

Annual Report-2013

Water Licence: 3BM-KUG-0914

Hamlet of Kugluktuk, NU

Submitted to the Nunavut Water Board

March 07, 2014

Submitted by

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Department of Community and Government Services

Nunalingni Kavamatkunnilu Pivikhaqautikkut

Ministère des Services Communautaires et gouvernementaux

Annual Report 2013

TABLE OF CONTENTS

Letter to Nunavut Water Board	1 page
Part B: General Conditions	2 pages
NWB Form: Annual Report 2013.....	4 pages
Appendix ‘A’ Leachate Sampling Results –summary.....	2 pages
Solid Waste Facility Drawing.....	1 page
Appendix ‘B’ Leachate Sampling Results – Taiga Lab.....	11 pages
Appendix ‘C’ Water Sample Results – Bact Test and E. coli.....	35 pages

Part B: General conditions:

Item1. (a through i):

- Tabular Form of Annual water consumption and sewage disposal are duly filled-up
- Quantities were measured on daily basis of water distribution and sewage disposal
- Except a minor repair on water delivery line cover materials, and localized erosion point on sewage berm, no other major works involved to water, sewage and solid waste sites.
- O&M manual for water system remains active from previous submission to the Board; however new version of O&M manuals for sewage and solid waste facilities will be submitted by April 30, 2014.

Items 2-7:

- Monitoring stations marked at site using GPS locator and location signage placed.
- No device Meter was used for volume measurement, however, truck-fill measurement uses as precise in taking the volume of water, sewage and solid waste.
- No Spill or emergency occurrences happened and reported during this period.
- No changes in Monitoring program as reported and updated Plan for Compliance will be submitted to the Board upon request and as needed.

Part C: Water Use:

- Water drawn from the Coppermine River using twin intake lines and annual quantity 56,405 cubic metres limited within the allowable annual limit of 77,015 cubic metres.
- Maintained erosion control gravel bank for intake line and rear slope of new pumphouse.

Part D: Waste Disposal

- Raw sewage waste collect from household sewage tank by hamlet operated vacuum trucks and discharge into the newly built full engineered liner cell. The discharged sewage undergoes settling and decomposition before discharging out through an effluent pipe at N-W corner of the lagoon, then redirect East by an exfiltration berm to wetland area. Effluent water finally discharged into Coronation Gulf after flowing through the wetland.
- Sewage and effluent samples taken during summer and fall, tested in accredited laboratory and noted parameters contamination within allowable limits, set out in the *'Guidelines for the discharge of treated municipal wastewater in the Northwest Territories'* and the *final discharge point for the Sewage lagoon (end -of-pipe)*.
- Final discharge points identified and submitted to the Board as required and requested. No changes in Final Discharge point.

Part E-G: Modification, construction, operation, abandonment and restoration

- No changes in sewage and solid waste disposal or water intake system during 2013
- Decommissioning of old sewage facility will be naturally remediation and such A&R plan will be submitted by April30, 2014.

Part H: Monitoring Program

- Annual monitoring of sewage & waste effluent carried from station KUG-2, KUG-3, KUG-4 and KUG-5 during the summer and fall. Samples were taken from monitoring stations where available and convenient, and tested for parameters at Taiga Laboratory at Yellowknife, NWT (CALA approved). Test reports of such samples as well as Bacterial Test (Taiga Lab and Cambridge Bay Regional Lab) are included for your reference.
- Truck driver/operator carries a Log sheet to be filled out for each load dispose to sewage lagoon. Full load capacity of sewage truck 10,000 liter.
- Location of monitoring stations marked on map with GPS coordinates.
- During the late summer and fall, monitoring stations mostly found dry and no run-off from solid waste site; therefore, no more samples were possible.

Monitoring Stations of sewage and solid waste sample collection

Sampling Station	Description	comments
KUG-1	Raw Water source intake location at Coppermine River	Volume of water intake annually
KUG-2	Discharge from Solid Waste water retention	Monitoring station, outside of solid waste facility
KUG-3	Discharge point from Sewage Disposal facility to wetland	Sampling point at sewage lagoon inside
KUG-4	Effluent outfall from wetland	Before meeting to Coronation Gulf
KUG-5	Effluent discharge and run-off from land farm	Sampling point outside of land farm collection sump

NWB FORM:

Annual Report of Water uses and Sewage Waste discharge
Kugluktuk Water Licence 3BM-KUG 0914

ANNUAL REPORT

YEAR BEING REPORTED: 2013

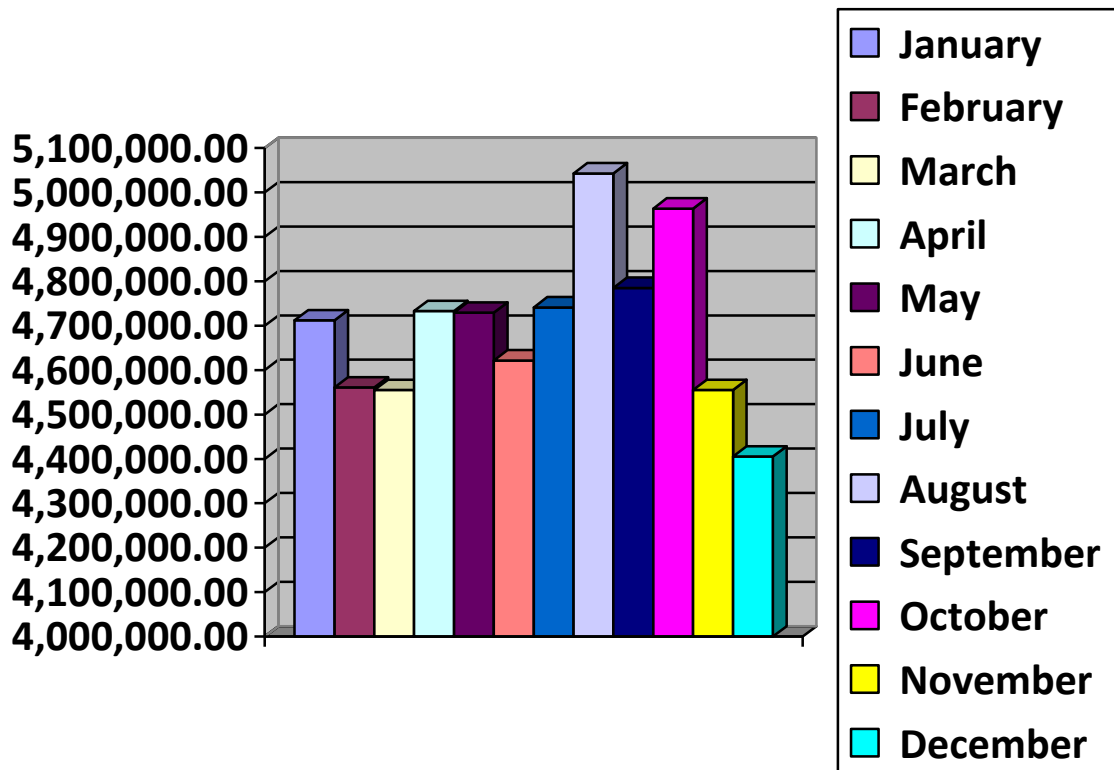
The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence **3BM-KUG0914** issued to **Kugluktuk**.

