#### YEAR BEING REPORTED: 2018

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water License No. **3BM-COR1521** issued to the Hamlet of Coral Harbour.

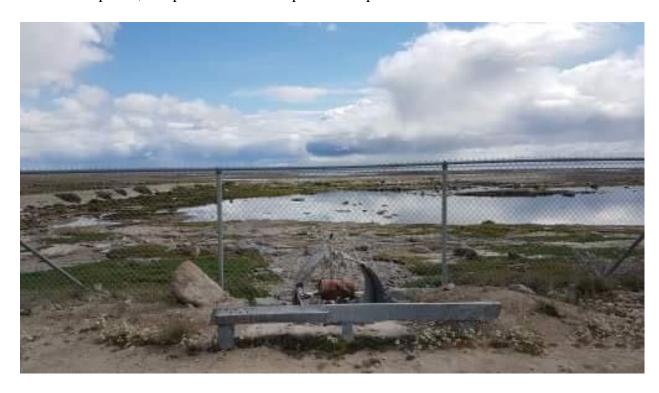
 i)- iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are results for Monitoring station COR-1, as well as detailed chemical, physical and biological analysis required at COR-3, COR-4 and COR-6.

Month Reported	Quantity of Water Obtained from all sources (m³)	Quantity of Sewage Waste Discharged (Estimated, m <sup>3</sup> )
January	1,499.573	Same
February	3,272.836	Same
March	3,444.391	Same
April	3,355.733	Same
May	3,382.147	Same
June	3,009.615	Same
July	3,089.985	Same
August	3,231.900	Same
September	2,737.685	Same
October	3,230.262	Same
November	3,151.681	Same
December	1,983.287	Same
ANNUAL TOTAL	35,389.634	35,389.634

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 was carried out at the Solid Waste Site or the Sewage Treatment Facilities in 2018.
  - The new Water Treatment Plant was substantially completed December 2016 and warranty work is still being completed (Regional CGS Project Management Office).
  - Repairs to the chlorine system were completed during 2018; more work is to come in this regard in 2019.
  - -The sewage lagoon berm is leaking a significant amount. INAC is sending a letter to the Hamlet of Coral Harbour to repair this. Updates will be added once the work is completed, and pictures added for proof. No updates have been received to date.



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

Spill No.	Date	Site Description	Commodity	Quantity
2018399	2018-09-22	N/A	Petroleum – fuel oil	205 L

- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
  - none
- 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;

-none

- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
  - none
- ix. Updates or revisions to the approved Operation and Maintenance Plans.
  - The updated O&M Manual for the new Water Treatment Plant will be submitted following project completion.

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- The Hamlet is working with the Water Compliance Working Group to implement the Solid Waste Workplan goals.

#### FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

- The INAC Inspection took place on July 31<sup>st</sup>, 2018. A copy of the inspection report can be found in Appendix G.

Appendix A: COR-5 Effluent Quality Limits – 1 page

**Appendix B: Weekly Inspections at Monitoring Stations – 1 page** 

Appendix C: Certificate of Analysis July 11, 2018 – 21 pages

Appendix D: Certificate of Analysis July 31, 2018 – 14 pages

Appendix E: Hazardous Materials Spill Database, Coral Harbour 2018 – 1 page

Appendix F: Coral Harbour 2018 Sampling Summary - 5 pages

**Appendix G: INAC Inspection Report - 2 pages** 

Appendix A

## 3BM-COR1521 Coral Harbour Monitoring Program Results 2018

### Part D, Item 2: COR-5 Effluent Quality Limits

Parameter	Maximum Average Concentration	COR	-5
Parameter	Maximum Average Concentration	11-Jul-18	03-Jul-18
BOD <sub>5</sub>	30 mg/L	12.4	<2.0
Total Suspended Solids	30 mg/L	6.0	<2.0
Fecal Coliforms	1x10 <sup>4</sup> CFU/100 mL	750	<10
Oil and Grease	No visible sheen	<5.0	<5.0
рН	Between 6 and 9	8.28	8.56

Appendix B

Coral Harbour, NU Nunavut Water Board Licence No. 3BM-COR1521

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

			COR-3			COR-A			200								
~		Water	Water Present (check)	(check)	Mater	Dracant I	2		25.5			COR-6			COR-7		***********
Week	Starting Date	Yes	No	Frozen	Yes	Yes No Frozen	Frozen	water i	=	check)	14	Present (check)	check)	Water I	Water Present (check)	check)	
<u></u>	30-Apr-18					$\perp$			ě	1107611	ies	No	rrozen	Yes	No	Frozen	Checked By
2	07-May-18																
w	14-May-18																
4	21-May-18																
u	28-May-18																
G	04-Jun-18			1			7	_		1							}
7	11-Jun-18			\			1			1			1			1	から
œ	18-Jun-18			2						1			·				10
9	25-Jun-18						2			1			1	-	_	7	5.2
10	02-Jul-18									,			7			7	UN'
11	09-Jul-18					_		_		_	_	_			_		
12	16-Jul-18						-	-	-				-	_	-		
13	23-Jul-18						$\downarrow$	_		1		_		-			
14	30-Jul-18								-		_	+	-				
15	06-Aug-18					_		-	-	$\perp$		-	-	-	-	ļ	
16	13-Aug-18				_		_		_	_	_	-		_	-	-	
17	20-Aug-18						1	_	_	$\perp$	_	_		+	_		
18	27-Aug-18						-		-	-				_	-		
Monitorir	Monitoring Program Station Locations:	Locations	i <del>.</del> :							-	-	-	-				

COR-3: Effluent from Sewage Containment Cell

COR-4: Station within Wetland

COR-5: Discharge from Wetland

COR-6: Run-off from the Solid Waste Disposal Facility

COR-7: Run-off below Waste metals area

\* Fax Sheets Weekly to Connor Faulkner at CGS- Rankin Inlet. Fax: (867) 645-8143

S/AB Dang 9.00 AM

still ice in Lagoon and other arew ice still at the bottom. Accounting to Magn everythings got take melted before the solur

Appendix C



Hamlet of Coral Harbour ATTN: LEONIE PAMOELIK

PO Box 30

Coral Harbour MB XOC OCO

Date Received: 13-JUL-18

Report Date: 25-JUL-18 11:08 (MT)

Version: FINAL

Client Phone: 867-925-8667

## Certificate of Analysis

Lab Work Order #: L2129004
Project P.O. #: NOT SUBMITTED

Job Reference: CORAL HARBOUR MONITORING PROGRAM

C of C Numbers: Legal Site Desc:

Hua Wo

Chemistry Laboratory Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721

ALS CANADA LTD Part of the ALS Group An ALS Limited Company



L2129004 CONTD.... PAGE 2 of 8 Version: FINAL

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	Batch
L2129004-1 COR-5							
Sampled By: CLIENT on 11-JUL-18 @ 12:00							
Matrix: WASTE WATER							
Matrix. WASTE WATER							
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Acenaphthene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Acenaphthylene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Anthracene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Acridine	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(a)anthracene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(a)pyrene	<0.000050		0.0000050	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Chrysene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Dibenzo(a,h)anthracene	<0.000050		0.0000050	mg/L	18-JUL-18	18-JUL-18	R4134327
Fluoranthene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Fluorene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Naphthalene Phenanthrene	<0.000050		0.000050	mg/L	18-JUL-18	18-JUL-18	R4134327
Pyrene Pyrene	<0.000050		0.000050	mg/L	18-JUL-18 18-JUL-18	18-JUL-18 18-JUL-18	R4134327
Quinoline	<0.000010 <0.000020		0.000010	mg/L mg/L	18-JUL-18	18-JUL-18	R4134327 R4134327
B(a)P Total Potency Equivalent	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Surrogate: Acenaphthene d10	94.4		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Acridine d9	103.1		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Chrysene d12	110.1		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Naphthalene d8	89.3		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Phenanthrene d10	97.7		40-130	%	18-JUL-18	18-JUL-18	R4134327
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	239		1.2	mg/L		17-JUL-18	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		17-JUL-18	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		17-JUL-18	
Alkalinity, Total (as CaCO3)	400		4.0	/I		16 1111 40	D4400074
Alkalinity, Total (as CaCO3)	196		1.0	mg/L		16-JUL-18	R4128971
Ammonia by colour Ammonia, Total (as N)	0.045		0.020	mg/L		17-JUL-18	R4131900
Biochemical Oxygen Demand (BOD)	0.043		0.020	1119/L		17 JOL-10	117131300
Biochemical Oxygen Demand	12.4	BODQ	2.0	mg/L		13-JUL-18	R4133257
Carbonaceous BOD							
BOD Carbonaceous	8.3	BODQ	2.0	mg/L		13-JUL-18	R4133257
Chloride in Water by IC							
Chloride (CI)	25.5		0.50	mg/L		14-JUL-18	R4131207
Conductivity							
Conductivity	439		1.0	umhos/cm		16-JUL-18	R4128971
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms	750	PEHT	10	MPN/100mL		13-JUL-18	R4124985
Hardness Calculated		LITC				00 !!!! ::	
Hardness (as CaCO3)	153	HTC	0.20	mg/L		20-JUL-18	
Mercury Total	40 00000E0		0.0000050	ma/l	16 1111 10	10 1111 10	D4422700
Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	16-JUL-18	18-JUL-18	R4132708

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2129004 CONTD.... PAGE 3 of 8 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2129004-1 COR-5							
Sampled By: CLIENT on 11-JUL-18 @ 12:00							
Matrix: WASTE WATER							
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		14-JUL-18	R4131207
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		18-JUL-18	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		14-JUL-18	R4131207
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		23-JUL-18	R4139070
Phenol (4AAP)							
Phenols (4AAP) Phosphorus, Total	<0.0010		0.0010	mg/L		17-JUL-18	R4131590
Phosphorus (P)-Total  Sulfate in Water by IC	1.02		0.0020	mg/L		19-JUL-18	R4133029
Sulfate (SO4)	6.61		0.30	mg/L		14-JUL-18	R4131207
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.0233		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
Arsenic (As)-Total	0.00079		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cadmium (Cd)-Total	0.0000192		0.0000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Calcium (Ca)-Total	54.6		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Chromium (Cr)-Total Cobalt (Co)-Total	0.00016		0.00010	mg/L	18-JUL-18 18-JUL-18	19-JUL-18 19-JUL-18	R4133686
Copper (Cu)-Total	0.00055 0.00324		0.00010 0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686 R4133686
Iron (Fe)-Total	0.00324		0.00050	mg/L mg/L	18-JUL-18	19-JUL-18	R4133686
Lead (Pb)-Total	0.000077		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Magnesium (Mg)-Total	4.02		0.0050	mg/L	18-JUL-18	19-JUL-18	R4133686
Manganese (Mn)-Total	0.0179		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Nickel (Ni)-Total	0.00286		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Potassium (K)-Total	4.68		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Sodium (Na)-Total	29.1		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Zinc (Zn)-Total	0.0049		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
Total Organic Carbon by Combustion				· ·			
Total Organic Carbon	20.1		0.50	mg/L		23-JUL-18	R4139695
Total Suspended Solids Total Suspended Solids	6.0	HTD	6.0	mg/L		19-JUL-18	R4138185
рН						40	
pH	8.28		0.10	pH units		16-JUL-18	R4128971
L2129004-2 COR-7							
Sampled By: CLIENT on 11-JUL-18 @ 10:00  Matrix: WASTE WATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		17-JUL-18	R4131791
Toluene	<0.0010		0.0010	mg/L		17-JUL-18	R4131791
Ethyl benzene	<0.00050		0.00050	mg/L		17-JUL-18	R4131791
o-Xylene m+p-Xylenes	<0.00050 <0.00040		0.00050	mg/L		17-JUL-18 17-JUL-18	R4131791
F1 (C6-C10)	<0.00040		0.00040 0.10	mg/L		17-JUL-18 17-JUL-18	R4131791
Surrogate: 4-Bromofluorobenzene (SS)	90.3		70-130	mg/L %		17-JUL-18 17-JUL-18	R4131791 R4131791
CCME PHC F2-F4 in Water					40 11 11 45		
F2 (C10-C16)	<0.10		0.10	mg/L	16-JUL-18	17-JUL-18	R4130550
F3 (C16-C34)	<0.25		0.25	mg/L	16-JUL-18	17-JUL-18	R4130550
F4 (C34-C50)	<0.25		0.25	mg/L	16-JUL-18	17-JUL-18	R4130550

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2129004 CONTD.... PAGE 4 of 8 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
1.2420004.2 COP.7							
L2129004-2 COR-7							
Sampled By: CLIENT on 11-JUL-18 @ 10:00							
Matrix: WASTE WATER							
CCME PHC F2-F4 in Water	00.0		00.440	0/	40 1111 40	47 1111 40	D 4400550
Surrogate: 2-Bromobenzotrifluoride	80.8		60-140	%	16-JUL-18	17-JUL-18	R4130550
CCME Total Hydrocarbons F1-BTEX	<0.10		0.10	mg/L		20-JUL-18	
F2-Naphth	<0.10		0.10	mg/L		20-JUL-18	
F3-PAH	<0.10		0.10	mg/L		20-JUL-18	
Total Hydrocarbons (C6-C50)	<0.38		0.23	mg/L		20-JUL-18	
Sum of Xylene Isomer Concentrations	10.00		0.00				
Xylenes (Total)	<0.00064		0.00064	mg/L		18-JUL-18	
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Acenaphthene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Acenaphthylene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Anthracene Acridine	<0.000010 <0.000020		0.000010 0.000020	mg/L	18-JUL-18 18-JUL-18	18-JUL-18 18-JUL-18	R4134327 R4134327
Benzo(a)anthracene	<0.000020		0.000020	mg/L mg/L	18-JUL-18	18-JUL-18	R4134327 R4134327
Benzo(a)pyrene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(b&j)fluoranthene	<0.000010		0.0000030	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(g,h,i)perylene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Benzo(k)fluoranthene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Chrysene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Dibenzo(a,h)anthracene	<0.000050		0.0000050	mg/L	18-JUL-18	18-JUL-18	R4134327
Fluoranthene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Fluorene	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Naphthalene	<0.000050		0.000050	mg/L	18-JUL-18	18-JUL-18	R4134327
Phenanthrene	<0.000050		0.000050	mg/L	18-JUL-18	18-JUL-18	R4134327
Pyrene	<0.000010		0.000010	mg/L	18-JUL-18	18-JUL-18	R4134327
Quinoline	<0.000020		0.000020	mg/L	18-JUL-18	18-JUL-18	R4134327
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	18-JUL-18	18-JUL-18	R4134327
Surrogate: Acenaphthene d10	84.7		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Acridine d9	102.9		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Chrysene d12	116.2		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Naphthalene d8	81.3		40-130	%	18-JUL-18	18-JUL-18	R4134327
Surrogate: Phenanthrene d10	96.3		40-130	%	18-JUL-18	18-JUL-18	R4134327
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	164		1.2	mg/L		17-JUL-18	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		17-JUL-18	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		17-JUL-18	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	135		1.0	mg/L		16-JUL-18	R4128971
Ammonia by colour	130		1.0	illy/L		10-JUL-10	1341209/1
Ammonia, Total (as N)	0.075		0.010	mg/L		17-JUL-18	R4131900
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	2.6	BODQ	2.0	mg/L		13-JUL-18	R4133257
Carbonaceous BOD BOD Carbonaceous	<2.0	BODQ	2.0	mg/L		13-JUL-18	R4133257
Chloride in Water by IC				J			
- · · · · · · · · · · · · · · · · · · ·	<u> </u>	l					

