

Nunavut - Community & Government Services

- Rankin Inlet

ATTN: Simeoni Tatty/Hugh Ikoe

PO Box 490

Rankin Inlet NU X0C 0G0

Date Received: 30-OCT-13

Report Date: 31-OCT-13 14:24 (MT)

Version: FINAL

Client Phone: 867-645-8166

Certificate of Analysis

Lab Work Order #: L1385592

Project P.O. #: NOT SUBMITTED

Job Reference: C of C Numbers: Legal Site Desc:

Chartal Bouchard

Chantal Bouchard Account Manager

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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 A Campbell Brothers Limited Company



ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1385592-1 TRUCK NO. 77							
Sampled By: Mike Fontaine on 29-OCT-13 @ 11:15							
Matrix: Water							
many. Water							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		30-OCT-13	R2729994
Escherichia Coli	0		0	MPN/100mL		30-OCT-13	R2729994
L1385592-2 TRUCK NO. 48							
Sampled By: Mike Fontaine on 29-OCT-13 @ 11:23							
Matrix: Water							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		30-OCT-13	R2729994
Escherichia Coli	0		0	MPN/100mL		30-OCT-13	R2729994
L1385592-3 TRUCK NO. 46							
Sampled By: Mike Fontaine on 29-OCT-13 @ 11:29							
Matrix: Water							
Total Coliform and E.coli Total Coliforms	0		0	MPN/100mL		30-OCT-13	D2720004
Escherichia Coli	0 0		0 0	MPN/100mL		30-OCT-13 30-OCT-13	R2729994 R2729994
L1385592-4 TRUCK NO. 89	<u> </u>			IVII IN/ TOUTIL		30 301-13	112123334
Sampled By: Mike Fontaine on 29-OCT-13 @ 11:27							
Matrix: Water							
iviatrix. vvater							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		30-OCT-13	R2729994
Escherichia Coli	0		0	MPN/100mL		30-OCT-13	R2729994
L1385592-5 RAW WATER							
Sampled By: Mike Fontaine on 29-OCT-13 @ 11:32							
Matrix: Water							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		30-OCT-13	R2729994
Escherichia Coli	0		0	MPN/100mL		30-OCT-13	R2729994
L1385592-6 TRUCK FILL NO. 1							
Sampled By: Mike Fontaine on 29-OCT-13 @ 11:35							
Matrix: Water							
Total California and F. aal'							
Total Coliform and E.coli Total Coliforms	0		0	MPN/100mL		30-OCT-13	R2729994
Escherichia Coli	0		0	MPN/100mL		30-OCT-13	R2729994
L1385592-7 HEALTH CENTRE	-		-				
Sampled By: Mike Fontaine on 29-OCT-13 @ 13:12							
Matrix: Water							
Total Coliform and E.coli	_		_	MDNIII		00.007.15	
Total Coliforms Escherichia Coli	0		0	MPN/100mL MPN/100mL		30-OCT-13 30-OCT-13	R2729994
	0		0	IVIPIN/TUUML		30-001-13	R2729994
L1385592-8 MARTHA T. CENTRE Sampled By: Mike Fontaine on 29-OCT-13 @ 14:10							
Sampled By: Wike Fontaine on 29-OCT-13 (0) 14-1()							
Matrix: Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

L1385592-8 MARTHA T. CENTRE Sampled By: Mike Fontaine on 29-OCT-13 @ 14:10 Matrix: Water Total Coliform and E.coli					
Total Coliforms Escherichia Coli	0 0		MPN/100mL MPN/100mL	30-OCT-13 30-OCT-13	R2729994 R2729994

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

L1385592 CONTD....

PAGE 4 of 4 Version: FINAL

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.



