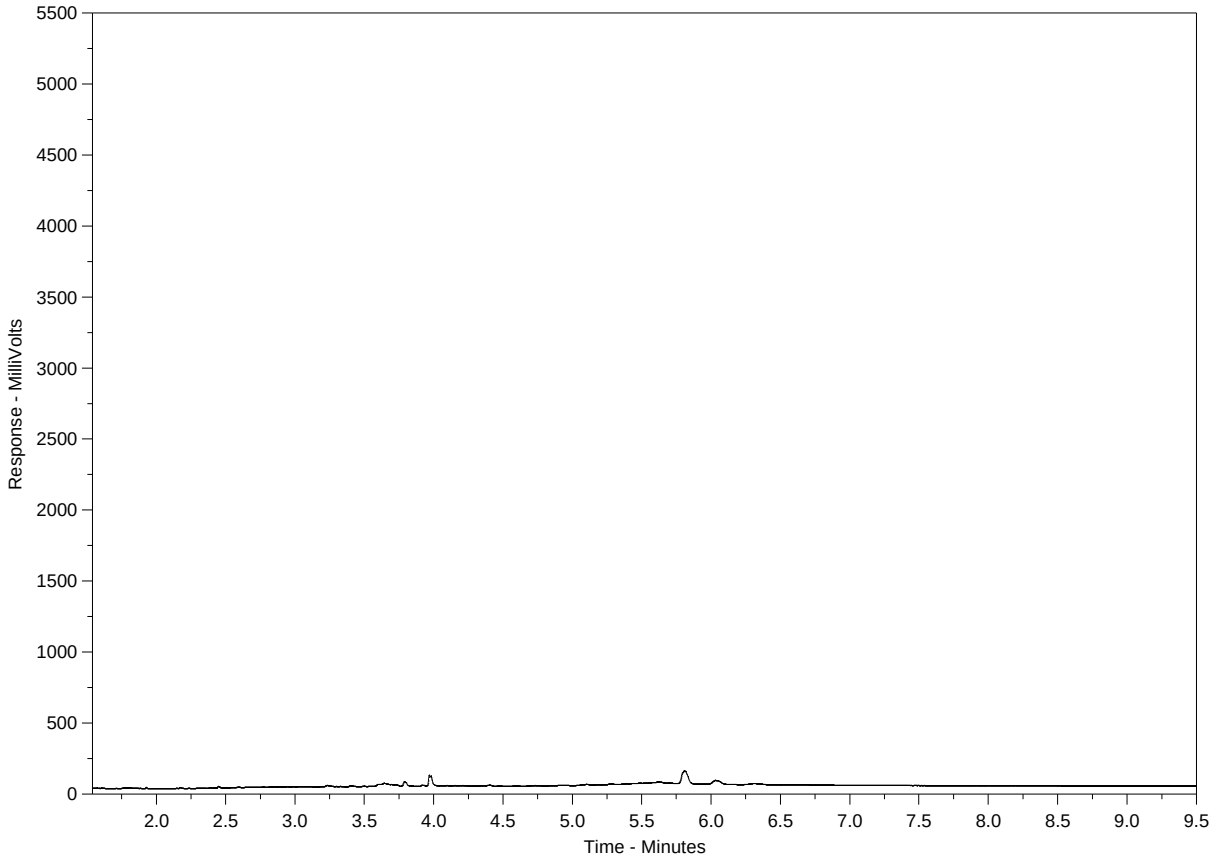
GLOSSARY OF REPORT TERMS

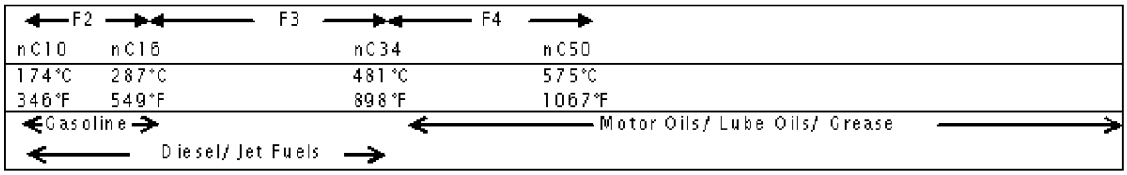
Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1664119-1
Client Sample ID: NAU - 2





