YEAR BEING REPORTED: 2017

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water License No. **3BM-CHE1523** issued to the **Hamlet of Chesterfield Inlet**.

 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 CHE-1, as well as detailed chemical, physical and biological analysis required at CHE-2, CHE-3 and CHE-4.

Month Reported	Quantity of Water Obtained from all Sources (L)	Quantity of Sewage Waste Discharged (Estimated, L)		
January	1,360,877.60	Same		
February	1,200,804.20	Same		
March	1,246,553.00	Same		
April	1,104,708.40	Same		
Мау	1,234,419.00	Same		
June	1,137,568.80	Same		
July	1,226,305.20	Same		
August	1,194,246.90	Same		
September	1,238,306.90	Same		
October	1,275,759.20	Same		
November	1,194,409.30	Same		
December	1,184,746.50	Same		
ANNUAL TOTAL	14,598,705.00	14,598,705.00		

Note: No meter exists to measure the sewage discharge volume; therefore sewage discharge volume is considered equal volume to the water consumption 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;
 - Improved segregation of household hazardous waste, including batteries and propane tanks, is taking place at the solid waste site.









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

Spill No.	Date	Site Description	Commodity	Quantity
2017071	2017-03-06	Chesterfield Inlet unit 93 A & B	Fuel	1 L
2017344	2017-09-14	Chesterfield Inlet	Heating Fuel P-50	390 L
2017345	701/-09-14	63 56.7N 093 38.4W (Helicopter Island, Chesterfield Inlet)	Hydraulic Fluid	100 L
2017430	2017-11-15	Chesterfield Inlet, NU	Heating Fuel	23 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;
 - No abandonment and restoration work was completed in 2017 and none is anticipated in 2018.
- 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.

-none

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 3BM-CHE1523 INAC Inspection took place on July 31, 2017. A copy of the inspection report has not been received from INAC.

List of Appendixes

Appendix A: CHE-4 Effluent Quality Limits – 1 page

Appendix B: Certificate of Analysis June 13, 2017 – 12 pages

Appendix C: Certificate of Analysis August 16, 2017 – 14 pages

Appendix D: Hazardous Materials Spill Database, Chesterfield Inlet 2017 – 1

Appendix E: Chesterfield Inlet 2017 Monitoring Results Summary – 4 gages

2017 Chesterfield Inlet Monitoring Stations and Sampling Parameters Summary for Licence No. 3BM-CHE1523 Part D, Item 2; CHE-4 Effluent Quality Limits

Parameter	Maximum Concentration of any	CHE-4			
Parameter	Grab Sample	31-Jul-17	16-Aug-17		
BOD ₅	80 mg/L	2	530		
Total Suspended Solids	100 mg/L	6	167		
Fecal Coliforms	1 x 10 ⁴ CFU/100mL	10	24200		
Oil + Grease	no visible sheen	5	106		
рН	between 6 and 9	7.56	7.18		

Exceeds effluent quality limits



Hamlet of Chesterfield Inlet

ATTN: SHAWN STUCKEY / DON TANUYAK

PO Box 10

Chesterfield Inlet NU XOC OBO

Date Received: 15-JUN-17

Report Date: 27-JUN-17 11:04 (MT)

Version: FINAL

Client Phone: 867-898-9926

Certificate of Analysis

Lab Work Order #: L1942686

Project P.O. #: NOT SUBMITTED

Job Reference: CHESTERFIELD INLET

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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L1942686 CONTD.... PAGE 2 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1942686-1 CHE-3A							
Sampled By: Charlie on 13-JUN-17 @ 10:50							
Matrix: Wastewater							
wastewater							
Nunavut WW Group 1							
Alkalinity, Bicarbonate	00.0		4.0			00 11111 47	
Bicarbonate (HCO3) Alkalinity, Carbonate	32.9		1.2	mg/L		20-JUN-17	
Carbonate (CO3)	<0.60		0.60	mg/L		20-JUN-17	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		20-JUN-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	27.0		1.0	mg/L		16-JUN-17	R3749875
Ammonia by colour	27.0		1.0	IIIg/L		10-3011-17	N3749073
Ammonia, Total (as N)	3.69		0.10	mg/L		20-JUN-17	R3752408
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand Carbonaceous BOD	4.4		2.0	mg/L		16-JUN-17	R3752842
BOD Carbonaceous	3.4		2.0	mg/L		16-JUN-17	R3752842
Chloride in Water by IC	U		,				
Chloride (CI)	10.8		0.50	mg/L		15-JUN-17	R3751272
Conductivity Conductivity	98.7		1.0	umhos/cm		16-JUN-17	R3749875
Fecal coliforms, 1:10 dilution by QT97	98.7		1.0	umnos/cm		16-JUN-17	K3/498/5
Fecal Coliforms	24200	PEHR	10	MPN/100mL		15-JUN-17	R3749223
Hardness Calculated							
Hardness (as CaCO3)	16.1	HTC	0.25	mg/L		20-JUN-17	
Mercury Total Mercury (Hg)-Total	0.0000088		0.0000050	mg/L	21-JUN-17	21-JUN-17	R3752879
Nitrate in Water by IC	0.000000		0.0000000	1119/12	21 0011 17	21 0011 17	110702070
Nitrate (as N)	0.021		0.020	mg/L		15-JUN-17	R3751272
Nitrate+Nitrite						""	
Nitrate and Nitrite as N Nitrite in Water by IC	<0.070		0.070	mg/L		20-JUN-17	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		15-JUN-17	R3751272
Oil & Grease - Gravimetric							
Oil and Grease	<5.0		5.0	mg/L		20-JUN-17	R3751479
Phenol (4AAP) Phenols (4AAP)	0.0000		0.0010			26-JUN-17	DOZECEE
Phosphorus, Total	0.0066		0.0010	mg/L		20-JUN-11	R3756555
Phosphorus (P)-Total	0.491		0.010	mg/L		21-JUN-17	R3752412
Sulfate in Water by IC							
Sulfate (SO4)	1.86		0.30	mg/L		15-JUN-17	R3751272
Total Metals by ICP-MS Aluminum (AI)-Total	0.500		0.0050	mg/L	19-JUN-17	19-JUN-17	R3751096
Arsenic (As)-Total	0.00028		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Cadmium (Cd)-Total	0.000031		0.000010	mg/L	19-JUN-17	19-JUN-17	R3751096
Calcium (Ca)-Total	4.11		0.10	mg/L	19-JUN-17	19-JUN-17	R3751096
Chromium (Cr)-Total Cobalt (Co)-Total	<0.0010 0.00070		0.0010 0.00020	mg/L mg/L	19-JUN-17 19-JUN-17	19-JUN-17 19-JUN-17	R3751096 R3751096
Copper (Cu)-Total	0.00070		0.00020	mg/L	19-JUN-17 19-JUN-17	19-JUN-17 19-JUN-17	R3751096
Iron (Fe)-Total	0.500		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Lead (Pb)-Total	0.000889		0.000090	mg/L	19-JUN-17	19-JUN-17	R3751096
Magnesium (Mg)-Total	1.41		0.010	mg/L	19-JUN-17	19-JUN-17	R3751096
Manganese (Mn)-Total	0.0289		0.00030	mg/L	19-JUN-17	19-JUN-17	R3751096
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	19-JUN-17	19-JUN-17	R3751096

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

L1942686 CONTD.... PAGE 3 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1942686-1 CHE-3A							
Sampled By: Charlie on 13-JUN-17 @ 10:50							
Matrix: Wastewater							
Total Metals by ICP-MS							
Potassium (K)-Total	2.62		0.020	mg/L	19-JUN-17	19-JUN-17	R3751096
Sodium (Na)-Total	6.60		0.030	mg/L	19-JUN-17	19-JUN-17	R3751096
Zinc (Zn)-Total	0.0106		0.0020	mg/L	19-JUN-17	19-JUN-17	R3751096
Total Organic Carbon by Combustion Total Organic Carbon	3.86		0.50	mg/L		22-JUN-17	R3753983
Total Suspended Solids Total Suspended Solids	23.0		5.0	mg/L		19-JUN-17	R3751327
pH							
pH	7.03		0.10	pH units		16-JUN-17	R3749875
L1942686-2 CHE-3							
Sampled By: Charlie on 13-JUN-17 @ 11:13							
Matrix: Wastewater							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		26-JUN-17	R3756311
Toluene	0.0141		0.0010	mg/L		26-JUN-17	R3756311
Ethyl benzene	<0.00050		0.00050	mg/L		26-JUN-17	R3756311
o-Xylene	<0.00050		0.00050	mg/L		26-JUN-17	R3756311
m+p-Xylenes	<0.00040		0.00040	mg/L		26-JUN-17	R3756311
F1 (C6-C10)	<0.10		0.10	mg/L		26-JUN-17	R3756311
Surrogate: 4-Bromofluorobenzene (SS)	95.7		70-130	%		26-JUN-17	R3756311
CCME PHC F2-F4 in Water F2 (C10-C16)	-0.10		0.10	ma/l	16-JUN-17	16-JUN-17	D2740026
F3 (C16-C34)	<0.10 <0.25		0.10 0.25	mg/L mg/L	16-JUN-17 16-JUN-17	16-JUN-17 16-JUN-17	R3749826 R3749826
F4 (C34-C50)	<0.25		0.25	mg/L	16-JUN-17	16-JUN-17	R3749826
Surrogate: 2-Bromobenzotrifluoride	92.9		60-140	%	16-JUN-17	16-JUN-17	R3749826
CCME Total Hydrocarbons	02.0		00 110	/0	10 0011 11		1107 10020
F1-BTEX	<0.10		0.10	mg/L		26-JUN-17	
Total Hydrocarbons (C6-C50)	<0.38		0.38	mg/L		26-JUN-17	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.00064		0.00064	mg/L		26-JUN-17	
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	28.4		1.2	mg/L		20-JUN-17	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		20-JUN-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		20-JUN-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	23.3		1.0	mg/L		16-JUN-17	R3749875
Ammonia by colour							
Ammonia, Total (as N) Biochemical Oxygen Demand (BOD)	1.71		0.10	mg/L		20-JUN-17	R3752408
Biochemical Oxygen Demand Carbonaceous BOD	7.8		2.0	mg/L		16-JUN-17	R3752842
BOD Carbonaceous	5.8		2.0	mg/L		16-JUN-17	R3752842
Chloride in Water by IC Chloride (CI)	8.44		0.50	mg/L		15-JUN-17	R3751272
Conductivity Conductivity	83.2		1.0	umhos/cm		16-JUN-17	R3749875
Fecal coliforms, 1:10 dilution by QT97							