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2129004 CONTD.... PAGE 5 of 8 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2129004-2 COR-7							
Sampled By: CLIENT on 11-JUL-18 @ 10:00							
Matrix: WASTE WATER							
Chloride in Water by IC							
Chloride (CI)	4.86		0.50	mg/L		14-JUL-18	R4131207
Conductivity Conductivity	493		1.0	umhos/cm		16-JUL-18	R4128971
Fecal coliforms, 1:10 dilution by QT97 Fecal Coliforms	<10	PEHT	10	MPN/100mL		13-JUL-18	R4124985
Hardness Calculated Hardness (as CaCO3)	242	нтс	0.20	mg/L		20-JUL-18	
Mercury Total Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	16-JUL-18	18-JUL-18	R4132708
Nitrate in Water by IC Nitrate (as N)	0.116		0.020	mg/L		14-JUL-18	R4131207
Nitrate+Nitrite							131201
Nitrate and Nitrite as N Nitrite in Water by IC	0.116		0.070	mg/L		18-JUL-18	
Nitrite (as N)	<0.010		0.010	mg/L		14-JUL-18	R4131207
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		23-JUL-18	R4139070
Phenol (4AAP) Phenols (4AAP)	<0.0010		0.0010	mg/L		17-JUL-18	R4131590
Phosphorus, Total Phosphorus (P)-Total	0.102		0.0010	mg/L		19-JUL-18	R4133029
Sulfate in Water by IC Sulfate (SO4)	117		0.30	mg/L		14-JUL-18	R4131207
Total Metals in Water by CRC ICPMS							
Aluminum (AI)-Total	0.0197		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
Arsenic (As)-Total	0.00044		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cadmium (Cd)-Total	0.0000234		0.0000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Calcium (Ca)-Total	89.4		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Chromium (Cr)-Total	0.00040		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cobalt (Co)-Total	0.00028		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Copper (Cu)-Total	0.00389		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Iron (Fe)-Total	0.919		0.010	mg/L	18-JUL-18	19-JUL-18	R4133686
Lead (Pb)-Total	0.000343		0.000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Magnesium (Mg)-Total	4.46		0.0050	mg/L	18-JUL-18	19-JUL-18	R4133686
Manganese (Mn)-Total	0.0428		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Nickel (Ni)-Total	0.00203		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Potassium (K)-Total	3.97		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Sodium (Na)-Total	6.25		0.050	mg/L	18-JUL-18 18-JUL-18	19-JUL-18	R4133686
Zinc (Zn)-Total	0.0379		0.0030	mg/L	10-JUL-10	19-JUL-18	R4133686
Total Organic Carbon by Combustion Total Organic Carbon	20.1		0.50	mg/L		23-JUL-18	R4139695
Total Suspended Solids Total Suspended Solids	<2.0	HTD	2.0	mg/L		19-JUL-18	R4138185
pH	7 70		0.10	nH unita		16-1111 10	D4120074
pH	7.78		0.10	pH units		16-JUL-18	R4128971

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2129004 CONTD....

**Reference Information** 

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Sample Parameter Qualifier Key:

Qualifier	Description
BODQ	BOD Qualification: Lab Control Sample outside standard 85-115% objective (see QC report). Sample(s) cannot be rerun due to hold time expiry.
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
HTD	Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.
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
RRQC	Refer to report remarks for information regarding this QC result.

#### **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- Water Alkalinity, Bicarbonate CALCULATION WP

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 Alkalinity, Total (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.

C-TOC-HTC-WP Water Total Organic Carbon by Combustion APHA 5310 B-WP

Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.

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.

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

L2129004 CONTD....

**Reference Information** 

PAGE 7 of 8 Version: FINAL

#### **Test Method References:**

ALS Test Code Matrix Test Description Method Reference\*\*

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 CCME PHC F2-F4 in Water EPA 3511

Petroleum hydrocarbons in water are determined by liquid-liquid micro-scale solvent extraction using a reciprocal shaker extraction apparatus prior to capillary column gas chromatography with flame ionization detection (GC-FID) analysis.

FC10-QT97-WP Water Fecal coliforms, 1:10 dilution by QT97 APHA 9223B QT97

Analysis is carried out using procedures adapted from APHA 9223 "Enzyme Substrate Coliform Test". Fecal (thermotolerant) coliform bacteria are determined by mixing a 1:10 dilution of sample with a product containing hydrolyzable substrates and sealing in a 97-well packet. The packet is incubated at  $44.5 - 0.2^{\circ}$ C for 18 hours and then the number of wells exhibiting positive responses are counted. The final results are obtained by comparing the number of positive responses to a probability table.

HARDNESS-CALC-WP Water Hardness Calculated APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

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-CCMS-WP Water Total Metals in Water by CRC ICPMS EPA 200.2/6020A (mod.)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

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.

OG-GRAV-WP Water Oil & Grease - Gravimetric EPA 1664 (modified)

Water samples are acidified and extracted with hexane; the hexane extract is collected in a pre-weighed vial. The solvent is evaporated and Total Oil & Grease is determined from the weight of the residue in the vial.

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

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous 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.

L2129004 CONTD....

PAGE 8 of 8 Version: FINAL

#### **Reference Information**

#### **Test Method References:**

ALS Test Code Matrix Test Description Method Reference\*\*

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.

XYLENES-SUM-CALC- 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:

<b>Laboratory Definition Code</b>	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.

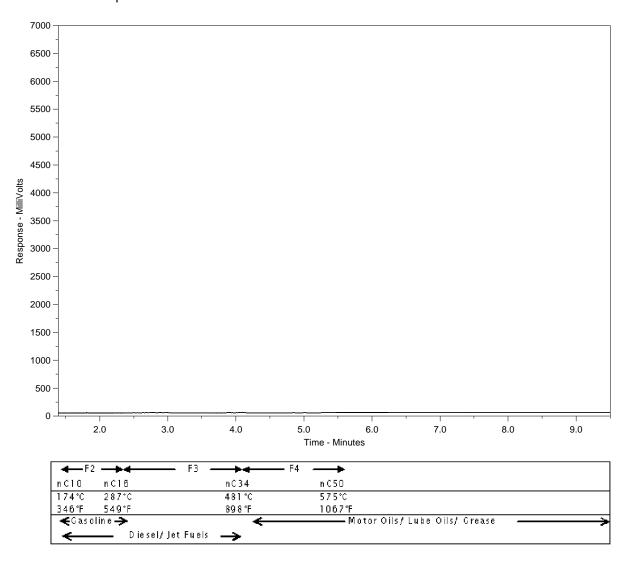
Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

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: L2129004-2 Client Sample ID: COR-7



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 <a href="https://www.alsglobal.com">www.alsglobal.com</a>.

## Environmental www.alsolobal.com

#### Chain of Custody (COC) / Analytical / Request Form

Canada Toll Free: 1 800 668 9878

coc Number: 17 - 679660

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Hamlet of Coral Harbour ATTN: LEONIE PAMEOLIK

PO Box 30

Coral Harbour MB XOC OCO

Date Received: 13-JUL-18

Report Date: 26-JUL-18 15:14 (MT)

Version: FINAL

Client Phone: 867-925-8867

## Certificate of Analysis

Lab Work Order #: L2128988
Project P.O. #: NOT SUBMITTED

Job Reference: CORAL HARBOUR MONITORING PROGRAM

C of C Numbers: Legal Site Desc:

Hua Wo

Chemistry Laboratory Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721

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L2128988 CONTD.... PAGE 2 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2128988-1 COR-3							
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
Mann. Wierz Witzi							
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	385		1.2	mg/L		17-JUL-18	
Alkalinity, Carbonate	303		1.2	1119/2		17 002 10	
Carbonate (CO3)	<0.60		0.60	mg/L		17-JUL-18	
Alkalinity, Hydroxide						47 11 11 40	
Hydroxide (OH)  Alkalinity, Total (as CaCO3)	<0.34		0.34	mg/L		17-JUL-18	
Alkalinity, Total (as CaCO3)	316		1.0	mg/L		16-JUL-18	R4128971
Ammonia by colour							
Ammonia, Total (as N)	53.3		2.0	mg/L		14-JUL-18	R4129527
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	94	BODQ	20	mg/L		13-JUL-18	R4133257
Carbonaceous BOD	57		20	9/ -		10 001 10	114100201
BOD Carbonaceous	80	BODQ	20	mg/L		13-JUL-18	R4133257
Chloride in Water by IC	22.4		4.0	w D		44 !!!! 40	D440405=
Chloride (CI)  Conductivity	38.1		1.0	mg/L		14-JUL-18	R4131207
Conductivity	789		1.0	umhos/cm		16-JUL-18	R4128971
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms	>24200	PEHT	10	MPN/100mL		13-JUL-18	R4124985
Hardness Calculated Hardness (as CaCO3)	84.7	нтс	0.20	mg/L		20-JUL-18	
Mercury Total	0		0.20				
Mercury (Hg)-Total	0.0000117		0.0000050	mg/L	16-JUL-18	18-JUL-18	R4132708
Nitrate in Water by IC Nitrate (as N)	<0.040	DLM	0.040	mg/L		14-JUL-18	R4131207
Nitrate+Nitrite	<0.040	DEW	0.040	IIIg/L		14-30L-10	K4131201
Nitrate and Nitrite as N	<0.070		0.070	mg/L		18-JUL-18	
Nitrite in Water by IC		DIM				44 11 11 40	D
Nitrite (as N)  Oil & Grease - Gravimetric	<0.020	DLM	0.020	mg/L		14-JUL-18	R4131207
Oil and Grease	5.9		5.0	mg/L		23-JUL-18	R4138284
Phenol (4AAP)							
Phenols (4AAP)	0.063	DLM	0.010	mg/L		17-JUL-18	R4131590
Phosphorus, Total Phosphorus (P)-Total	8.97		0.020	mg/L		19-JUL-18	R4133029
Sulfate in Water by IC	0.07		0.320				
Sulfate (SO4)	1.68		0.60	mg/L		14-JUL-18	R4131207
Total Metals in Water by CRC ICPMS	0.0660		0.0030	ma/l	18-JUL-18	19-JUL-18	D/122606
Aluminum (AI)-Total Arsenic (As)-Total	0.00096		0.0030 0.00010	mg/L mg/L	18-JUL-18	19-JUL-18	R4133686 R4133686
Cadmium (Cd)-Total	0.0000457		0.0000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Calcium (Ca)-Total	27.8		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Chromium (Cr)-Total	0.00045		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cobalt (Co)-Total	0.00064		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Copper (Cu)-Total	0.0330		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Iron (Fe)-Total	0.448		0.010	mg/L	18-JUL-18 18-JUL-18	19-JUL-18	R4133686
Lead (Pb)-Total Magnesium (Mg)-Total	0.000528 3.72		0.000050	mg/L mg/L	18-JUL-18 18-JUL-18	19-JUL-18 19-JUL-18	R4133686 R4133686
Manganese (Mn)-Total	0.0422		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
Nickel (Ni)-Total	0.00282		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2128988 CONTD.... PAGE 3 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2128988-1 COR-3							
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
Total Metals in Water by CRC ICPMS Potassium (K)-Total	17.7		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Sodium (Na)-Total	36.3		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Zinc (Zn)-Total	0.0259		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
<b>Total Organic Carbon by Combustion</b> Total Organic Carbon	68.6		5.0	mg/L		24-JUL-18	R4141508
<b>Total Suspended Solids</b> Total Suspended Solids	49	HTD	10	mg/L		19-JUL-18	R4138185
<b>pH</b> pH	7.19		0.10	pH units		16-JUL-18	R4128971
L2128988-2 COR-4							
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	331		1.2	mg/L		17-JUL-18	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		17-JUL-18	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		17-JUL-18	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	271		1.0	mg/L		16-JUL-18	R4128971
Ammonia by colour Ammonia, Total (as N)	22.3		2.0	mg/L		14-JUL-18	R4129527
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	34.5	BODQ	6.0	mg/L		13-JUL-18	R4133257
Carbonaceous BOD BOD Carbonaceous	20.0	BODQ	6.0	mg/L		13-JUL-18	R4133257
Chloride in Water by IC Chloride (CI)	33.5		0.50	mg/L		14-JUL-18	R4131207
Conductivity Conductivity	631		1.0	umhos/cm		16-JUL-18	R4128971
Fecal coliforms, 1:10 dilution by QT97 Fecal Coliforms	660	PEHT	10	MPN/100mL		13-JUL-18	R4124985
Hardness Calculated Hardness (as CaCO3)	148	нтс	0.20	mg/L		20-JUL-18	300
Mercury Total Mercury (Hg)-Total	0.0000093		0.0000050	mg/L	16-JUL-18	18-JUL-18	R4132708
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		14-JUL-18	R4131207
Nitrate+Nitrite Nitrate and Nitrite as N	<0.020		0.020	mg/L		18-JUL-18	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		14-JUL-18	R4131207
Oil & Grease - Gravimetric							
Oil and Grease Phenol (4AAP)	<5.0		5.0	mg/L		23-JUL-18	R4138284
Phenols (4AAP) Phosphorus, Total	0.0151		0.0010	mg/L		17-JUL-18	R4131590
Phosphorus (P)-Total  Sulfate in Water by IC	4.06		0.010	mg/L		19-JUL-18	R4133029
Sulfate (SO4)	5.43		0.30	mg/L		14-JUL-18	R4131207

