## **Annual Report-2013**

Water Licence: 3BM-TAL-0813

Hamlet of Taloyoak, NU

Submitted to the Nunavut Water Board

March 04, 2014

Submitted by Shah Alam, P. Eng. Municipal Planning Engineer, CGS, Cambridge Bay, NU X0B 0C0 Ph: (867) 983-4156

Fax: (867)983-4124/23



 $DO \circ U^{GP} \circ D^{GP} \circ D^{GP$ 

Department of Community and Government Services Nunalingni Kavamatkunnilu Pivikhaqautikkut Ministère des Services Communautaires et gouvernementaux

Taloyoak Water Licence: 3BM-TAL 0813 Annual Report 2013

March 04, 2014

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1L0

Attention: Phyllis Beaulieu, Manager of Licensing

RE: Annual Report 2013 - Hamlet of Taloyoak Water Licence: 3BM-TAL 0813

Dear Ms. Phyllis,

The Hamlet of Taloyoak is pleased to submit to Nunavut Water Board the attached file of "Annual Report 2013" of water uses and sewage solid waste disposal as required and directed under the compliance of Water Licence; 3BM-TAL-0813 as stated above. Copies of required tests reports are attached herewith (Appendices) as requested for your review and references.

With the help of Government of Nunavut though Community and Government Services, the hamlet has undertaken a comprehensive waste management program which has led to improve sewage and solid waste facilities, wetland and effluent discharges. The annual monitoring program for sewage and solid waste has been in effect since 2012. Samples test result shown excellent remediation of contamination parameters within allowable limit comprising BOD, TSS, E-coli and Toxicity components and quality control on effluent before discharging into ocean. We summarized those conditions and requirements outlined in Part B through part H.

We hope that Nunavut Water Board will find this report and enclosed test results valuable to Annual Report in operating the Licence for water, sewage and solid waste facilities.

Best Regards,

Shah Alam, P. Eng.

Municipal Planning Engineer, Government of Nunavut Community and Government Services Kitikmeot Region, Cambridge Bay, Nu

Phone: 867-983-4156, fax: 867-983-4124, salam@gov.nu.ca

## **Taloyoak Water Licence: 3BM-TAL-0813**

## TABLE OF CONTENTS

Letter to Nunavut Water Board
NWB Form: Annual Report 2013
Part B: General Conditions
Background
Water Demand
Sewage Disposal
Solid Waste Dump
Hazardous Waste
Map – Monitoring Stations
Pictures –lagoon and wetland
Appendix 'A' Leachate Sampling Results –summary
Appendix 'B' Leachate Sampling Results – Taiga Lab
Appendix 'C' Water Sample Results – Bact Test and E. coli

## YEAR BEING REPORTED: 2013

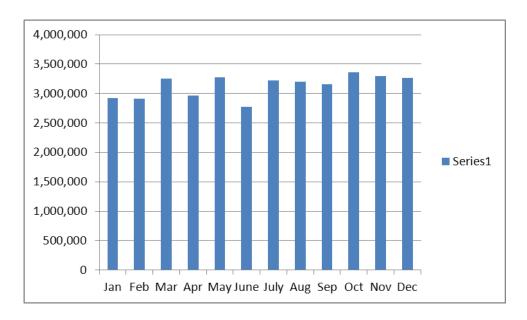
The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence 3BM-TAL-0813 issued to the **Taloyoak**.

.

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 On Tap 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	2,920,634	Same
February	2,907,468	Same
March	3,254,201	Same
April	2,970,455	Same
May	3,276,483	Same
June	2,776,095	Same
July	3,217,181	Same
August	3,197,214	Same
September	3,158,951	Same
October	3,365,594	Same
November	3,295,120	Same
December	3,260,559	Same
ANNUAL TOTAL	37,599,955	Same



Annual Water uses for Hamlet of Taloyoak 2013 (Water Licence 3BM-TAL-0813)

# 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;

- Repairs on Water System completed including heat trace, electrical-mechanical connection for water intake pumps, generator, treatment train and truck fill.
- Regular cleanup and replace filters, strainer and chlorine mixer in accordance with operational manual and design of plant for water treatment process.
- The treatment plant equipped with use and selection of alternate energy systems Wind Turbine power generation and solar energy from solar panels. Adjustment of these alternate energy system carried for functioning when requires.

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

- As indicated in the currently expired Water Licence, the sewage facility remains
  excluded since it wasn't included during the last amendment in Dec 2008 and
  suggested for amendment application for the inclusion of sewage and solid waste.
- Sewage collecting from household sewage tank and discharge into the primary cell of sewage lagoon using hamlet operated sewage trucks. The sewage treatment system is basically a series of two natural ponds with a sub-merged berm in between. Temporary retention of sewage in the primary cell during summer and

mostly full retention during winter when sewage remain frozen. Sewage effluent discharge freely onto long meandering wetland from secondary cell during summer and fall when raw sewage melts for natural remediation before ending onto final discharge to ocean. Similarly, effluent from solid waste site also flow on natural wetland when leachate melts with snow or rain water and remediate naturally using the natural wetland.

- An amendment application has been submitted to the Board with the request of inclusion of sewage and solid waste facilities.
- The inspector noted un-segregated waste at the solid waste facility and barrels of unknown substances, waste oil, batteries and household chemicals stored out of waste stream. The hamlet has identified most of those barrels, batteries and chemicals-arranged to confined them within boxes and areas for shipping out. Allowed community people to take away waste oil for their need and clean up the storage area. Any outstanding will be cleaned up in coming year 2014.
- Facilities signage will be installed in summer 2014 those reported as missing or inappropriate as per AANDC inspection.
- The hamlet is aware of using cover materials to burn and bury facilities and protecting debris from flying away. The hamlet has already minimized the open burning practice and started more segregation of waste by types.

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

- New intake pump house and treatment plant took over the water system started from the old intake and treatment system in town. The old water intake system and treatment plant remains abandoned, however no plan made for its restoration.
- Feasibility study for sewage lagoon remains in the proposal subjected to fund availability which will include significant isolation of primary cell for sufficient retention and confinement of raw sewage before merging onto wetland for naturally treatment.