- 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 quantities of water used as reported in our Fluid Manager Water Delivery System and the estimated discharge of sewage waste based on quantities used.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January	4,711,912.60	Same
February	4,560,819.60	Same
March	4,554,892.10	Same
April	4,732,904.30	Same
May	4,729,332.90	Same
June	4,621,575.20	Same
July	4,741,175.80	Same
August	5,042,728.30	Same
September	4,785,070.00	Same
October	4,963,479.60	Same
November	4,555,135.20	Same
December	4,405,238.50	Same
ANNUAL TOTAL	56,404,264.10	Same

ANNUAL REPORT



- 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;

Water Supply:

- No maintenance work to new intake pump house or treatment plant carried during this period, but plan for next year 2014 for maintenance on access road to new intake line, underneath and around to intake pump house and replacement of wooden vault with insulated water-tight steel vault as identified in consultants inspection reported.
- Plan/design approved for new Water Treatment Plant. Replacement of wooden access vault (in Phase -1) and erosion around the newly completed intake pumphouse will be carried in 2014-15.

Sewage Lagoon:

- Liner repair completed with release in entrap air under the liner.
- Lagoon has been in use since Nov, 2011

Waste Disposal Facility:

- No new modifications, but only regular maintenance carried out on site.

ANNUAL REPORT

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

- No unauthorized water intake or sewage and waste discharge during this period.
- Annual decanting of sewage water onto wetland using a pump. Also a normal discharge through the overflow pipe across the berm onto wetland when melted sewage water rise above the overflow level.
- Leachate generates from solid waste facility into monitoring station sump, then a natural discharge onto wetland. Environmental sample collects from the sump to test leachate water quality.

vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

- Sludge soil sample tested from existing sewage facility being abandoned and plan for decommissioning. Draft report of A&R plan received. The existing sewage facility is determined to be naturally remediate with BOD, sunlight and vegetation

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;

- As indicated in INAC report 2011, hamlet is planning for a proposal of improvement, extension or a new location for solid waste site facility since the current facility is getting closer to its capacity. Without any funding confirmation, hamlet is not able to confirm such study and review.
- Hamlet has carried annual maintenance including segregation of waste, cleaning barrels/metals/hazardous/tires and bulk materials using additional resources in access of regular employees of the hamlet during last summer and fall.
- AANDC inspection 2011 reported insufficient cover materials at burn and bury facility; Hamlet has improved the facility with addition cover materials and cleared debris from flowing away off the site.

viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

- Annual Report for 2010 already submitted as requested by INAC report 2011.
- Water intake from Coppermine River at the new location using new twin intake system and screen at a point close near to the existing intake point has already updated with the Board. As built drawing of new pump house and intake line also submitted to the Board.
- A&R plan for existing sewage facility draft completed and will be submitted final version to the Board by April 30, 2014, as requested.

ANNUAL REPORT

ix.

updates or revisions to the approved Operation and Maintenance Plans

- Updated O&M manual for new sewage facility draft completed and expecting final version submission to the Board by April 30, 2014.
- No change or repair/restoration of solid waste facility. There is not much change in the existing manual, but an updated version can be submitted by April 30, 2014
- The O&M manual for water intake, treatment and distribution remains active for current facilities. However, addition of new intake system and connection of water delivery to treatment plant through ad access vault updated with the Board.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- Phase-2 Water Treatment System design completed including generator and power line. Construction Tender out in March 2014 and actual work start expecting in 2015. With the help of new treatment plant, reported high turbidity issue and salt intrusion in water will be controlled and minimized.
- New Sewage Lagoon satisfied the community annual sewage quantity deposition and retention for sufficient time before decanting onto wetland.
- Hamlet is considering to upgrade and expansion of municipal solid waste site with funding assurance.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

- With the improvement of water, sewage and solid waste system, monitoring and of these facilities are yearly routine works for the hamlet.
- Hamlet has controlled and minimized those issues of berm erosion, debris blow out, effluent mixing on existing sewage facility and unauthorized dumping outside the solid waste as identified by the Inspector (Ref. INAC report 2011).
- Hamlet uses truck fill volume with number of trucks per day for water and sewage quantity and sum up for monthly amount as reported in item-1. Exact volume of sewage discharge not shown separately, but actual quantity is not exceeding the water uses. About 90%-95% of sewage quantities are water, which are decanting annually. Residual sludge depositing as sediment on full liner base.