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

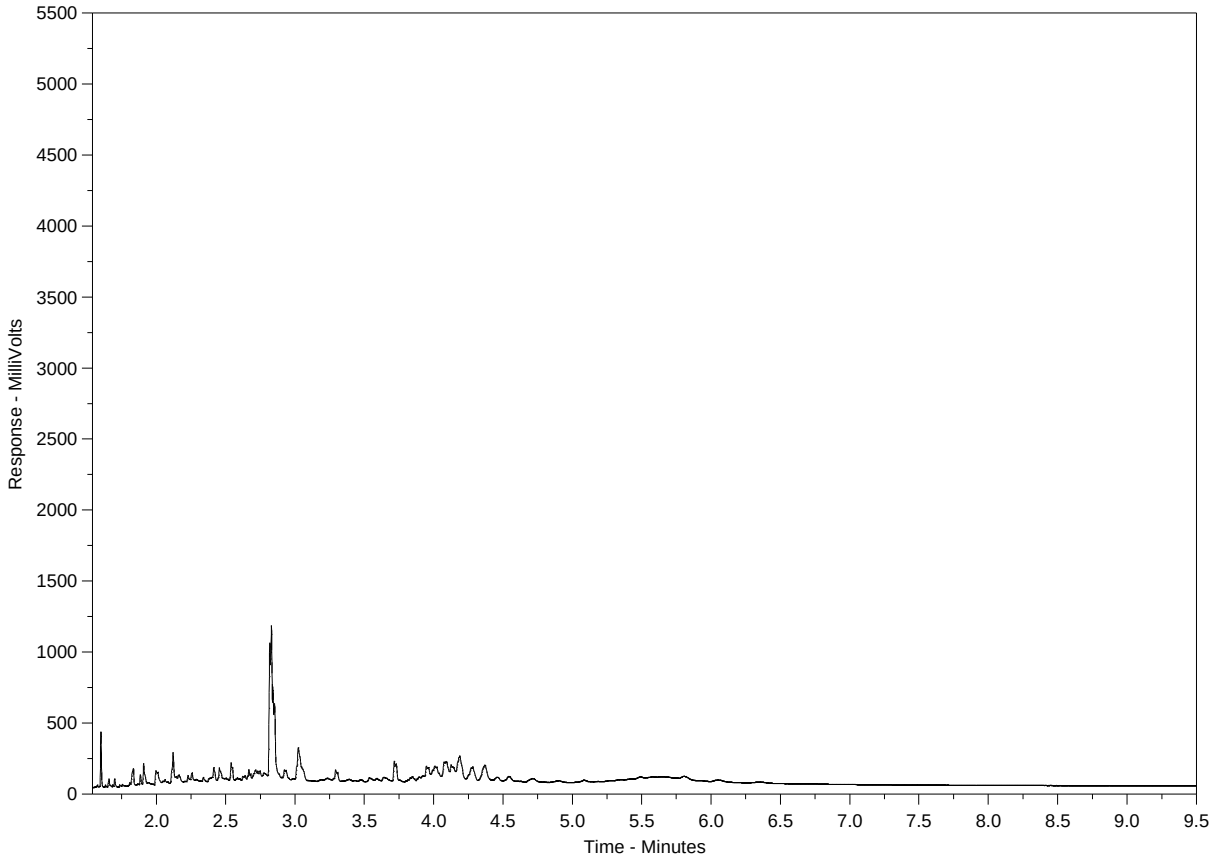
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

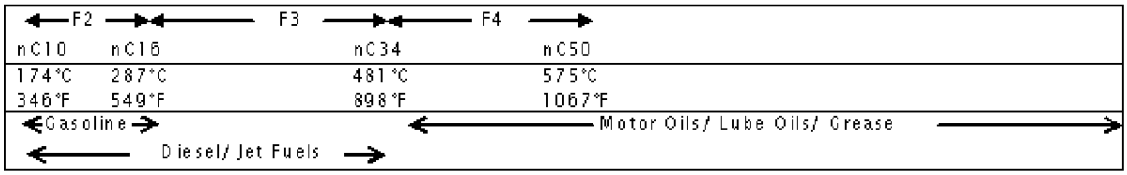
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1664119-2
Client Sample ID: NAU - 2 NEW