## 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;

- Direction from AANDC Report 2012 and subsequent for sewage collection, disposal, treatment and discharge information details. Hamlet is operating such facilities with privately contracting; however, hamlet is monitoring their operation
- Hamlet has started segregation of solid waste and containment in separate cells for

- metal and hazardous materials but wasn't very intensive due to resources. However, it is expecting much more improvement for the next year 2014.
- Hamlet has been working to dissolve those issues of un-marked and un-known barrels at solid waste site, as noted in AANDC report. Improvement of such items will be notified to the Board once finally completed.
- Hamlet has submitted as-built drawings of water treatment plant as requested.

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

• Currently expired Water Licence wasn't included the facility of sewage disposal, but the AANDC inspector has requested to confirm the sufficient retention time of raw sewage before merging onto wetland. Hamlet has submitted effluent results of samples taken from monitoring stations and noted contamination level within the MAC limits – which confirming the compliance of CCME guideline & Schedule1 of Industrial Waste disposal. Also, the hamlet is considering a future study of the natural Lake lagoon with possible improvement if identified by the study.

### ix. Updates or revisions to the approved Operation and Maintenance Plans

• The Board and AANDC inspector has requested for updating outstanding O&M manuals for sewage and solid waste facilities. These two facilities are over 15 years old and no O&M manuals available for updating, but the Hamlet has a plan to prepare new version O&M manuals for these two facilities by fall 2014. However, O&M manual for Water System has already submitted with the Board.

#### ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

 Hamlet realized that current sewage lagoon is not an engineered lagoon, but improvement of berm and some work on wetland will be very useful for the facility. Also, confinement of effluent inside the sewage facility and municipal waste inside the solid waste facility would be very useful in maintaining facilities in full compliance for short and long term. Any funding assistance would be helpful in taking such steps and making difference.

## FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

Hamlet is aware of those reports by AANDC and condition of Licence. The annual monitoring program continued with more resources to comply with concerns such as signage, sampling, barrel/drum/oil, securing & operator training.

General Conditions (Part B) - Compliance Water Licence 3BM-TAL0813

## **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 review and minor repair works to electrical and mechanical system to intake heat trace, pump and generator at treatment plant, no other modification or major works involved to water, sewage and solid waste facilities
- O&M manual for water system already submitted to the Board; however plan for new version of O&M manuals for sewage and solid waste facilities in 2014.

#### **Items 2-7:**

- Monitoring stations marked at site using GPS locator and location signage placed. New location for TAL-5 (Hazardous Storage cell) selected during summer 2013 for hazardous dump leachate collection.
- 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 in QA/QC plan and updated Plan for Compliance submitted to the Board.

#### Part C: Water Use:

- Water drawn from the Canso Lake using twin intake lines and annual quantity 37,600 cubic metres limited within the allowable daily limit 248 cubic metres (annual limit of 64,480 cubic metres @ 5 days/week minimum)
- Maintained erosion control gravel bank for intake line and rear slope of new pumphouse.

## Part D: Waste Disposal

- The currently expired Licence does not allow Sewage and solid waste disposals to sewage Lagoon and solid waste from the day of operation. Raw sewage waste collect from household sewage tank by hamlet operated vacuum trucks.
- Sewage and effluent samples taken during summer and fall, tested in accredited laboratory and noted parameters contamination within allowable limits.
- 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 intake system and in town treatment plant in future year(s) with funding availability.

## **Part H: Monitoring Program**

- Annual monitoring of sewage & solid waste effluent carried from station TAL- 2, TAL-3, TAL-4 and TAL-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.

Table: Monitoring Stations of sewage and solid waste sample collection

Sampling	GPS L	ocation	Description	Comments
Station	Latitude	Longitude		
TAL-1	N 69 <sup>0</sup> 32 39	W 93 <sup>0</sup> 32 <sup>7</sup> 05 <sup>77</sup>	Raw Water supply at Water Lake	Volume of water collected from
			water Lake	lake
TAL-2	N 69 <sup>0</sup> 32 <sup>2</sup> 38 <sup>22</sup>	W 93 <sup>0</sup> 35 <sup>1</sup> 39 <sup>11</sup>	Sewage outfall entry to wetland	Outside the detention lagoon , onto wetland
TAL-3	N 69 <sup>0</sup> 32 <sup>2</sup> 26 <sup>33</sup>	W 93 <sup>0</sup> 35 <sup>2</sup> 22	Solid waste discharge run-off	Outside the fenced area on wetland
TAL-4	N 69 <sup>0</sup> 32 22	W 93 <sup>0</sup> 35 25	Effluent Final discharge point before meeting ocean	Combined effluent at the end of wetland
TAL-5	N 69 <sup>0</sup> 32 23	W 93 <sup>0</sup> 34 <sup>7</sup> 34 <sup>7</sup>	Hazardous storage cell retention water	New station. Sample collect only when decanting requires

Background - Compliance
Water Licence 3BM-TAL0813

### **BACKGROUND**

The Hamlet of Taloyoak is located at 69<sup>0</sup> 32' N latitude and 93<sup>0</sup> 31' W longitudes, approximately 460 km East of Cambridge Bay and 1224 km North-East of Yellowknife, sitting 26 m above sea level on the Boothia Peninsula on Stanners Horbour within the Kitikmeot region of Nunavut. It is a zone of continuous permafrost, on sand and gravel raised beach with flat and gently rolling terrain comprising numerous lakes and ponds, covered with thin layer of tundra vegetation. Despite poor soil quality, various types of lichen, moss, willow, heather and wildflowers grow in the area. Wildlife in the area are mainly ground squirrels, lemmings, weasels, arctic hares, arctic foxes, ringed seals and numerous species of birds and fish.

Climate of Taloyoak is reasonable summers and extremely cold winter, average mean temperature in January and July about -30°C and 11°C. Seasonal rainfall average 128 cm, snow fall average 141 cm and mean precipitation 223 mm in Taloyoak.

The Hamlet of Taloyoak is submitting the Annual Report -2013 of Water Licence 3BM-TAL-0813 (which expires in September 30, 2013), allows for water supply, sewage and solid waste management. Water drawn from the Canso Lake through twin intake pumphouse, treat in newly built treatment plant and distribute to household water tank through truck fill. Sewage deposit into the detention lagoon located approximately 3.2 km away from town through vacuum truck and solid waste deposit at dump site 3 km away close near to Sewage Lagoon.