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2128988 CONTD.... PAGE 4 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2128988-2 COR-4							
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.0342		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
Arsenic (As)-Total	0.00234		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cadmium (Cd)-Total	0.0000695		0.0000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Calcium (Ca)-Total	52.7		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Chromium (Cr)-Total	0.00041		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cobalt (Co)-Total	0.00214		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Copper (Cu)-Total	0.0151		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Iron (Fe)-Total	0.849		0.010	mg/L	18-JUL-18	19-JUL-18	R4133686
Lead (Pb)-Total	0.000366		0.000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Magnesium (Mg)-Total	4.04		0.0050	mg/L	18-JUL-18	19-JUL-18	R4133686
Manganese (Mn)-Total	0.133		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Nickel (Ni)-Total	0.00486		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Potassium (K)-Total	14.0		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Sodium (Na)-Total Zinc (Zn)-Total	31.5		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
` '	0.0106		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
<b>Total Organic Carbon by Combustion</b> Total Organic Carbon	32.8		0.50	mg/L		23-JUL-18	R4138739
Total Suspended Solids	32.0		0.50	IIIg/L		23-30L-18	K4130739
Total Suspended Solids	17	HTD	10	mg/L		19-JUL-18	R4138185
<b>pH</b> pH	7.40		0.10	pH units		16-JUL-18	R4128971
L2128988-3 COR-6			00	F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		17-JUL-18	R4131791
Toluene	<0.0010		0.0010	mg/L		17-JUL-18	R4131791
Ethyl benzene	<0.00050		0.00050	mg/L		17-JUL-18	R4131791
o-Xylene	<0.00050		0.00050	mg/L		17-JUL-18	R4131791
m+p-Xylenes	<0.00040		0.00040	mg/L		17-JUL-18	R4131791
F1 (C6-C10)	<0.10		0.10	mg/L		17-JUL-18	R4131791
Surrogate: 4-Bromofluorobenzene (SS)	92.2		70-130	%		17-JUL-18	R4131791
CCME PHC F2-F4 in Water							
F2 (C10-C16)	<0.10		0.10	mg/L	16-JUL-18	17-JUL-18	R4130550
F3 (C16-C34)	<0.25		0.25	mg/L	16-JUL-18	17-JUL-18	R4130550
F4 (C34-C50)	<0.25		0.25	mg/L	16-JUL-18	17-JUL-18	R4130550
Surrogate: 2-Bromobenzotrifluoride	88.4		60-140	%	16-JUL-18	17-JUL-18	R4130550
CCME Total Hydrocarbons			0.10	n		40 11 11 46	
F1-BTEX	<0.10		0.10	mg/L		19-JUL-18	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		19-JUL-18	
Sum of Xylene Isomer Concentrations Xylenes (Total)	<0.00064		0.00064	mg/L		18-JUL-18	
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	211		1.2	mg/L		17-JUL-18	
Alkalinity, Carbonate	211		1.4	mg/L		1, 301-10	
Carbonate (CO3)	<0.60		0.60	mg/L		17-JUL-18	
<b>Alkalinity, Hydroxide</b> Hydroxide (OH)	<0.34		0.34	mg/L		17-JUL-18	
Alkalinity, Total (as CaCO3)			3.5 .	·· <i>g</i> · =			

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2128988-3 COR-6							
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
Alkalinity, Total (as CaCO3)							
Alkalinity, Total (as CaCO3)	173		1.0	mg/L		16-JUL-18	R4128971
Ammonia by colour Ammonia, Total (as N)	0.022		0.010	mg/L		14-JUL-18	R4129527
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	7.3	BODQ	2.0	mg/L		13-JUL-18	R4133257
Carbonaceous BOD BOD Carbonaceous	3.7	BODQ	2.0	mg/L		13-JUL-18	R4133257
Chloride in Water by IC Chloride (CI)	17.3		0.50	mg/L		14-JUL-18	R4131207
Conductivity							
Conductivity Fecal coliforms, 1:10 dilution by QT97	423		1.0	umhos/cm		16-JUL-18	R4128971
Fecal Coliforms  Hardness Calculated	170	PEHT	10	MPN/100mL		13-JUL-18	R4124985
Hardness (as CaCO3)  Mercury Total	183	HTC	0.20	mg/L		20-JUL-18	
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L	16-JUL-18	18-JUL-18	R4132708
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		14-JUL-18	R4131207
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		18-JUL-18	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		14-JUL-18	R4131207
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		23-JUL-18	R4138284
Phenol (4AAP) Phenols (4AAP)	0.0010		0.0010	mg/L		17-JUL-18	R4131590
Phosphorus, Total							
Phosphorus (P)-Total  Sulfate in Water by IC	0.209		0.010	mg/L		19-JUL-18	R4133029
Sulfate (SO4)	33.0		0.30	mg/L		14-JUL-18	R4131207
Total Metals in Water by CRC ICPMS Aluminum (AI)-Total	0.126		0.0030	mg/L	18-JUL-18	19-JUL-18	R4133686
Arsenic (As)-Total	0.00071		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cadmium (Cd)-Total	0.0000096		0.0000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Calcium (Ca)-Total	61.7		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Chromium (Cr)-Total	0.00040		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Cobalt (Co)-Total	0.00016		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Copper (Cu)-Total	0.00152		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Iron (Fe)-Total	0.591		0.010	mg/L	18-JUL-18	19-JUL-18	R4133686
Lead (Pb)-Total	0.000355		0.000050	mg/L	18-JUL-18	19-JUL-18	R4133686
Magnesium (Mg)-Total	6.94		0.0050	mg/L	18-JUL-18	19-JUL-18	R4133686
Manganese (Mn)-Total	0.0665		0.00010	mg/L	18-JUL-18	19-JUL-18	R4133686
Nickel (Ni)-Total	0.00096		0.00050	mg/L	18-JUL-18	19-JUL-18	R4133686
Potassium (K)-Total	5.38		0.050	mg/L	18-JUL-18	19-JUL-18	R4133686
Sodium (Na)-Total Zinc (Zn)-Total	16.2 0.0192		0.050 0.0030	mg/L mg/L	18-JUL-18 18-JUL-18	19-JUL-18 19-JUL-18	R4133686 R4133686
Total Organic Carbon by Combustion	0.0192		0.0030	IIIg/L	10-JUL-10	19-JUL-10	N4133000
Total Organic Carbon	14.9		0.50	mg/L		23-JUL-18	R4138739
Total Suspended Solids Total Suspended Solids	13.7	HTD	2.0	mg/L		19-JUL-18	R4138185
pH							

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2128988-3 COR-6							
Sampled By: CLIENT on 11-JUL-18							
Matrix: WASTE WATER							
<b>рН</b> рН	8.13		0.10	pH units		16-JUL-18	R4128971

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

#### L2128988 CONTD....

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#### **Reference Information**

Sample Parameter Qualifier Key:

Qualifier	Description
BODQ	BOD Qualification: Lab Control Sample outside standard 85-115% objective (see QC report). Sample(s) cannot be rerun due to hold time expiry.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
HTD	Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.
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
RRQC	Refer to report remarks for information regarding this QC result.

#### **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- Water Alkalinity, Bicarbonate CALCULATION WP

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 Alkalinity, Total (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.

C-TOC-HTC-WP Water Total Organic Carbon by Combustion APHA 5310 B-WP

Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.

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.

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.

#### L2128988 CONTD....

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#### **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 CCME PHC F2-F4 in Water EPA 3511

Petroleum hydrocarbons in water are determined by liquid-liquid micro-scale solvent extraction using a reciprocal shaker extraction apparatus prior to capillary column gas chromatography with flame ionization detection (GC-FID) analysis.

FC10-QT97-WP Water Fecal coliforms, 1:10 dilution by QT97 APHA 9223B QT97

Analysis is carried out using procedures adapted from APHA 9223 "Enzyme Substrate Coliform Test". Fecal (thermotolerant) coliform bacteria are determined by mixing a 1:10 dilution of sample with a product containing hydrolyzable substrates and sealing in a 97-well packet. The packet is incubated at 44.5 – 0.2°C for 18 hours and then the number of wells exhibiting positive responses are counted. The final results are obtained by comparing the number of positive responses to a probability table.

HARDNESS-CALC-WP Water Hardness Calculated APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

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-CCMS-WP Water Total Metals in Water by CRC ICPMS EPA 200.2/6020A (mod.)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

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.

OG-GRAV-WP Water Oil & Grease - Gravimetric EPA 1664 (modified)

Water samples are acidified and extracted with hexane; the hexane extract is collected in a pre-weighed vial. The solvent is evaporated and Total Oil & Grease is determined from the weight of the residue in the vial.

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

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

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.

L2128988 CONTD....

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#### **Reference Information**

#### **Test Method References:**

**ALS Test Code** Matrix Method Reference\*\* **Test Description** 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-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:

<b>Laboratory Definition Code</b>	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.

WP

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.

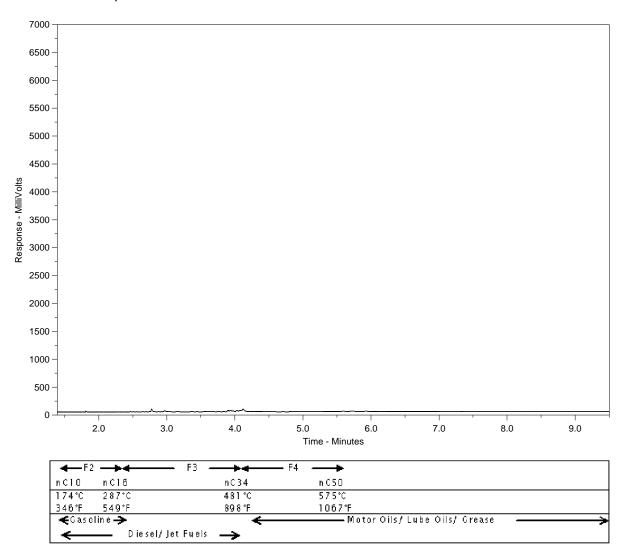
Applytical results in unsigned test reports with the DRAFT watermark are subject to change

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: L2128988-3 Client Sample ID: COR-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 <a href="https://www.alsglobal.com">www.alsglobal.com</a>.

## Environmental www.alsglobai.com

#### Chain of Custody (COC) / Analytical Request Form

coc Number: 14 - 450510

Canada Toll Free: 1 800 668 9878

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Appendix D



Hamlet of Coral Harbour ATTN: LEONIE PAMEOLIK

PO Box 30

Coral Harbour MB XOC OCO

Date Received: 02-AUG-18

Report Date: 22-AUG-18 14:32 (MT)

Version: FINAL

Client Phone: 867-925-8867

## Certificate of Analysis

Lab Work Order #: L2140441
Project P.O. #: NOT SUBMITTED

Job Reference: CORAL HARBOUR - WASTE WATER SAMPLES

C of C Numbers: Legal Site Desc:

Hua Wo

Chemistry Laboratory Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721

ALS CANADA LTD Part of the ALS Group An ALS Limited Company



L2140441 CONTD.... PAGE 2 of 13 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-1 COR-7							
Sampled By: CASEY							
' '							
Matrix: WW BTEX plus F1-F4							
BTX plus F1 by GCMS  Benzene	<0.00050		0.00050	mg/L		03-AUG-18	R4160778
Toluene	<0.0010		0.0010	mg/L		03-AUG-18	R4160778
Ethyl benzene	<0.00050		0.00050	mg/L		03-AUG-18	R4160778
o-Xylene	<0.00050		0.00050	mg/L		03-AUG-18	R4160778
m+p-Xylenes	<0.00040		0.00040	mg/L		03-AUG-18	R4160778
F1 (C6-C10)	<0.10		0.10	mg/L		03-AUG-18	R4160778
Surrogate: 4-Bromofluorobenzene (SS)	91.5		70-130	%		03-AUG-18	R4160778
CCME PHC F2-F4 in Water							
F2 (C10-C16)	<0.10		0.10	mg/L	07-AUG-18	07-AUG-18	R4145716
F3 (C16-C34)	<0.25		0.25	mg/L	07-AUG-18	07-AUG-18	R4145716
F4 (C34-C50)	<0.25		0.25	mg/L	07-AUG-18	07-AUG-18	R4145716
Surrogate: 2-Bromobenzotrifluoride	93.5		60-140	%	07-AUG-18	07-AUG-18	R4145716
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		14-AUG-18	
F2-Naphth	<0.10		0.10	mg/L		14-AUG-18	
F3-PAH	<0.25		0.25	mg/L		14-AUG-18	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		14-AUG-18	
Sum of Xylene Isomer Concentrations Xylenes (Total)	<0.00064		0.00064	mg/L		09-AUG-18	
Ayleries (Total)	<0.00064		0.00064	IIIg/L		09-A0G-18	
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Acenaphthene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Acenaphthylene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Anthracene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Acridine	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(a)anthracene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(a)pyrene	<0.000050		0.0000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Chrysene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Dibenzo(a,h)anthracene	<0.000050		0.0000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Fluoranthene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Fluorene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Indeno(1,2,3-cd)pyrene Naphthalene	<0.000010		0.000010	mg/L	03-AUG-18 03-AUG-18	08-AUG-18 08-AUG-18	R4166934 R4166934
Phenanthrene	<0.000050 <0.000050		0.000050 0.000050	mg/L mg/L	03-AUG-18 03-AUG-18	08-AUG-18	R4166934
Pyrene	<0.000050		0.000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Quinoline	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
B(a)P Total Potency Equivalent	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Surrogate: Acenaphthene d10	81.3		40-130	™g/∟ %	03-AUG-18	08-AUG-18	R4166934
Surrogate: Acridine d9	81.7		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Chrysene d12	92.8		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Naphthalene d8	75.0		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Phenanthrene d10	88.5		40-130	%	03-AUG-18	08-AUG-18	R4166934
Nunavut WW Group 1				-			
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	85.5		1.2	mg/L		07-AUG-18	
Alkalinity, Carbonate							