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

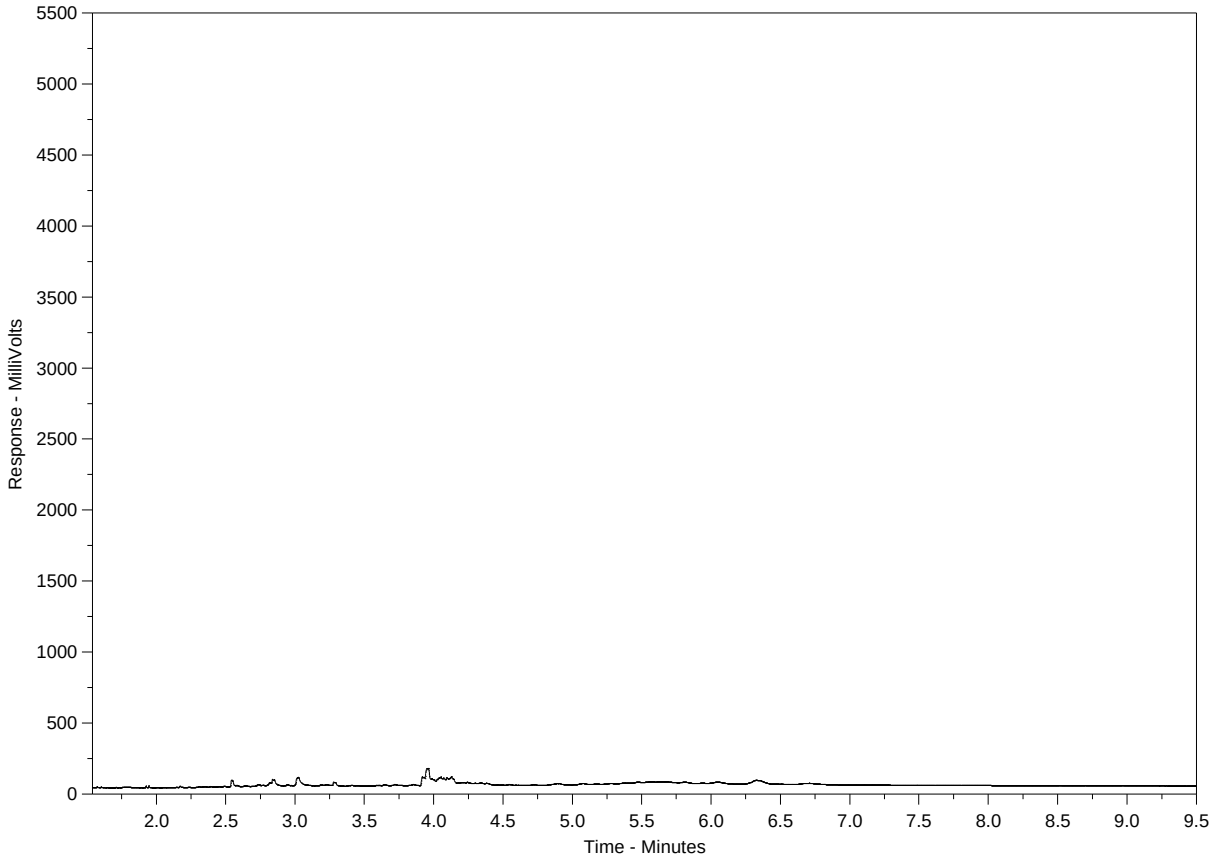
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

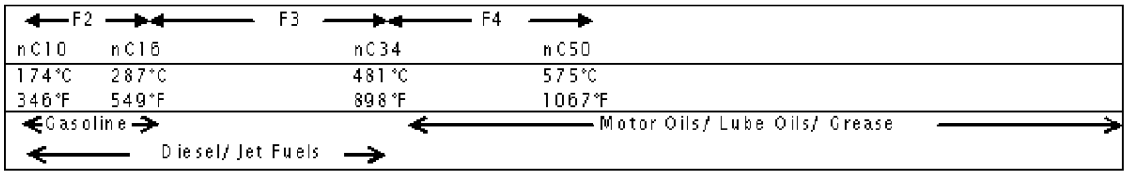
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1664119-3
Client Sample ID: NAU - 6





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1664119-COFC

COC Number: 14 - 454540

Page ___ of ___

L1664119

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Hamlet of Nanjaat	Select Report Format:	☐ PDF ☐ EXCEL ☐ EDD (DIGITAL)	R ☐ Regular (Standard TAT if received by 3pm)
Contact:	Kevin Tegumia	Quality Control (QC) Report with Report	☐ Yes ☐ No	P ☐ Priority (2-4 business days if received by 3pm)
Address:	Box 10 Nanjaat, NU X0C 0H0	☐ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 business days if received by 3pm)
Phone:	867 462 9952	Select Distribution:	☐ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency if received by 10am – contact ALS for surcharge.
		Email 1 or Fax		Specify Date Required for E2,E or P:
		Email 2		

Invoice To		Invoice Distribution	
	Same as Report To ☒ Yes ☐ No	Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX
	Copy of Invoice with Report ☒ Yes ☐ No		
Company:		Email 1 or Fax	
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:		GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)		ALS Contact:	Sampler: Kevin Tegumiar

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BOD	Routine	Metals	Mercury	Nutrients	Phenols	Bacteria	Oil & Grease	BPAH	BTEX	F1-F4	Number of Containers
	NAU - 2	25/08/15	11:28am	Wastewater	X	X	X	X	X	X	X	X	X	X	X	15
	NAU - 2 New	25-08-15	1:11 pm	" "	X	X	X	X	X	X	X	X	X	X	X	
[redacted]	NAU - 6	25-08-15	10:54am	" "	X	X	X	X	X	X	X	X	X	X	X	

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client use)
Are samples taken from a Regulated DW System? ☐ Yes ☐ No	12°C
Are samples for human drinking water use? ☐ Yes ☐ No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐ No ☐
Ice packs	Yes ☐ No ☐	Custody seal intact	Yes ☐ No ☐
Cooling Initiated	☐		

