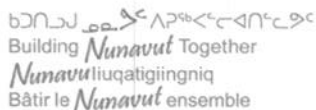


Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Phone: (867) 360-6338, Ext. 27
Fax: (867) 360-6369
Email: licensing@nunavutwaterboard.org

Attention: Sean Joseph, Technical Advisor
Re: Hamlet of Igloodik Water Licence # 3BM- IGL 0911 Renewal Application

1. Annual Reports for 2009 and 2010: Attached; No test result is available.
2. Lab results for 2011: No test result is available. Annual report attached.
3. Lab results for 2012 and 2013 are attached and also the annual reports:
4. Water Licence Item 3 and 4 of Part E shows "The Licensee shall provide to the NWB for review **as-built** plans and drawings stamped and signed by an Engineer within ninety 90 days of completion of construction." This guideline will be followed.
5. O&M manuals:
 - a. Water supply: This facility was built sometime in 1980s. The document should be transferred to NWB from NWT Water Board. However, this facility is in noncompliance and manual is very old and does not satisfy today's requirements. The design of new facility is complete and available for construction. The manual of the new facility is expected to be available in 2016 once new plant is built and commissioned. The Manual for existing facility is attached.
 - b. Sewage Lagoon: This facility was built sometime in 2000; no design drawings and O&M manual are available. The facility is in noncompliance. The design for the new facility is complete. The project is currently on hold due to funding. exp Services Inc. is the designer of the new facility.
 - c. Sewage Sludge Management: This is a part of item b. The sludge is kept at the bed of the lagoon untouched for the life time of this lagoon. This is the standard sludge management practice in the North.
 - d. Solid waste Management Facility: This is a non-engineered facility. No design document, and O&M manual are available. exp services Inc. is on board to design a new facility and this project is currently on hold until further notice by GN. The New O&M manual will be available once new solid waste facility is built and commissioned.



e & f. These two items are the part of item b and as well as with the items b and d.

6. Annual Geotechnical inspection; Part F (item3): This is agreed with NWB that annual inspection will be conducted by an Engineer. Geotechnical Engineer will be hired as required on case by case basis.
7. QA/QC Plan, Part H, item 9 and Part F, Item 1f: Not available. This document will be part of 5 (b) under O&M manual.
8. No record is available.
9. Technical Summary: The detail information for the proposed facilities is not available since both sewage lagoon and landfill site project are on hold.
10. Compliance Plan:
 - F-1: Already answered in item 5 under O&M.
 - F-3: Already answered in item 6. This is a verbal agreement of GN with NWB.
 - H-9: already answered in item 7 under O&M.

Please contact me if you have any issue or concern with this application renewal process. I will also appreciate if you keep me in the loop for this water licence approval process.

Thanking You.

BC

Bhabesh Roy, M.A.Sc., P.Eng.
Municipal Planning Engineer
Community Government Services
Baffin Region, Government of Nunavut
P.O.Box 379, Pond Inlet, X0A 0S0
Ph-867 899 7314
Fax-867 899 7328
E-mail: broy@gov.nu.ca

Copy: Ralph Ruediger, Director, Community Development
Timoon Toonoo, Regional Director
David Boyle, A. Senior manager Projects and Asset Management Divisions
Bill Westwell, Senior Manager Municipal Planning, Capital Planning
Brian Fleming, Senior Administrative Officer, Hamlet of Igloolik

From: Sean Joseph [mailto:sjoseph@nunavutwaterboard.org]
Sent: Tuesday, May 13, 2014 4:23 PM
To: Roy, Bhabesh
Cc: robin.ikkutisluk@nwb-oen.ca; phyllis.beaulieu@nwb-oen.ca; sean.joseph@nwb-oen.ca
Subject: 3BM-IGL0911 -Renwewal Application

Dear Mr. Roy:

The NWB has completed its preliminary review of the above-mentioned application, submitted by the hamlet of Igloolik for the renewal of Licence 3BIGL0911.