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

L1942686 CONTD.... PAGE 4 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
1.40.40000 0 OUE 0							
L1942686-2 CHE-3							
Sampled By: Charlie on 13-JUN-17 @ 11:13							
Matrix: Wastewater							
Fecal coliforms, 1:10 dilution by QT97 Fecal Coliforms	<10	PEHR	10	MPN/100mL		15-JUN-17	R3749223
Hardness Calculated Hardness (as CaCO3)	17.7	HTC	0.25	mg/L		20-JUN-17	
Mercury Total Mercury (Hg)-Total	0.0000063		0.0000050	mg/L	21-JUN-17	21-JUN-17	R3752879
Nitrate in Water by IC Nitrate (as N)	0.333		0.020	mg/L		15-JUN-17	R3751272
Nitrate+Nitrite Nitrate and Nitrite as N	0.366		0.070	mg/L		20-JUN-17	NOTOTETE
Nitrite in Water by IC	0.366		0.070	IIIg/L		20-30IN-17	
Nitrite (as N) Oil & Grease - Gravimetric	0.033		0.010	mg/L		15-JUN-17	R3751272
Oil and Grease	<5.0		5.0	mg/L		20-JUN-17	R3751479
Phenol (4AAP) Phenols (4AAP)	0.0043		0.0010	mg/L		26-JUN-17	R3756555
Phosphorus, Total Phosphorus (P)-Total	0.477		0.010	mg/L		21-JUN-17	R3752412
Sulfate in Water by IC Sulfate (SO4)	3.28		0.30	mg/L		15-JUN-17	R3751272
Total Metals by ICP-MS Aluminum (Al)-Total	0.179		0.0050	mg/L	19-JUN-17	19-JUN-17	R3751096
Arsenic (As)-Total	0.00087		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Cadmium (Cd)-Total	0.000024		0.000010	mg/L	19-JUN-17	19-JUN-17	R3751096
Calcium (Ca)-Total	5.19		0.10	mg/L	19-JUN-17	19-JUN-17	R3751096
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	19-JUN-17	19-JUN-17	R3751096
Cobalt (Co)-Total	0.00031		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Copper (Cu)-Total	0.0116		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Iron (Fe)-Total	0.310		0.010	mg/L	19-JUN-17	19-JUN-17	R3751096
Lead (Pb)-Total	0.000694		0.000090	mg/L	19-JUN-17	19-JUN-17	R3751096
Magnesium (Mg)-Total	1.15		0.010	mg/L	19-JUN-17	19-JUN-17	R3751096
Manganese (Mn)-Total	0.0290		0.00030	mg/L	19-JUN-17	19-JUN-17	R3751096
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	19-JUN-17	19-JUN-17	R3751096
Potassium (K)-Total	2.68		0.020	mg/L	19-JUN-17	19-JUN-17	R3751096
Sodium (Na)-Total	4.85		0.030	mg/L	19-JUN-17	19-JUN-17	R3751096
Zinc (Zn)-Total	0.0670		0.0020	mg/L	19-JUN-17	19-JUN-17	R3751096
Total Organic Carbon by Combustion Total Organic Carbon	6.53		0.50	mg/L		22-JUN-17	R3753983
Total Suspended Solids Total Suspended Solids	12		10	mg/L		19-JUN-17	R3751327
рН рН	7.05		0.10	pH units		16-JUN-17	R3749875
l	7.00		0.10	pri driito		10 0011 17	1.07 4007 0
,							
Sampled By: Charlie on 13-JUN-17 @ 11:13							
Matrix: Wastewater BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		18-JUN-17	R3753145
Toluene	<0.0010		0.0010	mg/L		18-JUN-17	R3753145
Ethyl benzene	<0.00050		0.00050	mg/L		18-JUN-17	R3753145
o-Xylene	<0.00050		0.00050	mg/L		18-JUN-17	R3753145
m+p-Xylenes	<0.00040		0.00040	mg/L		18-JUN-17	R3753145
F1 (C6-C10)	<0.10		0.10	mg/L		18-JUN-17	R3753145

^{*} 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
L1942686-3 CHE-2 (NOT ON COC)							
Sampled By: Charlie on 13-JUN-17 @ 11:13							
Matrix: Wastewater							
BTX plus F1 by GCMS							
Surrogate: 4-Bromofluorobenzene (SS)	82.0		70-130	%		18-JUN-17	R3753145
CCME PHC F2-F4 in Water	0.40		0.40		40 1111 47	40 1111 47	D074000
F2 (C10-C16) F3 (C16-C34)	<0.10 0.53		0.10 0.25	mg/L mg/L	16-JUN-17 16-JUN-17	16-JUN-17 16-JUN-17	R3749826 R3749826
F4 (C34-C50)	<0.25		0.25	mg/L	16-JUN-17	16-JUN-17	R3749826
Surrogate: 2-Bromobenzotrifluoride	100.9		60-140	%	16-JUN-17	16-JUN-17	R3749826
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		22-JUN-17	
Total Hydrocarbons (C6-C50)	0.53		0.38	mg/L		22-JUN-17	
Sum of Xylene Isomer Concentrations Xylenes (Total)	<0.00064		0.00064	mg/L		22-JUN-17	
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	92.6		1.2	mg/L		20-JUN-17	
Alkalinity, Carbonate Carbonate (CO3)	<0.60		0.60	mg/L		20-JUN-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		20-JUN-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	75.9		1.0	mg/L		16-JUN-17	R3749875
Ammonia by colour Ammonia, Total (as N)	7.9		1.0	mg/L		21-JUN-17	R3752408
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	9.6		6.0	mg/L		16-JUN-17	R3752842
Carbonaceous BOD							
BOD Carbonaceous	8.6		2.0	mg/L		16-JUN-17	R3752842
Chloride in Water by IC Chloride (CI)	22.5		0.50	mg/L		15-JUN-17	R3751272
Conductivity Conductivity	267		1.0	umhos/cm		16-JUN-17	R3749875
Fecal coliforms, 1:10 dilution by QT97 Fecal Coliforms	190	PEHR	10	MPN/100mL		15-JUN-17	R3749223
Hardness Calculated Hardness (as CaCO3)	50.0	нтс	0.25	mg/L		20-JUN-17	
Mercury Total	30.0		3.20	9,2			
Mercury (Hg)-Total	0.0000052		0.0000050	mg/L	21-JUN-17	21-JUN-17	R3752879
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		15-JUN-17	R3751272
Nitrate+Nitrite Nitrate and Nitrite as N	<0.070		0.070	mg/L		20-JUN-17	
Nitrite in Water by IC Nitrite (as N)	<0.010		0.010	mg/L		15-JUN-17	R3751272
Oil & Grease - Gravimetric Oil and Grease	10.8		5.0	mg/L		20-JUN-17	R3751479
Phenol (4AAP) Phenols (4AAP)	0.0135		0.0010	mg/L		26-JUN-17	R3756555
Phosphorus, Total Phosphorus (P)-Total	2.66		0.010	mg/L		21-JUN-17	R3752412
Sulfate in Water by IC Sulfate (SO4)	14.4		0.30	mg/L		15-JUN-17	R3751272
Total Metals by ICP-MS Aluminum (Al)-Total	0.0545		0.0050	mg/L	19-JUN-17	19-JUN-17	R3751096
						•	

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

L1942686 CONTD.... PAGE 6 of 9 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1942686-3 CHE-2 (NOT ON COC)							
Sampled By: Charlie on 13-JUN-17 @ 11:13							
Matrix: Wastewater							
Total Metals by ICP-MS Arsenic (As)-Total	0.00062		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Cadmium (Cd)-Total	0.00002		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Calcium (Ca)-Total	15.5		0.10	mg/L	19-JUN-17	19-JUN-17	R3751096
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	19-JUN-17	19-JUN-17	R3751096
Cobalt (Co)-Total	0.00035		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Copper (Cu)-Total	0.00687		0.00020	mg/L	19-JUN-17	19-JUN-17	R3751096
Iron (Fe)-Total	2.35		0.010	mg/L	19-JUN-17	19-JUN-17	R3751096
Lead (Pb)-Total	0.000387		0.000090	mg/L	19-JUN-17	19-JUN-17	R3751096
Magnesium (Mg)-Total	2.74		0.010	mg/L	19-JUN-17	19-JUN-17	R3751096
Manganese (Mn)-Total	0.118		0.00030	mg/L	19-JUN-17	19-JUN-17	R3751096
Nickel (Ni)-Total Potassium (K)-Total	<0.0020		0.0020	mg/L	19-JUN-17 19-JUN-17	19-JUN-17 19-JUN-17	R3751096 R3751096
Sodium (Na)-Total	7.50 14.1		0.020 0.030	mg/L mg/L	19-JUN-17 19-JUN-17	19-JUN-17 19-JUN-17	R3751096 R3751096
Zinc (Zn)-Total	0.0119		0.030	mg/L	19-JUN-17 19-JUN-17	19-JUN-17 19-JUN-17	R3751096 R3751096
Total Organic Carbon by Combustion	0.0110		0.0020	g, _	10 0014 17	10 0014 17	1.0701000
Total Organic Carbon	11.9		0.50	mg/L		22-JUN-17	R3753983
Total Suspended Solids							
Total Suspended Solids	18.0		5.0	mg/L		19-JUN-17	R3751327
pH	7.00		0.40			40 1111 47	D0740075
pH	7.08		0.10	pH units		16-JUN-17	R3749875

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

CHESTERFIELD INLET L1942686 CONTD....

Reference Information

PAGE 7 of 9 Version: FINAL

Sample Parameter Qualifier Kev:

Qualifier	Description
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
IS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
PEHR	Parameter Exceeded Recommended Holding Time On Receipt: Proceed With Analysis As Requested.

Test Method References

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

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

ALK-HCO3HCO3-CALC- 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 **CALCULATION** Water Alkalinity, Hydroxide

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 Alkalinity, Total (as CaCO3) Water **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 Carbonaceous BOD APHA 5210 B Water

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 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 Chloride in Water by IC EPA 300.1 (mod)

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

EC-WP **APHA 2510B** Water Conductivity

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 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.

Reference Information

PAGE 8 of 9 Version: FINAL

Test Method References:

ALS Test Code Matrix Test Description Method Reference**

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-L-MS-WP

Water

Total Metals by ICP-MS

APHA 3030E/EPA 6020A-TL

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

NH3-COL-WP

Water

Ammonia by colour

APHA 4500 NH3 F

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

NO2+NO3-CALC-WP

Water

Nitrate+Nitrite

CALCULATION

NO2-IC-N-WP Water Nitrite in Water by IC EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-WP

Water

Nitrate in Water by IC

tion.

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

OG-GRAV-WP

Water

Oil & Grease - Gravimetric

EPA 1664 (modified)

EPA 300.1 (mod)

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-COL-WP

Water

Phosphorus, Total

APHA 4500 P PHOSPHORUS

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

PH-WP

Water

APHA 4500H

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

PHENOLS-4AAP-WT

Water

Phenol (4AAP)

EPA 9066

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

SO4-IC-N-WP

Water

Sulfate in Water by IC

EPA 300.1 (mod)

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

SOLIDS-TOTSUS-WP

Water

Total Suspended Solids

APHA 2540 D (modified)

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

XYLENES-SUM-CALC-

Water

Sum of Xylene Isomer Concentrations

CALCULATED RESULT

WP

CHESTERFIELD INLET L1942686 CONTD....