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: 25-08-15	Time: 2:00pm	Received by:	Date: 08/27/15	Time: 11:45	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-002tbe v08 Front03 October 2013

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

L1664119-COFC

Field Log

Name of Sampler(s): Pio Kopak & Kevin Tegumiar

Date of Sampling: August 25, 2015

Time of Sampling: 1:11 pm

Monitoring Station Number: NAU-2 Near

GPS Coordinates: N 66° 32' 855" W 086° 14' 594"

Weather Conditions: Light Wind

Samples:

- [X] 500 mL BOD
- [X] 1 L Routine
- [X] 250 mL Metals + Pres
- [X] 40 mL Glass Mercury Vial + Pres
- [X] 250 mL Amber Nutrients + Pres
- [X] 250 mL Amber Phenols + Pres
- [X] 125 mL Sterile Bacteria Bottle
- [X] **2 x** 500 mL Glass Oil & Grease + Pres
- [X] 1 L Amber PAH + Pres
- [X] **3 x** 40 mL BTEX, F1 Vials + Pres
- [X] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

L1664119-COFC

Field Log

Name of Sampler(s): Pio Kopak & Kevin Tegumiar

Date of Sampling: August 25, 2015

Time of Sampling: 10:54 am

Monitoring Station Number: NAU - 6

GPS Coordinates: N 66° 31' 010" W 086° 12' 363"

Weather Conditions: light wind

Samples:

- [x] 500 mL BOD
- [x] 1 L Routine
- [x] 250 mL Metals + Pres
- [x] 40 mL Glass Mercury Vial + Pres
- [x] 250 mL Amber Nutrients + Pres
- [x] 250 mL Amber Phenols + Pres
- [x] 125 mL Sterile Bacteria Bottle
- [x] **2 x** 500 mL Glass Oil & Grease + Pres
- [x] 1 L Amber PAH + Pres
- [x] **3 x** 40 mL BTEX, F1 Vials + Pres
- [x] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

L1664119-COFC

Field Log

Name of Sampler(s): Pete Kopat & Kevin Tegarnias

Date of Sampling: August 25, 2015

Time of Sampling: 11:28 am

Monitoring Station Number: NAH-2

GPS Coordinates: N 66° 32' 614" W 086° 13' 516"

Weather Conditions: Windy, Light Rain

Samples:

- [x] 500 mL BOD
- [x] 1 L Routine
- [x] 250 mL Metals + Pres
- [x] 40 mL Glass Mercury Vial + Pres
- [x] 250 mL Amber Nutrients + Pres
- [x] 250 mL Amber Phenols + Pres
- [x] 125 mL Sterile Bacteria Bottle
- [x] **2 x** 500 mL Glass Oil & Grease + Pres
- [x] 1 L Amber PAH + Pres
- [x] **3 x** 40 mL BTEX, F1 Vials + Pres
- [x] **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- [ ] _____
- [ ] _____
- [ ] _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

L1664119-COFC

Field Log

Name of Sampler(s): Dio Kopale

Date of Sampling: August 25, 2015

Time of Sampling: _____

Monitoring Station Number: NAV-5

GPS Coordinates: N 66° 31' 719" W 086° 13' 501"

Weather Conditions: _____

Samples:

- ☐ 500 mL BOD
- ☐ 1 L Routine
- ☐ 250 mL Metals + Pres
- ☐ 40 mL Glass Mercury Vial + Pres
- ☐ 250 mL Amber Nutrients + Pres
- ☐ 250 mL Amber Phenols + Pres
- ☐ 125 mL Sterile Bacteria Bottle
- ☐ **2 x** 500 mL Glass Oil & Grease + Pres
- ☐ 1 L Amber PAH + Pres
- ☐ **3 x** 40 mL BTEX, F1 Vials + Pres
- ☐ **2 x** 60 mL Amber F2-F4 Vials + Pres

Other:

- ☐ _____
- ☐ _____
- ☐ _____

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

No Water

Hamlet of Repulse Bay
ATTN: KEVIN TEGUMIAR
PO Box 10
Repulse Bay NU X0C 0H0

Date Received: 31-AUG-15
Report Date: 10-SEP-15 10:41 (MT)
Version: FINAL

Client Phone: 867-462-9952

Certificate of Analysis

Lab Work Order #: L1665585

Project P.O. #: NOT SUBMITTED
Job Reference: REPULSE BAY - NAUJAAT
C of C Numbers:
Legal Site Desc:

Hua Wo
Chemistry Laboratory Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1665585-1 NAU-2A							
Sampled By: KJ on 27-AUG-15 @ 10:45							
Matrix: WATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		05-SEP-15	R3260296
Toluene	<0.0010		0.0010	mg/L		05-SEP-15	R3260296
Ethyl benzene	<0.00050		0.00050	mg/L		05-SEP-15	R3260296
o-Xylene	<0.00050		0.00050	mg/L		05-SEP-15	R3260296
m+p-Xylenes	<0.00050		0.00050	mg/L		05-SEP-15	R3260296
F1 (C6-C10)	<0.10		0.10	mg/L		05-SEP-15	R3260296
Surrogate: 4-Bromofluorobenzene (SS)	100.7		70-130	%		05-SEP-15	R3260296
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		08-SEP-15	
F2-Naphth	<0.25		0.25	mg/L		08-SEP-15	
F3-PAH	<0.25		0.25	mg/L		08-SEP-15	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		08-SEP-15	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F3 (C16-C34)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
F4 (C34-C50)	<0.25		0.25	mg/L	02-SEP-15	04-SEP-15	R3260571
Surrogate: 2-Bromobenzotrifluoride	97.1		60-140	%	02-SEP-15	04-SEP-15	R3260571
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.0015		0.0015	mg/L		08-SEP-15	
Miscellaneous Parameters							
Total Organic Carbon	11.3		1.0	mg/L		04-SEP-15	R3261039
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Acenaphthylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Acridine	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)anthracene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Chrysene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluoranthene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Fluorene	<0.000020		0.000020	mg/L	02-SEP-15	04-SEP-15	R3259940
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Naphthalene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Phenanthrene	<0.000050		0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
Pyrene	<0.000010		0.000010	mg/L	02-SEP-15	04-SEP-15	R3259940
Quinoline	<0.000050	DLM	0.000050	mg/L	02-SEP-15	04-SEP-15	R3259940
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acenaphthene d10	89.0		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Acridine d9	100.9		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Chrysene d12	93.0		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Naphthalene d8	87.2		40-130	%	02-SEP-15	04-SEP-15	R3259940
Surrogate: Phenanthrene d10	89.7		40-130	%	02-SEP-15	04-SEP-15	R3259940
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	208		1.2	mg/L		08-SEP-15	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1665585-1 NAU-2A							
Sampled By: KJ on 27-AUG-15 @ 10:45							
Matrix: WATER							
Alkalinity, Carbonate							
Carbonate (CO3)	3.00		0.60	mg/L		08-SEP-15	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		08-SEP-15	
Ammonia by colour							
Ammonia, Total (as N)	0.234		0.010	mg/L		02-SEP-15	R3259056
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		01-SEP-15	R3262380
Carbonaceous BOD							
BOD Carbonaceous	<2.0		2.0	mg/L		01-SEP-15	R3262380
Chloride in Water by IC							
Chloride (Cl)	17.0		0.50	mg/L		31-AUG-15	R3257847
Conductivity							
Conductivity	388		1.0	umhos/cm		04-SEP-15	R3262012
Fecal Coliform							
Fecal Coliforms	9	PEHR	3	MPN/100mL		31-AUG-15	R3262044
Hardness Calculated							
Hardness (as CaCO3)	160		0.30	mg/L		03-SEP-15	
Mercury Total							
Mercury (Hg)-Total	<0.00020	DLM	0.00020	mg/L	03-SEP-15	03-SEP-15	R3261129
Nitrate in Water by IC							
Nitrate (as N)	0.066		0.020	mg/L		31-AUG-15	R3257847
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.070		0.070	mg/L		01-SEP-15	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		31-AUG-15	R3257847
Oil and Grease, Total							
Oil and Grease, Total	<2.0		2.0	mg/L	02-SEP-15	02-SEP-15	R3259037
Phenol (4AAP)							
Phenols (4AAP)	0.0019		0.0010	mg/L		09-SEP-15	R3263164
Phosphorus, Total							
Phosphorus (P)-Total	0.020		0.010	mg/L		03-SEP-15	R3259378
Sulfate in Water by IC							
Sulfate (SO4)	6.75		0.30	mg/L		31-AUG-15	R3257847
Total Alkalinity as CaCO3							
Alkalinity, Total (as CaCO3)	175		1.0	mg/L		04-SEP-15	R3262012
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.0080		0.0050	mg/L	02-SEP-15	02-SEP-15	R3258905
Arsenic (As)-Total	0.00034		0.00020	mg/L	02-SEP-15	02-SEP-15	R3258905
Cadmium (Cd)-Total	<0.000010		0.000010	mg/L	02-SEP-15	02-SEP-15	R3258905
Calcium (Ca)-Total	47.5		0.10	mg/L	02-SEP-15	02-SEP-15	R3258905
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	02-SEP-15	02-SEP-15	R3258905
Cobalt (Co)-Total	<0.00020		0.00020	mg/L	02-SEP-15	02-SEP-15	R3258905
Copper (Cu)-Total	0.00114		0.00020	mg/L	02-SEP-15	02-SEP-15	R3258905
Iron (Fe)-Total	0.19		0.10	mg/L	02-SEP-15	02-SEP-15	R3258905
Lead (Pb)-Total	0.000118		0.000090	mg/L	02-SEP-15	02-SEP-15	R3258905
Magnesium (Mg)-Total	10.1		0.010	mg/L	02-SEP-15	02-SEP-15	R3258905
Manganese (Mn)-Total	0.0580		0.00030	mg/L	02-SEP-15	02-SEP-15	R3258905
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	02-SEP-15	02-SEP-15	R3258905
Potassium (K)-Total	4.32		0.020	mg/L	02-SEP-15	02-SEP-15	R3258905
Sodium (Na)-Total	18.9		0.030	mg/L	02-SEP-15	02-SEP-15	R3258905
Zinc (Zn)-Total	0.0025		0.0020	mg/L	02-SEP-15	02-SEP-15	R3258905
Total Suspended Solids							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1665585-1 NAU-2A							
Sampled By: KJ on 27-AUG-15 @ 10:45							
Matrix: WATER							
Total Suspended Solids							
Total Suspended Solids	<5.0		5.0	mg/L		02-SEP-15	R3259108
pH							
pH	8.45		0.10	pH units		04-SEP-15	R3262012