Your application consists of the following documents:

- a. Memorandum related to bathymetric survey of South Lake and Existing Water Reservoir
- b. Water Licence Renewal Application Form
- c. Compliance Plan
- d. Map showing the Location of South Lake
- e. Technical Summary of Environmental Facilities under Water Licence No. 3BM-IGL0914 (English)
- f. Technical Summary of Environmental Facilities under Water Licence No. 3BM-IGL0914 (Inuktitut)
- g. Application fee (\$30.00)
- h. Design Development Report (Arktis) - Improvement of Water Supply System, Igloolik, Nunavut (2011)
- i. Cover letter, dated March 13, 2014
- j. Baffin Region Hazardous Materials Spill Database
- k. 2013 Annual Report for the Hamlet of Igloolik
- l. 2012 Annual Report for the Hamlet of Igloolik
- m. 2011 Annual Report for the Hamlet of Igloolik

The review determines that the following items should be addressed before the NWB could proceed to the next stage(s) of the licensing process for the application:

1. Submission of copies of 2009 and 2010 annual reports, including laboratory results, as required under **Part B, Item 1** in the Licence.
2. Submission of a copy of the laboratory results for 2011 the annual report.
3. Submission of separate, un-embedded copies of the laboratory results associated with 2012 and 2013 annual reports. The files embedded within both annual reports are not viewable due to potential issues related to the file links.
4. All design drawing submitted under the application, including floor plans and elevations for the proposed water supply system, should be signed and stamped by an engineer licensed to practice in Nunavut. In additions design and specifications stamped by engineer should be provided for all new facilities/upgrades proposed under the licence.
5. Submission of an Operations and Maintenance Manual, for approval by the Board, that takes into consideration the comments received prior to the issuance of the expired licence and which contains the following plans as required under **Part F, Item 1** in the licence for **existing facilities**:
 - a. *Updates to the Water Distribution Facility Operation and Maintenance (O&M) Plan (for review);*
 - b. *Sewage Disposal Facility Operation and Maintenance (O&M) Plan;*
 - c. *Sewage Sludge Management Plan;*

- d. *Solid Waste Disposal Facility Operation and Maintenance (O&M) Plan;*
 - e. *Spill Contingency Plan; and*
 - f. *Monitoring Program Quality Assurance/Quality Control Plan (QA/QC Plan)*
6. Submission of reports generated from annual geotechnical inspections as required under **Part F, Item 3** in the licence.
7. Submission of a Monitoring Program *Quality Assurance/Quality Control Plan (QA/QC Plan)* as required **under Part H, Item 9** and **Part F, Item 1f** in the licence.
8. **Water Licence Application form:**
- Block 15 should be updated to include the quantity of each waste type that will be generated, method of treatment/disposal, etc.
9. **Technical Summary of Environmental Facilities under Water Licence No. 3BM-IGL0914 (English)**
- More details should be included about existing and proposed facilities, such as the size and scope of the solid waste management facilities, wastewater treatment facilities, and the water supply facilities.
 - More specific details should be provided on what hamlet would like amended under the renewed licence.
10. **Compliance Plan**
- F-1 of the compliance plan is referring to an Operations and Maintenance manual for new facilities proposed; however, the Part F, Item 1 in the licence is referring to an Operations and Maintenance Manual for existing facilities. The compliance plan should therefore address the current requirements.
 - F-3 of the compliance plan is proposing to conduct geotechnical inspections at 3-year intervals, which is inconsistent with terms and conditions in the licence.
 - H-9 of the compliance plans should address the requirement for a Quality Control and Quality Assurance Plan associated with monitoring existing facility. The compliance plan indicates that the QA/QC plan will be submitted to address requirements for facilities not yet approved for construction.

If you have any questions related to the above, please contact me at your earliest convenience.

Regards,
Sean

**HAMLET OF IGLOOLIK
BAFFIN REGION, NUNAVUT**

LAB TEST RESULTS

C.O.C.: G27761

REPORT No. B13-24340

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 17-Sep-13

JOB/PROJECT NO.:

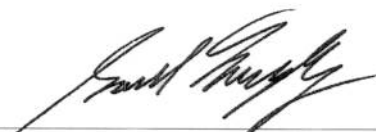
DATE REPORTED: 26-Sep-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Waste Water			
			Sample I.D.	B13-24340-1			
			Date Collected	17-Sep-13			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	18-Sep-13/O	176		
Total Suspended Solids	mg/L	3	SM 2540D	18-Sep-13/O	120		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	18-Sep-13/O	802		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	17-Sep-13/O	501		
Conductivity @25°C	µmho/cm	1	SM 2510B	18-Sep-13/O	1530		
pH @25°C	pH Units		SM 4500H	17-Sep-13/O	7.57		
Nitrite (N)	mg/L	0.1	SM4110C	17-Sep-13/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	17-Sep-13/O	< 0.1		
Chloride	mg/L	0.5	SM4110C	17-Sep-13/O	118		
Sulphate	mg/L	1	SM4110C	17-Sep-13/O	47		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	17-Sep-13/O	79.9		
Phenolics	mg/L	0.001	MOEE 3179	18-Sep-13/O	< 0.001		
Total Organic Carbon	mg/L	0.2	EPA 415.1	18-Sep-13/O	9.8		
Aluminum (total)	mg/L	0.01	SM 3120	18-Sep-13/O	0.13		
Arsenic	mg/L	0.0001	EPA 200.8	18-Sep-13/O	0.0006		
Calcium	mg/L	0.02	SM 3120	18-Sep-13/O	167		
Cadmium	mg/L	0.005	SM 3120	18-Sep-13/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	18-Sep-13/O	< 0.005		
Copper	mg/L	0.002	SM 3120	18-Sep-13/O	0.002		
Chromium	mg/L	0.002	SM 3120	18-Sep-13/O	< 0.002		
Iron (Total)	mg/L	0.005	SM 3120	18-Sep-13/O	0.099		
Potassium	mg/L	0.1	SM 3120	18-Sep-13/O	27.1		
Magnesium	mg/L	0.01	SM 3120	18-Sep-13/O	93.5		
Manganese (Total)	mg/L	0.001	SM 3120	18-Sep-13/O	0.007		
Mercury	mg/L	0.00002	SM 3112 B	19-Sep-13/O	< 0.00002		
Nickel	mg/L	0.01	SM 3120	18-Sep-13/O	< 0.01		
Sodium	mg/L	0.2	SM 3120	18-Sep-13/O	396		
Lead	mg/L	0.02	SM 3120	18-Sep-13/O	< 0.02		



Gord Murphy
Lab Supervisor

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G27761

REPORT No. B13-24340

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 17-Sep-13

JOB/PROJECT NO.:

DATE REPORTED: 26-Sep-13

P.O. NUMBER:

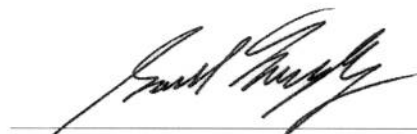
SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Waste Water			
			Sample I.D.	B13-24340-1			
			Date Collected	17-Sep-13			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Zinc	mg/L	0.005	SM 3120	18-Sep-13/O	< 0.005		
Oil & Grease-Total	mg/L	1.0	SM 5520	26-Sep-13/K	< 1.0		
Fecal Coliform	cfu/100mL	1	MOE E3371	17-Sep-13/O	4000000		

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill



Gord Murphy
Lab Supervisor

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C.O.C.: G35534

REPORT No. B13-15751

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 25-Jun-13

JOB/PROJECT NO.:

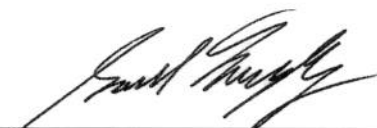
DATE REPORTED: 03-Jul-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Waste Water			
			Sample I.D.	B13-15751-1			
			Date Collected	20-Jun-13			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	26-Jun-13/O	13		
Total Suspended Solids	mg/L	3	SM 2540D	26-Jun-13/O	8		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	26-Jun-13/O	232		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	26-Jun-13/O	292		
Conductivity @25°C	µmho/cm	1	SM 2510B	26-Jun-13/O	1160		
pH @25°C	pH Units		SM 4500H	27-Jun-13/O	7.74		
Nitrite (N)	mg/L	0.1	SM4110C	25-Jun-13/O	0.3		
Nitrate (N)	mg/L	0.1	SM4110C	25-Jun-13/O	0.2		
Chloride	mg/L	0.5	SM4110C	25-Jun-13/O	137		
Sulphate	mg/L	1	SM4110C	25-Jun-13/O	58		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	28-Jun-13/O	31.1		
Phenolics	mg/L	0.001	MOEE 3179	26-Jun-13/O	< 0.001		
Total Organic Carbon	mg/L	0.2	EPA 415.1	27-Jun-13/O	76.8		
Aluminum (total)	mg/L	0.01	SM 3120	26-Jun-13/O	0.03		
Arsenic	mg/L	0.0005	EPA 200.8	27-Jun-13/O	0.0018		
Calcium	mg/L	0.02	SM 3120	26-Jun-13/O	60.1		
Cadmium	mg/L	0.005	SM 3120	26-Jun-13/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	26-Jun-13/O	< 0.005		
Copper	mg/L	0.002	SM 3120	26-Jun-13/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	26-Jun-13/O	< 0.002		
Iron (Total)	mg/L	0.005	SM 3120	26-Jun-13/O	0.015		
Potassium	mg/L	0.1	SM 3120	26-Jun-13/O	9.9		
Magnesium	mg/L	0.01	SM 3120	26-Jun-13/O	19.8		
Manganese (Total)	mg/L	0.001	SM 3120	26-Jun-13/O	0.002		
Mercury	mg/L	0.00002	SM 3112 B	27-Jun-13/O	< 0.00002		
Nickel	mg/L	0.01	SM 3120	26-Jun-13/O	< 0.01		
Sodium	mg/L	0.2	SM 3120	26-Jun-13/O	80.0		
Lead	mg/L	0.02	SM 3120	26-Jun-13/O	< 0.02		