Reference Information

PAGE 9 of 9 Version: FINAL

Test Method References:

ALS Test Code Matrix Test Description Method Reference**

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

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

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

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

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

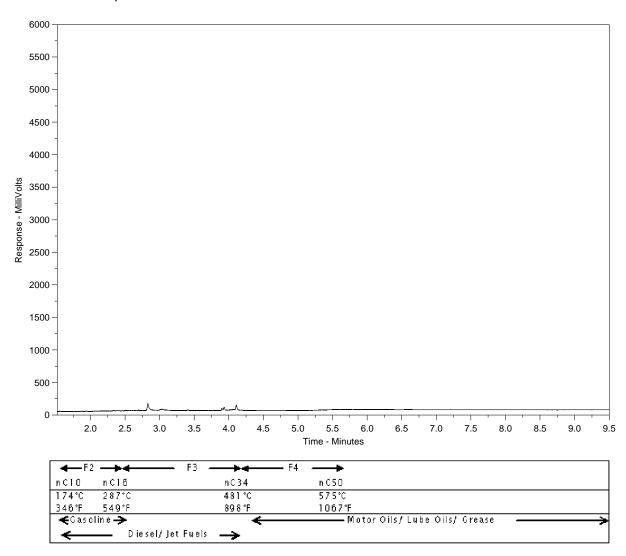
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1942686-2 Client Sample ID: CHE-3



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

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

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

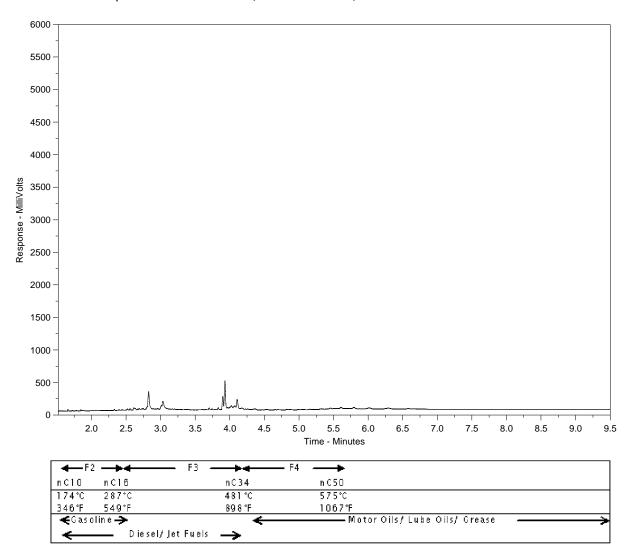
Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1942686-3

Client Sample ID: CHE-2 (NOT ON COC)



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

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

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

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



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

COC Number: 14 - 503477

	Report Format / Distribution				/				
Report To		~ 			 _	ush Turnaround Time (T/	AT) is not availa	able for all tests	i)
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Hamlet of Chesterfield Inlet

ATTN: DON TANUYAK

PO Box 10

Chesterfield Inlet NU XOC 0B0

Date Received: 18-AUG-17

Report Date: 29-AUG-17 10:48 (MT)

Version: FINAL

Client Phone: 867-898-9926

Certificate of Analysis

Lab Work Order #: L1977151
Project P.O. #: NOT SUBMITTED

Job Reference: CHESTERFIELD INLET -

C of C Numbers: Legal Site Desc:

Comments: NOTE: Sample Vials for BTX,F1-F4 Petroleum Hydrocarbons analysis were received empty

(unfilled) - Unable to provide this analysis.

Craig Biddell, B.Sc.Ag Account 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



L1977151 CONTD.... PAGE 2 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1977151-1 CHE-2							
Sampled By: CLIENT on 16-AUG-17							
' '							
Matrix: WW							
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
2-Methyl Naphthalene	<0.000050	DLM	0.000050	mg/L	19-AUG-17	22-AUG-17	R3807592
Acenaphthene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Acenaphthylene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Anthracene	<0.000010		0.000010	mg/L	19-AUG-17	22-AUG-17	R3807592
Acridine	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Benzo(a)anthracene	<0.000010		0.000010	mg/L	19-AUG-17	22-AUG-17	R3807592
Benzo(a)pyrene	<0.000050		0.0000050	mg/L	19-AUG-17	22-AUG-17	R3807592
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	19-AUG-17	22-AUG-17	R3807592
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	19-AUG-17	22-AUG-17	R3807592
Chrysene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Dibenzo(a,h)anthracene	<0.000050		0.0000050	mg/L	19-AUG-17	22-AUG-17	R3807592
Fluoranthene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Fluorene	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	19-AUG-17	22-AUG-17	R3807592
Naphthalene	<0.000050		0.000050	mg/L	19-AUG-17	22-AUG-17	R3807592
Phenanthrene	<0.000050		0.000050	mg/L	19-AUG-17	22-AUG-17	R3807592
Pyrene	<0.000010		0.000010	mg/L	19-AUG-17	22-AUG-17	R3807592
Quinoline	<0.000020		0.000020	mg/L	19-AUG-17	22-AUG-17	R3807592
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	19-AUG-17	22-AUG-17	R3807592
Surrogate: Acenaphthene d10	76.0		40-130	%	19-AUG-17	22-AUG-17	R3807592
Surrogate: Acridine d9	87.9		40-130	%	19-AUG-17	22-AUG-17	R3807592
Surrogate: Chrysene d12	73.1		40-130	%	19-AUG-17	22-AUG-17	R3807592
Surrogate: Naphthalene d8	69.5		40-130	%	19-AUG-17	22-AUG-17	R3807592
Surrogate: Phenanthrene d10	77.2		40-130	%	19-AUG-17	22-AUG-17	R3807592
Nunavut WW Group 1							
Alkalinity, Bicarbonate				,,			
Bicarbonate (HCO3)	128		1.2	mg/L		21-AUG-17	
Alkalinity, Carbonate	0.00					04 4110 47	
Carbonate (CO3)	<0.60		0.60	mg/L		21-AUG-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	ma/l		21-AUG-17	
Alkalinity, Total (as CaCO3)	<u> </u>		0.34	mg/L		21-AUG-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	105		1.0	mg/L		18-AUG-17	R3804105
Ammonia by colour						.57.55 17	1.000 7100
Ammonia, Total (as N)	0.021		0.010	mg/L		28-AUG-17	R3813675
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	<2.0		2.0	mg/L		18-AUG-17	R3808774
Carbonaceous BOD				-			
BOD Carbonaceous	<2.0		2.0	mg/L		18-AUG-17	R3808774
Chloride in Water by IC							
Chloride (CI)	74.5		0.50	mg/L		18-AUG-17	R3804947
Conductivity							
Conductivity	515		1.0	umhos/cm		18-AUG-17	R3804105
Fecal coliforms, 1:10 dilution by QT97		DE:::5		MDNI/: a a :		40 41:0 :=	
Fecal Coliforms	<10	PEHR	10	MPN/100mL		18-AUG-17	R3803909
Hardness Calculated	400	што	0.00	m c /l		20 41/0 47	
Hardness (as CaCO3)	169	HTC	0.20	mg/L		28-AUG-17	
Mercury Total Mercury (Hg)-Total	~0.00000E0		0.0000050	mg/L	21-AUG-17	22-AUG-17	R3807514
Morodry (119)-1 otal	<0.0000050		0.0000000	IIIg/L	21-AUG-17	22-AUG-17	1300/314

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

L1977151 CONTD.... PAGE 3 of 10 Version: FINAL

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
14077454 4 CUE 2							
L1977151-1 CHE-2							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Nitrate in Water by IC Nitrate (as N)	<0.020		0.020	mg/L		18-AUG-17	R3804947
Nitrate+Nitrite	<0.020		0.020	IIIg/L		10-400-17	K3604947
Nitrate and Nitrite as N	<0.070		0.070	mg/L		21-AUG-17	
Nitrite in Water by IC							
Nitrite (as N)	<0.010		0.010	mg/L		18-AUG-17	R3804947
Oil & Grease - Gravimetric Oil and Grease	<5.0		5.0	mg/L		24-AUG-17	R3808945
Phenol (4AAP)	<5.0		3.0	IIIg/L		24-A00-17	K3606943
Phenois (4AAP)	<0.0010		0.0010	mg/L		22-AUG-17	R3807364
Phosphorus, Total							
Phosphorus (P)-Total	0.021		0.010	mg/L		22-AUG-17	R3806250
Sulfate in Water by IC	E4.0		0.30	ma/l		18-AUG-17	D2904047
Sulfate (SO4) Total Metals in Water by CRC ICPMS	54.9		0.30	mg/L		10-400-11	R3804947
Aluminum (Al)-Total	0.0121		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844
Arsenic (As)-Total	0.00033		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Cadmium (Cd)-Total	0.0000142		0.0000050	mg/L	22-AUG-17	27-AUG-17	R3812844
Calcium (Ca)-Total	46.1		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Chromium (Cr)-Total	0.00027		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Cobalt (Co)-Total	0.00017		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Copper (Cu)-Total Iron (Fe)-Total	0.00076 1.00		0.00050 0.010	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844 R3812844
Lead (Pb)-Total	<0.00050		0.00050	mg/L mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Magnesium (Mg)-Total	13.1		0.00000	mg/L	22-AUG-17	27-AUG-17	R3812844
Manganese (Mn)-Total	0.0203		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Nickel (Ni)-Total	0.00185		0.00050	mg/L	22-AUG-17	27-AUG-17	R3812844
Potassium (K)-Total	8.19		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Sodium (Na)-Total	59.3		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844
Total Organic Carbon by Combustion Total Organic Carbon	8.24		0.50	ma/l		21-AUG-17	R3805956
Total Suspended Solids	8.24		0.50	mg/L		21-AUG-17	R3805956
Total Suspended Solids Total Suspended Solids	15.0		5.0	mg/L		22-AUG-17	R3807546
pH				3			
pH	7.27		0.10	pH units		18-AUG-17	R3804105
L1977151-2 CHE-3							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Nunavut WW Group 1							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	250		1.2	mg/L		21-AUG-17	
Alkalinity, Carbonate				Ü			
Carbonate (CO3)	<0.60		0.60	mg/L		21-AUG-17	
Alkalinity, Hydroxide						04 ****	
Hydroxide (OH)	<0.34		0.34	mg/L		21-AUG-17	
Alkalinity, Total (as CaCO3) Alkalinity, Total (as CaCO3)	205		1.0	mg/L		18-AUG-17	R3804105
Ammonia by colour	200		1.0	9/ ⊏		107.00 17	1.0007100
Ammonia, Total (as N)	19.1		0.010	mg/L		28-AUG-17	R3813675
Biochemical Oxygen Demand (BOD)							
Biochemical Oxygen Demand	10.8		2.0	mg/L		18-AUG-17	R3808774

^{*} 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
L1977151-2 CHE-3							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Carbonaceous BOD							
BOD Carbonaceous	5.0		2.0	mg/L		18-AUG-17	R3808774
Chloride in Water by IC							
Chloride (Cl)	54.6		0.50	mg/L		18-AUG-17	R3804947
Conductivity Conductivity	568		1.0	umhos/cm		18-AUG-17	R3804105
Fecal coliforms, 1:10 dilution by QT97	000		1.0	diminos/om		107.00 11	10004100
Fecal Coliforms	610	PEHR	10	MPN/100mL		18-AUG-17	R3803909
Hardness Calculated							
Hardness (as CaCO3)	118	HTC	0.20	mg/L		28-AUG-17	
Mercury Total Mercury (Hg)-Total	<0.000050		0.0000050	mg/L	21-AUG-17	22-AUG-17	R3807514
Nitrate in Water by IC	10.000000		1.5555555				
Nitrate (as N)	<0.020		0.020	mg/L		18-AUG-17	R3804947
Nitrate+Nitrite	0.070		0.070			04 4110 47	
Nitrate and Nitrite as N Nitrite in Water by IC	<0.070		0.070	mg/L		21-AUG-17	
Nitrite in water by iC Nitrite (as N)	<0.010		0.010	mg/L		18-AUG-17	R3804947
Oil & Grease - Gravimetric							
Oil and Grease	<5.0		5.0	mg/L		24-AUG-17	R3808945
Phenol (4AAP)	0.0040		0.0040			00 4110 47	D0007004
Phenols (4AAP) Phosphorus, Total	<0.0010		0.0010	mg/L		22-AUG-17	R3807364
Phosphorus (P)-Total	4.54		0.10	mg/L		22-AUG-17	R3806250
Sulfate in Water by IC							
Sulfate (SO4)	5.80		0.30	mg/L		18-AUG-17	R3804947
Total Metals in Water by CRC ICPMS Aluminum (Al)-Total	0.0325		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844
Arsenic (As)-Total	0.0023		0.0030	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Cadmium (Cd)-Total	<0.000050		0.0000050	mg/L	22-AUG-17	27-AUG-17	R3812844
Calcium (Ca)-Total	35.3		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Chromium (Cr)-Total	0.00041		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Cobalt (Co)-Total	0.00039		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Copper (Cu)-Total Iron (Fe)-Total	0.00134 1.44		0.00050 0.010	mg/L mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844 R3812844
Lead (Pb)-Total	0.000073		0.00050	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Magnesium (Mg)-Total	7.19		0.0050	mg/L	22-AUG-17	27-AUG-17	R3812844
Manganese (Mn)-Total	0.171		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Nickel (Ni)-Total	0.00358		0.00050	mg/L	22-AUG-17	27-AUG-17	R3812844
Potassium (K)-Total Sodium (Na)-Total	14.9		0.050	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Zinc (Zn)-Total	50.6 0.0058		0.050 0.0030	mg/L mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844 R3812844
Total Organic Carbon by Combustion	0.000		0.0000				.10012044
Total Organic Carbon	23.3		0.50	mg/L		21-AUG-17	R3805956
Total Suspended Solids	44.5					00 4110 4=	D0007711
Total Suspended Solids	11.0		5.0	mg/L		22-AUG-17	R3807546
pH pH	7.45		0.10	pH units		18-AUG-17	R3804105
L1977151-3 CHE-4							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Nunavut WW Group 1							
			l				