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2140441 CONTD.... PAGE 3 of 13 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-1 COR-7							
Sampled By: CASEY							
Matrix: WW							
Alkalinity, Carbonate							
Carbonate (CO3)	4.68		0.60	mg/L		07-AUG-18	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		07-AUG-18	
Alkalinity, Total (as CaCO3)	\0.5 <del>4</del>		0.54	1119/2		07 7.00 10	
Alkalinity, Total (as CaCO3)	77.9		1.0	mg/L		03-AUG-18	R4159770
Ammonia by colour Ammonia, Total (as N)	0.031		0.010	mg/L		03-AUG-18	R4159352
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		02-AUG-18	R4160693
Carbonaceous BOD BOD Carbonaceous	<2.0		2.0	mg/L		02-AUG-18	R4160693
Chloride in Water by IC	12.0						
Chloride (Cl)	5.78		0.50	mg/L		08-AUG-18	R4161971
Conductivity Conductivity	743		1.0	umhos/cm		03-AUG-18	R4159770
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms	30		10	MPN/100mL		02-AUG-18	R4157447
Hardness Calculated Hardness (as CaCO3)	398	нтс	0.20	mg/L		14-AUG-18	
Mercury Total							
Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	02-AUG-18	08-AUG-18	R4161347
Nitrate in Water by IC Nitrate (as N)	<0.020	HTD	0.020	mg/L		08-AUG-18	R4161971
Nitrate+Nitrite	40.020		0.020	9/ _		007.00 10	101071
Nitrate and Nitrite as N	<0.070		0.070	mg/L		08-AUG-18	
Nitrite in Water by IC Nitrite (as N)	<0.010	HTD	0.010	mg/L		08-AUG-18	R4161971
Oil & Grease - Gravimetric	10.0.0		0.0.0				
Oil and Grease	<5.0		5.0	mg/L		13-AUG-18	R4168158
Phenol (4AAP)						07 4110 40	
Phenols (4AAP) Phosphorus, Total	<0.0010		0.0010	mg/L		07-AUG-18	R4161179
Phosphorus (P)-Total	0.0713		0.0010	mg/L		13-AUG-18	R4168097
Sulfate in Water by IC							
Sulfate (SO4)	298		0.30	mg/L		08-AUG-18	R4161971
Total Metals in Water by CRC ICPMS	0.0400		0.000		40 4110 40	40 4110 40	D 4400 440
Aluminum (Al)-Total	0.0438		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Arsenic (As)-Total	0.00050		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cadmium (Cd)-Total	0.0000236		0.0000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Calcium (Ca)-Total	145		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Chromium (Cr)-Total	0.00046		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cobalt (Co)-Total	0.00027		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Copper (Cu)-Total	0.00500		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Iron (Fe)-Total	0.753		0.010	mg/L	13-AUG-18	13-AUG-18	R4168412
Lead (Pb)-Total	0.000463		0.000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Magnesium (Mg)-Total	8.64		0.0050	mg/L	13-AUG-18	13-AUG-18	R4168412
Manganese (Mn)-Total	0.0229		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Nickel (Ni)-Total	0.00257		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Potassium (K)-Total	5.41		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Sodium (Na)-Total	11.0		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Zinc (Zn)-Total  Total Organic Carbon by Combustion	0.0526		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Total Organic Carbon by Combustion							

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2140441 CONTD.... PAGE 4 of 13 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-1 COR-7							
Sampled By: CASEY							
' '							
Matrix: WW							
<b>Total Organic Carbon by Combustion</b> Total Organic Carbon	25.5		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids							
Total Suspended Solids	2.1		2.0	mg/L		08-AUG-18	R4161989
pH						<b>_</b>	
pH	8.49		0.10	pH units		03-AUG-18	R4159770
L2140441-2 COR-6							
Sampled By: CASEY							
Matrix: WW							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		03-AUG-18	R4160778
Toluene	<0.0010		0.0010	mg/L		03-AUG-18	R4160778
Ethyl benzene	<0.00050		0.00050	mg/L		03-AUG-18	R4160778
o-Xylene	<0.00050		0.00050	mg/L		03-AUG-18	R4160778
m+p-Xylenes	<0.00040		0.00040	mg/L		03-AUG-18	R4160778
F1 (C6-C10)	<0.10		0.10	mg/L		03-AUG-18	R4160778
Surrogate: 4-Bromofluorobenzene (SS)	89.5		70-130	%		03-AUG-18	R4160778
CCME PHC F2-F4 in Water							
F2 (C10-C16)	<0.10		0.10	mg/L	07-AUG-18	07-AUG-18	R4145716
F3 (C16-C34)	<0.25		0.25	mg/L	07-AUG-18	07-AUG-18	R4145716
F4 (C34-C50)	<0.25		0.25	mg/L	07-AUG-18	07-AUG-18	R4145716
Surrogate: 2-Bromobenzotrifluoride	91.2		60-140	%	07-AUG-18	07-AUG-18	R4145716
CCME Total Hydrocarbons	0.40		0.40	/1		44 4110 40	
F1-BTEX	<0.10		0.10	mg/L		14-AUG-18	
F2-Naphth	<0.10		0.10	mg/L		14-AUG-18	
F3-PAH	<0.25		0.25	mg/L		14-AUG-18	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		14-AUG-18	
Sum of Xylene Isomer Concentrations	40 00064		0.00064	ma/l		09-AUG-18	
Xylenes (Total)	<0.00064		0.00064	mg/L		09-A0G-16	
Polyaromatic Hydrocarbons (PAHs)	0.00000		0.000000		02 4110 40	00 110 10	D4400004
1-Methyl Naphthalana	<0.000020		0.000020	mg/L	03-AUG-18 03-AUG-18	08-AUG-18 08-AUG-18	R4166934 R4166934
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	
Acenaphthene Acenaphthylene	<0.000020 <0.000020		0.000020 0.000020	mg/L mg/l	03-AUG-18 03-AUG-18	08-AUG-18	R4166934 R4166934
Anthracene	<0.000020		0.000020	mg/L mg/L	03-AUG-18	08-AUG-18	R4166934
Acridine	<0.000010		0.000010	mg/L	03-AUG-18 03-AUG-18	08-AUG-18	R4166934
Benzo(a)anthracene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(a)pyrene	<0.000010		0.000010	mg/L	03-AUG-18 03-AUG-18	08-AUG-18	R4166934
Benzo(b&j)fluoranthene	<0.000010		0.0000030	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(g,h,i)perylene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(k)fluoranthene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Chrysene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Dibenzo(a,h)anthracene	<0.000050		0.0000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Fluoranthene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Fluorene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			0.000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Naphthalene	< 0.000050		0.0000000				
Naphthalene Phenanthrene	<0.000050 <0.000050						R4166934
•	<0.000050 <0.000050 <0.000010		0.000050 0.000010	mg/L mg/L	03-AUG-18 03-AUG-18	08-AUG-18 08-AUG-18	R4166934 R4166934

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

L2140441 CONTD.... PAGE 5 of 13 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-2 COR-6							
Sampled By: CASEY							
Matrix: WW							
Polyaromatic Hydrocarbons (PAHs) B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	03-AUG-18	08-AUG-18	R4166934
Surrogate: Acenaphthene d10	75.8		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Acridine d9	71.7		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Chrysene d12	80.5		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Naphthalene d8	71.4		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Phenanthrene d10	79.1		40-130	%	03-AUG-18	08-AUG-18	R4166934
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	215		1.2	mg/L		07-AUG-18	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		07-AUG-18	
<b>Alkalinity, Hydroxide</b> Hydroxide (OH)	<0.34		0.34	mg/L		07-AUG-18	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	177		1.0	mg/L		03-AUG-18	R4159770
Ammonia by colour Ammonia, Total (as N)	0.058		0.010	mg/L		03-AUG-18	R4159352
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	3.8		2.0	mg/L		02-AUG-18	R4160693
Carbonaceous BOD BOD Carbonaceous	2.3		2.0	mg/L		02-AUG-18	R4160693
Chloride in Water by IC							
Chloride (Cl) Conductivity	39.4		0.50	mg/L		03-AUG-18	R4160847
Conductivity	734		1.0	umhos/cm		03-AUG-18	R4159770
Fecal coliforms, 1:10 dilution by QT97 Fecal Coliforms	140		10	MPN/100mL		02-AUG-18	R4157447
Hardness Calculated Hardness (as CaCO3)	292	нтс	0.20	mg/L		14-AUG-18	
Mercury Total Mercury (Hg)-Total	0.0000060		0.0000050	mg/L	02-AUG-18	08-AUG-18	R4161347
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		03-AUG-18	R4160847
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		08-AUG-18	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		03-AUG-18	R4160847
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		13-AUG-18	R4168158
Phenol (4AAP) Phenols (4AAP)	<0.0010		0.0010	mg/L		07-AUG-18	R4161179
Phosphorus, Total Phosphorus (P)-Total	0.159		0.0010	mg/L		13-AUG-18	R4168097
Sulfate in Water by IC							
Sulfate (SO4)  Total Metals in Water by CRC ICPMS	161		0.30	mg/L		03-AUG-18	R4160847
Aluminum (AI)-Total	0.119		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Arsenic (As)-Total	0.00126		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cadmium (Ca) Total	0.0000124		0.0000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Calcium (Ca)-Total Chromium (Cr)-Total	87.4 0.00045		0.050 0.00010	mg/L mg/L	13-AUG-18 13-AUG-18	13-AUG-18 13-AUG-18	R4168412 R4168412
Cobalt (Co)-Total	0.00045		0.00010	mg/L mg/L	13-AUG-18 13-AUG-18	13-AUG-18 13-AUG-18	R4168412 R4168412
000ait (00)-10tai	0.00022		0.00010	IIIg/L	13-409-10	13-406-16	114100412

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-2 COR-6							
Sampled By: CASEY							
Matrix: WW							
Total Metals in Water by CRC ICPMS							
Copper (Cu)-Total	0.00199		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Iron (Fe)-Total	0.359		0.010	mg/L	13-AUG-18	13-AUG-18	R4168412
Lead (Pb)-Total	0.000283		0.000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Magnesium (Mg)-Total Manganese (Mn)-Total	17.9 0.0465		0.0050 0.00010	mg/L mg/L	13-AUG-18 13-AUG-18	13-AUG-18 13-AUG-18	R4168412 R4168412
Nickel (Ni)-Total	0.0463		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Potassium (K)-Total	14.2		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Sodium (Na)-Total	41.6		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Zinc (Zn)-Total	0.0037		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
<b>Total Organic Carbon by Combustion</b> Total Organic Carbon	24.6		0.50	mg/L		17-AUG-18	R4178039
<b>Total Suspended Solids</b> Total Suspended Solids	5.7		2.0	mg/L		08-AUG-18	R4161989
pH							
рН	8.09		0.10	pH units		03-AUG-18	R4159770
L2140441-3 COR-3							
Sampled By: CASEY							
Matrix: WW							
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	360		1.2	mg/L		07-AUG-18	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		07-AUG-18	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		07-AUG-18	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	295		1.0	mg/L		03-AUG-18	R4159770
Ammonia by colour Ammonia, Total (as N)	41.3		1.0	mg/L		08-AUG-18	R4161955
<b>Biochemical Oxygen Demand (BOD)</b> Biochemical Oxygen Demand	46		20	mg/L		02-AUG-18	R4160693
Carbonaceous BOD BOD Carbonaceous	20		20	mg/L		02-AUG-18	R4160693
Chloride in Water by IC							
Chloride (CI)  Conductivity	58.3		1.0	mg/L		03-AUG-18	R4160847
Conductivity	817		1.0	umhos/cm		03-AUG-18	R4159770
Fecal Coliforms, 1:10 dilution by QT97 Fecal Coliforms	1650		10	MPN/100mL		02-AUG-18	R4157447
Hardness Calculated Hardness (as CaCO3)	137	нтс	0.20	mg/L		14-AUG-18	
Mercury Total Mercury (Hg)-Total	0.0000090		0.0000050	mg/L	02-AUG-18	08-AUG-18	R4161347
Nitrate in Water by IC Nitrate (as N)	<0.040	DLM	0.040	mg/L		03-AUG-18	R4160847
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		08-AUG-18	
Nitrite in Water by IC Nitrite (as N)	<0.020	DLM	0.020	mg/L		03-AUG-18	R4160847
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		13-AUG-18	R4168158

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	* D.L.	Units	Extracted	Analyzed	Batch
L2140441-3 COR-3							
Sampled By: CASEY							
Matrix: WW							
Phenol (4AAP)							
Phenols (4AAP)	0.0155		0.0010	mg/L		07-AUG-18	R4161179
Phosphorus, Total							
Phosphorus (P)-Total	8.40		0.010	mg/L		13-AUG-18	R4168097
Sulfate in Water by IC Sulfate (SO4)	24.1		0.60	mg/L		03-AUG-18	R4160847
Total Metals in Water by CRC ICPMS	24.1		0.60	IIIg/L		03-A0G-18	K4100047
Aluminum (Al)-Total	0.0968		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Arsenic (As)-Total	0.00105		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cadmium (Cd)-Total	0.0000242		0.0000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Calcium (Ca)-Total	46.3		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Chromium (Cr)-Total	0.00063		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cobalt (Co)-Total	0.00061		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Copper (Cu)-Total	0.0117		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Iron (Fe)-Total	0.415		0.010	mg/L	13-AUG-18	13-AUG-18	R4168412
Lead (Pb)-Total	0.000263		0.000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Magnesium (Mg)-Total	5.20		0.0050	mg/L	13-AUG-18	13-AUG-18	R4168412
Manganese (Mn)-Total	0.0586		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Nickel (Ni)-Total	0.00362		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Potassium (K)-Total	19.8		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Sodium (Na)-Total	52.5		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Zinc (Zn)-Total	0.0162		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Total Organic Carbon by Combustion Total Organic Carbon	50.7		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids Total Suspended Solids	46.3		2.0	mg/L		08-AUG-18	R4161989
pH	40.5		2.0	1119/		00710010	114101303
pH	7.35		0.10	pH units		03-AUG-18	R4159770
L2140441-4 COR-4							
Sampled By: CASEY							
Matrix: WW							
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	371		1.2	mg/L		07-AUG-18	
Alkalinity, Carbonate	-0.00		0.00	m c:/!		07-AUG-18	
Carbonate (CO3)  Alkalinity, Hydroxide	<0.60		0.60	mg/L		01-400-18	
Hydroxide (OH)	<0.34		0.34	mg/L		07-AUG-18	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	304		1.0	mg/L		03-AUG-18	R4159770
Ammonia by colour Ammonia, Total (as N)	5.12		0.20	mg/L		04-AUG-18	R4159352
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	139	BODP	20	mg/L		02-AUG-18	R4160693
Carbonaceous BOD						327.33 .0	
BOD Carbonaceous	71		20	mg/L		02-AUG-18	R4160693
Chloride in Water by IC Chloride (CI)	38.6		0.50	mg/L		03-AUG-18	R4160847
Conductivity Conductivity	646		1.0	umhos/cm		03-AUG-18	R4159770
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms	20		10	MPN/100mL		02-AUG-18	R4157447

