



Nunavut - Community & Government Services
- Rankin Inlet
ATTN: BLAINE CHISLETT
PO Box 490
Rankin Inlet NU X0C 0G0

Date Received: 28-AUG-13
Report Date: 29-AUG-13 15:03 (MT)
Version: FINAL

Client Phone: 867-645-8172

Certificate of Analysis

Lab Work Order #: L1354722
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:



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
L1354722-1 QMS Sampled By: CLIENT on 27-AUG-13 @ 13:10 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-2 LAS Sampled By: CLIENT on 27-AUG-13 @ 13:20 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-3 8TH AVE. HOUSE 708 Sampled By: CLIENT on 27-AUG-13 @ 10:50 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-4 WATER TRUCK #122 Sampled By: CLIENT on 27-AUG-13 @ 11:36 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-5 WATER TRUCK #130 Sampled By: CLIENT on 27-AUG-13 @ 11:54 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-6 WATER TRUCK #145 Sampled By: CLIENT on 27-AUG-13 @ 12:00 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-7 WATER TRUCK #119 Sampled By: CLIENT on 27-AUG-13 @ 11:46 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	0 0		0 0	MPN/100mL MPN/100mL		28-AUG-13 28-AUG-13	R2682462 R2682462
L1354722-8 WATER TRUCK #128 Sampled By: CLIENT on 27-AUG-13 @ 11:31 Matrix: Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1354722-8 WATER TRUCK #128 Sampled By: CLIENT on 27-AUG-13 @ 11:31 Matrix: Water Total Coliform and E.coli Total Coliforms Escherichia Coli	 0 0	 	 0 0	 MPN/100mL MPN/100mL	 	 28-AUG-13 28-AUG-13	 R2682462 R2682462

* 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 ww - 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.



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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

Community from which sample was collected:	Arviat, NU
Location of sample collection:	Levi Angma Elementary School
Date of sample collection:	August 27, 2013
Time of sample collection:	1:20 pm
Name of person who collected sample:	Alex Ishalook
Telephone number of person who collected sample:	867 857 2860

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

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.

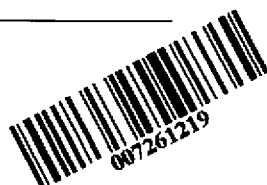


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Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Community from which sample was collected:	Arviat, NU
Location of sample collection:	Qitigaq Middle School
Date of sample collection:	1:10 pm August 27, 2013
Time of sample collection:	1:10 pm
Name of person who collected sample:	Alex Ishakok
Telephone number of person who collected sample:	867 857 2860

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**

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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Environmental Health Officer
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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:	Arviat, NU
Location of sample collection:	Water Truck #128
Date of sample collection:	August 27, 2013
Time of sample collection:	11:31 am
Name of person who collected sample:	Alex Ishalook
Telephone number of person who collected sample:	867 857 2860

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

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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Environmental Health Officer

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Fax: (867) 645-8274



Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Community from which sample was collected:	Arviat, NU
Location of sample collection:	Water Truck #119
Date of sample collection:	August 27, 2013
Time of sample collection:	11:46 am
Name of person who collected sample:	Alex Ishak
Telephone number of person who collected sample:	867 857 2860

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**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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Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Community from which sample was collected:	Avviat, NU
Location of sample collection:	Water Truck #145
Date of sample collection:	August 27, 2013
Time of sample collection:	12:00 pm
Name of person who collected sample:	Alex Ishalook
Telephone number of person who collected sample:	867 857 2860

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

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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Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Community from which sample was collected:	Arviat, NU
Location of sample collection:	Water Truck #130
Date of sample collection:	August 27, 2013
Time of sample collection:	11:54 am
Name of person who collected sample:	Alex Ishakook
Telephone number of person who collected sample:	867 857 2860

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**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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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:	Arviat, NU
Location of sample collection:	Water Truck #122
Date of sample collection:	August 27, 2013
Time of sample collection:	11:36 am
Name of person who collected sample:	Alex Ishak
Telephone number of person who collected sample:	867 857 2860

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.

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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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Environmental Health Officer
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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:	Arviat, NU
Location of sample collection:	8th Avenue 708 House
Date of sample collection:	August 27, 2013
Time of sample collection:	10:50 am
Name of person who collected sample:	Alex Ishalook
Telephone number of person who collected sample:	867 857 2860

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.

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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.