L1385592-COFC

L138559280C#___



Page

Report To	Report Format / Distribution			Service Requested (Rush for routine analysis subject to availability)								
Company: Nunavut Community & Gov't Services (W8133)	✓ Standard Other			Regular (Standard Turnaround Times - Business Days)								
Contact: Simeoni Tatty/Hugh Ikoe	☑ PDF ☐ Excel ☐ Digital ☑ Fax			O Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm					TAT			
Address: PO Box 490	Email 1: statty@gov.nu.ca			O Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT						n TAT		
Rankin Inlet, NU, X0C 0G0	Email 2:		<u> </u>		O Sam	Same Day or Weekend Emergency - Contact ALS to Confirm TAT						
Phone: 867-645-8166 Fax:	Email 3:					Analysis Request						
Invoice To Yes No	Client / Pr	roject Informatio	n		Pleas	e indicat	e below Fi	itered, Pr	eserved	or both	(F, P, F	<u>/P)</u>
Hardcopy of Invoice with Report? ☐ Yes ☐ No	Job #:							<u> </u>	$\perp \perp$		\bot	
Company: (W8133)	PO / AFE:				1	Ì						
Contact:	LSD:				1	1	<u> </u>				!	.,
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Phone:	Quote #:				<u>₹</u>							Number of Containers
Lab Work Order # 70 15	ALS		0	181-5-1-1-] [[]							ြိ
(lab use only)	Contact:		Sampler:	Mike Fontaine	EC-QT51-WP						1 1	ar of
Sample Sample Identification		Date	Time	Comple Took	1 입				1			ag E
(This description will appear on the report)		(dd-mmm-yy)	(hh:mm)	Sample Type	Ľ							Ž
Truck Nº 77		13- 13- 13	11:15									
10 → Nº 48		29-b-13	11:23									
~ ~ Nº46		29-10-13	11:29									
~ ~ N & & d		29-12-13	11:27									
Saw wate		29-10-13	11:32									
Frick Fill Nº 1		29-10-13	11:35									
Health contre		29.10.13										
31 Martha. T. contro		29. W-13	H:10									
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						İ						
Special Instructions / Regulations with water or land	d use (CCM	E-Freshwater A	quatic Life/BC	CSR - Commerc	ial/AB	lier 1 - N	latural, et	c) / Haza	rdous C	etails		
Failure to complete all	portions of	f this form may	delav analysis	Please fill in th	is form	LEGIBL	.Y.					
By the use of this form the user acknowledge.	owledges a	nd agrees with t	he Terms and	Conditions as p	rovided	l on a se	eparate Ex	cel tab.				
Also provided on another Excel tab are the ALS location												
SHIPMENT RELEASE (client use)									ATION:	iab use		
Released by: Date (dd-mmm-yy) Time (hh-mm) Received	by:	Date:	Time:	Temperature:	Verific	ed by:	Dar	te:	Time	5 .		rvations: No ?
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Department : ለ**-** ሲል4 ፡ ላ Okoa Kavamat

Ministère de la



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500 sociaux : Kivalliq

Environmental Heam Officer

Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273 Fax: (867) 645-8274



riological Analysis of Drinking Water nple Collection Information Form

Sample Collection Information

Community from which sample was collecte	1: Baker Lake, Nu			
Location of sample collection				
Date of sample collection				
Time of sample collection				
Name of person who collected sampl	E. K. Mouptassid			
Telephone number of person who collected sampl				
For Labora	cory Use Only			
Date Received:	STY CSC ONLY			
Date Processed:	Processed by			
	Processed by:			
	<u> </u>			
Total Coliform per 100ml:	E. coli per 100ml:			
Date Read:	Read by:			
No Significant Evidence of Bac Sample collected is bacteriologically safe f				
Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible.				
Unsafe to Drink				

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.

Sample collected is unsafe for human consumption as fecal contamination is present.

Unsafe to Drink

Resample as soon as possible.





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Environmental Health Officer

Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273 Fax: (867) 645-8274

Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Sample Concetion Information					
Community from which sample was collected:	Boker Lalle, Nu				
Location of sample collection:	Trucik 46				
Date of sample collection:	29-10-2013				
Time of sample collection:	11:29				
Name of person who collected sample:	R. Movestas 81d				
Telephone number of person who collected sample:	867 793 274+				

For Laboratory Use Only Date Received: Date Processed: Processed by: Results Total Coliform per 100ml: E. coli per 100ml: Date Read: Read by: No Significant Evidence of Bacteriological Contaminatio Sample collected is bacteriologically safe for human consumption. Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible. **Unsafe to Drink** Sample collected is unsafe for human consumption as fecal contamination is present.

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.

Resample as soon as possible.



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Environmental Health Officer Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273

Fax: (867) 645-8274

Bacteriological Analysis of Drinkin **Sample Collection Information I**

Sample Collection Information



Community from which sample was collected: Baker Lake Nu Location of sample collection: Truck 89 Date of sample collection: 29-12-2013 Time of sample collection: U: 27 Name of person who collected sample: bizzota uom. A Telephone number of person who collected sample: 867 7932744 For Laboratory Use Only Date Received: Date Processed: Processed by: Results Total Coliform per 100ml: E. coli per 100ml: Date Read: Read by: No Significant Evidence of Bacteriological Contamination Sample collected is bacteriologically safe for human consumption. Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible. Unsafe to Drink

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.

Resample as soon as possible.