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-4 COR-4							
Sampled By: CASEY							
' '							
Hardness Calculated Hardness (as CaCO3)	230	HTC	0.20	mg/L		14-AUG-18	
Mercury Total				,,			
Mercury (Hg)-Total	0.0000070		0.0000050	mg/L	02-AUG-18	08-AUG-18	R4161347
Nitrate in Water by IC Nitrate (as N)	0.159		0.020	mg/L		03-AUG-18	R4160847
Nitrate+Nitrite Nitrate and Nitrite as N	0.190		0.070	mg/L		08-AUG-18	
Nitrite in Water by IC Nitrite (as N)	0.032		0.010	mg/L		03-AUG-18	R4160847
Oil & Grease - Gravimetric	0.032		0.010	IIIg/L		03-A0G-10	K4100047
Oil and Grease	12.7		5.0	mg/L		13-AUG-18	R4168158
Phenol (4AAP)	0.0400		0.0040	m c:/l		07 ALIO 40	D4404470
Phenols (4AAP) Phosphorus, Total	0.0126		0.0010	mg/L		07-AUG-18	R4161179
Phosphorus (P)-Total	5.54		0.010	mg/L		13-AUG-18	R4168097
Sulfate in Water by IC Sulfate (SO4)	4.20		0.30	mg/L		03-AUG-18	R4160847
Total Metals in Water by CRC ICPMS	4.20		0.30	mg/L		03-700-10	K4100047
Aluminum (Al)-Total	0.0665		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Arsenic (As)-Total	0.00309		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cadmium (Cd)-Total	0.0000921		0.0000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Calcium (Ca)-Total	80.8		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Chromium (Cr)-Total	0.00050		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cobalt (Co)-Total	0.00343		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Copper (Cu)-Total	0.00704		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Iron (Fe)-Total	1.28		0.010	mg/L	13-AUG-18	13-AUG-18	R4168412
Lead (Pb)-Total	0.000338		0.000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Magnesium (Mg)-Total	6.75		0.0050	mg/L	13-AUG-18	13-AUG-18	R4168412
Manganese (Mn)-Total	0.136		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Nickel (Ni)-Total	0.00841		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Potassium (K)-Total	11.7		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Sodium (Na)-Total	40.3		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Zinc (Zn)-Total	0.0065		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Total Organic Carbon by Combustion							
Total Organic Carbon	73.0		5.0	mg/L		21-AUG-18	R4180330
Total Suspended Solids Total Suspended Solids	845		6.0	mg/L		08-AUG-18	R4161989
pH	040		0.0	ilig/L		00-AUG-18	174101989
pH	7.40		0.10	pH units		03-AUG-18	R4159770
L2140441-5 COR-5							
Sampled By: CASEY							
Matrix: WW							
Delverementie Hydrocovic and (DALIe)							
Polyaromatic Hydrocarbons (PAHs) 1-Methyl Naphthalene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Acenaphthene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Acenaphthylene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Anthracene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Acridine	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(a)anthracene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(a)pyrene	<0.000050		0.0000050	mg/L	03-AUG-18	08-AUG-18	R4166934

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-5 COR-5							
Sampled By: CASEY							
Matrix: WW							
Polyaromatic Hydrocarbons (PAHs)							
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Chrysene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Dibenzo(a,h)anthracene Fluoranthene	<0.000050 <0.000020		0.0000050 0.000020	mg/L	03-AUG-18 03-AUG-18	08-AUG-18 08-AUG-18	R4166934 R4166934
Fluorene	<0.000020		0.000020	mg/L mg/L	03-AUG-18 03-AUG-18	08-AUG-18	R4166934
Indeno(1,2,3-cd)pyrene	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
Naphthalene	<0.000050		0.000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Phenanthrene	<0.000050		0.000050	mg/L	03-AUG-18	08-AUG-18	R4166934
Pyrene	<0.000010		0.000010	mg/L	03-AUG-18	08-AUG-18	R4166934
Quinoline	<0.000020		0.000020	mg/L	03-AUG-18	08-AUG-18	R4166934
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	03-AUG-18	08-AUG-18	R4166934
Surrogate: Aceiding d0	76.3		40-130	%	03-AUG-18	08-AUG-18	R4166934
Surrogate: Acridine d9 Surrogate: Chrysene d12	73.9 85.1		40-130 40-130	% %	03-AUG-18 03-AUG-18	08-AUG-18 08-AUG-18	R4166934 R4166934
Surrogate: Naphthalene d8	70.8		40-130	%	03-AUG-18 03-AUG-18	08-AUG-18	R4166934 R4166934
Surrogate: Phenanthrene d10	77.2		40-130	%	03-AUG-18	08-AUG-18	R4166934
Nunavut WW Group 1				,,,			
Alkalinity, Bicarbonate Bicarbonate (HCO3)	128		1.2	mg/L		07-AUG-18	
Alkalinity, Carbonate	4.00		0.00			07 1110 40	
Carbonate (CO3)	4.92		0.60	mg/L		07-AUG-18	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		07-AUG-18	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	113		1.0	mg/L		03-AUG-18	R4159770
Ammonia by colour Ammonia, Total (as N)	0.045		0.010	mg/L		03-AUG-18	R4159352
Biochemical Oxygen Demand (BOD)	0.043		0.010	mg/L		03 700 10	14109002
Biochemical Oxygen Demand	<2.0		2.0	mg/L		02-AUG-18	R4160693
Carbonaceous BOD BOD Carbonaceous	<2.0		2.0	mg/L		02-AUG-18	R4160693
Chloride in Water by IC							
Chloride (Cl)	39.9		0.50	mg/L		03-AUG-18	R4160847
Conductivity Conductivity	472		1.0	umhos/cm		03-AUG-18	R4159770
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms  Hardness Calculated	<10		10	MPN/100mL		02-AUG-18	R4157447
Hardness Calculated Hardness (as CaCO3) Mercury Total	150	нтс	0.20	mg/L		14-AUG-18	
Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	02-AUG-18	08-AUG-18	R4161347
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		03-AUG-18	R4160847
Nitrate+Nitrite	10.020		0.020	9/ -		307.00 10	1.4100041
Nitrate and Nitrite as N	<0.070		0.070	mg/L		08-AUG-18	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		03-AUG-18	R4160847
Oil & Grease - Gravimetric	<u> </u>		0.010	IIIg/L		00-A0G-10	114100047
Oil and Grease	<5.0		5.0	mg/L		13-AUG-18	R4168158
Phenol (4AAP)							

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2140441-5 COR-5							
Sampled By: CASEY							
Matrix: WW							
Phenol (4AAP)							
Phenois (4AAP)	<0.0010		0.0010	mg/L		07-AUG-18	R4161179
Phosphorus, Total Phosphorus (P)-Total	0.100		0.0010	mg/L		13-AUG-18	R4168097
Sulfate in Water by IC	0.100		0.0010	IIIg/L		13-400-10	K4100091
Sulfate (SO4)	71.4		0.30	mg/L		03-AUG-18	R4160847
Total Metals in Water by CRC ICPMS							
Aluminum (AI)-Total	0.0087		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Arsenic (As)-Total	0.00084		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cadmium (Cd)-Total	0.0000089		0.0000050	mg/L	13-AUG-18	13-AUG-18	R4168412
Calcium (Ca)-Total	44.1		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Chromium (Cr)-Total	0.00050		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Cobalt (Co)-Total Copper (Cu)-Total	0.00028		0.00010 0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412
Iron (Fe)-Total	0.00135 0.103		0.00050	mg/L	13-AUG-18 13-AUG-18	13-AUG-18 13-AUG-18	R4168412
Lead (Pb)-Total	<0.00050		0.010	mg/L mg/L	13-AUG-18 13-AUG-18	13-AUG-18 13-AUG-18	R4168412 R4168412
Magnesium (Mg)-Total	9.60		0.00050	mg/L	13-AUG-18	13-AUG-18	R4168412 R4168412
Manganese (Mn)-Total	0.00590		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Nickel (Ni)-Total	0.00390		0.00010	mg/L	13-AUG-18	13-AUG-18	R4168412
Potassium (K)-Total	9.09		0.0000	mg/L	13-AUG-18	13-AUG-18	R4168412
Sodium (Na)-Total	39.8		0.050	mg/L	13-AUG-18	13-AUG-18	R4168412
Zinc (Zn)-Total	0.0044		0.0030	mg/L	13-AUG-18	13-AUG-18	R4168412
Total Organic Carbon by Combustion				J.			
Total Organic Carbon	20.1		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids							
Total Suspended Solids	<2.0		2.0	mg/L		08-AUG-18	R4161989
рН							
pH	8.56		0.10	pH units		03-AUG-18	R4159770
	ı	1			1	1	

<sup>\*</sup> Refer to Referenced Information for Qualifiers (if any) and Methodology.

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**Reference Information** 

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#### Sample Parameter Qualifier Key:

Qualifier	Description
BODP	BOD dilution results differed by more than 30% RPD. Precision of reported BOD result may be less than usual.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DUPM	MPN duplicate results were outside default ALS Data Quality Objective, but within 95% confidence interval for MPN reference method. Sample results are reliable.
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
HTD	Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

#### **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- 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 Alkalinity, Total (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.

C-TOC-HTC-WP Water Total Organic Carbon by Combustion APHA 5310 B-WP

Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.

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.

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

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Version: FINAL

Reference Information

#### **Test Method References:**

ALS Test Code Matrix Test Description Method Reference\*\*

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 CCME PHC F2-F4 in Water EPA 3511

Petroleum hydrocarbons in water are determined by liquid-liquid micro-scale solvent extraction using a reciprocal shaker extraction apparatus prior to capillary column gas chromatography with flame ionization detection (GC-FID) analysis.

FC10-QT97-WP Water Fecal coliforms, 1:10 dilution by QT97 APHA 9223B QT97

Analysis is carried out using procedures adapted from APHA 9223 "Enzyme Substrate Coliform Test". Fecal (thermotolerant) coliform bacteria are determined by mixing a 1:10 dilution of sample with a product containing hydrolyzable substrates and sealing in a 97-well packet. The packet is incubated at  $44.5 - 0.2^{\circ}$ C for 18 hours and then the number of wells exhibiting positive responses are counted. The final results are obtained by comparing the number of positive responses to a probability table.

HARDNESS-CALC-WP Water Hardness Calculated APHA 2340B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-T-CVAA-WP Water Mercury Total EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

MET-T-CCMS-WP Water Total Metals in Water by CRC ICPMS EPA 200.2/6020A (mod.)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

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.

OG-GRAV-WP Water Oil & Grease - Gravimetric EPA 1664 (modified)

Water samples are acidified and extracted with hexane; the hexane extract is collected in a pre-weighed vial. The solvent is evaporated and Total Oil & Grease is determined from the weight of the residue in the vial.

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

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous 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

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L2140441 CONTD....

### Reference Information

#### **Test Method References:**

ALS Test Code Matrix Test Description Method Reference\*\*

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.

XYLENES-SUM-CALC- 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:

WP ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA WT ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		
WT ALCENIVIDONMENTAL WATERLOO ONTARIO CANADA	- WINNIPEG, MANITOBA, CANADA	
WI ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA	- 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.

### Environmental www.alsglobal.com

#### Chain of Custody (COC) / Analytical Request Form

coc Number: 14 - 503397

Canada Toli Free: 1 800 668 9878

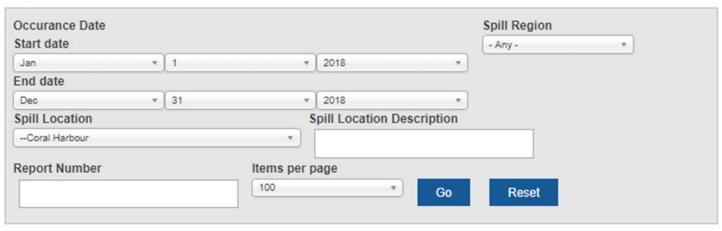
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# ANNUAL REPORT FOR THE HAMLET OF CORAL HARBOUR

Appendix E

## Spills





Spill	Occurance Date -	Spill Region	Location	Location Description	Product Spilled	Quantity	Spill Cause	Lead Agency
spill- 2018399	September 22, 2018	Keewatin	Coral Harbour, Community, Nunavut		Petroleum - fuel oil (jet A, diesel, turbo A, heat)	205.00	Breakage	GN - Government of Nunavut