^{*} 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
L1977151-3 CHE-4							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	333		1.2	mg/L		21-AUG-17	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		21-AUG-17	
Alkalinity, Hydroxide Hydroxide (OH)	<0.34		0.34	mg/L		21-AUG-17	
Alkalinity, Total (as CaCO3)	V0.54		0.54	1119/12		217.00 17	
Alkalinity, Total (as CaCO3)	273		1.0	mg/L		18-AUG-17	R3804105
Ammonia by colour							
Ammonia, Total (as N)	48.2		0.010	mg/L		28-AUG-17	R3813675
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	530		100	mg/L		18-AUG-17	R3808774
Carbonaceous BOD							
BOD Carbonaceous	450		100	mg/L		18-AUG-17	R3808774
Chloride in Water by IC	74.0		1.0	ma/l		10 110 17	D2004047
Chloride (CI) Conductivity	74.0		1.0	mg/L		18-AUG-17	R3804947
Conductivity	791		1.0	umhos/cm		18-AUG-17	R3804105
Fecal coliforms, 1:10 dilution by QT97							
Fecal Coliforms	>24200	PEHR	10	MPN/100mL		18-AUG-17	R3803909
Hardness Calculated Hardness (as CaCO3)	95.4	нтс	0.20	mg/L		28-AUG-17	
Mercury Total	33.4		0.20	IIIg/L		207.00 17	
Mercury (Hg)-Total	<0.000025		0.000025	mg/L	21-AUG-17	22-AUG-17	R3807514
Nitrate in Water by IC	0.040	DLM	0.040	/1		40 410 47	D0004047
Nitrate (as N) Nitrate+Nitrite	<0.040	DLIVI	0.040	mg/L		18-AUG-17	R3804947
Nitrate and Nitrite as N	<0.070		0.070	mg/L		21-AUG-17	
Nitrite in Water by IC							
Nitrite (as N)	<0.020	DLM	0.020	mg/L		18-AUG-17	R3804947
Oil & Grease - Gravimetric Oil and Grease	106		5.0	mg/L		24-AUG-17	R3808945
Phenol (4AAP)			0.0				
Phenols (4AAP)	0.107	DLM	0.010	mg/L		23-AUG-17	R3808241
Phosphorus, Total Phosphorus (P)-Total	0.00		0.05			22-AUG-17	Danacara
Sulfate in Water by IC	6.28		0.25	mg/L		22-AUG-17	R3806250
Sulfate (SO4)	5.68		0.60	mg/L		18-AUG-17	R3804947
Total Metals in Water by CRC ICPMS			_				
Aluminum (Al)-Total	0.389		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844
Arsenic (As)-Total Cadmium (Cd)-Total	0.00127 0.000150		0.00010 0.0000050	mg/L mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844 R3812844
Calcium (Ca)-Total	25.5		0.0000030	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Chromium (Cr)-Total	0.00169		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Cobalt (Co)-Total	0.00118		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Copper (Cu)-Total	0.0656		0.00050	mg/L	22-AUG-17	27-AUG-17	R3812844
Iron (Fe)-Total	9.38		0.010	mg/L	22-AUG-17	27-AUG-17	R3812844
Lead (Pb)-Total Magnesium (Mg)-Total	0.00231		0.000050	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Manganese (Mn)-Total	7.73 0.198		0.0050 0.00010	mg/L mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844 R3812844
Nickel (Ni)-Total	0.00648		0.00010	mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844
Potassium (K)-Total	20.7		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Sodium (Na)-Total	62.7		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844

^{*} 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
L1977151-3 CHE-4							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW Total Metals in Water by CRC ICPMS							
Zinc (Zn)-Total	0.102		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844
Total Organic Carbon by Combustion Total Organic Carbon	145		5.0	mg/L		21-AUG-17	R3805956
Total Suspended Solids Total Suspended Solids	167		33	mg/L		22-AUG-17	R3807546
pH pH	7.18		0.10	pH units		18-AUG-17	R3804105
L1977151-4 CHE-3A	7.10		0.10	priunts		18-AUG-17	K3004103
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Nunavut WW Group 1							
Alkalinity, Bicarbonate Bicarbonate (HCO3)	315		1.2	mg/L		21-AUG-17	
Alkalinity, Carbonate	0.00		0.00	m a/l		24 ALIC 47	
Carbonate (CO3) Alkalinity, Hydroxide	<0.60		0.60	mg/L		21-AUG-17	
Hydroxide (OH) Alkalinity, Total (as CaCO3)	<0.34		0.34	mg/L		21-AUG-17	
Alkalinity, Total (as CaCO3)	259		1.0	mg/L		18-AUG-17	R3804105
Ammonia by colour Ammonia, Total (as N)	43.3		0.010	mg/L		28-AUG-17	R3813675
Biochemical Oxygen Demand (BOD) Biochemical Oxygen Demand	133		50	mg/L		18-AUG-17	R3808774
Carbonaceous BOD BOD Carbonaceous	124		20	mg/L		18-AUG-17	R3808774
Chloride in Water by IC			-				
Chloride (CI) Conductivity	77.6		0.50	mg/L		18-AUG-17	R3804947
Conductivity Fecal coliforms, 1:10 dilution by QT97	786		1.0	umhos/cm		18-AUG-17	R3804105
Fecal Coliforms	>24200	PEHR	10	MPN/100mL		18-AUG-17	R3803909
Hardness Calculated Hardness (as CaCO3)	98.6	нтс	0.20	mg/L		28-AUG-17	
Mercury Total Mercury (Hg)-Total	<0.000050		0.000050	mg/L	21-AUG-17	22-AUG-17	R3807514
Nitrate in Water by IC					200 17		
Nitrate (as N) Nitrate+Nitrite	<0.020		0.020	mg/L		18-AUG-17	R3804947
Nitrate and Nitrite as N Nitrite in Water by IC	<0.070		0.070	mg/L		21-AUG-17	
Nitrite (as N)	<0.010		0.010	mg/L		18-AUG-17	R3804947
Oil & Grease - Gravimetric Oil and Grease	44.9		5.0	mg/L		24-AUG-17	R3808945
Phenol (4AAP) Phenols (4AAP)	0.213	DLM	0.010	mg/L		23-AUG-17	R3808241
Phosphorus, Total Phosphorus (P)-Total	8.56		0.10	mg/L		22-AUG-17	R3806250
Sulfate in Water by IC							
Sulfate (SO4) Total Metals in Water by CRC ICPMS	12.2		0.30	mg/L		18-AUG-17	R3804947
Aluminum (Al)-Total	0.558		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844

^{*} 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
L1977151-4 CHE-3A							
Sampled By: CLIENT on 16-AUG-17							
Matrix: WW							
Total Metals in Water by CRC ICPMS Arsenic (As)-Total	0.00120		0.00010	ma/l	22-AUG-17	27-AUG-17	D2042044
Cadmium (Cd)-Total	0.00120		0.00010	mg/L mg/L	22-AUG-17 22-AUG-17	27-AUG-17 27-AUG-17	R3812844 R3812844
Calcium (Ca) Total	26.5		0.0000030	mg/L	22-AUG-17 22-AUG-17	27-AUG-17	R3812844
Chromium (Cr)-Total	0.00198		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Cobalt (Co)-Total	0.00133		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Copper (Cu)-Total	0.0933		0.00050	mg/L	22-AUG-17	27-AUG-17	R3812844
Iron (Fe)-Total	16.1		0.010	mg/L	22-AUG-17	27-AUG-17	R3812844
Lead (Pb)-Total	0.00305		0.000050	mg/L	22-AUG-17	27-AUG-17	R3812844
Magnesium (Mg)-Total	7.85		0.0050	mg/L	22-AUG-17	27-AUG-17	R3812844
Manganese (Mn)-Total	0.124		0.00010	mg/L	22-AUG-17	27-AUG-17	R3812844
Nickel (Ni)-Total	0.00681		0.00050	mg/L	22-AUG-17	27-AUG-17	R3812844
Potassium (K)-Total	21.2		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Sodium (Na)-Total	64.3		0.050	mg/L	22-AUG-17	27-AUG-17	R3812844
Zinc (Zn)-Total	0.163		0.0030	mg/L	22-AUG-17	27-AUG-17	R3812844
Total Organic Carbon by Combustion				,,		04 4110 1=	B0005
Total Organic Carbon	133		5.0	mg/L		21-AUG-17	R3805956
Total Suspended Solids Total Suspended Solids	120		22	ma/l		22-AUG-17	D2007546
•	120		33	mg/L		22-AUG-17	R3807546
pH pH	7.11		0.10	pH units		18-AUG-17	R3804105
<u>'</u>				•			

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

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Reference Information

Sample Parameter Qualifier Key:

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

Test Method References:

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

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

ALK-HCO3HCO3-CALC- 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.

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.

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.

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Reference Information

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Test Method References:

ALS Test Code Matrix Test Description Method Reference**

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

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

persulphate digestion of the sample.

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

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

monitoring (SIM) mode.

PH-WP Water pH APHA 4500H

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

reference electrode.

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

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

red complex which is measured colorimetrically.

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

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

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

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

** 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 analysis for that test. Refer to the list below:

 Laboratory Definition Code
 Laboratory Location

 WP
 ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

 WT
 ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

CHESTERFIELD INLET -L1977151 CONTD....

Reference Information

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Test Method References:

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

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.