Sample collected is unsafe for human consumption as fecal contamination is present.



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Environmental Health Officer Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273 Fax: (867) 645-8274

Bacteriological Analysis of Drinking ' Sample Collection Information Fo



Sample Collection Information

Sample Conection	ii iiitoi iiiattoii
Community from which sample was collected:	Baken Lake, Ny
Location of sample collection:	Raw Water
Date of sample collection:	29-10-2013
Time of sample collection:	N:32
Name of person who collected sample:	A. Mougtassid
Telephone number of person who collected sample:	867 793 2944

Date Received:

Date Processed:

Processed by:

Results

Total Coliform per 100ml:

Date Read:

Read by:

No Significant Evidence of Bacteriological Contamination Sample collected is bacteriologically safe for human consumption.
Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible.
Unsafe to Drink Sample collected is unsafe for human consumption as fecal contamination is present. Resample as soon as possible.

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.



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Okoa Kav Ministère المال ال

Environmental Health Officer Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273 Fax: (867) 645-8274

Bacteriological Analysis of Drinking Water Sample Collection Information Form



Sample Collection Information

Community from which sample was collected:

Location of sample collection:

Date of sample collection:

Truck 'Fill N * 1

Date of sample collection:

Time of sample collection:

Name of person who collected sample:

Name of person who collected sample:

Telephone number of person who collected sample:

Date Received:

Date Processed:

Processed by:

Results

Total Coliform per 100ml:

Date Read:

Read by:

Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present Resample as soon as possible.				
Unsafe to Drink Sample collected is unsafe for human consumption as fecal contamination is present. Resample as soon as possible.				

No Significant Evidence of Bacteriological Contamination

Sample collected is bacteriologically safe for human consumption.

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.







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L1385592-COFC

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Ministère de la Sante et des Services Sociaux : Kivalliq

Environmental Health Officer

Bag 72, Rankin Inlet, NU, X0C 0G0 Phone: (867) 645-8273 Fax: (867) 645-8274



cteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Sample Conection	i intormation
Community from which sample was collected:	Baken Lake
Location of sample collection:	Health Centre
Date of sample collection:	29-10-13
Time of sample collection:	13:12
Name of person who collected sample:	1. Mougtassid
Telephone number of person who collected sample:	867 7932744

For Laboratory Use Only

Date Received	<u> </u>	
Date Processe	ed:	Processed by:
	Res	ılts
Total Coliforn	n per 100ml:	E. coli per 100ml:
Date Read:		Read by:
	No Significant Evidence of Bacter Sample collected is bacteriologically safe for Significant Evidence of Bacterio Sample collected may be unsafe for human or Resample as soon as possible. Unsafe to Drink	human consumption.
_	Sample collected is unsafe for human consur Resample as soon as possible.	nption as fecal contamination is present.

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.





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Community from which sample was collected:

Resample as soon as possible.

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... ... came et des Services Sociaux : Kivalliq

Environmental Health Officer

Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273 Fax: (867) 645-8274



Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Community from which sample was collected:	Baker Lake
Location of sample collection:	Martha. T. contre
Date of sample collection:	
Time of sample collection:	14;10
Name of person who collected sample:	bissorf unn. A
Telephone number of person who collected sample:	867 7932744
For Laboratory Use Only	
Date Received:	
Date Processed:	Processed by:
Results	
Total Coliform per 100ml:	E. coli per 100ml:
Date Read:	Read by:
ر - ق	
No Significant Evidence of Bacteriological Contamination	
Sample collected is bacteriologically safe for human consumption.	
Simificant Evidence of Bostoviological Contemination	
Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible.	
Unsafe to Drink	
Sample collected is unsafe for human consumption as fecal contamination is present.	

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.



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Phone: (867) 645-8273 Fax: (867) 645-8274

Bacteriological Analysis of Drinking Water Sample Collection Information Form



Sample Collection Information

Community from which sample was collected:

Location of sample collection:

Date of sample collection:

Time of sample collection:

Name of person who collected sample:

Telephone number of person who collected sample:

Sala Lake

Truck 77

A. Noughassid

Sch 793-234-4

Date Received:

Date Processed:

Processed by:

Results

Total Coliform per 100ml:

Date Read:

No Significant Evidence of Bacteriological Contamination
Sample collected is bacteriologically safe for human consumption.

Significant Evidence of Bacteriological Contamination
Sample collected may be unsafe for human consumption as bacteriological contamination is present.
Resample as soon as possible.

Unsafe to Drink

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.

Resample as soon as possible.

Sample collected is unsafe for human consumption as fecal contamination is present.