Appendix A:

Environmental Sample Results-Summary
Kugluktuk Water Licence 3BM-KUG0914

Part H: Monitoring Program: Item No.1: Five monitoring stations: - (i) KUG-1: Raw Water at Coppermine River, (ii) KUG-2 : Effluent from Solid waste site (iii) KUG-3: Sewage effluent on wetland, (iv) KUG-4: Effluent outfall from wetland, (v) KUG-5: Effluent from Land farm run-off

Sample collected on July 04, 2013(Sample received on July 05, 2013)

Test Type	Parameter	MAC	units	Results		KUG-4	KUG-5
		Limits		KUG-2	KUG-3		
Inorganics-Physical	Alkalinity		mg/L	121	243	61.3	
	Conductivity		µS/cm	615	748	339	
	p ^H	6-9		7.62	7.27	7.45	7.77
	TSS	180	mg/L	6	76	<3	
Inorganics-Nutrients	Ammonia as N2		mg/L	0.717	58	0.013	
	BOD	120	mg/L	4	58	<2	
	CBOD		mg/L	4	55	<2	
Major Ions	Nitrate as N2		mg/L	5.79	<0.01	0.2	
	Nitrite as N2		mg/L	0.07	<0.01	<0.01	
	Calcium		mg/L	53.3	11.5	18.6	
	Chloride		mg/L	39.6	50.7	49.7	
	Hardness		mg/L	237	51.2	97.1	
	Magnesium		mg/L	25.2	5.4	12.3	
	Potassium		mg/L	4.5	19.7	1.8	
	Sodium		mg/L	33.8	51.2	29.2	
	Sulphate		mg/L	113	15	25	
Microbiology	Fecal Coliform	1x10 ⁶	CFU/100mL	120	106000	80	
Organics	Oil and Gas	5000	µg/L	non-vis	non-vis	non-vis	
	Hexane Extractable		mg/L				<2.0
Trace Metals. Total	Aluminium		µg/L	138	172	27.5	
	Arsenic	100	µg/L	0.7	0.8	0.5	1.0
	Cadmium	10	µg/L	0.13	<0.05	<0.05	<0.05
	Chromium	100	µg/L	1.1	0.8	0.3	0.2
	Cobalt	50	µg/L	0.3	0.5	0.1	0.5
	Copper	200	µg/L	5.2	37.4	1.7	1.4
	Iron		µg/L	171	381	266	
	Lead	50	µg/L	0.9	0.7	<0.1	<0.1
	Manganese		µg/L	35.3	54.8	25.1	
	Nickel	200	µg/L	2.3	2.5	1.6	4.5
	Zinc	500	µg/L	309	35.5	<0.4	
	Mercury	0.6	µg/L				0.04
Subcontract organics	Phenols, Total	0.2	mg/L				0.002
	PCB	1000	µg/L				<0.1

Appendix B:

Sewage and Waste Sample Results- Taiga Lab
Kugluktuk Water Licence 3BM-KUG0914



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
130478

- FINAL REPORT -

Prepared For: Hamlet of Kugluktuk

Address: Box 271
Kugluktuk, NU
X0B 0E0

Attn: Don LeBlanc

Facsimile: (867) 983-3060

Final report has been reviewed and approved by:

Angelique Ruzindana
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Friday, July 26, 2013

Print Date: Friday, July 26, 2013



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: KUG-2

Taiga Sample ID: 001

Client Project:

Sample Type: Water

Received Date: 05-Jul-13

Sampling Date: 04-Jul-13

Sampling Time: 10:00

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	121	0.4	mg/L	06-Jul-13	SM2320:B	
Conductivity, Specific (@ 25°C)	615	0.4	µS/cm	06-Jul-13	SM2510:B	
pH	7.62		pH units	06-Jul-13	SM4500-H:B	
Solids, Total Suspended	6	3	mg/L	07-Jul-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.717	0.005	mg/L	11-Jul-13	SM4500-NH ₃ :	
Biochemical Oxygen Demand	4	2	mg/L	05-Jul-13	SM5210:B	
CBOD	4	2	mg/L	05-Jul-13	SM5210:B	
<u>Major Ions</u>						
Calcium	53.3	0.1	mg/L	06-Jul-13	SM4110:B	
Chloride	39.6	0.7	mg/L	06-Jul-13	SM4110:B	
Hardness	237	0.7	mg/L	06-Jul-13	SM2340:B	
Magnesium	25.2	0.1	mg/L	06-Jul-13	SM4110:B	
Nitrate as Nitrogen	5.79	0.01	mg/L	06-Jul-13	SM4110:B	

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: KUG-2

Taiga Sample ID: 001

Nitrite as Nitrogen	0.07	0.01	mg/L	06-Jul-13	SM4110:B
Potassium	4.5	0.1	mg/L	06-Jul-13	SM4110:B
Sodium	33.8	0.1	mg/L	06-Jul-13	SM4110:B
Sulphate	113	1	mg/L	06-Jul-13	SM4110:B

Microbiology

Coliforms, Fecal (other)	120	10	CFU/100mL	05-Jul-13	SM9222:D
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Organics

Oil and Grease, visible	Non-visible			10-Jul-13	Visual Exam
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Trace Metals, Total

Aluminum	138	0.6	µg/L	16-Jul-13	EPA200.8
Arsenic	0.7	0.2	µg/L	16-Jul-13	EPA200.8
Cadmium	0.13	0.05	µg/L	16-Jul-13	EPA200.8
Chromium	1.1	0.1	µg/L	16-Jul-13	EPA200.8
Cobalt	0.3	0.1	µg/L	16-Jul-13	EPA200.8
Copper	5.2	0.2	µg/L	16-Jul-13	EPA200.8
Iron	171	5	µg/L	16-Jul-13	EPA200.8
Lead	0.9	0.1	µg/L	16-Jul-13	EPA200.8
Manganese	35.3	0.1	µg/L	16-Jul-13	EPA200.8
Nickel	2.3	0.1	µg/L	16-Jul-13	EPA200.8
Zinc	309	0.4	µg/L	16-Jul-13	EPA200.8

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Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **KUG-3**

Taiga Sample ID: **002**

Client Project:

