



Nunavut - Community & Government Services
- Rankin Inlet
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Rankin Inlet NU X0C 0G0

Date Received: 13-DEC-13
Report Date: 16-DEC-13 15:19 (MT)
Version: FINAL

Client Phone: 867-645-8172

Certificate of Analysis

Lab Work Order #: L1403270
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:



Chantal Bouchard
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
L1403270-1 RANKIN INLET - TOWN SUPPLY Sampled By: CLIENT on 09-DEC-13 @ 09:00 Matrix: WATER Total Coliform, E. Coli and HPC Heterotrophic Plate Count Heterotrophic Plate Count Total Coliform and E.coli Total Coliforms Escherichia Coli	 <10 0 0		 10 0 0	 CFU/mL MPN/100mL MPN/100mL	 13-DEC-13 13-DEC-13 13-DEC-13	 16-DEC-13 13-DEC-13 13-DEC-13	 R2760602 R2760214 R2760214
L1403270-2 RANKIN INLET - OLD TOWN Sampled By: CLIENT on 09-DEC-13 @ 09:00 Matrix: WATER Total Coliform, E. Coli and HPC Heterotrophic Plate Count Heterotrophic Plate Count Total Coliform and E.coli Total Coliforms Escherichia Coli	 <10 0 0		 10 0 0	 CFU/mL MPN/100mL MPN/100mL	 13-DEC-13 13-DEC-13 13-DEC-13	 16-DEC-13 13-DEC-13 13-DEC-13	 R2760602 R2760214 R2760214
L1403270-3 RANKIN INLET - NEW TOWN Sampled By: CLIENT on 09-DEC-13 @ 09:00 Matrix: WATER Total Coliform, E. Coli and HPC Heterotrophic Plate Count Heterotrophic Plate Count Total Coliform and E.coli Total Coliforms Escherichia Coli	 <10 0 0		 10 0 0	 CFU/mL MPN/100mL MPN/100mL	 13-DEC-13 13-DEC-13 13-DEC-13	 16-DEC-13 13-DEC-13 13-DEC-13	 R2760602 R2760214 R2760214
L1403270-4 RANKIN INLET - NUVUK Sampled By: CLIENT on 09-DEC-13 @ 09:00 Matrix: WATER Total Coliform, E. Coli and HPC Heterotrophic Plate Count Heterotrophic Plate Count Total Coliform and E.coli Total Coliforms Escherichia Coli	 <10 0 0		 10 0 0	 CFU/mL MPN/100mL MPN/100mL	 13-DEC-13 13-DEC-13 13-DEC-13	 16-DEC-13 13-DEC-13 13-DEC-13	 R2760602 R2760214 R2760214
L1403270-5 RANKIN INLET - AREA 5 Sampled By: CLIENT on 09-DEC-13 @ 09:00 Matrix: WATER Total Coliform, E. Coli and HPC Heterotrophic Plate Count Heterotrophic Plate Count Total Coliform and E.coli Total Coliforms Escherichia Coli	 <10 0 0		 10 0 0	 CFU/mL MPN/100mL MPN/100mL	 13-DEC-13 13-DEC-13 13-DEC-13	 16-DEC-13 13-DEC-13 13-DEC-13	 R2760602 R2760214 R2760214
L1403270-6 RANKIN INLET - KILLAVIQ Sampled By: CLIENT on 09-DEC-13 @ 09:00 Matrix: WATER Total Coliform, E. Coli and HPC							

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

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1403270-6	RANKIN INLET - KILLAVIQ							
Sampled By:	CLIENT on 09-DEC-13 @ 09:00							
Matrix:	WATER							
Heterotrophic Plate Count	Heterotrophic Plate Count	<10		10	CFU/mL	13-DEC-13	16-DEC-13	R2760602
Total Coliform and E.coli								
Total Coliforms		0		0	MPN/100mL		13-DEC-13	R2760214
Escherichia Coli		0		0	MPN/100mL		13-DEC-13	R2760214

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

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
HPC-PP-WP	Water	Heterotrophic Plate Count	APHA 9215B, 2005
This is a procedure for estimating the number of live heterotrophic bacteria in water and measuring changes during water treatment and distribution or in swimming pools. In the pour plate method, samples are diluted and plated on to media. After incubation, the colonies are counted and reported as CFU/mL.			
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.



COC #

Page of

L1403270-COFC

Report To			Re			Service Requested (Rush for routine analysis subject to availability)										
Company: Community and Government Services (W8133)			<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Other			<input checked="" type="radio"/> Regular (Standard Turnaround Times - Business Days)										
Contact: BLAINE CHISLETT			<input checked="" type="checkbox"/> PDF <input type="checkbox"/> Excel <input type="checkbox"/> Digital <input checked="" type="checkbox"/> Fax			<input type="radio"/> Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT										
Address: Box 490 Rankin Inlet, NU, X0C 0G0			Email 1: bchislett@gov.nu.ca			<input type="radio"/> Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT										
Phone: (867) 645-8172 Fax: (867) 645-8190			Email 2:			<input type="radio"/> Same Day or Weekend Emergency - Contact ALS to Confirm TAT										
Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Client / Project Information			Analysis Request										
Hardcopy of Invoice with Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Job #:			Please indicate below Filtered, Preserved or both (F, P, F/P)										
Company: (W8133)			PO / AFE:													
Contact:			LSD:													
Address:																
Phone:			Quote #:													
Lab Work Order # (lab use only)			ALS Contact: Paul Nicolas		Sampler:											
Sample #	Sample Identification (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Number of Containers										
1	Town Supply Rankin Inlet		9/12/13	9:00 am												
2	Old Town		{	{												
3	New Town															
4	Nauyasuk															
5	AREAS															
6	Kissellig		9/12/13	9:00 am												
Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details																
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.																
By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.																
Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.																
SHIPMENT RELEASE (client use)				SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)								
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF						
[Signature]	9/12/13	9:00 am	[Signature]	17 Dec 13	14:55	6 °C										