The selected raw water source was determined the Canso Lake located about 1.5 km North-East from town. To meet the requirements and guidelines of drinking water, a treatment plant was constructed in 2011 with following facilities:

- Twin water intake lines from the Water Lake into newly built pump house
- Two terrain filtration system for reduction in turbidity reduction
- Sustainable power generation Wind Turbine and Solar panel as back up to grid power line.

Water is taken from Water Lake and then sent through filter terrain to control turbidity and then disinfection by chlorination before temporary storage tank located at the site and truckfill outside. The new building was completed in 2011 and remains in operation for community water supply for 7 days a week.

## **Water Demand:**

Water consumption from 2006 through 2013 are shown below (Annual Reports to NWB)

**Table: Water consumption** 

Year	Volume (L/Yr)
2006	32,379,784
2007	33,553,127
2008	34,681,679
2009	34,702,592
2010	34,952,134
2011	35,152,333
2012	35,518,782
2013	37,599,955

Based on these years consumption, it looks the daily maximum intake quantity 248 m3 (248,000 L) should be fine for this time.

### SEWAGE DISPOSAL

Sewage collects from community household sewage tank by sewage vacuum truck and then discharge into the primary cell of sewage lagoon. The lagoon is located 3.2 km from the community and has an approximate volume of 35,700m<sup>3</sup>. The lagoon system comprises a series of two cells- (i) the primary cell receives raw sewage from truck discharge and keep it for the whole winter and (ii) the detention cell receives sewage from primary cell over the semi-submerge berm when sewage melt in summer and leads to natural outfall onto shallow channel over the meandering wetland which ended to ocean by natural remediation through BOD and in the presence of sunlight. No mechanical decanting requires from primary cell.

The wetland located immediately downstream of the detention lagoon, some remediation in run-off effluent which ultimately discharge onto the ocean approximately 900 m downstream.

## SOLID WASTE DISPOSAL

The solid waste site is located close near the lagoon. There are no water bodies within the local vicinity of the solid waste disposal facility, except for the discharge drainage pattern from the sewage lagoon. Leachate run-off from the solid waste site drains towards this drainage area and mixes with the lagoon effluent prior to draining towards the ocean. Some areas of ponding water have been noted in and around the solid waste site.

The solid waste site has two areas- the general municipal waste and the second area for bulky wastes. The general municipal waste area is fenced and does not have a gate, so remains open for public dumping anytime of the day. The second area is the metal dump area where items such as scrap vehicles, appliances, tires and other parts of abandoned vehicles which are disposed of. This area has no fence and no isolated cell, but pile in isolated heap.



### Water Quality Results of Leachate from Solid Waste Site

The leachate samples obtained from the wetland stream just downstream of the municipal waste and bulky waste site during July- Aug 2013. The Hamlet's water Licence does not specify effluent quality standards for leachate from the solid waste facility. Therefore leachate sampling results were compared to the Canadian Environmental Quality Guidelines, by the Canadian Council of Ministers of the Environment (CCME).

Leachate from the solid waste facility enters the wetland approximately half way between the lagoon and the ocean edge. As the compliance point was estimated to be 30 m down from solid waste site fence, leachate discharged into the wetland also appeared to receive treatment within the wetland. This leachate run-off travel over the wetland before mixing with sewage effluent at the midway point before approaching the final discharge point, thus remediate with the BOD and sunlight. Green vegetation all over the wetland helps this remediation process as well.

#### **Hazardous Waste Management**

Most hazardous materials are stored in the metals dump area and are segregated from other wastes within this area. There are no measures for appropriate storage and disposal of these items at this time, but plan in bringing container for temporary storage onsite and ship out by certified hazardous handler and agent.

Pictures: Two Cells natural lake Lagoon (Primary cell and detention cell)



Picture: Natural Wetland for effluent run-off remediation







Pic: Effluent runoff on wetland before Ocean

# Appendix A:

Environmental Sample Results-Summary

Taloyoak Water Licence 3BM-TAL0813

## APPENDIX- 'A'

**Table: Summary of Leachate Sampling Results (SNP Monitoring Station)** 

Sewage and solid waste effluent samples collected on Aug 22, 2013

	MAC	units	July 0	5, 2013	Aug 22, 2013	
Parameter	Limits		TAL-2	TAL-4	TAL-2	TAL-3
Alkalinity		mg/L	275	201	202	217
Conductivity		μS/cm	950	803	802	1070
$P^{H}$	6-9		7.46	7.90	8.65	7.56
TSS		mg/L	30	<3	115	42
Ammonia as N2		mg/L	15.8	0.10	1.20	0.31
BOD		mg/L	18	<2	58	29
CBOD		mg/L	15	<2	56	29
Nitrate as N2		mg/L	0.24	0.48	0.24	0.69
Nitrite as N2		mg/L	0.08	0.07		
Calcium		mg/L	55.8	58.2	50.3	76.2
Chloride		mg/L	93.6	99.9	109	144
Hardness		mg/L	241	259	233	351
Magnesium		mg/L	24.7	27.7	26	39.1
Potasium		mg/L	15.1	7.5	16.1	9.9
Sodium		mg/L	70.3	69.2	81.5	98.3
Sulphate		mg/L	51	60	57	136
Fecal Coliform		CFU/100mL			1970	TNTC
Oil and Gas	5000	μg/L	Invis.	Invis.	Invis.	Invis.
Aluminium		μg/L	38	<5	63	32
Arsenic	100	μg/L	0.5	0.4	2.3	2.2
Cadmium	10	μg/L	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	100	μg/L	0.4	0.4	1.0	3.0
Cobalt	50	μg/L	< 0.1	< 0.1	< 0.1	< 0.1
Copper	200	μg/L	9.8	0.6	6.5	38
Iron		μg/L	88	224	146	856
Lead	50	μg/L	< 0.1	< 0.1	0.2	< 0.1
Manganese		μg/L	27.3	21.7	26.5	51.1
Nickel	200	μg/L	1.2	0.8	2.1	2.5
Zinc	500	μg/L	10	<5	10	6

Based on results, no parameters have exceeded the MAC value.