Displaying 1 - 1 of 1

# ANNUAL REPORT FOR THE HAMLET OF CORAL HARBOUR

Appendix F

COR-3			20	140		61-11-11-	
Parameter	Unit	DL	11-Jul-18	31-Jul-18	Min	Statistics Max	Average
Alkalinity	Oilit	DL .	11-741-10	31-341-10	IVIIII	IVIUX	Average
Bicarbonate (HCO3)	mg/L	1.2	385	360	92.8	438	300.38
Carbonate (CO3)	mg/L	0.60	<0.60	<0.60	0.60	0.60	0.60
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	316	295	76.1	359	255.65
Ammonia by Colour	C,						
Total (as N)	mg/L	0.20	53.3	41.3	0.01	57.6	24.36
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	mg/L	6.0	94	46	3.9	180	68.81
Carbonaceous BOD							
BOD Carbonaceous	mg/L	6.0	80	20	2.8	190	60.42
Chloride in Water by IC							
Chloride (CI)	mg/L	10	38.1	58.3	4.66	71.3	42.82
Conductivity							
Conductivity	umhos/cm	1.0	789	817	251	976	705.09
Fecal Coliforms							
Fecal Coliforms	MPN/100mL	3	>24200	1650	3	110000	14255.00
Hardness Calculated							
Hardness (as CaCO3)	mg/L	0.30	84.7	137	71.7	330	159.06
Mercury Total							
Mercury (Hg)	mg/L	0.00020	0.0000117	0.000009	0.000005	0.0002	0.00010
Nitrate in Water by IC							
Nitrate (as N)	mg/L	0.40	<0.040	<0.040	0.02	0.04	0.025
Nitrate + Nitrite							
Nitrate and Nitrite as N	mg/L	0.45	< 0.070	< 0.070	0.07	0.071	0.070
Nitrite in Water by IC	O,						
Nitrite (as N)	mg/L	0.20	<0.020	<0.020	0.010	0.06	0.018
Oil & Grease - Gravimetric							
Oil and Grease	mg/L	5.0	5.9	<5.0	2	12	4.65
Phenol			0.0	0.0	_		
Phenols	mg/L	0.0010	0.063	0.0155	0.001	0.275	0.035
Phosphorus, Total	6/ =	0.0010	0.005	010155	0.001	0.275	0.000
·							
Phosphorus (P)	mg/L	0.010	8.97	8.4	0.172	8.55	5.01
Phosphorus (P)  Sulfate in Water by IC	mg/L	0.010	8.97	8.4	0.172	8.55	5.01
Sulfate in Water by IC					0.172 3.6		
Sulfate in Water by IC Sulfate (SO4)	mg/L mg/L	6.0	8.97 1.68	24.1		8.55 193	5.01 36.38
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS	mg/L	6.0	1.68	24.1	3.6	193	36.38
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al)	mg/L	6.0			3.6 0.005	193 0.155	36.38 0.076
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As)	mg/L mg/L mg/L	6.0 0.0050 0.00020	1.68 0.0660 0.00096	24.1 0.0968 0.00105	3.6 0.005 0.00047	193 0.155 0.00104	36.38 0.076 0.00074
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd)	mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010	1.68 0.0660	24.1 0.0968	3.6 0.005	193 0.155	36.38 0.076
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10	1.68 0.0660 0.00096 0.0000457 27.8	24.1 0.0968 0.00105 0.0000242 46.3	3.6 0.005 0.00047 0.000074 23.7	193 0.155 0.00104 0.000078 120	36.38 0.076 0.00074 0.000025 55.13
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010	1.68 0.0660 0.00096 0.000457 27.8 0.00045	24.1 0.0968 0.00105 0.0000242 46.3 0.00063	3.6 0.005 0.00047 0.000074 23.7 0.00037	193 0.155 0.00104 0.000078 120 0.001	36.38 0.076 0.00074 0.000025 55.13 0.0009
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064	24.1 0.0968 0.00105 0.0000242 46.3	3.6 0.005 0.00047 0.000074 23.7	193 0.155 0.00104 0.000078 120 0.001 0.00073	36.38 0.076 0.00074 0.000025 55.13
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064	24.1 0.0968 0.00105 0.0000242 46.3 0.00063 0.00061	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002	193 0.155 0.00104 0.000078 120 0.001 0.00073	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20
Sulfate in Water by IC Sulfate (SO4)  Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030	1.68 0.0660 0.00096 0.000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020	1.68 0.0660 0.00096 0.000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030
Sulfate in Water by IC Sulfate (SO4)  Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90
Sulfate in Water by IC Sulfate (SO4)  Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020 0.030	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162	3.6 0.005 0.00047 0.0000074 23.7 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022	193  0.155  0.00104  0.000078  120  0.001  0.00073  0.0314  1.22  0.000728  7.24  0.0867  0.00376  29.4  72.8  0.0639	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020 0.030	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65	193 0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8	36.38 0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.0020	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6	24.1 0.0968 0.00105 0.0000242 46.3 0.00063 0.00117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.0058 0.0030 16.90 39.86 0.019
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030	1.68 0.0660 0.00096 0.0000457 27.8 0.00045 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162	3.6 0.005 0.00047 0.0000074 23.7 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022	193  0.155  0.00104  0.000078  120  0.001  0.00073  0.0314  1.22  0.000728  7.24  0.0867  0.00376  29.4  72.8  0.0639	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.000090 0.010 0.000090 0.0020 0.030 0.0020	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6	24.1 0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.00263 5.2 0.0586 0.00362 19.8 52.5 0.0162 50.7	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids PH pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49	24.1 0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162 50.7	3.6 0.005 0.00047 0.0000074 23.7 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3 695	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids PH pH Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.000090 0.0020 0.030 0.0020 0.50	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162 50.7 46.3	3.6 0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3 695 8.05 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.000090 0.010 0.0020 0.020 0.030 0.0020 13	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162 50.7 46.3	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3 695  8.05 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57  121.85
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  PH  pH  Benzene  Toluene  Ethyl Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00020 0.00020 0.00020 0.00020 0.010 0.00020 0.010 0.00020 0.0020 0.0020 0.0020 1.3 0.10 0.00050 0.0010 0.00050	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A	0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162 50.7 46.3	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3 695  8.05 0 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019 50.57 121.85 7.51 0.00 0.00
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  PH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A N/A	24.1  0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162  50.7  46.3  7.35 N/A N/A N/A	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0 0 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639  94.3  695  8.05 0 0 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57  121.85  7.51 0.00 0.00 0.00
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Organic Carbon Total Suspended Solids Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.0050 0.00050 0.00050 0.00050	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A N/A N/A	24.1  0.0968  0.00105  0.0000242  46.3  0.00063  0.00061  0.0117  0.415  0.000263  5.2  0.0586  0.00362  19.8  52.5  0.0162  50.7  46.3  7.35  N/A  N/A  N/A  N/A	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0 0 0 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639  94.3  695  8.05 0 0 0 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57  121.85  7.51 0.00 0.00 0.00 0.00
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)  F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.0030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A N/A N/A N/A	24.1  0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162  50.7  46.3  7.35 N/A N/A N/A N/A N/A	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0 0 0 0 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3 695 8.05 0 0 0 0 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019 50.57 121.85 7.51 0.00 0.00 0.00 0.00 0.00
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)  F2 (C10-C16)  F3 (C16-C34)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.00050 0.00050 0.00050 0.10	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A N/A N/A N/A N/A	24.1  0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162  50.7  46.3  7.35 N/A N/A N/A N/A N/A N/A	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0 0 0 0 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639  94.3  695  8.05 0 0 0 0 0 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57  121.85  7.51 0.00 0.00 0.00 0.00 0.00 0.00
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)  F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.0030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10	1.68  0.0660 0.00096 0.0000457 27.8 0.00045 0.00064 0.0330 0.448 0.000528 3.72 0.0422 0.00282 17.7 36.3 0.0259 68.6 49 7.19 N/A N/A N/A N/A N/A	24.1  0.0968 0.00105 0.0000242 46.3 0.00063 0.00061 0.0117 0.415 0.000263 5.2 0.0586 0.00362 19.8 52.5 0.0162  50.7  46.3  7.35 N/A N/A N/A N/A N/A	3.6  0.005 0.00047 0.0000074 23.7 0.00037 0.0002 0.00083 0.1 0.00009 3.06 0.00714 0.002 3.81 5.65 0.0022 6.1 5.0 7.08 0 0 0 0 0	193  0.155 0.00104 0.000078 120 0.001 0.00073 0.0314 1.22 0.000728 7.24 0.0867 0.00376 29.4 72.8 0.0639 94.3 695 8.05 0 0 0 0 0	36.38  0.076 0.00074 0.000025 55.13 0.0009 0.0005 0.0112 0.53 0.00038 5.20 0.058 0.0030 16.90 39.86 0.019  50.57  121.85  7.51 0.00 0.00 0.00 0.00 0.00

COR-4			20	110	ı	Statistics		
Parameter	Unit	DL	11-Jul-18	31-Jul-18	Min	Max	Average	
Alkalinity	Oille	DL	11-701-10	31-741-10	IVIIII	IVIGA	Average	
Bicarbonate (HCO3)	mg/L	1.2	331	371	79.1	382	262.76	
Carbonate (CO3)	mg/L	0.60	<0.60	<0.60	0.60	6.48	1.34	
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	0.34	0.34	0.34	
Total (as CaCO3)	mg/L	1.0	271	304	64.8	313	218.31	
Ammonia by Colour								
Total (as N)	mg/L	0.20	22.3	5.12	0.01	27.7	4.68	
Biochemical Oxygen Demand (BOD)								
Biochemical Oxygen Demand	mg/L	6.0	34.5	139	2.9	25.6	9.23	
Carbonaceous BOD								
BOD Carbonaceous	mg/L	6.0	20.0	71	2.0	21.3	6.85	
Chloride in Water by IC								
Chloride (CI)	mg/L	10	33.5	38.6	2.55	58.1	36.51	
Conductivity								
Conductivity	umhos/cm	1.0	631	646	164	712	544.78	
Fecal Coliforms								
Fecal Coliforms	MPN/100mL	3	660	20	3	2400	475.11	
Hardness Calculated								
Hardness (as CaCO3)	mg/L	0.30	148	230	82.1	277	183.68	
Mercury Total	,	0.000	0.0000	0.000	0.0000	0.000	0.655	
Mercury (Hg)	mg/L	0.00020	0.0000093	0.000007	0.0000052	0.0002	0.00010	
Nitrate in Water by IC								
Nitrate (as N)	mg/L	0.40	<0.020	0.159	0.02	5.3	1.10	
Nitrate + Nitrite								
Nitrate and Nitrite as N	mg/L	0.45	<0.070	0.19	0.07	5.38	1.08	
Nitrite in Water by IC								
Nitrite (as N)	mg/L	0.20	<0.010	0.032	0.01	0.107	0.03	
Oil & Grease - Gravimetric			F 0	40.7	2.0	- 4	2.24	
Oil and Grease	mg/L	5.0	<5.0	12.7	2.0	5.1	3.34	
Phenol	(1	0.0040	0.0454	0.0426	0.004	0.0403	0.0020	
Phenols	mg/L	0.0010	0.0151	0.0126	0.001	0.0102	0.0028	
Phosphorus, Total	/1	0.010	4.00	F F4	0.104	4.50	0.04	
Phosphorus (P)	mg/L	0.010	4.06	5.54	0.104	4.56	0.94	
Phosphorus (P) Sulfate in Water by IC								
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4)	mg/L mg/L	6.0	4.06 5.43	5.54 4.2	0.104 3.14	4.56 49	0.94	
Phosphorus (P) Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS	mg/L	6.0	5.43	4.2	3.14	49	18.07	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)	mg/L mg/L	6.0	5.43 0.0342	4.2 0.0665	3.14 0.0079	49 0.123	18.07 0.06	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)	mg/L mg/L mg/L	6.0 0.0050 0.00020	5.43 0.0342 0.00234	4.2 0.0665 0.00309	3.14 0.0079 0.00034	49 0.123 0.00171	18.07 0.06 0.00104	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)	mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010	5.43 0.0342 0.00234 0.0000695	4.2 0.0665 0.00309 0.0000921	3.14 0.0079 0.00034 0.00001	49 0.123 0.00171 0.000125	18.07 0.06 0.00104 0.000046	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10	5.43 0.0342 0.00234 0.0000695 52.7	4.2 0.0665 0.00309 0.0000921 80.8	3.14 0.0079 0.00034 0.00001 30.5	49 0.123 0.00171 0.000125 101	18.07 0.06 0.00104 0.000046 63.93	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010	5.43 0.0342 0.00234 0.0000695 52.7 0.00041	4.2 0.0665 0.00309 0.000921 80.8 0.0005	3.14 0.0079 0.00034 0.00001 30.5 0.001	49 0.123 0.00171 0.000125 101 0.001	0.06 0.00104 0.000046 63.93 0.0010	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002	49 0.123 0.00171 0.000125 101 0.001 0.00165	18.07 0.06 0.00104 0.000046 63.93 0.0010 0.0009	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169	18.07 0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14	49 0.123 0.00171 0.000125 101 0.001 0.00165	0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583	0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010	5.43 0.0342 0.00234 0.000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04	4.2 0.0665 0.00309 0.000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2	18.07 0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583	18.07 0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.00020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002	49 0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054	18.07 0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030	5.43 0.0342 0.00234 0.000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133	4.2 0.0665 0.00309 0.000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2 0.173	18.07 0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18	49 0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27	49 0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1	0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.008 0.0036 13.23 38.16	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27	49 0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23 38.16	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.030 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.003 0.0036 13.23 38.16 0.0134	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.030 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.003 0.0036 13.23 38.16 0.0134	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Organic Carbon  Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23 38.16 0.0134	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23 38.16 0.0134	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  PH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.0002 2.18 2.27 0.0024 4.4	49 0.123 0.00171 0.000125 101 0.001 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524 28.5	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.008 0.0036 13.23 38.16 0.0134 18.53	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	5.43 0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106 32.8	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065 73	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024 4.4	49 0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524 28.5	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23 38.16 0.0134 18.53	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.000090 0.010 0.00020 0.0020 0.030 0.0020 0.50	0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106 32.8	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065 73 845	3.14 0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024 4.4 5.0	49  0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524 28.5 67 8.4	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23 38.16 0.0134 18.53 16.89 7.94 0.00	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.030 0.0020 13	0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106 32.8	4.2 0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065 73 845 7.4 N/A	3.14  0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024  4.4  5.0	49  0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524  28.5 67  8.4 0	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.0034 5.89 0.08 0.0036 13.23 38.16 0.0134 18.53 16.89  7.94 0.00 0.00	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 13 0.10 0.00050 0.0010	0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106	0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065 73 845 7.4 N/A	3.14  0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.00009 1.46 0.0407 0.002 2.18 2.27 0.0024  4.4  5.0  7.3 0 0	49  0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524  28.5 67  8.4 0 0 0	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.0034 5.89 0.08 0.0036 13.23 38.16 0.0134  18.53  16.89  7.94 0.00 0.00	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  PH  PH  Benzene  Toluene  Ethyl Benzene  O-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 13 0.10 0.00050 0.00050	0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106 32.8 17	4.2  0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065  73 845 7.4 N/A N/A N/A	3.14  0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.0009 1.46 0.0407 0.002 2.18 2.27 0.0024  4.4  5.0  7.3 0 0 0	49  0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524  28.5 67  8.4 0 0 0	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.0034 5.89 0.08 0.0036 13.23 38.16 0.0134  18.53 16.89  7.94 0.00 0.00 0.00	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  PH  PH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.00050 0.00050 0.00050 0.00050	5.43  0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106  32.8  17  7.40 N/A N/A N/A N/A	4.2  0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065  73  845  7.4 N/A N/A N/A N/A	3.14  0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.0009 1.46 0.0407 0.002 2.18 2.27 0.0024  4.4  5.0  7.3 0 0 0 0	49  0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524 28.5 67  8.4 0 0 0 0	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00036 13.23 38.16 0.0134  18.53  16.89  7.94 0.00 0.00 0.00 0.00	
Phosphorus (P)  Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (AI)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)  F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.030 0.0020 0.50  13  0.10 0.00050 0.0010 0.00050 0.00050 0.100 0.25	0.0342 0.00234 0.0000695 52.7 0.00041 0.00214 0.0151 0.849 0.000366 4.04 0.133 0.00486 14.0 31.5 0.0106 32.8 17 7.40 N/A N/A N/A	0.0665 0.00309 0.0000921 80.8 0.0005 0.00343 0.00704 1.28 0.000338 6.75 0.136 0.00841 11.7 40.3 0.0065 73 845 7.4 N/A N/A N/A N/A N/A	3.14  0.0079 0.00034 0.00001 30.5 0.001 0.0002 0.00172 0.14 0.0009 1.46 0.0407 0.002 2.18 2.27 0.0024  4.4  5.0  7.3 0 0 0 0 0	49  0.123 0.00171 0.000125 101 0.00165 0.0169 1.53 0.000583 11.2 0.173 0.0054 27 69.1 0.0524 28.5 67  8.4 0 0 0 0 0	18.07  0.06 0.00104 0.000046 63.93 0.0010 0.0009 0.006 0.59 0.00034 5.89 0.08 0.0036 13.23 38.16 0.0134 18.53 16.89  7.94 0.00 0.00 0.00 0.00 0.00	