Sample Type: Water

Received Date: 05-Jul-13

Sampling Date: 04-Jul-13

Sampling Time: 10:30

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	243	0.4	mg/L	06-Jul-13	SM2320:B	
Conductivity, Specific (@ 25°C)	748	0.4	µS/cm	06-Jul-13	SM2510:B	
pH	7.27		pH units	06-Jul-13	SM4500-H:B	
Solids, Total Suspended	76	3	mg/L	07-Jul-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	58.0	0.005	mg/L	11-Jul-13	SM4500-NH ₃ :	
Biochemical Oxygen Demand	58	2	mg/L	05-Jul-13	SM5210:B	
CBOD	55	2	mg/L	05-Jul-13	SM5210:B	
<u>Major Ions</u>						
Calcium	11.5	0.1	mg/L	06-Jul-13	SM4110:B	
Chloride	50.7	0.7	mg/L	06-Jul-13	SM4110:B	
Hardness	51.2	0.7	mg/L	06-Jul-13	SM2340:B	
Magnesium	5.4	0.1	mg/L	06-Jul-13	SM4110:B	
Nitrate as Nitrogen	< 0.01	0.01	mg/L	06-Jul-13	SM4110:B	
Nitrite as Nitrogen	< 0.01	0.01	mg/L	06-Jul-13	SM4110:B	

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Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: KUG-3

Taiga Sample ID: 002

Potassium	19.7	0.1	mg/L	06-Jul-13	SM4110:B
Sodium	51.2	0.1	mg/L	06-Jul-13	SM4110:B
Sulphate	15	1	mg/L	06-Jul-13	SM4110:B

Microbiology

Coliforms, Fecal (other)	106000	1000	CFU/100mL	05-Jul-13	SM9222:D
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Organics

Oil and Grease, visible	Non-visible			10-Jul-13	Visual Exam
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Trace Metals, Total

Aluminum	172	0.6	µg/L	16-Jul-13	EPA200.8
Arsenic	0.8	0.2	µg/L	16-Jul-13	EPA200.8
Cadmium	< 0.05	0.05	µg/L	16-Jul-13	EPA200.8
Chromium	0.8	0.1	µg/L	16-Jul-13	EPA200.8
Cobalt	0.5	0.1	µg/L	16-Jul-13	EPA200.8
Copper	37.4	0.2	µg/L	16-Jul-13	EPA200.8
Iron	381	5	µg/L	16-Jul-13	EPA200.8
Lead	0.7	0.1	µg/L	16-Jul-13	EPA200.8
Manganese	54.8	0.1	µg/L	16-Jul-13	EPA200.8
Nickel	2.5	0.1	µg/L	16-Jul-13	EPA200.8
Zinc	35.5	0.4	µg/L	16-Jul-13	EPA200.8

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Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **KUG-4**

Taiga Sample ID: **003**

Client Project:

Sample Type: Water

Received Date: 05-Jul-13

Sampling Date: 04-Jul-13

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	61.3	0.4	mg/L	06-Jul-13	SM2320:B	
Conductivity, Specific (@ 25°C)	339	0.4	µS/cm	06-Jul-13	SM2510:B	
pH	7.45		pH units	06-Jul-13	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	07-Jul-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.013	0.005	mg/L	11-Jul-13	SM4500-NH ₃ :	
Biochemical Oxygen Demand	< 2	2	mg/L	05-Jul-13	SM5210:B	
CBOD	< 2	2	mg/L	05-Jul-13	SM5210:B	
<u>Major Ions</u>						
Calcium	18.6	0.1	mg/L	06-Jul-13	SM4110:B	
Chloride	49.7	0.7	mg/L	06-Jul-13	SM4110:B	
Hardness	97.1	0.7	mg/L	06-Jul-13	SM2340:B	
Magnesium	12.3	0.1	mg/L	06-Jul-13	SM4110:B	
Nitrate as Nitrogen	0.20	0.01	mg/L	06-Jul-13	SM4110:B	
Nitrite as Nitrogen	< 0.01	0.01	mg/L	06-Jul-13	SM4110:B	

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Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: KUG-4

Taiga Sample ID: 003

Potassium	1.8	0.1	mg/L	06-Jul-13	SM4110:B
Sodium	29.2	0.1	mg/L	06-Jul-13	SM4110:B
Sulphate	25	1	mg/L	06-Jul-13	SM4110:B

Microbiology

Coliforms, Fecal (other)	80	10	CFU/100mL	05-Jul-13	SM9222:D
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Organics

Oil and Grease, visible	Non-visible			10-Jul-13	Visual Exam
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Trace Metals, Total

Aluminum	27.5	0.6	µg/L	16-Jul-13	EPA200.8
Arsenic	0.5	0.2	µg/L	16-Jul-13	EPA200.8
Cadmium	< 0.05	0.05	µg/L	16-Jul-13	EPA200.8
Chromium	0.3	0.1	µg/L	16-Jul-13	EPA200.8
Cobalt	0.1	0.1	µg/L	16-Jul-13	EPA200.8
Copper	1.7	0.2	µg/L	16-Jul-13	EPA200.8
Iron	266	5	µg/L	16-Jul-13	EPA200.8
Lead	< 0.1	0.1	µg/L	16-Jul-13	EPA200.8
Manganese	25.1	0.1	µg/L	16-Jul-13	EPA200.8
Nickel	1.6	0.1	µg/L	16-Jul-13	EPA200.8
Zinc	< 0.4	0.4	µg/L	16-Jul-13	EPA200.8

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Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **KUG-5**

Taiga Sample ID: **004**

Client Project:

Sample Type: Water

Received Date: 05-Jul-13

Sampling Date: 04-Jul-13

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
pH	7.77		pH units	06-Jul-13	SM4500-H:B	
<u>Organics</u>						
Benzene			mg/L		EPA8260B	111
Ethylbenzene			mg/L		EPA8260B	111
Hexane Extractable Material	< 2.0	2.0	mg/L	10-Jul-13	EPA1664A	
m/p-xylene			mg/L		EPA8260B	111
o-xylene			mg/L		EPA8260B	111
Toluene			mg/L		EPA8260B	111
<u>Trace Metals, Dissolved</u>						
Cadmium	< 0.05	0.05	µg/L	16-Jul-13	EPA200.8	
Chromium	0.2	0.1	µg/L	16-Jul-13	EPA200.8	
Cobalt	0.5	0.1	µg/L	16-Jul-13	EPA200.8	
Copper	1.4	0.2	µg/L	16-Jul-13	EPA200.8	
Lead	< 0.1	0.1	µg/L	16-Jul-13	EPA200.8	
Nickel	4.5	0.1	µg/L	16-Jul-13	EPA200.8	