# Appendix B:

Environmental Sample Results-Taiga Lab Taloyoak Water Licence 3BM-TAL0813



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

## - FINAL REPORT -

**Prepared For:** Hamlet of Taloyoak

**Address:** Box 8

Hamlet of Taloyoak, NU

X0E 1B0

Attn: Chester Porter Facsimile: (867) 561-5057

### Final report has been reviewed and approved by:

Angelique Ruzindana

**Quality Assurance Officer** 

#### **NOTES:**

- For the thods and data are validated by the laboratory's Quality Assurance Program. Taigatenvironmental 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
  - o Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
  - o Environment Canada
  - o 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:** Monday, July 15, 2013 **Print Date:** Monday, July 15, 2013





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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-1 Taiga Sample ID: 001

Client Project: TAL 0713 Sample Type: Water Received Date: 07-Jul-13 Sampling Date: 05-Jul-13 Sampling Time: 11:15

Location: Taloyoak, NU

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	275	0.4	mg/L	07-Jul-13	SM2320:B	
Conductivity, Specific (@ 25°C)	950	0.4	μS/cm	07-Jul-13	SM2510:B	
pH	7.46		pH units	07-Jul-13	SM4500-H:B	
Solids, Total Suspended	30	3	mg/L	07-Jul-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	15.8	0.005	mg/L	11-Jul-13	SM4500-NH3:	
Biochemical Oxygen Demand	18	2	mg/L	07-Jul-13	SM5210:B	
CBOD	15	2	mg/L	07-Jul-13	SM5210:B	
Major Ions						
Calcium	55.8	0.1	mg/L	08-Jul-13	SM4110:B	
Chloride	93.6	0.7	mg/L	08-Jul-13	SM4110:B	
Hardness	241	0.7	mg/L	08-Jul-13	SM2340:B	
Magnesium	24.7	0.1	mg/L	08-Jul-13	SM4110:B	
Nitrate as Nitrogen	0.24	0.01	mg/L	08-Jul-13	SM4110:B	

**ReportDate:** Monday, July 15, 2013 **Print Date:** Monday, July 15, 2013 Page 2 of 6



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-1	Taiga Sample ID: 001					
Nitrite as Nitrogen	0.08	0.01	mg/L	08-Jul-13	SM4110:B	
Potassium	15.1	0.1	mg/L	08-Jul-13	SM4110:B	
Sodium	70.3	0.1	mg/L	08-Jul-13	SM4110:B	
Sulphate	51	1	mg/L	08-Jul-13	SM4110:B	
Microbiology						
Coliforms, Fecal (other)			CFU/100mL		SM9222:D	105
Organics						
Oil and Grease, visible	Non-visible			10-Jul-13	Visual Exam	
Trace Metals, Total						
Aluminum	38	5	μg/L	09-Jul-13	EPA200.8	
Arsenic	0.5	0.2	μg/L	09-Jul-13	EPA200.8	
Cadmium	< 0.1	0.1	μg/L	09-Jul-13	EPA200.8	
Chromium	0.4	0.1	μg/L	09-Jul-13	EPA200.8	
Cobalt	< 0.1	0.1	μg/L	09-Jul-13	EPA200.8	
Copper	9.8	0.2	μg/L	09-Jul-13	EPA200.8	
Iron	88	5	μg/L	09-Jul-13	EPA200.8	
Lead	< 0.1	0.1	μg/L	09-Jul-13	EPA200.8	
Manganese	27.3	0.1	μg/L	09-Jul-13	EPA200.8	
Nickel	1.2	0.1	μg/L	09-Jul-13	EPA200.8	
Zinc	10	5	μg/L	09-Jul-13	EPA200.8	

**ReportDate:** Monday, July 15, 2013 **Print Date:** Monday, July 15, 2013



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-2 Taiga Sample ID: 002

Client Project: TAL 0713
Sample Type: Water
Received Date: 07-Jul-13
Sampling Date: 05-Jul-13
Sampling Time: 11:15

Location: Taloyoak, NU

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO3)	201	0.4	mg/L	07-Jul-13	SM2320:B	
Conductivity, Specific (@ 25°C)	803	0.4	μS/cm	07-Jul-13	SM2510:B	
pН	7.90		pH units	07-Jul-13	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	07-Jul-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.105	0.005	mg/L	11-Jul-13	SM4500-NH3:	
Biochemical Oxygen Demand	< 2	2	mg/L	07-Jul-13	SM5210:B	
CBOD	< 2	2	mg/L	07-Jul-13	SM5210:B	
Major Ions						
Calcium	58.2	0.1	mg/L	08-Jul-13	SM4110:B	
Chloride	99.9	0.7	mg/L	08-Jul-13	SM4110:B	
Hardness	259	0.7	mg/L	08-Jul-13	SM2340:B	
Magnesium	27.7	0.1	mg/L	08-Jul-13	SM4110:B	
Nitrate as Nitrogen	0.48	0.01	mg/L	08-Jul-13	SM4110:B	
Nitrite as Nitrogen	0.07	0.01	mg/L	08-Jul-13	SM4110:B	

**ReportDate:** Monday, July 15, 2013

**Print Date:** Monday, July 15, 2013



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-2	Taiga Sample ID: 002					
Potassium	7.5	0.1	mg/L	08-Jul-13	SM4110:B	
Sodium	69.2	0.1	mg/L	08-Jul-13	SM4110:B	
Sulphate	60	1	mg/L	08-Jul-13	SM4110:B	
Microbiology						
Coliforms, Fecal (other)			CFU/100mL		SM9222:D	105
<u>Organics</u>						
Oil and Grease, visible	Non-visible			10-Jul-13	Visual Exam	
Trace Metals, Total						
Aluminum	< 5	5	μg/L	09-Jul-13	EPA200.8	
Arsenic	0.4	0.2	μg/L	09-Jul-13	EPA200.8	
Cadmium	< 0.1	0.1	μg/L	09-Jul-13	EPA200.8	
Chromium	0.4	0.1	μg/L	09-Jul-13	EPA200.8	
Cobalt	< 0.1	0.1	μg/L	09-Jul-13	EPA200.8	
Copper	0.6	0.2	μg/L	09-Jul-13	EPA200.8	
Iron	224	5	μg/L	09-Jul-13	EPA200.8	
Lead	< 0.1	0.1	μg/L	09-Jul-13	EPA200.8	
Manganese	21.7	0.1	μg/L	09-Jul-13	EPA200.8	
Nickel	0.8	0.1	μg/L	09-Jul-13	EPA200.8	
Zinc	< 5	5	μg/L	09-Jul-13	EPA200.8	

**ReportDate:** Monday, July 15, 2013 **Print Date:** Monday, July 15, 2013



Taiga Batch No.: 130486

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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-2 Taiga Sample ID: 002

## - DATA QUALIFERS -

Data Qualifier Descriptions:

Samples received past hold time, analysis not possible.