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHR	Parameter Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.

ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L

ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION

The Alkalinity of water is a measure of its acid neutralizing capacity.Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.

ALK-TITR-WP	Water	Total Alkalinity as CaCO3	APHA 2320B

The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP	Water	Carbonaceous BOD	APHA 5210 B

Samples are diluted and seeded, have TCMP added to inhibit nitrogenous demands, and then are incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BOD-WP	Water	Biochemical Oxygen Demand (BOD)	APHA 5210 B

Samples are diluted and seeded and then incubated in airtight bottles at 20°C for 5 days. Dissolved oxygen is measured initially and after incubation, and results are computed from the difference between initial and final DO.

BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA 8260C / EPA 5021A

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

CL-IC-N-WP	Water	Chloride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-WP	Water	Conductivity	APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

ETL-HARDNESS-TOT-WP	Water	Hardness Calculated	HARDNESS CALCULATED
F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-FID-WP	Water	F2-F4 PHC method	CWS (CCME)

Petroleum Hydrocarbons (F2-F4) in Water Method is adapted from US EPA Method 3511: Organic Compounds in Water by Micro-extraction" (Nov 2002) with instrumental analysis as per the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method" (CCMS, Dec 2000) Water samples (in their entirety) are extracted using hexane prior to capillary column gas chromatography with flame ionization detection (GC/FID).

FC-MPN-WP	Water	Fecal Coliform	APHA 9221E

The Most Probable Number (MPN) method is based on the Multiple Tube Fermentation technique. The results of examination of replicate tubes and dilutions of a sample are reported after confirmations specific to total coliform, fecal coliform and E. coli are performed. Results are reported in MPN/100 mL for water and MPN/gram for food and solid samples.

HG-T-CVAF-WP	Water	Mercury Total	EPA245.7 V2.0

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

MET-T-L-MS-WP	Water	Total Metals by ICP-MS	APHA 3030E/EPA 6020A-TL

This analysis involves preliminary sample treatment by hotblock acid digestion (APHA 3030E). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F

Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.

NO2+NO3-CALC-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-N-WP	Water	Nitrite in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B

Sample is extracted with hexane, extract is then evaporated and the residue is weighed to determine total oil and grease.

P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.

PAH,PANH-WP	Water	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PH-WP	Water	pH	APHA 4500H

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066

An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.

SO4-IC-N-WP	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

SOLIDS-TOTSUS-WP	Water	Total Suspended Solids	APHA 2540 D (modified)

Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105°C.

TOC-WT	Water	Total Organic Carbon	APHA 5310B

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
			Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.
XYLENES-SUM-CALC-WP	Water	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
			Total xylenes represents the sum of o-xylene and m&p-xylene.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