Chain of Custody (COC) / Analytical Request Form



L1977151-COFC

coc Number: 14 - 503474

Page of of

Canada Toll Free: 1 800 668 9878 www.alsglobal.com

Report To Report Format / Distribution Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests) . Company: Select Report Format: PDF . EXCEL | EDD_(DIGITAL) Regular (Standard TAT if received by 3pm) Charterfrad Talet Contact: Quality Control (QC) Report with Report □ No Priority (2-4 business days if received by 3pm) Address: Criteria on Report - provide details below if box checked Е Emergency (1-2 business days if received by 3pm) x00-030 Select Distribution: **EMAIL** MAIL T FAX E2 Same day or weekend emergency if received by 10am – contact ALS for surcharge. Phone: Specify Date Required for E2,E or P; Email 1 or Fax Email 2 Analysis Request Invoice Distribution Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below TYes TNo Invoice To Copy of Invoice with Report TYes TNo Select Invoice Distribution: EMAIL Company: Email 1 or Fax Contact: Email 2 Number of Containers Project Information Oil and Gas Required Fields (client use) ALS Quote #: Approver ID: Cost Center: Job#: GL Account: Routing Code: PO / AFE: Activity Code: LSD: Location: ALS Lab Work Order # (lab use only) ALS Contact: Sampler: Sample Identification and/or Coordinates ALS Sample # Date Time Sample Type (lab use only) (This description will appear on the report) (dd-mmm-vv) (hh:mm) CHE-I 10 7 1 11 SAMPLE CONDITION AS RECEIVED (lab use only) Special Instructions / Specify Criteria to add on report (client Use) Drinking Water (DW) Samples1 (client use) Frozen П SIF Observations No Are samples taken from a Regulated DW System? Yes 🗌 Ice packs Yes Custody seal intact III No Cooling Initiated П Are samples for human drinking water use? INITIAL COOLER TEMPERATURES °C. I No SHIPMENT RELEASE (client use) INITIAL SHIPMENT RECEPTION (lab use only). FINAL SHIPMENT RECEPTION (lab use only) Time: Released by: Date: Time: Received by: Received by: Date: REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION NAJENLOSORA VIII Franció January 2014



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

COC Number: 14 - 503475

Page 2 of 4

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NA-FM-0325e v09 Front/04 January 2014



Chain of Custody (COC) / Analytical Request Form

L1977151-COFC

coc Number: 14 - 503479

Page 2 of 4

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tenlest es Report Format / L Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests) Report To Company: Select Report Format: PDF EXCEL EDD (DIGITAL) Regular (Standard TAT If received by 3pm) Contact: Quality Control (QC) Report with Report Yes No Р Priority (2-4 business days if received by 3pm) Address: Criteria on Report - provide details below if box checked E Emergency (1-2 business days if received by 3pm) Select Distribution: EMAIL MAIL FAX Same day or weekend emergency if received by 10am - contact ALS for surcharge. Phone: Specify Date Required for E2,E or P: Email 1 or Fax Email 2 **Analysis Request** 「Yes 「No Invoice Distribution Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below Invoice To Same as Report To Select Invoice Distribution: **EMAIL** Copy of Invoice with Report TYes TNo MAIL FAX Email 1 or Fax Company: Contact: Email 2 mber of Containers Oil and Gas Required Fields (client use) **Project Information** Cost Center: ALS Quote #: Approver ID: Job#: GL Account: Routing Code: PO / AFE: Activity Code: LSD: Location: ALS Lab Work Order # (lab use only) ALS Contact: Sampler: Sample Identification and/or Coordinates Date Time ALS Sample # Sample Type (lab use only) (This description will appear on the report) (dd-mmm-yy) (hh:mm) SAMPLE CONDITION AS RECEIVED (lab use only) Special Instructions / Specify Criteria to add on report (client Use) Drinking Water (DW) Samples1 (client use) SIF Observations Yes Frozen No Are samples taken from a Regulated DW System? lce packs Yes Custody seal intact Yes Cooling Initiated П FINAL COOLER TEMPERATURES °C Are samples for human drinking water use? INJITIAL COOLER TEMPERATURES °C 🛒 ☐ Yes ☐ No IN(T(AL SHIBMENT RECEPTION (lab use only) FINAL SHIPMENT RECEPTION (lab use only): SHIPMENT RELEASE (client use) Received by: Received by: Released by: Date: Time:

Chain of Custody (COC) / Analytical Request Form

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NA-FM-0328e v09 Front/04 January 2014



Hazardous Materials Spill Database

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

Sorted By: SpillNo for the year(s):

Spill No.	Date	Ter	Region	Location	Site Description	Commodity	Quantity	Source	Agency
2017071	2017-03-06	NU	KEE	Chesterfield Inlet	Chesterfield Inlet unit 93 A & B	Fuel	1 L	ST<	GN
2017344	2017-09-14	NU	KEE	Chesterfield Inlet	Chesterfield Inlet	Heating Fuel P-50	390 L	PL	GN
2017345	2017-09-14	NU	KEE	Chesterfield Inlet	63 56.7N 093 38.4W (Helicopter Island, Chesterfield Inlet)	Hydraulic Fluid	100 L	отн	CCG
2017430	2017-11-15	NU	KEE	Chesterfield Inlet	Chesterfield Inlet, NU	Heating Fuel	23 L	ST<	GN

Total Spills on this Report: 4

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

LEGEND

		LLOLIND		
Region: BAF - Baffin DEH - Deh Cho INU - Inuvik	Source: AIR - Aircraft DRUM - Drum or Barrel MV - Marine Vessel	PL - Pipe or Line RT - Rail Train SL - Sewage Lagoon	TP - Tailings Pond TRU - Truck UK - Unkown	Agency: CCG - Canadian Coast Guard EP - Environment Canada GN - Government of Nunavut
KEE - Keewatin KIT - Kitikmeot NSL - North Slave SAH - Sahtu SSL - South Slave	NS - Natural Seepage OTH - Other Transportation	ST< - Storage Tank <4000 litres ST> - Storage Tank >4000 litres	WELL - Wet Wells, Flaring	GNWT - Government of Northwest Territories ILA - Inuvialiut Land Administration INAC - Indian and Northern Affairs Canada NEB - National Energy Board