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

 $\ensuremath{\mathsf{SM}}$  - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

**ReportDate:** Monday, July 15, 2013 **Print Date:** Monday, July 15, 2013 Page 6 of 6



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

## - FINAL REPORT -

Prepared For: Hamlet of Taloyoak

**Address:** Box 8

Hamlet of Taloyoak, NU

X0E 1B0

Attn: Chester Porter Facsimile: (867) 561-5057

## Final report has been reviewed and approved by:

Judy Mah

**Client Service Officer** 

#### **NOTES:**

- For the 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
  - o Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
  - o Environment Canada
  - o 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:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013





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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-3 Taiga Sample ID: 001

**Client Project:** 

Sample Type: Water
Received Date: 23-Aug-13
Sampling Date: 22-Aug-13
Sampling Time: 14:00

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	217	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	1070	0.4	μS/cm	23-Aug-13	SM2510:B	
рН	7.56		pH units	23-Aug-13	SM4500-H:B	
Solids, Total Suspended	42	3	mg/L	29-Aug-13	SM2540:D	
Inorganics - Nutrients						
Ammonia as Nitrogen	0.310	0.005	mg/L	04-Sep-13	SM4500-NH3:	
Biochemical Oxygen Demand	29	2	mg/L	23-Aug-13	SM5210:B	
CBOD	29	2	mg/L	23-Aug-13	SM5210:B	
<u>Major Ions</u>						
Calcium	76.2	0.1	mg/L	23-Aug-13	SM4110:B	
Chloride	144	0.7	mg/L	23-Aug-13	SM4110:B	
Hardness	351	0.7	mg/L	23-Aug-13	SM2340:B	
Magnesium	39.1	0.1	mg/L	23-Aug-13	SM4110:B	
Nitrate as Nitrogen	0.69	0.01	mg/L	23-Aug-13	SM4110:B	

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013

Page 2 of 10



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

## - CERTIFICATE OF ANALYSIS -

Taiga Sample ID: 001					
0.12	0.01	mg/L	23-Aug-13 SM4110:B		
9.9	0.1	mg/L	23-Aug-13 SM4110:B		
98.3	0.1	mg/L	23-Aug-13 SM4110:B		
136	1	mg/L	23-Aug-13 SM4110:B		
TNTC	1	CFU/100mL	23-Aug-13 SM9222:D 86		
Non-visible			29-Aug-13 Visual Exam		
32	5	μg/L	28-Aug-13 EPA200.8		
2.2	0.2	μg/L	28-Aug-13 EPA200.8		
< 0.1	0.1	μg/L	28-Aug-13 EPA200.8		
3.0	0.1	μg/L	28-Aug-13 EPA200.8		
< 0.1	0.1	μg/L	28-Aug-13 EPA200.8		
3.8	0.2	μg/L	28-Aug-13 EPA200.8		
856	5	μg/L	28-Aug-13 EPA200.8		
< 0.1	0.1	μg/L	28-Aug-13 EPA200.8		
51.1	0.1	μg/L	28-Aug-13 EPA200.8		
2.5	0.1	μg/L	28-Aug-13 EPA200.8		
6	5	μg/L	28-Aug-13 EPA200.8		
	9.9 98.3 136  TNTC  Non-visible  32 2.2 < 0.1 3.0 < 0.1 3.8 856 < 0.1 51.1 2.5	9.9 0.1 98.3 0.1 136 1  TNTC 1  Non-visible  32 5 2.2 0.2 <0.1 0.1 3.0 0.1 <0.1 0.1 3.8 0.2 856 5 <0.1 0.1 51.1 0.1 2.5 0.1	0.12 0.01 mg/L 9.9 0.1 mg/L 98.3 0.1 mg/L 136 1 mg/L  TNTC 1 CFU/100mL  Non-visible  32 5 μg/L 2.2 0.2 μg/L <0.1 0.1 μg/L 3.0 0.1 μg/L <0.1 0.1 μg/L 3.8 0.2 μg/L 856 5 μg/L <0.1 0.1 μg/L 51.1 0.1 μg/L 2.5 0.1 μg/L	0.12 0.01 mg/L 23-Aug-13 SM4110:B 9.9 0.1 mg/L 23-Aug-13 SM4110:B 98.3 0.1 mg/L 23-Aug-13 SM4110:B 136 1 mg/L 23-Aug-13 SM4110:B  TNTC 1 CFU/100mL 23-Aug-13 SM4110:B  29-Aug-13 SM9222:D  86  Non-visible 29-Aug-13 EPA200.8 2.2 0.2 μg/L 28-Aug-13 EPA200.8 3.0 0.1 μg/L 28-Aug-13 EPA200.8	

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-2 Taiga Sample ID: 002

**Client Project:** 

Sample Type: Water
Received Date: 23-Aug-13
Sampling Date: 22-Aug-13
Sampling Time: 13:45

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO3)	202	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	802	0.4	μS/cm	23-Aug-13	SM2510:B	
pН	8.65		pH units	23-Aug-13	SM4500-H:B	
Solids, Total Suspended	115	3	mg/L	29-Aug-13	SM2540:D	
Inorganics - Nutrients						
Ammonia as Nitrogen	1.20	0.005	mg/L	04-Sep-13	SM4500-NH3:	
Biochemical Oxygen Demand	58	2	mg/L	23-Aug-13	SM5210:B	
CBOD	56	2	mg/L	23-Aug-13	SM5210:B	
Major Ions						
Calcium	50.3	0.1	mg/L	23-Aug-13	SM4110:B	
Chloride	109	0.7	mg/L	23-Aug-13	SM4110:B	
Hardness	233	0.7	mg/L	23-Aug-13	SM2340:B	
Magnesium	26.0	0.1	mg/L	23-Aug-13	SM4110:B	
Nitrate as Nitrogen	0.24	0.01	mg/L	23-Aug-13	SM4110:B	
Nitrite as Nitrogen	0.23	0.01	mg/L	23-Aug-13	SM4110:B	