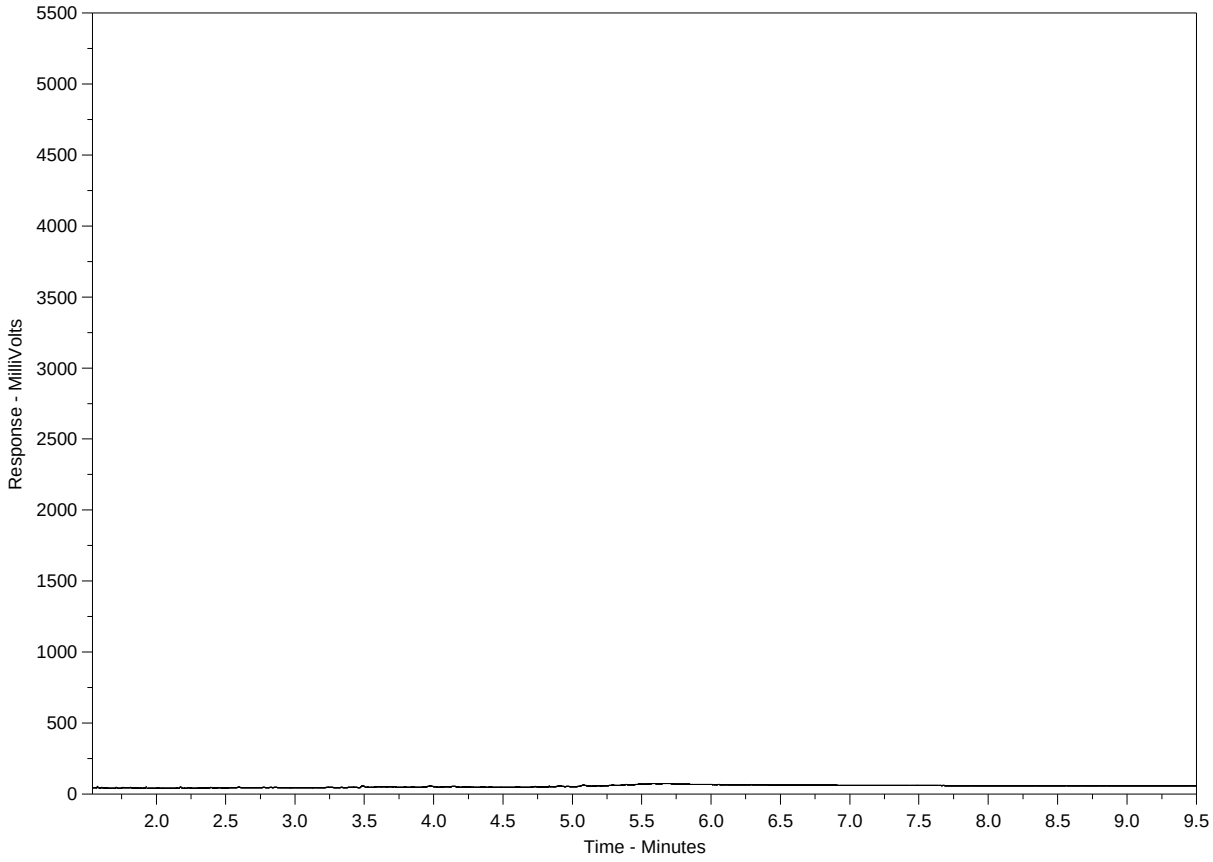
GLOSSARY OF REPORT TERMS

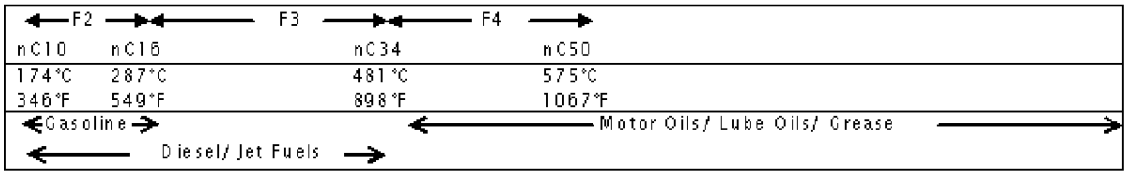
Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1665585-1
Client Sample ID: NAU-2A





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1665585-COFC

COC Number: 14 - 454541

Page ____ of ____

Report To		Report Format		Turnaround Time (TAT) Required (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Hamlet of Nanisat	Select Report Format:	PDF EXCEL EDD (DIGITAL)	R Regular (Standard TAT if received by 3pm)
Contact:	Kevin Tegumiar	Quality Control (QC) Report with Report	Yes No	P Priority (2-4 business days if received by 3pm)
Address:	Box 10 Nanisat, NU X0C 0H0	Criteria on Report - provide details below if box checked		E Emergency (1-2 business days if received by 3pm)
		Select Distribution:	EMAIL MAIL FAX	E2 Same day or weekend emergency if received by 10am - contact ALS for surcharge.
Phone:	867 462 9952	Email 1 or Fax		Specify Date Required for E2,E or P:
		Email 2		

Invoice To		Invoice Distribution	
	Same as Report To: Yes No	Select Invoice Distribution:	EMAIL MAIL FAX
	Copy of Invoice with Report: Yes No	Email 1 or Fax	
Company:		Email 2	
Contact:			

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:		GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):

ALS Contact:

Sampler: Kevin Tegumiar

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BOD	Routine	Metals	Nutrients	Mercury	Bacteria	Phenols	Oil & Grease	PAH	BTEX	F1-F4	Number of Containers
	NAU-2A	27-Aug-15	10:45		X	X	X	X	X	X	X	X	X	X	X	15

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? Yes No	8-31-15
Are samples for human drinking water use? Yes No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen		SIF Observations	Yes	No	
Ice packs	Yes	No	Custody seal intact	Yes	No
Cooling Initiated					