CHE-2

CHE-2			2015		2016		2017			Statistics			
Parameter	Unit	DL	22-Jun-15		18-Aug-15			13-Jun-17	31-Jul-17	16-Aug-17	Min	Max	Average
Alkalinity					3 - 2	3-5							
Bicarbonate (HCO3)	mg/L	1.2	413	269	352	104	176	92.6	312	128	92.6	413	230.83
Carbonate (CO3)	mg/L	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.6	0.6	0.60
Hydroxide (OH)	mg/L	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Total (as CaCO3)	mg/L	1.0	339	221	289	85.4	144	75.9	256	105	75.9	339	189.41
Ammonia by Colour													
Total (as N)	mg/L	0.20	61.7	0.077	0.099	4.53	6.87	7.9	49.3	0.021	0.021	61.7	16.31
Biochemical Oxygen Demand (BOD)													
Biochemical Oxygen Demand	mg/L	6.0	257	2.0	2.0	8.7	360	9.6	229	2.0	2	360	108.79
Carbonaceous BOD													
BOD Carbonaceous	mg/L	6.0	231	2.0	2.0	6.5	340	8.6	224	2.0	2	340	102.01
Chloride in Water by IC													
Chloride (Cl)	mg/L	10	70.1	288	355	31.0	42.2	22.5	68.0	74.5	22.5	355	118.91
Conductivity													
Conductivity	umhos/cm	1.0	946	1770	2260	392	560	267	775	515	267	2260	935.63
Fecal Coliforms													
Fecal Coliforms	MPN/100mL	3	110000	4	4	930	240	190	24200	10	4	110000	16947.25
Hardness Calculated													
Hardness (as CaCO3)	mg/L	0.30	56.5	360	524	111	194	50.0	60.8	169	50	524	190.66
Mercury Total	,.	0.00000	0.00000	0.00000	0.000000	0.00000	0.000.10	0.00000	0.0000	0.00000	0.00000=	0.000:	0.000000
Mercury (Hg)	mg/L	0.00020	0.00020	0.000020	0.000020	0.000020	0.00040	0.0000052	0.000050	0.0000050	0.000005	0.0004	0.000090
Nitrate in Water by IC	ma = /1	0.40	0.030	0.040	0.040	0.246	0.020	0.020	0.020	0.020	0.03	0.246	0.00
Nitrate (as N)	mg/L	0.40	0.020	0.040	0.040	0.316	0.020	0.020	0.020	0.020	0.02	0.316	0.06
Nitrate and Nitrite	m = /1	0.45	0.070	0.070	0.070	0.240	0.070	0.070	0.070	0.070	0.07	0.240	0.10
Nitrate and Nitrite as N	mg/L	0.45	0.070	0.070	0.070	0.348	0.070	0.070	0.070	0.070	0.07	0.348	0.10
Nitrite in Water by IC	ma/l	0.20	0.010	0.020	0.020	0.032	0.011	0.010	0.010	0.010	0.01	0.022	0.02
Nitrite (as N) Oil & Grease - Gravimetric	mg/L	0.20	0.010	0.020	0.020	0.032	0.011	0.010	0.010	0.010	0.01	0.032	0.02
Oil and Grease	ma/l	5.0	52.4	2.0	2.0	5.0	8.6	10.8	51.7	5.0	2	52.4	17.19
Phenol	mg/L	3.0	32.4	2.0	2.0	3.0	0.0	10.6	31.7	3.0	2	32.4	17.15
Phenols	mg/L	0.0010	0.158	0.0033	0.0010	0.0017	0.0030	0.0135	0.190	0.0010	0.001	0.19	0.05
Phosphorus, Total	IIIg/L	0.0010	0.136	0.0033	0.0010	0.0017	0.0030	0.0133	0.190	0.0010	0.001	0.19	0.03
Phosphorus (P)	mg/L	0.010	12.1	0.084	0.076	1.93	50.8	2.66	8.72	0.021	0.021	50.8	9.55
Sulfate in Water by IC	6/ =	0.010	12.1	0.00	0.070	1.55	50.0	2.00	0.72	0.021	0.021	50.0	3.33
Sulfate (SO4)	mg/L	6.0	12.9	255	419	55.2	73.8	14.4	9.76	54.9	9.76	419	111.87
Total Metals by ICP-MS					1_0	-				0.10			
Aluminium (Al)	mg/L	0.0050	0.249	0.0256	0.0163	0.154	1.71	0.0545	0.5060	0.0121	0.0121	1.71	0.34
Arsenic (As)	mg/L	0.00020	0.00064	0.00078	0.00107	0.00080	0.0037	0.00062	0.00091	0.00033	0.00033	0.0037	0.0011
Cadmium (Cd)	mg/L	0.000010	0.000194	0.000023	0.000010	0.000073	0.00073	0.000035	0.000243	0.0000142	0.00001	0.00073	0.0002
Calcium (Ca)	mg/L	0.10	14.4	107	151	36.6	62.1	15.5	15.7	46.1	14.4	151	56.05
Chromium (Cr)	mg/L	0.0010	0.0013	0.0010	0.0010	0.0010	0.010	0.0010	0.00158	0.00027	0.00027	0.01	0.0021
Cobalt (Co)	mg/L	0.00020	0.00060	0.00070	0.00089	0.00051	0.0039	0.00035	0.00107	0.00017	0.00017	0.0039	0.0010
Copper (Cu)	mg/L	0.00020	0.150	0.00338	0.00142	0.00960	0.0580	0.00687	0.101	0.00076	0.00076	0.15	0.04
Iron (Fe)	mg/L	0.010	0.90	0.34	0.43	6.15	26.9	2.35	4.43	1.00	0.34	26.9	5.31
Lead (Pb)	mg/L	0.000090	0.00339	0.000172	0.000156	0.00192	0.0165	0.000387	0.00430	0.000050	0.00005	0.0165	0.0034
Magnesium (Mg)	mg/L	0.010	5.01	22.4	35.8	4.74	9.54	2.74	5.27	13.1	2.74	35.8	12.33
Manganese (Mn)	mg/L	0.00030	0.0483	0.0369	0.0673	0.0839	0.301	0.118	0.0622	0.0203	0.0203	0.301	0.092
Nickel (Ni)	mg/L	0.0020	0.0038	0.0056	0.0064	0.0028	0.020	0.0020	0.00552	0.00185	0.00185	0.02	0.006
Potassium (K)		0.000			0.000	0.0000	0.020	0.0020					22.55
2 11 /21 }	mg/L	0.020	24.4	38.9	65.2	3.84	13.7	7.50	18.7	8.19	3.84	65.2	22.55
Sodium (Na)	mg/L mg/L	0.020 0.030	24.4 53.4	164	65.2 262	3.84 26.7	13.7 38.0	7.50 14.1	18.7 50.4	59.3	14.1	262	83.49
Zinc (Zn)	mg/L	0.020	24.4		65.2	3.84	13.7	7.50	18.7				
Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L mg/L	0.020 0.030 0.0020	24.4 53.4 0.166	164 0.0134	65.2 262 0.0061	3.84 26.7 0.0342	13.7 38.0 0.251	7.50 14.1 0.0119	18.7 50.4 0.202	59.3 0.0030	14.1 0.003	262 0.251	83.49 0.09
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon	mg/L mg/L	0.020 0.030	24.4 53.4	164	65.2 262	3.84 26.7	13.7 38.0	7.50 14.1	18.7 50.4	59.3	14.1	262	83.49
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50	24.4 53.4 0.166	164 0.0134 21.7	65.2 262 0.0061 25.7	3.84 26.7 0.0342 14.1	13.7 38.0 0.251 252	7.50 14.1 0.0119 11.9	18.7 50.4 0.202	59.3 0.0030 8.24	14.1 0.003 8.24	262 0.251 252	83.49 0.09 77.46
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids	mg/L mg/L mg/L	0.020 0.030 0.0020	24.4 53.4 0.166	164 0.0134	65.2 262 0.0061	3.84 26.7 0.0342	13.7 38.0 0.251	7.50 14.1 0.0119	18.7 50.4 0.202	59.3 0.0030	14.1 0.003	262 0.251	83.49 0.09
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH	mg/L mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0	65.2 262 0.0061 25.7 5.0	3.84 26.7 0.0342 14.1	13.7 38.0 0.251 252 507	7.50 14.1 0.0119 11.9	18.7 50.4 0.202 126 113	59.3 0.0030 8.24 15.0	14.1 0.003 8.24	262 0.251 252 507	83.49 0.09 77.46 149.29
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH	mg/L mg/L mg/L mg/L mg/L mg/L pH Units	0.020 0.030 0.0020 0.50	24.4 53.4 0.166	164 0.0134 21.7 <5.0	65.2 262 0.0061 25.7 5.0	3.84 26.7 0.0342 14.1 255 6.90	13.7 38.0 0.251 252 507 7.53	7.50 14.1 0.0119 11.9	18.7 50.4 0.202 126 113	59.3 0.0030 8.24	14.1 0.003 8.24 5 6.9	262 0.251 252 507 7.7	83.49 0.09 77.46 149.29
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene	mg/L mg/L mg/L mg/L mg/L mg/L pH Units mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050	65.2 262 0.0061 25.7 5.0 7.18 0.00050	3.84 26.7 0.0342 14.1 255 6.90 0.00050	13.7 38.0 0.251 252 507 7.53 0.00050	7.50 14.1 0.0119 11.9	18.7 50.4 0.202 126 113 7.22 0.00050	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005	262 0.251 252 507 7.7 0.0005	83.49 0.09 77.46 149.29 7.23 0.0005
Zinc (Zn) Total Organic Carbon by Combustion 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 pH Units mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010	7.50 14.1 0.0119 11.9	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001	262 0.251 252 507 7.7 0.0005 0.0027	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012
Zinc (Zn) Total Organic Carbon by Combustion 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 pH Units mg/L mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010 0.00050	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010 0.00050	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010 0.00050	7.50 14.1 0.0119 11.9	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027 0.00050	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001	262 0.251 252 507 7.7 0.0005 0.0027 0.0005	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012 0.0005
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene 0-Xylene	mg/L mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010 0.00050 0.00050	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010 0.00050 0.00050	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010 0.00050 0.00050	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010 0.00050 0.00050	7.50 14.1 0.0119 11.9 18.0 7.08 / / /	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027 0.00050 0.00050	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001 0.0005	262 0.251 252 507 7.7 0.0005 0.0027 0.0005 0.0005	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012 0.0005
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene 0-Xylene F1 (C6-C10)	mg/L mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010 0.00050 0.00050 0.10	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010 0.00050 0.00050 0.10	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010 0.00050 0.00050 0.10	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010 0.00050 0.10	7.50 14.1 0.0119 11.9 18.0 7.08 / / / 0.10	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027 0.00050 0.00050 0.10	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001 0.0005 0.0005	262 0.251 252 507 7.7 0.0005 0.0027 0.0005 0.0005 0.1	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012 0.0005 0.0005
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene 0-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.10 0.25	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010 0.00050 0.00050 0.10 0.25	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010 0.00050 0.00050 0.10 0.25	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010 0.00050 0.100050	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010 0.00050 0.10 0.12	7.50 14.1 0.0119 11.9 18.0 7.08 / / / 0.10 0.10	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027 0.00050 0.00050 0.10 1.74	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001 0.0005 0.0005 0.1	262 0.251 252 507 7.7 0.0005 0.0027 0.0005 0.0005 0.1 1.74	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012 0.0005 0.10 0.43
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene 0-Xylene F1 (C6-C10) F2 (C10-C16) F3 (C16-C34)	mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.10 0.25 0.25	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010 0.00050 0.10 0.25 0.32	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010 0.00050 0.00050 0.10 0.25 0.25	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010 0.00050 0.00050 0.10 0.1	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010 0.00050 0.10 0.12 2.23	7.50 14.1 0.0119 11.9 18.0 7.08 / / / 0.10 0.10 0.53	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027 0.00050 0.00050 0.10 1.74 27.1	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001 0.0005 0.0005 0.1 0.1	262 0.251 252 507 7.7 0.0005 0.0027 0.0005 0.0005 0.1 1.74 27.1	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012 0.0005 0.10 0.43 5.12
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene 0-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.020 0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.10 0.25	24.4 53.4 0.166 160	164 0.0134 21.7 <5.0 7.70 0.00050 0.0010 0.00050 0.00050 0.10 0.25	65.2 262 0.0061 25.7 5.0 7.18 0.00050 0.0010 0.00050 0.00050 0.10 0.25	3.84 26.7 0.0342 14.1 255 6.90 0.00050 0.0010 0.00050 0.100050	13.7 38.0 0.251 252 507 7.53 0.00050 0.00010 0.00050 0.10 0.12	7.50 14.1 0.0119 11.9 18.0 7.08 / / / 0.10 0.10	18.7 50.4 0.202 126 113 7.22 0.00050 0.0027 0.00050 0.00050 0.10 1.74	59.3 0.0030 8.24 15.0	14.1 0.003 8.24 5 6.9 0.0005 0.0001 0.0005 0.0005 0.1	262 0.251 252 507 7.7 0.0005 0.0027 0.0005 0.0005 0.1 1.74	83.49 0.09 77.46 149.29 7.23 0.0005 0.0012 0.0005 0.10 0.43