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013 Page 4 of 10



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-2	Taiga Sample ID: 002				
Potassium	16.1	0.1	mg/L	23-Aug-13 SM4110:B	
Sodium	81.5	0.1	mg/L	23-Aug-13 SM4110:B	
Sulphate	57	1	mg/L	23-Aug-13 SM4110:B	
Microbiology					
Coliforms, Fecal (other)	1970	10	CFU/100mL	23-Aug-13 SM9222:D	
Organics					
Oil and Grease, visible	Non-visible			29-Aug-13 Visual Exam	
Trace Metals, Total					
Aluminum	63	5	μg/L	28-Aug-13 EPA200.8	
Arsenic	2.3	0.2	μg/L	28-Aug-13 EPA200.8	
Cadmium	< 0.1	0.1	μg/L	28-Aug-13 EPA200.8	
Chromium	1.0	0.1	μg/L	28-Aug-13 EPA200.8	
Cobalt	< 0.1	0.1	μg/L	28-Aug-13 EPA200.8	
Copper	6.5	0.2	μg/L	28-Aug-13 EPA200.8	
Iron	146	5	μg/L	28-Aug-13 EPA200.8	
Lead	0.2	0.1	μg/L	28-Aug-13 EPA200.8	
Manganese	26.5	0.1	μg/L	28-Aug-13 EPA200.8	
Nickel	2.1	0.1	μg/L	28-Aug-13 EPA200.8	
Zinc	10	5	μg/L	28-Aug-13 EPA200.8	
			-		

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-2 Taiga Sample ID: 003

**Client Project:** 

Sample Type: Water
Received Date: 23-Aug-13
Sampling Date: 22-Aug-13
Sampling Time: 13:17

**Location:** 

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Physicals						
Alkalinity, Total (as CaCO3)	240	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	2270	0.4	μS/cm	23-Aug-13	SM2510:B	
рН	7.93		pH units	23-Aug-13	SM4500-H:B	
Solids, Total Suspended	36	3	mg/L	29-Aug-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.009	0.005	mg/L	04-Sep-13	SM4500-NH3:	
Biochemical Oxygen Demand	4	2	mg/L	23-Aug-13	SM5210:B	
CBOD	3	2	mg/L	23-Aug-13	SM5210:B	
Major Ions						
Calcium	294	0.1	mg/L	23-Aug-13	SM4110:B	
Chloride	139	0.7	mg/L	23-Aug-13	SM4110:B	
Hardness	1090	0.7	mg/L	23-Aug-13	SM2340:B	
Magnesium	87.8	0.1	mg/L	23-Aug-13	SM4110:B	
Nitrate as Nitrogen	0.28	0.01	mg/L	23-Aug-13	SM4110:B	
Nitrite as Nitrogen	2.21	0.01	mg/L	23-Aug-13	SM4110:B	

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013

Page 6 of 10



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

## - CERTIFICATE OF ANALYSIS -

Taiga Sample ID: 003				
46.2	0.1	mg/L	23-Aug-13 SM4110:B	
123	0.1	mg/L	23-Aug-13 SM4110:B	
930	1	mg/L	23-Aug-13 SM4110:B	
87	1	CFU/100mL	23-Aug-13 SM9222:D	
Non-visible			29-Aug-13 Visual Exam	
82	5	μg/L	28-Aug-13 EPA200.8	
4.0	0.2	μg/L	28-Aug-13 EPA200.8	
< 0.1	0.1	μg/L	28-Aug-13 EPA200.8	
1.1	0.1	μg/L	28-Aug-13 EPA200.8	
< 0.1	0.1	μg/L	28-Aug-13 EPA200.8	
3.4	0.2	μg/L	28-Aug-13 EPA200.8	
6940	5	μg/L	28-Aug-13 EPA200.8	
1.8	0.1	μg/L	28-Aug-13 EPA200.8	
208	0.1	μg/L	28-Aug-13 EPA200.8	
5.5	0.1	μg/L	28-Aug-13 EPA200.8	
74	5	μg/L	28-Aug-13 EPA200.8	
	123 930  87  Non-visible  82 4.0 < 0.1 1.1 < 0.1 3.4 6940 1.8 208 5.5	123 0.1 930 1  87 1  Non-visible  82 5 4.0 0.2 <0.1 0.1 1.1 0.1 <0.1 0.1 3.4 0.2 6940 5 1.8 0.1 208 0.1 5.5 0.1	46.2 0.1 mg/L 123 0.1 mg/L 930 1 mg/L  87 1 CFU/100mL  Non-visible  82 5 μg/L 4.0 0.2 μg/L < 0.1 0.1 μg/L 1.1 0.1 μg/L < 0.1 0.1 μg/L  3.4 0.2 μg/L 6940 5 μg/L 1.8 0.1 μg/L 208 0.1 μg/L 208 0.1 μg/L 5.5 0.1 μg/L	

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-4 Taiga Sample ID: 004

**Client Project:** 

Sample Type: Water
Received Date: 23-Aug-13
Sampling Date: 22-Aug-13
Sampling Time: 14:15

**Location:** 

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO3)	220	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	1090	0.4	μS/cm	23-Aug-13	SM2510:B	
pН	7.97		pH units	23-Aug-13	SM4500-H:B	
Solids, Total Suspended	32	3	mg/L	29-Aug-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.050	0.005	mg/L	04-Sep-13	SM4500-NH3:	
Biochemical Oxygen Demand	25	2	mg/L	23-Aug-13	SM5210:B	
CBOD	23	2	mg/L	23-Aug-13	SM5210:B	
Major Ions						
Calcium	77.0	0.1	mg/L	23-Aug-13	SM4110:B	
Chloride	148	0.7	mg/L	23-Aug-13	SM4110:B	
Hardness	357	0.7	mg/L	23-Aug-13	SM2340:B	
Magnesium	40.0	0.1	mg/L	23-Aug-13	SM4110:B	
Nitrate as Nitrogen	0.34	0.01	mg/L	23-Aug-13	SM4110:B	
Nitrite as Nitrogen	< 0.01	0.01	mg/L	23-Aug-13	SM4110:B	