ReportDate: Friday, July 26, 2013

Print Date: Friday, July 26, 2013



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **KUG-5**

Taiga Sample ID: **004**

Trace Metals, Total

Arsenic	1.0	0.2	µg/L	16-Jul-13	EPA200.8
Mercury	0.04	0.01	µg/L	16-Jul-13	EPA200.8

Subcontracted Organics

Phenols, Total	0.002	0.002	mg/L	11-Jul-13	APHA 5530D
Polychlorinated Biphenyls	< 0.1	0.1	ug/L	11-Jul-13	EPA8082



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.:
130478

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **KUG-5**

Taiga Sample ID: **004**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

111 *Sample bottle contained air bubble, analysis not possible.*

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

Appendix C:

Water Sample Bacterial Test results- Taiga Lab & Cam Bay Lab
Kugluktuk Water Licence 3BM-KUG0914



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No: 25110284

Patient: KUGAARDUK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: N
IICN: Client ID: HX00000042
Stanton Chart No:
Pl. Phone: 8676694162
Location: KITIKMEOT REGIONAL ENGINEER
Room: Adm. Date: 05/12/11

Encounter: WX0000000042
Attending Pract.: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT MUNICIPAL PLANNER
Copy to: EMO - KITIKMEOT, ENK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test Water

MICROBIOLOGY

Requester: 11/01/13 13:43

Date:

KITIKMEOT MUNICIPAL PLANNER, KMP - Cambridge Bay NT.

Source: Water Truck#2

Collected: 09/01/13 14:30

Order#: 25110284

Received: 11/01/13 13:43

public, chlorinated, 800, River

**TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLILERT METHOD)**

12/01/13 13:30

12/01/13 **TOTAL COLIFORM: absent**
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No: 25110285

Patient: KUGAARIK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: N
ECN: Client ID: HX00000042
Stanton Chart No:
Pl. Phone: 8676694162
Location: KITIKMEOT REGIONAL ENGINEER
Room: Adm. Date: 05/12/11

Encounter: WX0000000042
Attending Pract: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT MUNICIPAL PLANNER
Copy to: EHO - KITIKMEOT, EHK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Reported on: 12/01/13 13:30

Status:

KITIKMEOT MUNICIPAL PLANNER, KMP - Cambridge Bay NU,

Source: Water Truck#1

Collected: 09/01/13 15:00

Order#: 25110285

Received: 11/01/13 13:45

public, chlorinated, 800, River

**TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLILERT METHOD)**

12/01/13 13:30

12/01/13 **TOTAL COLIFORM: absent**
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
Page 1 of 1

Jan 16/13
Printed: 01/12/13 13:39



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
 550 Byrne Road, P.O. Box 10
 Yellowknife, NT X1A 2N1
 Phone: 867-669-4163 Fax: 867-669-4141

Lab No. 25110286

Patient: KUGAARUK, HAMLET OF
 DOB: 01/01/1900 Age: 113 Sex: M
 HCN: Client ID: HX00000042
 Stanton Chart No:
 Pt. Phone: 8676694162
 Location: KITIKMEOT REGIONAL ENGINEER
 Room: Adm. Date: 05/12/11

Encounter: WX0000000042
 Attending Pract.: PHYSICIAN, NOT
 Requested by: PHYSICIAN, NOT
 Send to: KITIKMEOT MUNICIPAL PLANNER
 Copy to: EHO - KITIKMEOT, EHK
 KITIKMEOT REGIONAL
 KITIKMEOT MUNICIPAL

Test, Water

MICROBIOLOGY

Requested on: 11/01/13

Status

KITIKMEOT MUNICIPAL PLANNER, KMP - Cambridge Bay NU.

Source: Water Pumphouse
 Order#: 25110286

Collected: 09/01/13 15:00
 Received: 11/01/13 13:46

800, river

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
 COLILERT METHOD)

12/01/13 13:30

12/01/13 TOTAL COLIFORM: absent
 E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
 Page 1 of 1

Printed: 01/12/13 13:39



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No: 26050363

Patient: **KUGLUKTUK, HAMLET OF**
DOB: 01/01/1900 Age: 113 Sex: N
HCN: Client ID: HX00000043
Stanton Chart No:
Pt. Phone: 8676694162
Location: KITIKMEOT REGIONAL ENGINEER
Room: Adm. Date: 05/12/11

Encounter: WX0000000043
Attending Pract.: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT MUNICIPAL PLANNER
Copy to: EHO - KITIKMEOT, EHK,
KITIKMEOT REGIONAL,
KITIKMEOT MUNICIPAL

Test, Water

MICROBIOLOGY

Requested on: 05/02/13 16:39

Status:

KITIKMEOT MUNICIPAL PLANNER, KMP Cambridge Bay NU.

Switcher

Source: Water Tank #2
Order#: 26050363

Collected: 04/02/13 10:00
Received: 05/02/13 16:39

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLILERT METHOD)

06/02/13 14:55

06/02/13 TOTAL COLIFORM: absent
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

S/C

STATUS
Page 1 of 1

Printed: 02/06/13 15:09



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No. 26050364

Patient: **KUGLUKTUK, HAMLET OF**
DOB: 01/01/1900 Age: 113 Sex: M
HCN: Client ID: HX000000043
Stanton Chart No:
Pl. Phone: 8676694162
Location: KITIKMEOT REGIONAL ENGINEER
Room: Adm. Date: 05/12/11

Encounter: WX0000000043
Attending Pract.: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT MUNICIPAL PLANNER
Copy to: EHO - KITIKMEOT, EHK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Requested on: 05/02/13 16:39

Status

KITIKMEOT MUNICIPAL PLANNER, KVP - Cambridge Bay NU.