CON-5			20	18		Statistics	
Parameter	Unit	DL	11-Jul-18	31-Jul-18	Min	Max	Average
Alkalinity							
Bicarbonate (HCO3)	mg/L	1.2	239	128	235	341	291.5
Carbonate (CO3)	mg/L	0.60	<0.60	4.92	0.60	12.8	3.853333
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	196	113	214	280	244.6667
Ammonia by Colour						,	
Total (as N)	mg/L	0.20	0.045	0.045	0.018	16.9	3.25
Biochemical Oxygen Demand (BOD)							1
Biochemical Oxygen Demand	mg/L	6.0	12.4	<2.0	2.0	107	25.38333
Carbonaceous BOD							
BOD Carbonaceous	mg/L	6.0	8.3	<2.0	2.0	74	17.13333
Chloride in Water by IC							
Chloride (Cl)	mg/L	10	25.5	39.9	35.6	53.2	42.93333
Conductivity							
Conductivity	umhos/cm	1.0	439	472	492	679	598.1667
Fecal Coliforms							
Fecal Coliforms	MPN/100mL	3	750	<10	3	150	45
Hardness Calculated							
Hardness (as CaCO3)	mg/L	0.30	153	150	144	260	203.8333
Mercury Total							
Mercury (Hg)	mg/L	0.00020	<0.0000050	<0.0000050	0.000005	0.0002	4.52E-05
Nitrate in Water by IC							
Nitrate (as N)	mg/L	0.40	<0.020	<0.020	0.02	2.7	1.103
Nitrate + Nitrite							
Nitrate and Nitrite as N	mg/L	0.45	<0.070	<0.070	0.07	2.82	1.189333
Nitrite in Water by IC							
Nitrite (as N)	mg/L	0.20	<0.010	<0.010	0.01	0.319	0.089333
Oil & Grease - Gravimetric							
Oil and Grease	mg/L	5.0	<5.0	<5.0	2.0	7.5	4.916667
Phenol							
Phenols	mg/L	0.0010	<0.0010	<0.0010	0.001	0.035	0.007167
Phosphorus, Total							
Phosphorus (P)	mg/L	0.010	1.02	0.1	0.102	2.78	0.8965
Sulfate in Water by IC							
Sulfate (SO4)	mg/L	6.0	6.61	71.4	3.62	20.2	11.74333
Total Metals by ICP-MS							
Aluminium (Al)	mg/L	0.0050	0.0233	0.0087	0.0079	0.0491	0.021933
Arsenic (As)	mg/L	0.00020	0.00079	0.00084	0.00037	0.0014	0.000803
Cadmium (Cd)	mg/L	0.000010	0.0000192	0.0000089	0.000034	0.000123	7.71E-05
Calcium (Ca)	mg/L	0.10	54.6	44.1	51.2	90.6	71.5
Chromium (Cr)	mg/L	0.0010	0.00016	0.0005	0.0003	0.001	0.000883
Cobalt (Co)	mg/L	0.00020	0.00055	0.00028	0.00108	0.00195	0.001452
Copper (Cu)	mg/L	0.00020	0.00324	0.00135	0.00262	0.0127	0.006637
Iron (Fe)	mg/L	0.010	0.580	0.103	0.039	0.504	0.1395
Lead (Pb)	mg/L	0.000090	0.000077	<0.000050	0.00009	0.000309	0.000134
Magnesium (Mg)	mg/L	0.010	4.02	9.6	3.96	8.17	6.123333
Manganese (Mn)	mg/L	0.00030	0.0179	0.0059	0.0109	0.121	0.057
Nickel (Ni)	mg/L	0.0020	0.00286	0.00207	0.0029	0.00658	0.005213
Potassium (K)	mg/L	0.020	4.68	9.09	5.04	15.8	8.535
Sodium (Na)	mg/L	0.030	29.1	39.8	39.2	57.1	48.86667
Zinc (Zn)	mg/L	0.0020	0.0049	0.0044	0.0028	0.014	0.006567
Total Organic Carbon by Combustion							
Total Organic Carbon	mg/L	0.50	20.1	20.1	12.5	18.1	15.88333
Total Suspended Solids							
Total Suspended Solids	mg/L	13	6.0	<2.0	5.0	85	26.5
Η	<u> </u>						
pH	pH Units	0.10	8.28	8.56	7.65	8.65	8.078333
Benzene	mg/L	0.00050	N/A	N/A	0	0	0
Toluene	mg/L	0.0010	N/A	N/A	0	0	0
Ethyl Benzene	mg/L	0.00050	N/A	N/A	0	0	0
o-Xylene	mg/L	0.00050	N/A	N/A	0	0	0
•	mg/L	0.10	N/A	N/A	0	0	0
ET (CD-CTO)		0.10	,,,	,,,		1	
F1 (C6-C10) F2 (C10-C16)		0.25	N/A	N/A	Λ	n	
F2 (C10-C16)	mg/L	0.25	N/A	N/A	0	0	0
		0.25 0.25 0.25	N/A N/A N/A	N/A N/A N/A	0 0	0 0	0 0

COR-6		1	20:	18		Statistics	
Parameter	Unit	DL	11-Jul-18	31-Jul-18	Min	Max	Average
Alkalinity							
Bicarbonate (HCO3)	mg/L	1.2	211	215	189	610	351.56
Carbonate (CO3)	mg/L	0.60	<0.60	<0.60	0.60	0.60	0.60
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	173	177	132	500	270.64
Ammonia by Colour							
Total (as N)	mg/L	0.20	0.022	0.058	0.02	48	9.35
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	mg/L	6.0	7.3	3.8	4.4	114	24.69
Carbonaceous BOD							
BOD Carbonaceous	mg/L	6.0	3.7	2.3	4.9	100	22.64
Chloride in Water by IC						1	
Chloride (CI)	mg/L	10	17.3	39.4	24.5	129	67.15
Conductivity					222		
Conductivity	umhos/cm	1.0	423	734	385	1630	884.18
Fecal Coliforms							
Fecal Coliforms	MPN/100mL	3	170	140	4	110000	13819.90
Hardness Calculated	/-	0.00	400	202	100	40.4	202.40
Hardness (as CaCO3)	mg/L	0.30	183	292	100	484	283.18
Mercury Total	m = /1	0.00020	<0.0000050	0.000000	0.000005	0.0000	0.00015
Mercury (Hg)	mg/L	0.00020	<0.0000050	0.000006	0.000005	0.0008	0.00015
Nitrate in Water by IC	ma/!	0.40	<0.020	<0.020	0.02	0.10	0.04
Nitrate (as N)	mg/L	0.40	<0.020	<0.020	0.02	0.10	0.04
Nitrate + Nitrite Nitrate and Nitrite as N	ma/I	0.45	<0.070	<0.070	0.07	0.11	0.07
	mg/L	0.45	<0.070	<0.070	0.07	0.11	0.07
Nitrite in Water by IC	ma/I	0.20	<0.010	<0.010	0.01	0.05	0.02
Nitrite (as N)	mg/L	0.20	₹0.010	<0.010	0.01	0.05	0.02
Oil & Grease - Gravimetric Oil and Grease	ma/l	5.0	<5.0	<5.0	2.0	7.0	4.36
Phenol	mg/L	3.0	<3.0	<b>\3.0</b>	2.0	7.0	4.30
Phenols	mg/L	0.0010	0.0010	<0.0010	0.001	0.04	0.009
Phosphorus, Total	IIIg/L	0.0010	0.0010	<0.0010	0.001	0.04	0.003
Phosphorus (P)	mg/L	0.010	0.209	0.159	0.125	9.32	2.24
Sulfate in Water by IC	6/ =	0.010	0.203	0.133	0.125	3.32	
Sulfate (SO4)	mg/L	6.0	33.0	161	5.33	224	103.51
Total Metals by ICP-MS	6/ =		00.0		0.00		
Aluminium (AI)	mg/L	0.0050	0.126	0.119	0.031	0.192	0.10
Aluminium (Al) Arsenic (As)	mg/L mg/L	0.0050	0.126 0.00071	0.119 0.00126	0.031 0.00075	0.192 0.00235	0.10 0.00144
Arsenic (As)	mg/L	0.00020	0.00071	0.00126		0.00235	0.00144
Arsenic (As) Cadmium (Cd)	mg/L mg/L	0.00020 0.000010	0.00071 0.0000096	0.00126 0.0000124	0.00075 0.0000054	0.00235 0.0002	0.00144 0.000038
Arsenic (As)	mg/L mg/L mg/L	0.00020	0.00071	0.00126	0.00075	0.00235	0.00144
Arsenic (As) Cadmium (Cd) Calcium (Ca)	mg/L mg/L	0.00020 0.000010 0.10	0.00071 0.0000096 61.7	0.00126 0.0000124 87.4	0.00075 0.0000054 32.6	0.00235 0.0002 155	0.00144 0.000038 88.73
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr)	mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010	0.00071 0.0000096 61.7 0.00040	0.00126 0.0000124 87.4 0.00045	0.00075 0.0000054 32.6 0.00062	0.00235 0.0002 155 0.002	0.00144 0.000038 88.73 0.0010
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co)	mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020	0.00071 0.0000096 61.7 0.00040 0.00016	0.00126 0.0000124 87.4 0.00045 0.00022	0.00075 0.0000054 32.6 0.00062 0.0002	0.00235 0.0002 155 0.002 0.00064	0.00144 0.000038 88.73 0.0010 0.00036
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu)	mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020	0.00071 0.0000096 61.7 0.00040 0.00016 0.00152	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084	0.00235 0.0002 155 0.002 0.00064 0.0322	0.00144 0.000038 88.73 0.0010 0.00036 0.007
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010	0.00071 0.0000096 61.7 0.00040 0.00016 0.00152 0.591	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090	0.00071 0.0000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010	0.00071 0.0000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030	0.00071 0.000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020	0.00071 0.000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665 0.00096	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020	0.00071 0.000096 61.7 0.00040 0.00015 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020 0.030	0.00071 0.0000096 61.7 0.00040 0.00015 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020 0.030	0.00071 0.0000096 61.7 0.00040 0.00015 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	0.00071 0.0000096 61.7 0.00040 0.00015 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	0.00071 0.0000096 61.7 0.00040 0.00015 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020 0.50	0.00071 0.0000096 61.7 0.00040 0.00015 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020 0.50	0.00071 0.0000096 61.7 0.00040 0.00015 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00090 0.010 0.0020 0.020 0.030 0.0020 0.50	0.00071 0.0000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.030 0.0020 0.50	0.00071 0.000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Suspended Solids Total Suspended Solids pH pH Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13	0.00071 0.000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050 0.00331
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids PH pH Benzene Toluene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010	0.00071 0.000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050 <0.0010	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0 7.41 0.00050 0.0010	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050 0.0231	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 13 0.10 0.00050 0.0010 0.00050	0.00071 0.000096 61.7 0.00040 0.00016 0.00152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010 <0.00050	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050 <0.0010	0.00075 0.0000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0 7.41 0.00050 0.0010 0.00050	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050 0.0231 0.0005	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050 0.00321 0.00050
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Organic Carbon Total Suspended Solids Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene o-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.00010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 13 0.10 0.00050 0.0010 0.00050 0.0010	0.00071 0.000096 61.7 0.00040 0.000152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010 <0.00050 <0.00050	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050 <0.00050 <0.00050	0.00075 0.000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0 7.41 0.00050 0.0010 0.00050	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050 0.0231 0.0005	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050 0.00321 0.00050 0.00050
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Organic Carbon Total Suspended Solids Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.00010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 13 0.10 0.00050 0.0010 0.00050 0.0010	0.00071 0.000096 61.7 0.00040 0.000152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010 <0.00050 <0.00050 <0.10	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050 <0.00050 <0.00050 <0.10	0.00075 0.000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0 7.41 0.00050 0.0010 0.00050 0.00050	0.00235 0.0002 155 0.002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050 0.0231 0.0005 0.0005	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050 0.00321 0.00050 0.00050 0.10
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.00010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.0010 0.25	0.00071 0.000096 61.7 0.00040 0.000152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010 <0.00050 <0.100 <0.100	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050 <0.0010 <0.00050 <0.100 <0.10	0.00075 0.000054 32.6 0.00062 0.0002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0 7.41 0.00050 0.0010 0.00050 0.00050 0.10	0.00235 0.0002 155 0.0002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050 0.0231 0.0005 0.0005 0.10 0.80	0.00144 0.000038 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050 0.00321 0.00050 0.10 0.21
Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids PH PH Benzene Toluene Ethyl Benzene o-Xylene F1 (C6-C10) F2 (C10-C16) F3 (C16-C34)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.00020 0.00010 0.10 0.0010 0.00020 0.00020 0.010 0.00030 0.0020 0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.0010 0.25 0.25	0.00071 0.000096 61.7 0.00040 0.000152 0.591 0.000355 6.94 0.0665 0.00096 5.38 16.2 0.0192 14.9 13.7 8.13 <0.00050 <0.0010 <0.00050 <0.100 <0.25	0.00126 0.0000124 87.4 0.00045 0.00022 0.00199 0.359 0.000283 17.9 0.0465 0.00169 14.2 41.6 0.00169 24.6 5.7 8.09 <0.00050 <0.00050 <0.00050 <0.100 <0.25	0.00075 0.0000054 32.6 0.00002 0.00084 0.36 0.000123 4.58 0.048 0.002 6.93 19.3 0.0033 16.2 8.0 7.41 0.00050 0.0010 0.00050 0.00050 0.10 0.1	0.00235 0.0002 155 0.0002 0.00064 0.0322 1.72 0.0017 27.4 0.316 0.0032 35.2 84.1 0.039 87.1 57 8.23 0.00050 0.0231 0.0005 0.0005 0.10 0.80 4.62	0.00144 0.00003: 88.73 0.0010 0.00036 0.007 0.82 0.0006 14.96 0.12 0.0025 20.47 54.95 0.011 40.39 31.36 7.79 0.00050 0.00321 0.00050 0.100 0.21 0.79