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013 Page 8 of 10



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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-4	Taiga Sample ID: 004					
Potassium	10.1	0.1	mg/L	23-Aug-13 SM4110:B		
Sodium	100	0.1	mg/L	23-Aug-13 SM4110:B		
Sulphate	131	1	mg/L	23-Aug-13 SM4110:B		
Microbiology						
Coliforms, Fecal (other)	TNTC	1	CFU/100mL	23-Aug-13 SM9222:D 86		
Organics						
Oil and Grease, visible	Non-visible			29-Aug-13 Visual Exam		
Trace Metals, Total						
Aluminum	23	5	μg/L	28-Aug-13 EPA200.8		
Arsenic	1.9	0.2	μg/L	28-Aug-13 EPA200.8		
Cadmium	< 0.1	0.1	μg/L	28-Aug-13 EPA200.8		
Chromium	0.6	0.1	μg/L	28-Aug-13 EPA200.8		
Cobalt	< 0.1	0.1	μg/L	28-Aug-13 EPA200.8		
Copper	3.0	0.2	μg/L	28-Aug-13 EPA200.8		
Iron	492	5	μg/L	28-Aug-13 EPA200.8		
Lead	< 0.1	0.1	μg/L	28-Aug-13 EPA200.8		
Manganese	26.6	0.1	μg/L	28-Aug-13 EPA200.8		
Nickel	1.7	0.1	μg/L	28-Aug-13 EPA200.8		
Zinc	< 5	5	μg/L	28-Aug-13 EPA200.8		

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013



Taiga Batch No.: 130709

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

## - CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-4 Taiga Sample ID: 004

## - DATA QUALIFERS -

Data Qualifier Descriptions:

Too numerous to count. Unable to repeat analysis at higher dilution. Holding time exceeded.

\* 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

**ReportDate:** Monday, September 09, 2013 **Print Date:** Monday, September 09, 2013

# Appendix C:

Water Sample Results-Bact Test and E.coli Taloyoak Water Licence 3BM-TAL0813



## Stanton Territorial Hospital Laboratory

Lab No: 25040252

Status

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

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900 HCN: Age: 113 Sex: N Client ID: HX00000057

Stanton Chart No:

Pt. Phone: 8676694162

Location: EHO - KITIKMEOT

Room:

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract.: PHYSICIAN, NOT Requested by: PHYSICIAN, NOT

Send to: KITIKMEOT REGIONAL ENGINEER

Copy to: EHO - KITIKMEOT, EHK KITIKMEOT REGIONAL.

KITIKMEOT REGIONAL. KITIKMEOT MUNICIPAL.

Tosl, Water

## MICROBIOLOGY

Requested on: 04/01/13:13:04

KITIKMEOT REGIONAL ENGINEEER, KRE - Cambridge Bay NU,

\* FINAL

Source: Water water truck #4

Collected: 03/01/13 11;21

Order#: 25040252

Received: 04/01/13 13:05

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

05/01/13 13:36

05/01/13

TOTAL COLIFORM: absent

E.COLI: absent

Micro Key for Results: \* - New Results

\*\* - Result was modified after Final status set

STATUS Page | of 1

Printed: 01/05/13 13.39

Poss Minist to

SCC

JAN-07-2013 15:52 From:STANTON HOSPITAL LAB 8676694141

7/2.9

To:8679834123

Lab No: 25040253



1



## 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

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900

Age: 113

Sex: N Client ID: HX00000057

HCN: Stanton Chart No:

Pt. Phone: 8676694162

Location: EHO - KITIKMEO'I'

Room.

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract.: PHYSICIA'N, NOT Requested by: PHYSICIAN, NOT

Send to: KITIKMEUT REGIONAL ENGINEER

Copy to: EHO - KLITKMEOT, EHK

KITIKMEOT REGIONAL KITIKMEOT MUNICIPAL

Status

Test, Water

05/01/13

## MICROBIOLOCY

Requested on: 04/01/13/13:05

KITIKMEOT REGIONAL ENGINEEER, KIG: - Cambridge Bay NU,

"FINAL

Source: Water water truck #3

Collected: 03/01/13 11:26

Order#: 25040253

Received: \$4/01/13 13:06

TOTAL COLIFORM & E.COLI TESTING (P/A

COLILERT METHOD)

TOTAL COLIFORM: absent

E.COLI: absent

05/01/13 13:36

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

SCC

STATUS Page 1 of 1

Plant fafti 8.1 Ju Printed: 01/05/13 13.39 12.50





#### LABORATORY REPORT

#### Stanton Territorial Hospital Laboratory

f ab No: 25040254

Sterrits.

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

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900

Age: 113 Sex: N

HCN:

Client ID: HX00000057

Stanton Chart No:

Pt. Phone: 8676694162 Location: EHO - KTTIKMEOT

Room:

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract.: PHYSICIAN, NOT Requested by: PHYSICIAN, NOT

Send to: KITIKMEOT REGIONAL ENGINEER

Copy to: EHO - KITIKMEOT, EHK KITIKMEOT REGIONAL KITIKMEOT MUNICIPAL

Test, Water

05/01/13

## MICROBIOLOGY

Sedigios sedes a aboves do come por presionado aproximar acos prosentos

KITIKMEOT REGIONAL ENGINEEER, KRE Cambridge Buy NU,

\* FINAL

Source: Water water truck #2

Order#: 25040254

Collected: 03/01/13 11:13

Received: 04/01/13 13:06

05/01/13 13:36

TOTAL COLIFORM & E.COLI TESTING (P/A

Requesterrant: 64/0:713/13/06

COLILERT METHOD)

TOTAL COLIFORM: absent

E.COLI: absent

9,5%

STATUS Page 1 of 1

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

Sem biblistice

Printed: 01/05/13 13:39

SCC



### Stanton Territorial Hospital Laboratory

550 Byrne Road, P.O. Box 10 Yellowknife, NT XIA 2N1 Phone: 867-669-4163 Fax: 867-669-4141 I ab No: 26080307

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900

Age: 113

Sex: N

HCN:

Client ID: HX00000057

Stanton Chart No: Pt. Phone: 8676694162

Location: KITIKMEOT REGIONAL ENGINEFER

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract.: PHYSICIAN, NOT Requested by PHYSICIAN, NOT

Send to: KITIKMEOT MUNICIPAL PLANNER

Copy to: EHO - KITIKMEOT, EHK KITIKMEOT REGIONAL KITIKMEOT MUNICIPAL

Text, Water 

08/02/13

MICROBIOLOGY

\* FINAL

Rennessed au: 08/02/15 15:42

KITTKMEOT MUNICIPAL PLANNER, KMP - Cambridge Bay NU.