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: 27/08/15	Time: 1:30pm	Received by: EE	Date: 2:48	Time: 9	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0328a v08 Front/03 October 2013

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Hazardous Materials Spill Database

Environment Division of ENR
Scotia 6, 5102-50th Avenue; Yellowknife, NT X1A 3S8
Phone: (867) 873-7654 Fax: (867) 873-0221

Sorted By: SpillNo for the year(s): 2015

Spill No.	Date	Ter	Region	Location	Site Description	Commodity	Quantity	Source	Agency
2015392	2015-09-09	NU	KEE	Repulse Bay	Tusaruis School (Behind)	Diesel	30 L	ST<	GN

Total Spills on this Report: 1

This report contains information regarding spills that were reported to the NWT 24-Hour Spill Line. The absence of information on any particular location in no way guarantees that contamination has not occurred at that location.

LEGEND

Region:
BAF - Baffin
DEH - Deh Cho
INU - Inuvik
KEE - Keewatin
KIT - Kitikmeot
NSL - North Slave
SAH - Sahtu
SSL - South Slave

Source:
AIR - Aircraft
DRUM - Drum or Barrel
MV - Marine Vessel
NS - Natural Seepage
OTH - Other Transportation
PL - Pipe or Line
RT - Rail Train
SL - Sewage Lagoon
ST< - Storage Tank <4000 litres
ST> - Storage Tank >4000 litres
TP - Tailings Pond
TRU - Truck
UK - Unkown
WELL - Wet Wells, Flaring
Boom

Agency:
CCG - Canadian Coast Guard
EP - Environment Canada
GN - Government of Nunavut
GNWT - Government of Northwest Territories
ILA - Inuvialiut Land Administration
INAC - Indian and Northern Affairs Canada
NEB - National Energy Board

Aboriginal Affairs and Northern Development Canada | Affaires autochtones et Développement du Nord Canada

WATER LICENCE INSPECTION FORM

☐ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Repulse Bay	Clayton Croucher
Licence No. / Expiry	**Representative's Title**
3MB-REP1520	Senior Administrative Officer
Land / Other Authorizations	**Land / Other Authorizations**
Date of Inspection	**Inspector**
24/08/2015	Atuat Shouldice

Activities Inspected

☐ Camp ☐ Drilling ☐ Mining ☐ Construction ☒ Reclamation ☐ Fuel Storage
☐ Roads/Hauling ☒ Other: Deposit of waste ☒ Other:Water use

Conditions: A - Acceptable C - Concern U - Unacceptable NA – Not Applicable NI – Not Inspected

Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Intake/Screen	A		Water Management Structures	A		Storage	C	2
Flow Measure. Device	A		Culverts / Bridges	A		Spills	A	
Source:	A		Drainage	A		Spill Plan	A	
Water Use:	A		Erosion / Sediment	A				
Recirculation (y /n)	Y		Mitigation Measures	A		**Administrative**		
			Reclamation Activities	C	1	Records	A	
			Materials Storage	A		Reports	A	
Waste Disposal			Signage	A		Plans	A	
Waste Water	A					Notifications	A	
Solid Waste	A		**Monitoring**			**Other**		
Hazardous Waste	A		Sample Collection / Analysis	A				

**The number in the comments field will correspond with specific comments provided below.*

Samples taken by Inspector:	Location(s): Repulse Bay
☐ Yes ☒ No	

SECTION 1 ☐ Comments (s.__) ☐ Non-Compliance with Act or Licence (s.__) ☐ Action Required (s.__)

A compliance inspection was conducted on August 24th 2015 of water licence 3BM-REP1520.

SECTION 2 ☒ Comments (s.__) ☐ Non-Compliance with Act or Licence (s.__) ☐ Action Required (s.__)

Reclamation Activities: A new land fill has been developed for the Hamlet and all waste should now be sent to this facility. Any uncapped waste still remaining at the old land fill should be relocated to the new land fill and recapped.

Storage: Waste oil drums were requested by the inspector to be capped and palletised in order to prevent the spread of contaminants. (**Action Item 1)**

SECTION 3 ☐ Comments (s.__) ☐ Non-Compliance with Act or Licence, (s.__) ☒ Action Required (s.__)

The Hamlet of Repulse Bay has started following the yearly goal of the Water licence working compliance group and is storing batteries in a seacan (shipping container) at the local landfill. Boxes are being built to store the batteries to ensure proper shipping and disposal.

Action Item 1: Waste oil drums were requested by the inspector to be sealed and palletized to prevent the spread contaminants.

The new Senior Administrative officer, Denis Doral, has advised me that all action item with be corrected before the next municipal inspection which will take place during the summer of 2016 at a date to be determined.

Licensee or Representative	Inspector's Name
	Atuat Shouldice
Signature	**Signature** Atuat Shouldice
Date	**Date** 12/22/2015

Canada