



Nunavut - Community & Government Services
- Rankin Inlet
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Date Received: 17-JUL-13
Report Date: 22-JUL-13 15:49 (MT)
Version: FINAL

Client Phone: 867-645-8172

Certificate of Analysis

Lab Work Order #: L1333818
Project P.O. #: NOT SUBMITTED
Job Reference: RANKIN INLET
C of C Numbers:
Legal Site Desc:

Craig Riddell
Account Manager

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ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1333818-1 RANKIN INLET PUMPHOUSE - OLD TOWN Sampled By: CLIENT on 16-JUL-13 @ 10:30 Matrix: WATER								
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli		0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-2 RANKIN INLET PUMPHOUSE - NEW TOWN Sampled By: CLIENT on 16-JUL-13 @ 10:30 Matrix: WATER								
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli		0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-3 RANKIN INLET PUMPHOUSE - KIVALLIQ Sampled By: CLIENT on 16-JUL-13 @ 10:30 Matrix: WATER								
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli		0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-4 RANKIN INLET PUMPHOUSE - AREAS Sampled By: CLIENT on 16-JUL-13 @ 10:30 Matrix: WATER								
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli		0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-5 RANKIN INLET PUMPHOUSE - NUVIK Sampled By: CLIENT on 16-JUL-13 @ 10:30 Matrix: WATER								
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli		0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-6 RANKIN INLET PUMPHOUSE - TOWN SUPPLY Sampled By: CLIENT on 16-JUL-13 @ 10:30 Matrix: WATER								
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli		0		0	MPN/100mL		17-JUL-13	R2652199

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

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
TC,EC-QT51-WP	Water	Total Coliform and E.coli	APHA 9223
The analysis of Total Coliform (TC) & Escherichia coli (EC) is processed by Quanti-tray (QT): Two substrates, ONPG for TC detection and MUG for EC detection are used. The substrates are added to the 100 ml sample dispensed into the 51 well tray. The tray is incubated at 35 Celcius for 24 hours. A colour reaction develops to indicate a positive reaction (presence of TC, EC). The number of positive wells are counted and converted to Most Probable Number Units (MPNU) per 100 ml. This test is also called 'rapid MPN method', therefore, the MPN results are derived from a statistical table with a 95% confidence and report as MPN units. The QT detection limit for a negative result is reported as zero.			
TC,EC-QT51-WP	Water	Total Coliform and E.coli	APHA 9223 QT
The analysis of Total Coliform (TC) & Escherichia coli (EC) is processed by Quanti-tray (QT): Two substrates, ONPG for TC detection and MUG for EC detection are used. The substrates are added to the 100 ml sample dispensed into the 51 well tray. The tray is incubated at 35 Celcius for 24 hours. A colour reaction develops to indicate a positive reaction (presence of TC, EC). The number of positive wells are counted and converted to Most Probable Number Units (MPNU) per 100 ml. This test is also called 'rapid MPN method', therefore, the MPN results are derived from a statistical table with a 95% confidence and report as MPN units. The QT detection limit for a negative result is reported as zero.			

** 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

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.

The above results relate only to the sample tested. This water sample was only tested for the presence of both Total Coliform and *E. coli* bacterial indicators of contamination by using membrane filtration.