Switcher

Source: Water Water truck #4

Collected: 06/02/13 11:10

Order#: 26080307

Received: 08/02/13 13:42

08/02/13 14:57

TOTAL COLIFORM & E.COLI TESTING (I'A

COLILERT METHOD)

TOTAL COLIFORM: absent

E.COLI: absent

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



#### Stanton Territorial Hospital Laboratory

Lab No. 26080309

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

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900

Age: 113 Sex: N

Client ID: HX00000057

Stanton Chart No:

Pt. Phone: 8676694162

Location: KITIKMEOT REGIONAL ENGINEEER Room: Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract: PHYSICIAN, NOT Requested by: PHYSICIAN, NOT

Send to: KITIKMEOT MUNICIPAL PLANNER

Copy to: EHO - KITIKMEOT, EHK KITIKMEOT REGIONAL KITIKMEOT MUNICIPAL

Switcher

Toyl, Water

HCN:

MICROBIOLOGY

Requested our 08/02/13 (2342 Shring)

KITTKMEOF MUNICIPAL PLANNER, KMP - Cambridge Bay NO

Source: Water Water truck #2

Collected: 06/02/13 11:20

Order#: 26080309

Received: 08/02/13 13:43

TOTAL COLIFORM & E.COLI TESTING (P/A

COLILERT METTIOD)

A \* FINAL

08/02/13 14:57

08/02/13

TOTAL COLIFORM: absent E.COLI: absent



#### Stanton Territorial Hospital Laboratory

550 Byrne Road, P.O. Box 10 Yellowknife, NT X1A 2N1 Phone: \$67-669-4163 Fax: \$67-669-4141 Lab No: 26080310

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900

Age: 113 Sex: N

HCN:

Client ID: HX00000057

Stanton Chart No:

Pt. Phone: 8676694162

Location: KITIKMEOT REGIONAL ENGINEEER Room:

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract.: PHYSICIAN, NOT Requested by: PHYSICIAN, NOT

Send to: KITIKMEOT MUNICIPAL PLANNEL

Copy to: EHO - KITIKMEOT, EHK KITIKMEOT REGIONAL. KITIKMEOT MUNICIPAL

Test, Water

08/02/13

## 

KITIKMFOT MIINICIPAL PLANNER, KMP - Cambridge Bay NU.

\* FINAL

Requested on: 05/02/11/13/43

Switcher

Source: Water Water truck #3

Order#: 26080310

Collected: 06/02/13 11:04

Received: 08/02/13 13:43

08/02/13 14:57

TOTAL COLIFORM & E.COLI TESTING (P/A

COLILERT METHOD)

TOTAL COLIFORM: absent

E.COLI: absent

STANTON STANTON TERRITORIAL BEALTH AUTHORITY

## LABORATORY REPORT

## Stanton Territorial Hospital Laboratory

550 Byrne Road, P.O. Box 10 Yellowknife, NT X [A 2N] Phone: 867-669-4163 Fax: 867-669-4141 Lab No. 28040234

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900 HCN: Age: 113

Sex: N

Client ID: HX00000057

Stanton Chart No: Pt. Phone: 8676694162

Location: EHO - KITIKMEOT

Room

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract.: PHYSICIAN, NOT Requested by: PHYSICIAN, NOT

Send to: KITIKMFOT REGIONAL ENGINEEL

Copy to: EHO - KITIKMEOT, EHK KITIKMEOT REGIONAL KITIKMEOT MUNICIPAL

Switcher

Tew. Water

05/04/13

MICROBIOLOGY

\* FINAL

Requested up: 04/M/L3 \$1:5

KITIKMEOT REGIONAL ENGINEEER, KRE - Cambridge Bay NU,

Source: Water Water truck #2

Order#: 28040234

Collected: 03/04/13 11:28

Received: 04/04/13 11:58

05/04/13

12:48

nublic, chlorinated, 850

TOTAL COLIFORM & E.COLI TESTING (P/A

COLILERT METHOD)

TOTAL COLIFORM: absent

E.COLI: absent

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

STATUS Page L of 1 Fund Millians.



## Stanton Territorial Hospital Laboratory

I ab No: 28040235

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

Patient: TALOYOAK, HAMLET OF

DOB: 01/01/1900

Age: 113

Sex: N

Client ID: HX00000057

Stanton Chart No: Pt. Phone: 8676694162

Location: EHQ - KITIKMEOT

Room:

HCN:

Adm. Date: 05/12/11

Encounter: WX0000000057

Attending Pract PHYSICJAN, NOT

Requested by: PHYSICIAN, NOT

Send to: KITIKMEOT REGIONAL ENGINEER Copy to: EHO - KITIKMEOT, EHK.

KITIKMEOT REGIONAL KITIKMEOT MUNICIPAL.

Tost Water

## MICROBIOTAXX

KITHOMEOT REGIONAL ENGINEEER, KRF - Cambridge Bay NU.

\* FINAL

Switcher

Source: Water Water Truck#4

Order#: 28040235

Collected: 03/04/13 11:22

Received: 04/04/13 11:58

public, chlorinated, 850

TOTAL COLIFORM & E.COLI TESTING (P/A

COLILERT METHOD)

05/04/13 12:48

05/04/13

TOTAL COLIFORM; absent

E.COLI: absent



0000000000000000

Department of Health Munaqhiliqiyitkut Ministère de la Santé

### LABORATORY REPORT

Cambridge Bay Water Laboratory Reporting Date: May 24, 2013

Reference Number 430-05-01

Source of water: Truck # 2, Hamlet of Taloyoak Date & Time collected: May 22, 2013; 11:05 AM Date & Time Received: May 23, 2013; 09:45 AM.

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.



DEDUCADADADADADA

Department of Health Munaqhiliqiyitkut Ministère de la Santé

## LABORATORY REPORT

Cambridge Bay Water Laboratory Reporting Date: May 24, 2013

Reference Number 430-05-01

Source of water: Truck # 3, Hamlet of Taloyoak Date & Time collected: May 22, 2013; 10:53 AM Date & Time Received: May 23, 2013; 09:45 AM.

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.