Switoler

Source: Water Tank 3
Order#: 26050364

Collected: 05/02/13 10:00
Received: 05/02/13 16:40

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLIBERT METHOD)

06/02/13 14:55

06/02/13 TOTAL COLIFORM: absent
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
Page 1 of 1

Print: 02/06/13 15:09



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 10
Yellowknife, N1X 1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No: 26050365

Patient: KUGLUKTUK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: N
HCN: Client ID: HX00000043
Stanton Chart No:
Pt Phone: 8676694162
Location: KITIKMEOT REGIONAL ENGINEER
Room: Adm. Date: 05/13/11

Encounter: WX0000000043
Attending Pract: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT MUNICIPAL PLANNER
Copy to: EHO - KITIKMEOT, EHK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Requested on: 05/02/13 16:40

Status:

KITIKMEOT MUNICIPAL PLANNER, KMP Cambridge Bay NL

Switcher

Source: Water Truck 8012
Order#: 26050365

Collected: 04/02/13 10:00
Received: 05/02/13 16:40

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLILERT METHOD)

06/02/13 14:55

06/02/13 TOTAL COLIFORM: absent
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

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STATUS
Page 1 of 1

Printed: 02/06/13 15:09



LABORATORY REPORT

Stanton Territorial Hospital Laboratory

Lab No. 27060248

550 Byrne Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Patient: KUGLUKTUK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: M
HCN: Client ID: HX000000043
Stanton Chart No:
Pt Phone: 8676694162
Location: EHO - KITIKMEOT
Room: Adm. Date: 05/12/11

Encounter: WX0000000043
Attending Pract: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT REGIONAL ENGINEER
Copy to: EHO - KITIKMEOT, EHK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test, Water

MICROBIOLOGY

Requested on: 06/03/13 12:00

Status:

KITIKMEOT REGIONAL ENGINEER, KIR - Cambridge Bay NL

Swisher

Source: Water Tank #2

Collected: 05/03/13 13:15

Order#: 27060248

Received: 06/03/13 12:00

TOTAL COLIFORM & E. COLI TESTING (P/A * FINAL
COLLERT METHOD)

07/03/13 13:39

07/03/13 TOTAL COLIFORM: absent
E. COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
Page 1 of 1

Printed: 03/07/13 13:39
From: STANTON HOSPITAL LAB 8676694141



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
 550 Byrne Road, P.O. Box 10
 Yellowknife, NT X1A 2N1
 Phone: 867-669-4163 Fax: 867-669-4141

Lab No: 27060249

Patient: KUGLUKTUK, HAMLET OF
 DOB: 01/01/1900 Age: 113 Sex: N
 HCN: Client ID: 11X00000043
 Stanton Chart No:
 Pt. Phone: 8676694162
 Location: EHO - KITIKMEOT
 Room: Adm. Date: 05/12/11

Encounter: WX0000000043
 Attending Pract.: PHYSICIAN, NOT
 Requested by: PHYSICIAN, NOT
 Send to: KITIKMEOT REGIONAL ENGINEER
 Copy to: EHO - KITIKMEOT, EHK,
 KITIKMEOT REGIONAL
 KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Requested on: 06/03/13 12:01

Status:

KITIKMEOT REGIONAL ENGINEER, KRE - Cambridge Bay NU,

Switcher

Source: Water Tank #3
 Order#: 27060249

Collected: 05/03/13 13:15
 Received: 06/03/13 12:01

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
 COLILERT METHOD)

07/03/13 13:39

07/03/13 TOTAL COLIFORM: absent
 E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SUC

STATUS
 Page 1 of 1

Printed: 03/07/13 13:39
 From: Stanton



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
 550 Byrne Road, P.O. Box 10
 Yellowknife, NT X1A 2N1
 Phone: 867-669-4163 Fax: 867-669-4141

Lab No. 27060250

Patient: KUGLUKTUK, HAMLET OF
 DOB: 01/01/1900 Age: 113 Sex: M
 HCN: Client ID: EX00000043
 Stanton Chart No:
 Pt. Phone: 8676694162
 Location: EHO - KITIKMEOT
 Room: Adm. Date: 05/12/11

Encounter: WX000000043
 Attending Pract.: PHYSICIAN, NOT
 Requested by: PHYSICIAN, NOT
 Send to: KITIKMEOT REGIONAL ENGINEER
 Copy to: EHO - KITIKMEOT, BIK
 KITIKMEOT REGIONAL
 KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Requested on: 06/03/13 12:01

Status

KITIKMEOT REGIONAL ENGINEER, KRI - Cambridge Bay NU.

Switcher

Source: Water Truck #800
 Order#: 27060250

Collected: 05/03/13 13:15
 Received: 06/03/13 12:01

**TOTAL COLIFORM & E.COLI TESTING (P/A
 COLILERT METHOD)**

* FINAL

07/03/13 13:39

07/03/13 **TOTAL COLIFORM: absent**
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
 Page 1 of 1

Zero MICs/100
 Printed: 07/03/13 13:39



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No. 28040307

Patient: KUGLUKTUK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: M
HCN: Client ID: HX00000043
Stanton Chart No:
Pt Phone: 8676694162
Location: EHO - KITIKMEOT
Room: Adm. Date: 05/12/11

Encounter: WX0000000043
Attending Pract.: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT REGIONAL ENGINEER
Copy to: EHO - KITIKMEOT, EHK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Requested on: 04/04/13 04:32

State:

KITIKMEOT REGIONAL ENGINEER, KRI - Cambridge Bay N.L.

Switcher

Source: River Water Tank 2
Order#: 28040307

Collected: 02/04/13 09:40
Received: 04/04/13 14:32

CLINICAL HISTORY: 1400 R/wr

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLBERT METHOD)

05/04/13 12:48

05/04/13 TOTAL COLIFORM: absent
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
Page 1 of 1

Printed: 04/05/13 13:09



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Byrne Road, P.O. Box 111
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No. 28040309

Patient: KUGLUKTUK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: N
HCN: Client ID: HX00000043
Stanton Chart No:
Pt. Phone: 8676694162
Location: EHO - KITIKMEOT
Room: Adm. Date: 05/12/11

Encounter: WX0000000043
Attending Pract.: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT REGIONAL ENGINEER
Copy to: EHO - KITIKMEOT, EHK
KITIKMEOT REGIONAL
KITIKMEOT MUNICIPAL

Test, Water

MICROBIOLOGY

Requested on: 04/04/13 14:33

Status

KITIKMEOT REGIONAL ENGINEER, KRE - Cambridge Bay NU.