COR-7		ĺ	20	18		Statistics	
Parameter	Unit	DL	11-Jul-18	31-Jul-18	Min	Statistics Max	Average
Alkalinity	O.m.c		11 301 10	31 Jul 10		IVIUX	Average
Bicarbonate (HCO3)	mg/L	1.2	164	85.5	74.1	372	201.97
Carbonate (CO3)	mg/L	0.60	<0.60	4.68	0.60	0.60	0.60
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	135	77.9	60.7	305	165.63
Ammonia by Colour	<u> </u>						
Total (as N)	mg/L	0.20	0.075	0.031	0.022	0.205	0.09
Biochemical Oxygen Demand (BOD)	<u> </u>						
Biochemical Oxygen Demand	mg/L	6.0	2.6	<2.0	2.0	20	5.23
Carbonaceous BOD							
BOD Carbonaceous	mg/L	6.0	<2.0	<2.0	2.0	20	5.01
Chloride in Water by IC							
Chloride (CI)	mg/L	10	4.68	5.78	3.59	10.3	7.03
Conductivity							
Conductivity	umhos/cm	1.0	493	743	380	1200	888.14
Fecal Coliforms							
Fecal Coliforms	MPN/100mL	3	<10	30	3	240	64.14
Hardness Calculated							
Hardness (as CaCO3)	mg/L	0.30	242	398	208	900	527.57
Mercury Total							
Mercury (Hg)	mg/L	0.00020	<0.0000050	<0.000050	0.000005	0.0002	0.00004
Nitrate in Water by IC							
Nitrate (as N)	mg/L	0.40	0.116	<0.020	0.02	0.068	0.05
Nitrate + Nitrite							
Nitrate and Nitrite as N	mg/L	0.45	0.116	< 0.070	0.070	0.070	0.070
Nitrite in Water by IC							
Nitrite (as N)	mg/L	0.20	< 0.010	< 0.010	0.010	0.020	0.013
Oil & Grease - Gravimetric	<u>G</u> ,						
Oil and Grease	mg/L	5.0	<5.0	<5.0	2.0	5.0	4.57
Phenol						0.0	
Phenols	mg/L	0.0010	< 0.0010	< 0.0010	0.001	0.0034	0.0021
Phosphorus, Total	6/ =	0.0010	10.0010	1010010	01001	010051	0.0021
,							
Phosphorus (P)	mg/L	0.010	0.102	0.0713	0.075	0.66	0.21
Phosphorus (P)  Sulfate in Water by IC	mg/L	0.010	0.102	0.0713	0.075	0.66	0.21
Sulfate in Water by IC							
Sulfate in Water by IC Sulfate (SO4)	mg/L mg/L	6.0	0.102	0.0713 298	0.075 105	0.66 526	0.21 351.14
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS	mg/L	6.0	117	298	105	526	351.14
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al)	mg/L		117 0.0197	298 0.0438	105 0.0112	526 0.288	351.14 0.0638
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As)	mg/L mg/L mg/L	6.0 0.0050 0.00020	0.0197 0.00044	298 0.0438 0.0005	105	526 0.288 0.00107	351.14 0.0638 0.00063
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd)	mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010	117 0.0197 0.00044 0.0000234	298 0.0438 0.0005 0.0000236	105 0.0112 0.00047 0.000014	526 0.288 0.00107 9.15E-05	351.14 0.0638 0.00063 0.00004
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020	0.0197 0.00044	298 0.0438 0.0005	105 0.0112 0.00047	526 0.288 0.00107	351.14 0.0638
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr)	mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010	0.0197 0.00044 0.0000234 89.4 0.00040	298 0.0438 0.0005 0.0000236 145 0.00046	105 0.0112 0.00047 0.000014 77.1 0.00041	526 0.288 0.00107 9.15E-05 330 0.00136	351.14 0.0638 0.00063 0.00004 194.30 0.00097
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028	298 0.0438 0.0005 0.0000236 145 0.00046 0.00027	0.0112 0.00047 0.000014 77.1 0.00041 0.00026	526 0.288 0.00107 9.15E-05 330	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389	0.0438 0.0005 0.0000236 145 0.00046 0.00027	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.002	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.00285 0.0023	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.0010 0.00020 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.00285 0.002 3.36 4.67	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (K) Sodium (Na) Zinc (Zn)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	6.0 0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.0020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.00285 0.0023	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.020 0.030	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 0.002 3.36 4.67 0.0237	526  0.288  0.00107  9.15E-05  330  0.00136  0.00058  0.00702  6.01  0.00145  18.5  0.418  0.004  13  22.8  0.0831	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.0010 0.00020 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25	0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.00285 0.002 3.36 4.67	526 0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.0010 0.0020 0.030 0.0020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 0.002 3.36 4.67 0.0237	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00090 0.010 0.00030 0.0020 0.020 0.030	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 0.002 3.36 4.67 0.0237	526  0.288  0.00107  9.15E-05  330  0.00136  0.00058  0.00702  6.01  0.00145  18.5  0.418  0.004  13  22.8  0.0831	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.000090 0.010 0.00030 0.0020 0.030 0.0020	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.00203 3.97 6.25 0.0379 20.1	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526 25.5	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.0023 4.67 0.0237	526  0.288  0.00107  9.15E-05  330  0.00136  0.00058  0.00702  6.01  0.00145  18.5  0.418  0.004  13  22.8  0.0831  45.8	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids pH pH	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.00020 0.000010 0.10 0.00020 0.00020 0.010 0.000090 0.010 0.00020 0.030 0.0020 0.50	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.00203 3.97 6.25 0.0379 20.1	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526 25.5	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.0023 3.36 4.67 0.0237	526  0.288  0.00107  9.15E-05  330  0.00136  0.00058  0.00702  6.01  0.00145  18.5  0.418  0.004  13  22.8  0.0831  45.8  76.0	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06 26.13 17.43
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00050 0.000010 0.10 0.0010 0.00020 0.00020 0.010 0.00090 0.00030 0.0020 0.030 0.0020 13	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5  2.1  8.49 <0.00050	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 0.002 3.36 4.67 0.0237 12.9 5.0	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831 45.8  76.0	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.0052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06 26.13 17.43
Sulfate in Water by IC Sulfate (SO4) Total Metals by ICP-MS Aluminium (AI) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Nickel (Ni) Potassium (Na) Zinc (Zn) Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.000010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.030 0.0020 0.50 13	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0 7.78 <0.00050 <0.0010	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5 2.1  8.49 <0.00050 <0.0010	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 0.002 3.36 4.67 0.0237 12.9 5.0	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831 45.8  76.0  8.08 0.00050 0.0010	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06 26.13 17.43 7.80 0.00050 0.00050 0.00050
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00020 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 13 0.10 0.00050 0.0010	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379  20.1 <2.0 7.78 <0.00050 <0.0010 <0.00050	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5 2.1  8.49 <0.00050 <0.0010 <0.00050	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.0022 3.36 4.67 0.0237 12.9 5.0	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831  45.8  76.0  8.08 0.00050 0.0010 0.00050	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06 26.13 17.43 7.80 0.00050 0.00050 0.00050
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  O-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 13 0.10 0.00050 0.0010 0.00050 0.00050	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0 7.78 <0.00050 <0.0010 <0.00050	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5  2.1  8.49 <0.00050 <0.0010 <0.00050 <0.00040	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 0.0023 4.67 0.0237 12.9 5.0 7.37 0.00050 0.0010 0.00050	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831 45.8 76.0 8.08 0.00050 0.0010 0.00050	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06 26.13 17.43 7.80 0.00050 0.00050 0.00050 0.00050
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  O-Xylene  F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0 7.78 <0.00050 <0.0010 <0.00050 <0.10	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5  2.1  8.49 <0.00050 <0.0010 <0.00050 <0.00040 <0.10	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.002 3.36 4.67 0.0237 12.9 5.0 7.37 0.00050 0.0010 0.00050 0.10	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831 45.8  76.0  8.08 0.00050 0.0010 0.00050 0.10	351.14  0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.1182 0.0031 8.13 13.37 0.06 26.13  17.43 7.80 0.00050 0.0010 0.00050 0.100
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Suspended Solids  Total Suspended Solids  PH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.00050 0.00050 0.00050 0.0050	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0 7.78 <0.00050 <0.0010 <0.00050 <0.10 <0.10	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5  2.1  8.49 <0.00050 <0.0010 <0.00050 <0.00040 <0.10 <0.10	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.002 3.36 4.67 0.0237 12.9 5.0 7.37 0.00050 0.0010 0.00050 0.00050 0.10	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831 45.8  76.0  8.08 0.00050 0.0010 0.00050 0.00050 0.10 0.25	351.14  0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.0136 0.1182 0.0031 8.13 13.37 0.06 26.13  7.80 0.00050 0.0010 0.00050 0.100 0.12
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (K)  Sodium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  PH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)  F2 (C10-C16)  F3 (C16-C34)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.00050 0.00050 0.00050 0.0055	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0 7.78 <0.00050 <0.0010 <0.00050 <0.10 <0.10 <0.25	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5  2.1  8.49 <0.00050 <0.0010 <0.00050 <0.00040 <0.10 <0.25	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0028 3.36 4.67 0.0237 12.9 5.0 7.37 0.00050 0.0010 0.00050 0.100 0.100 0.25	526  0.288  0.00107  9.15E-05  330  0.00136  0.00058  0.00702  6.01  0.00145  18.5  0.418  0.004  13  22.8  0.0831  45.8  76.0  8.08  0.00050  0.0010  0.00050  0.00050  0.10  0.25  0.33	351.14  0.0638 0.00063 0.00004 194.30 0.00097 0.00040 0.0052 2.00 0.1182 0.0031 8.13 13.37 0.06 26.13  17.43  7.80 0.00050 0.0010 0.00050 0.100 0.12 0.26
Sulfate in Water by IC  Sulfate (SO4)  Total Metals by ICP-MS  Aluminium (Al)  Arsenic (As)  Cadmium (Cd)  Calcium (Ca)  Chromium (Cr)  Cobalt (Co)  Copper (Cu)  Iron (Fe)  Lead (Pb)  Magnesium (Mg)  Manganese (Mn)  Nickel (Ni)  Potassium (Na)  Zinc (Zn)  Total Organic Carbon by Combustion  Total Organic Carbon  Total Suspended Solids  Total Suspended Solids  pH  pH  Benzene  Toluene  Ethyl Benzene  o-Xylene  F1 (C6-C10)  F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0050 0.00020 0.00010 0.10 0.00020 0.00020 0.00020 0.010 0.00030 0.0020 0.0020 0.0020 0.0020 0.00050 0.00050 0.00050 0.0050	0.0197 0.00044 0.0000234 89.4 0.00040 0.00028 0.00389 0.919 0.000343 4.46 0.0428 0.00203 3.97 6.25 0.0379 20.1 <2.0 7.78 <0.00050 <0.0010 <0.00050 <0.10 <0.10	298  0.0438 0.0005 0.0000236 145 0.00046 0.00027 0.005 0.753 0.000463 8.64 0.0229 0.00257 5.41 11 0.0526  25.5  2.1  8.49 <0.00050 <0.0010 <0.00050 <0.00040 <0.10 <0.10	0.0112 0.00047 0.000014 77.1 0.00041 0.00026 0.0028 0.805 0.000159 3.65 0.0285 0.002 3.36 4.67 0.0237 12.9 5.0 7.37 0.00050 0.0010 0.00050 0.00050 0.10	526  0.288 0.00107 9.15E-05 330 0.00136 0.00058 0.00702 6.01 0.00145 18.5 0.418 0.004 13 22.8 0.0831 45.8  76.0  8.08 0.00050 0.0010 0.00050 0.00050 0.10 0.25	351.14 0.0638 0.00063 0.00004 194.30 0.00097 0.00052 2.00 0.0007 10.36 0.1182 0.0031 8.13 13.37 0.06 26.13 17.43 7.80 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050 0.0010

# ANNUAL REPORT FOR THE HAMLET OF CORAL HARBOUR

Appendix G

## Relations Couronne-Autochtones et Affaires du Nord Canada

### WATER LICENCE INSPECTION FORM

☑ Original☐ Follow-Up Report

Licensee Hamlet of Coral Harb Licence No. / Expiry			Licensee Representative's T Senior Adminis	ik Title		
3BM-COR1521/ April Land / Other Authorization			Land / Other Auth			
Date of Inspection July 31 <sup>st</sup> 2018			 Inspector Atuat Shouldic	e.		
Activities Inspected  Camp Roads/Hauling	☐ Drilling ☑ Other: Waste Dispos	☐ Mining	☐ Constructi			☐ Fuel Storage
Conditions:	A- Acceptable	U-Unacceptable	C-Concern	NI-Not Inspe		Not applicable
PART:	71 71000 Ptubio	Conacceptable	0 001100111	Item No.*	Condition	Observation No.*
A: SCOPE, DEFINITION	IS AND ENFORCEME	NT				
B: GENERAL CONDITION	ONS			1,6	U,A	1,2
C: CONDITIONS APPL	ING TO WATER USE	-		2	А	3
D: CONDITIONS APPL	YING TO WASTE DIS	POSAL		1,5,9	A,U,A	5,6,7
E: CONDITIONS APPL	YING TO MODIFICAT	TIONS AND CONSTRU	ICTION			
F: CONDITIONS APPLY	'ING TO OPERATION	AND MAINTENANCE				
G: CONDITIONS APP	LYING TO ABANDON	MENT AND RECLAMA	ATION	3,4,5	NA	8
H: CONDITIONS APPL	YING TO MONITORI	NG PROGRAM				
*The item number	corresponds with sp	ecific conditions with comment	in the licence and sprovided below		number correspo	onds with specific
Samples taken by Ins	pector:	Location(s):				
∑ Yes ☐ No		· · ·				
SECTION 1	Comments (s1_	_) Non-Com	npliance with Ac	t or Licence (s	) Action	Required (s)
The Hamlet of Cora Kivalliq region of Nu Inspector's Stateme On July 31st, 2018, a the use of water an	ınavut. <b>ent</b> ı water licence insp	pection was conduc	ted of water lic	cence no. 3BM-0		
Observation						
<ol> <li>The 2016 and 2018 annual reports are not available for review on the Nunavut Water Board's FTP website.</li> <li>Appropriate signage is not observed at the monitoring station, as required by PART B item 6.</li> <li>Fresh water is obtained from Post River, as required by PART C item 2.</li> <li>The Hamlet is allotted 45,000 m³ of fresh water annually or 299m³ per day. The 2017 annual report indicates that a total of 37,933, 903.40 m³ was used, which appears to be incorrect.</li> <li>All sewage is directed to the Sewage Disposal Facility ('SDF').</li> <li>The water levels in the SDF are extremely low. The inspector believes that there may be a seep from the berm wall directly adjacent to monitoring station no. COR-3.</li> <li>The Hamlet segregates hazardous waste (e.g.: Oil, batteries, and Propane) and stores it in seacans with the intentions of shipping the materials south for appropriate treatment once funds is available.</li> <li>The Old Waste Disposal Site by the airport was not inspected at this time.</li> </ol>						
SECTION 2	Comments		pliance with Ac	t or Licence	Action	Required
PART D item 5: Con	are to file 2016 and e shall submit the concerns related to the	2018 Annual Repo outstanding annual e structural integrit	reports, as req	e Disposal Facil	ity.	,
to the next		prove the berm wal	і ин еспу аајас	eni io cok-s at	uie sewage DIS <sub>I</sub>	uusai raciiity prior



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SECTION 3	Comments	Non-Compliance with Act or Licence	Action Required
T	and Northern Affairs Canada	et Affaires du Nord Canada	

that the community clean up initiative has made great progress since establishment.

Licensee or Representative	Inspector's Name
Leonie Pameolik	Atuat Shouldice
Signature	Signature
	Sent Electronically
Date	Date
	February 12th, 2018

The inspector is pleased with the efforts made by the Hamlet over the last three years at SWDF. The inspector noted

CC: Licensing Department, NWB

Justin Hack, Manager of Field Operations, CIRNAC

Megan Lusty, Municipal Works, CGS



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