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Chesterfield Inlet CHE-3

CHE-3			20	014		2015		2016			2017			Statistics		
Parameter	Unit	DL		19-Aug-14	22-Jun-15		18-Aug-15	06-Jul-16	11-Aug-16	09-Sep-16	13-Jun-17		16-Aug-17	Min	Max	Average
Alkalinity				Ü			Ü		Ü				Ü			Ü
Bicarbonate (HCO3)	mg/L	1.2	457	48	139	442	416	399	389	435	28.4	114	250	28.4	457	283.40
Carbonate (CO3)	mg/L	0.60	12	12	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.6	12	2.67
Hydroxide (OH)	mg/L	0.34	6.8	6.8	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	6.8	1.51
Total (as CaCO3)	mg/L	1.0	375	39	114	363	341	327	319	356	23.3	93.7	205	23.3	375	232.36
Ammonia by Colour																
Total (as N)	mg/L	0.20	88.0	0.010	0.051	74.4	69.9	68.9	74.4	68.8	1.71	0.024	19.1	0.01	88	42.30
Biochemical Oxygen Demand (BOD)																
Biochemical Oxygen Demand	mg/L	6.0	287	6.0	2.0	306	260	250	300	57	7.8	3.1	10.8	2	306	135.43
Carbonaceous BOD																
BOD Carbonaceous	mg/L	6.0	269	6.0	2.9	302	253	270	283	40	5.8	2.3	5.0	2.3	302	130.82
Chloride in Water by IC																
Chloride (Cl)	mg/L	10	72.4	30.8	96.4	63.5	71.9	71.1	57.5	60.2	8.44	107	54.6	8.44	107	63.08
Conductivity																
Conductivity	umhos/cm	1.0	1130	219	1450	990	955	1010	973	989	83.2	866	568	83.2	1450	839.38
Fecal Coliforms																
Fecal Coliforms	MPN/100mL	3	110000	3	3	110000	110000	110000	110000	110000	10	1660	610	3	110000	60207.82
Hardness Calculated																
Hardness (as CaCO3)	mg/L	0.30	46.0	37.9	674	44.8	57.7	47.2	57.5	52.1	17.7	246	118	17.7	674	127.17
Mercury Total																
Mercury (Hg)	mg/L	0.00020	0.00020	0.000020	0.000020	0.00040	0.00040	0.00040	0.00040	0.00020	0.0000063	0.0000050	0.0000050	0.000005	0.0004	0.0002
Nitrate in Water by IC																
Nitrate (as N)	mg/L	0.40	0.050	0.050	0.277	0.020	0.020	0.040	0.040	0.040	0.333	0.040	0.020	0.02	0.333	0.08
Nitrate + Nitrite																
Nitrate and Nitrite as N	mg/L	0.45	0.071	0.071	0.277	0.070	0.070	0.070	0.070	0.070	0.366	0.070	0.070	0.07	0.366	0.12
Nitrite in Water by IC																
Nitrite (as N)	mg/L	0.20	0.050	0.050	0.010	0.010	0.025	0.020	0.020	0.020	0.033	0.020	0.010	0.01	0.05	0.02
Oil & Grease - Gravimetric																
Oil and Grease	mg/L	5.0	50.3	2.0	2.0	60.7	473	62.4	61.0	55.9	5.0	5.0	5.0	2	473	71.12
Phenol																
Phenols	mg/L	0.0010	0.124	0.0010	0.0019	0.0048	0.152	0.0015	0.329	0.085	0.0043	0.0010	0.0010	0.001	0.329	0.06
Phosphorus, Total																
Phosphorus (P)	mg/L	0.010	13.2	0.012	0.055	11.6	10.6	11.8	11.9	11.4	0.477	0.186	4.54	0.012	13.2	6.89
Sulfate in Water by IC																
Sulfate (SO4)	mg/L	6.0	21.2	12.8	543	12.8	11.6	10.3	24.6	19.5	3.28	198	5.80	3.28	543	78.44
Total Metals by ICP-MS																
Aluminium (Al)	mg/L	0.0050	0.547	0.0888	0.0262	0.552	1.00	0.517	0.953	0.470	0.179	0.0150	0.0325	0.015	1	0.40
Arsenic (As)	mg/L	0.00020	0.00100	0.00024	0.00096	0.00059	0.00096	0.00057	0.00109	0.00092	0.00087	0.00083	0.00088	0.00024	0.00109	0.0008
Cadmium (Cd)	mg/L	0.000010	0.000256	0.000010	0.000199	0.000222	0.000370	0.000190	0.000452	0.000185	0.000024	0.0000334	0.0000050	0.000005	0.000452	0.0002
Calcium (Ca)	mg/L	0.10	10.7	9.59	237	11.1	14.7	11.9	14.1	12.8	5.19	74.0	35.3	5.19	237	39.67
Chromium (Cr)	mg/L	0.0010	0.0018	0.0010	0.0010	0.0016	0.0028	0.0016	0.0027	0.0017	0.0010	0.00029	0.00041	0.00029	0.0028	0.0014
Cobalt (Co)	mg/L	0.00020	0.00071	0.00020	0.00073	0.00063	0.00096	0.00063	0.00095	0.00068	0.00031	0.00084	0.00039	0.0002	0.00096	0.00064
Copper (Cu)	mg/L	0.00020	0.138	0.00882	0.0100	0.114	0.221	0.124	0.182	0.157	0.0116	0.00242	0.00134	0.00134	0.221	0.09
Iron (Fe)	mg/L	0.010	0.94	0.10	0.10	0.79	1.61	1.13	1.75	1.11	0.310	0.739	1.44	0.1	1.75	0.91
Lead (Pb)	mg/L	0.000090	0.00387	0.000097	0.000536	0.00234	0.0206	0.00267	0.00383	0.00224	0.000694	0.000142	0.000073	0.000073	0.0206	0.0034
Magnesium (Mg)	mg/L	0.010	4.66	3.39	20.2	4.17	5.07	4.25	5.40	4.92	1.15	14.7	7.19	1.15	20.2	6.83
Manganese (Mn)	mg/L	0.00030	0.0473	0.00210	0.0733	0.0398	0.0609	0.0475	0.0709	0.0541	0.0290	0.116	0.171	0.0021	0.171	0.065
Nickel (Ni)	mg/L	0.0020	0.0046	0.0025	0.0040	0.0034	0.0053	0.0039	0.0053	0.0041	0.0020	0.00385	0.00358	0.002	0.0053	0.0039
Potassium (K)	mg/L	0.020	30.6	3.29	23.0	23.3	25.6	25.7	33.1	26.5	2.68	12.0	14.9	2.68	33.1	20.06
Sodium (Na)	mg/L	0.030	54.6	24.3	72.3	50.7	52.5	56.7	61.4	50.3	4.85	90.9	50.6	4.85	90.9	51.74
Zinc (Zn)	mg/L	0.0020	0.230	0.0020	0.0401	0.206	0.304	0.173	0.254	0.203	0.0670	0.0151	0.0058	0.002	0.304	0.14
Total Organic Carbon	ma/1	0.50	122	E 6	17.2	142	124	212	200	167	6.52	15.2	22.2	E 6	212	06.00
Total Organic Carbon Total Suspended Solids	mg/L	0.50	133	5.6	17.3	143	124	212	209	167	6.53	15.3	23.3	5.6	212	96.00
Total Suspended Solids Total Suspended Solids	ma/!	12	00.0	F.0	F.C	100	440	130	288	100	12	17.0	11.0	F	440	100.01
	mg/L	13	90.0	5.0	5.0	100	440	130	288	100	12	17.0	11.0	5	440	108.91
pH	nH Hnite	0.10	7 01	7.51	7.01	7.52	6.01	7.05	7.10	7.04	7.05	7.15	7.45	6.01	7.04	7 47
pH Poprano	pH Units	0.10	7.81	7.51	7.81	7.53	6.91	7.85	7.18	7.94	7.05 0.0005	7.15	7.45	6.91	7.94 0.0005	7.47 0.0005
Benzene	mg/L	0.00050	/	/	/	/	1	1	/	1	0.0005	1	1	0.0005		
Toluene Ethyl Ponzono	mg/L	0.0010 0.00050	/	/	/	/	1	1	/	1		1	1	0.0141 0.0005	0.0141 0.0005	0.01 0.0005
Ethyl Benzene	mg/L	0.00050	/	/	1	/	1	1	1	1	0.0005 0.0005	1	1	0.0005	0.0005	0.0005
o-Xylene F1 (C6-C10)	mg/L		/	/	/	/	1	1	/	1		1	1			
	mg/L	0.10 0.25	/	/	/	/	1	1	1	1	0.1	1	1	0.1	0.1	0.10 0.10
F2 (C10-C16)	mg/L	0.25	/	/	1	/	1	1	1	1	0.1	/	/	0.1 0.25	0.1	0.10
F3 (C16-C34)	mg/L		/	/	/	/	1	1	/	1		1	1		0.25	
F4 (C34-C50)	mg/L	0.25	/	/	/	/	1	1	/	1	0.25 0.38	1	1	0.25		0.25
Total Hydrocarbons (C6-C50)	mg/L	0.44	/	/	1	1	1	1	/	1	0.38		1	0.38	0.38	0.38

Chesterfield Inlet CHE-3A

CILE SA	2016				2017		Statistics			
Parameter	Unit	DL	09-Sep-16	13-Jun-17	31-Jul-17	16-Aug-17	Min	Max	Average	
Alkalinity										
Bicarbonate (HCO3)	mg/L	1.2	439	32.9	143	315	32.9	439	232.475	
Carbonate (CO3)	mg/L	0.60	0.60	0.60	0.60	0.60	0.6	0.6	0.6	
Hydroxide (OH)	mg/L	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	
Total (as CaCO3)	mg/L	1.0	360	27.0	117	259	27	360	190.75	
Ammonia by Colour										
Total (as N)	mg/L	0.20	75.4	3.69	0.034	43.3	0.034	75.4	30.606	
Biochemical Oxygen Demand (BOD)										
Biochemical Oxygen Demand	mg/L	6.0	83	4.4	29.1	133	4.4	133	62.375	
Carbonaceous BOD	/I	6.0	40	2.4	12.4	124	2.4	124	44.05	
BOD Carbonaceous	mg/L	6.0	40	3.4	12.4	124	3.4	124	44.95	
Chloride in Water by IC	/	4.0	60.4	40.0	45.4	77.6	40.0	77.6	40.55	
Chloride (CI)	mg/L	10	60.4	10.8	45.4	77.6	10.8	77.6	48.55	
Conductivity		4.0	1000	00.7	104	70.6	00.7	4000	F76 40F	
Conductivity	umhos/cm	1.0	1000	98.7	421	786	98.7	1000	576.425	
Fecal Coliforms	1 4 D 1 / 4 O 0		440000	2.4200	2.450	24200	2450	440000	40.460.5	
Fecal Coliforms	MPN/100mL	3	110000	24200	3450	24200	3450	110000	40462.5	
Hardness Calculated										
Hardness (as CaCO3)	mg/L	0.30	53.6	16.1	86.5	98.6	16.1	98.6	63.7	
Mercury Total		0.00000	0.00000	0.000000	0.000	0.00000	0.05.55	0.0000	7.45.55	
Mercury (Hg)	mg/L	0.00020	0.00020	0.0000088	0.0000250	0.000050	8.8E-06	0.0002	7.1E-05	
Nitrate in Water by IC										
Nitrate (as N)	mg/L	0.40	0.040	0.021	0.606	0.020	0.02	0.606	0.17175	
Nitrate + Nitrite										
Nitrate and Nitrite as N	mg/L	0.45	0.070	0.070	0.709	0.070	0.07	0.709	0.22975	
Nitrite in Water by IC									,	
Nitrite (as N)	mg/L	0.20	0.020	0.010	0.103	0.010	0.01	0.103	0.03575	
Oil & Grease - Gravimetric									,	
Oil and Grease	mg/L	5.0	56.4	5.0	5.0	44.9	5	56.4	27.825	
Phenol										
Phenols	mg/L	0.0010	0.226	0.0066	0.0010	0.213	0.001	0.226	0.11165	
Phosphorus, Total										
Phosphorus (P)	mg/L	0.010	12.8	0.491	1.84	8.56	0.491	12.8	5.92275	
Sulfate in Water by IC										
Sulfate (SO4)	mg/L	6.0	19.0	1.86	27.4	12.2	1.86	27.4	15.115	
Total Metals by ICP-MS										
Aluminium (Al)	mg/L	0.0050	0.497	0.500	0.0348	0.558	0.0348	0.558	0.39745	
Arsenic (As)	mg/L	0.00020	0.00085	0.00028	0.00087	0.00120	0.00028	0.0012	0.0008	
Cadmium (Cd)	mg/L	0.000010	0.000196	0.000031	0.0000233	0.000198	2.33E-05	0.000198	0.000112	
Calcium (Ca)	mg/L	0.10	13.0	4.11	26.5	26.5	4.11	26.5	17.5275	
Chromium (Cr)	mg/L	0.0010	0.0015	0.0010	0.00034	0.00198	0.00034	0.00198	0.001205	
Cobalt (Co)	mg/L	0.00020	0.00070	0.00070	0.00046	0.00122	0.00046	0.00122	0.00077	
Copper (Cu)	mg/L	0.00020	0.158	0.00821	0.00741	0.0933	0.00741	0.158	0.06673	
Iron (Fe)	mg/L	0.010	1.07	0.500	1.46	16.1	0.5	16.1	4.7825	
Lead (Pb)	mg/L	0.000090	0.00230	0.000889	0.000416	0.00305	0.000416	0.00305	0.001664	
Magnesium (Mg)	mg/L	0.010	5.13	1.41	4.96	7.85	1.41	7.85	4.8375	
Manganese (Mn)	mg/L	0.00030	0.0534	0.0289	0.112	0.124	0.0289	0.124	0.079575	
Nickel (Ni)	mg/L	0.0020	0.0040	0.0020	0.00358	0.00681	0.002	0.00681	0.004098	
Potassium (K)								26.3	14.915	
	mg/L	0.020	26.3	2.62	9.54	21.2	2.62	20.3	14.515	
Sodium (Na)	_	0.020 0.030	26.3 50.5	2.62 6.60	9.54 36.8	21.2 64.3	6.6	64.3	39.55	
Sodium (Na) Zinc (Zn)	mg/L									
	mg/L mg/L	0.030	50.5	6.60	36.8	64.3	6.6	64.3	39.55	
Zinc (Zn)	mg/L mg/L mg/L	0.030	50.5	6.60	36.8 0.0152	64.3 0.163	6.6 0.0106	64.3	39.55	
Zinc (Zn) Total Organic Carbon by Combustion	mg/L mg/L	0.030 0.0020	50.5 0.207	6.60 0.0106	36.8	64.3	6.6	64.3 0.207	39.55 0.09895	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon	mg/L mg/L mg/L mg/L	0.030 0.0020	50.5 0.207	6.60 0.0106	36.8 0.0152	64.3 0.163	6.6 0.0106 3.86	64.3 0.207	39.55 0.09895	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids	mg/L mg/L mg/L	0.030 0.0020 0.50	50.5 0.207 178	6.60 0.0106 3.86	36.8 0.0152 25.8	64.3 0.163 133	6.6 0.0106	64.3 0.207 178	39.55 0.09895 85.165	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH	mg/L mg/L mg/L mg/L mg/L	0.030 0.0020 0.50	50.5 0.207 178 115	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23	64.3 0.207 178 120	39.55 0.09895 85.165	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH	mg/L mg/L mg/L mg/L mg/L mg/L pH Units	0.030 0.0020 0.50 13	50.5 0.207 178	6.60 0.0106 3.86	36.8 0.0152 25.8	64.3 0.163 133	6.6 0.0106 3.86 23 7.03	64.3 0.207 178 120 7.92	39.55 0.09895 85.165 78.5 7.3875	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene	mg/L mg/L mg/L mg/L mg/L pH Units mg/L	0.030 0.0020 0.50 13 0.10 0.00050	50.5 0.207 178 115 7.92	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0	64.3 0.207 178 120 7.92 0	39.55 0.09895 85.165 78.5 7.3875 0	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene	mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L	0.030 0.0020 0.50 13 0.10 0.00050 0.0010	50.5 0.207 178 115 7.92	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0	64.3 0.207 178 120 7.92 0	39.55 0.09895 85.165 78.5 7.3875 0	
Zinc (Zn) Total Organic Carbon by Combustion 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 pH Units mg/L mg/L mg/L	0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050	50.5 0.207 178 115 7.92	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0 0	64.3 0.207 178 120 7.92 0 0	39.55 0.09895 85.165 78.5 7.3875 0 0	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids pH pH Benzene Toluene Ethyl Benzene 0-Xylene	mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L	0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050	50.5 0.207 178 115 7.92	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0 0	64.3 0.207 178 120 7.92 0 0 0	39.55 0.09895 85.165 78.5 7.3875 0 0	
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)	mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L	0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10	50.5 0.207 178 115 7.92 / / /	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0 0 0	64.3 0.207 178 120 7.92 0 0 0 0	39.55 0.09895 85.165 78.5 7.3875 0 0 0	
Zinc (Zn) Total Organic Carbon by Combustion Total Organic Carbon Total Suspended Solids Total Suspended Solids PH pH Benzene Toluene Ethyl Benzene 0-Xylene F1 (C6-C10) F2 (C10-C16)	mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10 0.25	50.5 0.207 178 115 7.92	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0 0 0 0	64.3 0.207 178 120 7.92 0 0 0 0 0	39.55 0.09895 85.165 78.5 7.3875 0 0 0 0	
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)	mg/L mg/L mg/L mg/L mg/L pH Units mg/L mg/L mg/L mg/L mg/L	0.030 0.0020 0.50 13 0.10 0.00050 0.0010 0.00050 0.00050 0.10	50.5 0.207 178 115 7.92 / / /	6.60 0.0106 3.86 23.0	36.8 0.0152 25.8 56	64.3 0.163 133 120	6.6 0.0106 3.86 23 7.03 0 0 0	64.3 0.207 178 120 7.92 0 0 0 0	39.55 0.09895 85.165 78.5 7.3875 0 0 0	