Swisher

Source: River Water Tank 3

Collected: 02/04/13 09:40

Order#: 28040309

Received: 04/04/13 14:34

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLILERT METHOD)

05/04/13 12:48

05/04/13 TOTAL COLIFORM: absent
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
Page 1 of 1

Print: 04/05/13 13:09



LABORATORY REPORT
Stanton Territorial Hospital Laboratory
550 Hymie Road, P.O. Box 10
Yellowknife, NT X1A 2N1
Phone: 867-669-4163 Fax: 867-669-4141

Lab No: 28040310

Patient: KUGLUKTUK, HAMLET OF
DOB: 01/01/1900 Age: 113 Sex: N
HCN: Client ID: IUX00000043
Stanton Chart No:
PL Phone: 8676694162
Location: EHO - KITIKMEOT
Room: Adm. Date: 05/12/11

Encounter: WX0000000043
Attending Pract: PHYSICIAN, NOT
Requested by: PHYSICIAN, NOT
Send to: KITIKMEOT REGIONAL ENGINEER
Copy to: EHO - KITIKMEOT, EHK,
KITIKMEOT REGIONAL,
KITIKMEOT MUNICIPAL

Test: Water

MICROBIOLOGY

Requested on: 04/04/13 14:54

Status:

KITIKMEOT REGIONAL ENGINEER, KRF - Cambridge Bay NL

Switcher

Source: River Water Truck# 8012

Collected: 02/04/13 09:40

Order#: 28040310

Received: 04/04/13 14:34

TOTAL COLIFORM & E.COLI TESTING (P/A * FINAL
COLIFERT METHOD)

05/04/13 12:48

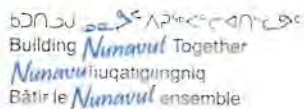
05/04/13 TOTAL COLIFORM: absent
E.COLI: absent

Micro Key for Results: * - New Results ** - Result was modified after Final status set

SCC

STATUS
Page 1 of 1

Page: 01616110
Printed: 04/05/13 11:09



Ministère de la Santé

Reporting Date: June 04, 2013

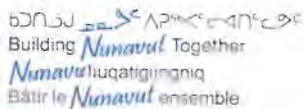
Reference Number 420-06-01

Date & Time Received: June 03, 2013; 2:20 PM

2. E. Coli: absent

Satisfactory

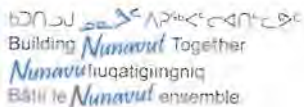
Wilfred Ntiamoah, MPH, CPHI(C)
Regional Environmental Health Officer
Kitikmeot Region - Dept. of Health
Helen Maksagak Centre, P.O. Box 83
Cambridge Bay, NUNAVUT, X0B 0C0
Phone: (867) 983-4236
Email: wntiamoah@gov.nu.ca



Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

Reference Number 420-06-01

Wilfred Ntiamoa, MPH, CPHI(C)
Regional Environmental Health Officer
Kitikmeot Region - Dept. of Health
Helen Maksagak Centre, P.O. Box 83
Cambridge Bay, NUNAVUT, X0B 0C0
Phone: (867) 983-4236
Email : wntiamoa@gov.nu.ca.



Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

Reporting Date: June 04, 2013

Reference Number 420-06-01

Date & Time Received: June 03, 2013; 2:20 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

Wilfred Ntiamoa, MPH, CPHI(C)
Regional Environmental Health Officer
Kitikmeot Region - Dept. of Health
Helen Maksagak Centre, P.O. Box 83
Cambridge Bay, NUNAVUT, X0B 0C0
Phone: (867) 983-4236
Email : wntiamoa@gov.nu.ca.



ᐅᐅᐅᐅ ᐅᐅᐅᐅ ᐅᐅᐅᐅ ᐅᐅᐅᐅ
Building *Nunavut* Together
Nunavut iluqatigingniq
Bâtir le *Nunavut* ensemble

Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

LABORATORY REPORT

Cambridge Bay Water Laboratory

Reporting Date: June 04, 2013

Reference Number 420-06-01

Source of water: Truck # 8012, Hamlet of Kugluktuk

Date & Time collected: June 03, 2013; 11:00 AM

Date & Time Received: June 03, 2013; 2:20 PM

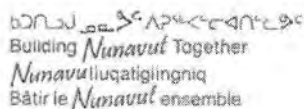
TOTAL COLIFORM AND E. COLI TESTING (Present / Absent; Coliert method).

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

REMARK:

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
Regional Environmental Health Officer
Kitikmeot Region - Dept. of Health
Helen Maksagak Centre, P.O. Box 83
Cambridge Bay, NUNAVUT, X0B 0C0
Phone: (867) 983-4236
Email : wntiamoah@gov.nu.ca.



Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: September 04, 2013

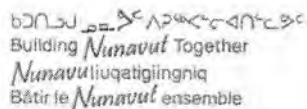
Reference Number 420-09-01

Date & Time Received: September 03, 2013; 15:45 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
Regional Environmental Health Officer
Kitikmeot Region - Dept. of Health
Helen Maksagak Centre, P.O. Box 83
Cambridge Bay, NUNAVUT, X0B 0C0
Phone: (867) 983-4236 | Email: wntiamoah@gov.nu.ca.



Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: September 04, 2013

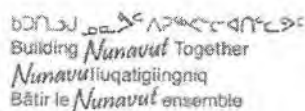
Reference Number 420-09-01

Date & Time Received: September 03, 2013; 15:45 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
Regional Environmental Health Officer
Kitikmeot Region - Dept. of Health
Helen Maksagak Centre, P.O. Box 83
Cambridge Bay, NUNAVUT, X0B 0C0
Phone: (867) 983-4236 | Email: wntiamoah@gov.nu.ca



Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: September 04, 2013

Reference Number 420-09-01

Source of water: Truck # 8001, Hamlet of Kugluktuk
Date & Time collected: September 03, 2013; 09:05 AM
Date & Time Received: September 03, 2013; 15:45 PM

TOTAL COLIFORM AND E. COLI TESTING (Present / Absent; Coli-ert method).

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

REMARK:

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
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Building *Nunavut* Together
Nunavut iluqatigiingniq
Bâtir le *Nunavut* ensemble

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Department of Health
Munaqhiiliqiyitkut
Ministère de la Santé

LABORATORY REPORT

Cambridge Bay Water Laboratory
Reporting Date: September 04, 2013

Reference Number 420-09-01

Source of water: Truck # 8012, Hamlet of Kugluktuk
Date & Time collected: September 03, 2013; 09:11 AM
Date & Time Received: September 03, 2013; 15:45 PM

TOTAL COLIFORM AND E. COLI TESTING (Present / Absent; Coliert method).

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

REMARK:

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
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Department of Health
Munaqhihiyitkut
Ministère de la Santé

LABORATORY REPORT

Cambridge Bay Water Laboratory

Reporting Date: October 03, 2013

Reference Number 420-10-01

Source of water: Kugluktuk Water Plant Tank # 3, Hamlet of Kugluktuk

Date & Time collected: October 02, 2013; 09:26 AM

Date & Time Received: October 02, 2013; 14:00 PM

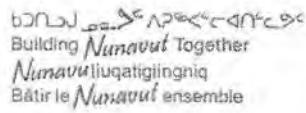
TOTAL COLIFORM AND E. COLI TESTING (Present / Absent; Coli-ert method).

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

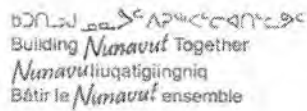
REMARK:

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
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Munaqhiliqiyitkut
Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: October 03, 2013

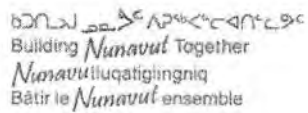
Reference Number 420-10-01

Date & Time Received: October 02, 2013; 14:00 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

Wilfred Ntiamoa, MPH, CPHI(C)
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Department of Health
Munaqhiliqiyitkut
Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: October 03, 2013

Reference Number 420-10-01

Date & Time Received: October 02, 2013; 14:00 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

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Department of Health
Munaqiliqiyitkut
Ministère de la Santé

LABORATORY REPORT

Cambridge Bay Water Laboratory
Reporting Date: October 03, 2013

Reference Number 420-10-01

Source of water: Kugluktuk Health Centre Kitchen Tap, Hamlet of Kugluktuk

Date & Time collected: October 02, 2013; 09:02 AM

Date & Time Received: October 02, 2013; 14:00 PM

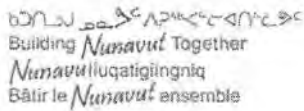
TOTAL COLIFORM AND E. COLI TESTING (Present / Absent; Coliert method).

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

REMARK:

Satisfactory

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Department of Health
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Ministère de la Santé

LABORATORY REPORT

Cambridge Bay Water Laboratory
Reporting Date: November 08, 2013

Reference Number 420-11-01

Source of water: Kugluktuk Water Truck # 8001, Hamlet of Kugluktuk

Date & Time collected: November 07, 2013; 09:30 AM

Date & Time Received: November 07, 2013; 14:15 PM

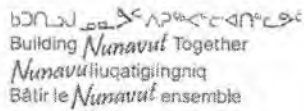
TOTAL COLIFORM AND E. COLI TESTING (Present / Absent; Coliert method).

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

REMARK:

Satisfactory

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Department of Health
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Cambridge Bay Water Laboratory
Reporting Date: November 08, 2013

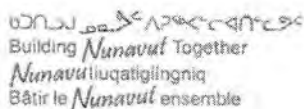
Reference Number 420-11-01

Date & Time Received: November 07, 2013; 14:15 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

Wilfred Ntiamoah, MPH, CPHI(C)
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Department of Health
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Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: November 08, 2013

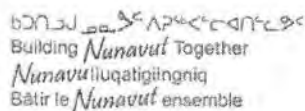
Reference Number 420-11-01

Date & Time Received: November 07, 2013; 14:15 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

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Munaqhiliqiyitkut
Ministère de la Santé**

Cambridge Bay Water Laboratory
Reporting Date: November 08, 2013

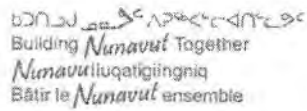
Reference Number 420-11-01

Date & Time Received: November 07, 2013; 14:15 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

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Cambridge Bay Water Laboratory
Reporting Date: December 12, 2013

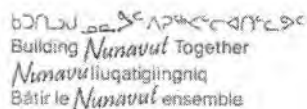
Reference Number 420-12-01

Date & Time Received: December 11, 2013; 16:00 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

Satisfactory

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Department of Health
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Cambridge Bay Water Laboratory
Reporting Date: December 12, 2013

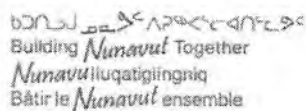
Reference Number 420-12-01

Date & Time Received: December 11, 2013; 16:00 PM

1. TOTAL COLIFORM: **absent**
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Department of Health
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Ministère de la Santé

Cambridge Bay Water Laboratory
Reporting Date: December 12, 2013

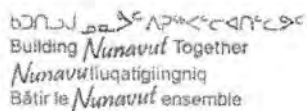
Reference Number 420-12-01

Date & Time Received: December 11, 2013; 16:00 PM

1. TOTAL COLIFORM: **absent**
2. E. Coli: **absent**

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Reporting Date: December 12, 2013

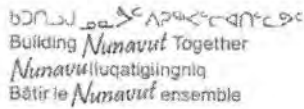
Reference Number 420-12-01

Date & Time Received: December 11, 2013; 16:00 PM

1. TOTAL COLIFORM: **absent**
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