Chesterfield Inlet CHE-4

CHE-4		2014			2015			2016)17				
Parameter	Unit	DL		19-Aug-14	22-Jun-15		18-Aug-15	06-Jul-16	11-Aug-16	09-Sep-16	31-Jul-17	16-Aug-17	Min	Statistics Max	Average
Alkalinity												0			
Bicarbonate (HCO3)	mg/L	1.2	61	375	33.4	69.4	74.7	73.0	96.1	109	111	333	33.4	375	133.56
Carbonate (CO3)	mg/L	0.60	12	12	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.6	12	2.88
Hydroxide (OH)	mg/L	0.34	6.8	6.8	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	6.8	1.632
Total (as CaCO3)	mg/L	1.0	50	307	27.4	56.9	61.2	59.8	78.8	89.3	90.8	273	27.4	307	109.42
Ammonia by Colour															
Total (as N)	mg/L	0.20	0.026	66.7	0.053	0.117	0.010	0.036	0.022	0.010	0.011	48.2	0.01	66.7	11.5185
Biochemical Oxygen Demand (BOD)															
Biochemical Oxygen Demand	mg/L	6.0	6.0	336	2.0	2.0	2.0	2.0	2.0	2.0	2.0	530	2	530	88.6
Carbonaceous BOD				2.12											
BOD Carbonaceous	mg/L	6.0	6.0	310	2.0	2.0	2.0	2.0	2.0	2.5	2.0	450	2	450	78.05
Chloride in Water by IC		40	45.2	70.0	47.2	20.2	25.6	44.0	F7.0	FF 0	72.0	74.0	47.0	7.4	40.00
Chloride (CI)	mg/L	10	45.2	70.0	17.3	29.3	35.6	41.9	57.9	55.8	72.8	74.0	17.3	74	49.98
Conductivity Conductivity	umbas/sm	1.0	278	988	130	225	259	277	469	458	533	791	130	988	440.8
Fecal Coliforms	umhos/cm	1.0	2/0	900	130	225	259	211	409	436	333	791	130	900	440.8
Fecal Colliforms	MPN/100mL	3	7	110000	4	3	3	3	4	3	10	24200	3	110000	13423.7
Hardness Calculated	IVII IV/ TOOTILE	3		110000	4	<u> </u>	J	- 3	7	3	10	24200	J	110000	13743.7
Hardness (as CaCO3)	mg/L	0.30	46.8	44.2	24.1	47.9	61.8	56.7	119	114	149	95.4	24.1	149	75.89
Mercury Total	6/ -	0.50	.5.0	. 1.2	_ 1.1	.,.5	01.0	33.7	-10		- 13	33.4		273	, 3.03
Mercury (Hg)	mg/L	0.00020	0.000020	0.00020	0.000020	0.000020	0.00020	0.000020	0.000020	0.000020	0.0000050	0.0000250	0.000005	0.0002	0.000055
Nitrate in Water by IC															
Nitrate (as N)	mg/L	0.40	0.050	0.050	0.566	0.020	0.020	0.089	0.020	0.020	0.020	0.040	0.02	0.566	0.0895
Nitrate + Nitrite															
Nitrate and Nitrite as N	mg/L	0.45	0.071	0.071	0.579	0.070	0.070	0.089	0.070	0.070	0.070	0.070	0.07	0.579	0.123
Nitrite in Water by IC															
Nitrite (as N)	mg/L	0.20	0.050	0.050	0.012	0.010	0.010	0.010	0.010	0.010	0.010	0.020	0.01	0.05	0.0192
Oil & Grease - Gravimetric															
Oil and Grease	mg/L	5.0	2.0	65.6	2.0	2.0	2.0	5.0	5.0	5.0	5.0	106	2	106	19.96
Phenol															
Phenols	mg/L	0.0010	0.0010	0.125	0.0010	0.0017	0.0010	0.0010	0.0017	0.0018	0.0010	0.107	0.001	0.125	0.02422
Phosphorus, Total															
Phosphorus (P)	mg/L	0.010	0.026	10.8	0.040	0.012	0.017	0.044	0.022	0.012	0.019	6.28	0.012	10.8	1.7272
Sulfate in Water by IC	/	6.0	40.0	45.0	6.00	0.60	40.0	0.54	57.0	50.0	50.5	F 60	F. CO.	60.6	05.54
Sulfate (SO4)	mg/L	6.0	13.3	15.9	6.08	9.63	18.0	9.51	57.2	50.2	69.6	5.68	5.68	69.6	25.51
Total Metals by ICP-MS Aluminium (AI)	ma/l	0.0050	0.0329	0.821	0.0250	0.0338	0.0607	0.0229	0.0092	0.0101	0.0067	0.389	0.0067	0.821	0.14113
Arsenic (As)	mg/L mg/L	0.0030	0.0329	0.00080	0.0028	0.00043	0.0007	0.00229	0.0092	0.0101	0.0067	0.389	0.00023	0.821	0.14113
Cadmium (Cd)	mg/L	0.00020	0.000042	0.000317	0.00028	0.00043	0.00038	0.00040	0.00023	0.00023	0.00024	0.00127	0.00023	0.00127	5.99E-05
Calcium (Ca)	mg/L	0.10	12.2	10.4	6.33	12.9	16.7	15.3	34.4	30.9	42.8	25.5	6.33	42.8	20.743
Chromium (Cr)	mg/L	0.0010	0.0010	0.0029	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.00024	0.00169	0.00024	0.0029	0.001183
Cobalt (Co)	mg/L	0.00020	0.00020	0.0023	0.0010	0.00032	0.0010	0.0010	0.0010	0.0010	0.00024	0.00103	0.00024	0.0023	0.000188
Copper (Cu)	mg/L	0.00020	0.00722	0.142	0.00741	0.00659	0.00583	0.00679	0.00034	0.00027	0.00024	0.0656	0.0002	0.142	0.024552
Iron (Fe)	mg/L	0.010	0.12	1.45	0.10	0.11	0.28	0.076	0.277	0.059	0.106	9.38	0.059	9.38	1.1958
Lead (Pb)	mg/L	0.000090		0.00807		0.000090	0.000152	0.000090	0.000090	0.000090	0.000102	0.00231	0.00009	0.00807	0.001117
Magnesium (Mg)	mg/L	0.010	3.95	4.46	2.03	3.82	4.90	4.48	8.09	8.89	10.2	7.73	2.03	10.2	5.855
Manganese (Mn)	mg/L	0.00030	0.00284	0.0554	0.00030	0.00259	0.00305	0.00126	0.00200	0.00867	0.00138	0.198	0.0003	0.198	0.027549
Nickel (Ni)	mg/L	0.0020	0.0030	0.0055	0.0021	0.0034	0.0032	0.0042	0.0027	0.0021	0.00236	0.00648	0.0021	0.00648	0.003504
Potassium (K)	mg/L	0.020	3.04	21.9	4.95	1.84	3.23	5.31	4.54	6.98	5.90	20.7	1.84	21.9	7.839
Sodium (Na)	mg/L	0.030	32.3	51.0	15.1	26.8	31.2	32.9	47.7	41.6	48.1	62.7	15.1	62.7	38.94
Zinc (Zn)	mg/L	0.0020	0.0023	0.241	0.0020	0.0020	0.0026	0.0068	0.0028	0.0032	0.0030	0.102	0.002	0.241	0.03677
Total Organic Carbon by Combustion													-		
Total Organic Carbon	mg/L	0.50	13.5	165	8.7	12.2	9.9	12.9	9.96	10.7	8.38	145	8.38	165	39.624
Total Suspended Solids													_		6= /
Total Suspended Solids	mg/L	13	5.0	146	5.0	5.0	5.0	5.0	5.0	5.0	6.0	167	5	167	35.4
pH	mld limite	0.10	7.72	7.24	7.24	7.41	7.20	7.72	7.43	0.03	7.50	7.10	7.10	0.00	7.407
pH Ponzono	pH Units	0.10	7.73	7.34	7.21	7.41	7.36	7.73	7.42	8.03	7.56	7.18	7.18	8.03	7.497
Benzene	mg/L	0.00050	/	/	/	/	1	0.0005 0.001	1	1	/	1	0.0005	0.0005	0.0005
Toluene	mg/L	0.0010	1	1	/	/	1	0.001	1	1	/	1	0.001 0.0005	0.001 0.0005	0.001 0.0005
Ethyl Benzene o-Xylene	mg/L mg/L	0.00050	/	/	/	/	1	0.0005	1	1	1	1	0.0005	0.0005	0.0005
F1 (C6-C10)	mg/L	0.00030	/	/	/	/	1	0.0003	1	/	1	1	0.0003	0.0003	0.0003
F2 (C10-C16)	mg/L	0.10	/	1	/	/	1	0.1	1	1	1	1	0.1	0.1	0.1
F3 (C16-C34)	mg/L	0.25	/	1	/	/	1	0.1	/	/	1	1	0.25	0.1	0.1
F4 (C34-C50)	mg/L	0.25	/	1	/	/	1	0.25	/	/	1	1	0.25	0.25	0.25
Total Hydrocarbons (C6-C50)	mg/L	0.23	/	/	/	/	/	0.23	/	/	1	1	0.23	0.23	0.23
, 4 004. 201.3 (00 030)	6/ -	5						3.00					2.55	, 5.50	3.55