Gord Murphy
Lab Supervisor

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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C.O.C.: G35534

REPORT No. B13-15751

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 25-Jun-13

JOB/PROJECT NO.:

DATE REPORTED: 03-Jul-13

P.O. NUMBER:

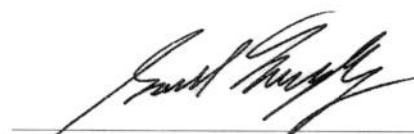
SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Waste Water				
			Sample I.D.	B13-15751-1				
			Date Collected	20-Jun-13				
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed				
Zinc	mg/L	0.005	SM 3120	26-Jun-13/O	< 0.005			
Oil & Grease-Total	mg/L	1.0	SM 5520	03-Jul-13/K	< 1.0			
Fecal Coliform	cfu/100mL	1	MOE E3371	25-Jun-13/O	120			

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill



Gord Murphy
Lab Supervisor

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C.O.C.: G35593

REPORT No. B13-29381

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 08-Nov-13

JOB/PROJECT NO.:

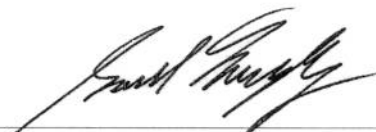
DATE REPORTED: 19-Nov-13

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Waste Water			
			Sample I.D.	B13-29381-1			
			Date Collected	08-Nov-13			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Total Suspended Solids	mg/L	3	SM 2540D	13-Nov-13/O	488		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	12-Nov-13/O	200		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	12-Nov-13/O	441		
Conductivity @25°C	µmho/cm	1	SM 2510B	11-Nov-13/O	1250		
pH @25°C	pH Units		SM 4500H	11-Nov-13/O	7.36		
Nitrite (N)	mg/L	0.1	SM4110C	12-Nov-13/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	12-Nov-13/O	< 0.1		
Chloride	mg/L	0.5	SM4110C	12-Nov-13/O	124		
Sulphate	mg/L	1	SM4110C	12-Nov-13/O	6		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	14-Nov-13/O	77.6		
Total Organic Carbon	mg/L	0.2	EPA 415.1	18-Nov-13/O	64.6		
Aluminum (total)	mg/L	0.01	SM 3120	12-Nov-13/O	3.30		
Arsenic	mg/L	0.0001	EPA 200.8	12-Nov-13/O	0.0061		
Calcium	mg/L	0.02	SM 3120	12-Nov-13/O	51.1		
Cadmium	mg/L	0.005	SM 3120	12-Nov-13/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	12-Nov-13/O	< 0.005		
Copper	mg/L	0.002	SM 3120	12-Nov-13/O	0.188		
Chromium	mg/L	0.002	SM 3120	12-Nov-13/O	0.003		
Iron (Total)	mg/L	0.005	SM 3120	12-Nov-13/O	1.27		
Potassium	mg/L	0.1	SM 3120	12-Nov-13/O	28.8		
Magnesium	mg/L	0.01	SM 3120	12-Nov-13/O	17.5		
Manganese (Total)	mg/L	0.001	SM 3120	12-Nov-13/O	0.071		
Mercury	mg/L	0.00002	SM 3112 B	12-Nov-13/O	0.00007		
Nickel	mg/L	0.01	SM 3120	12-Nov-13/O	< 0.01		
Sodium	mg/L	0.2	SM 3120	12-Nov-13/O	104		
Lead	mg/L	0.02	SM 3120	12-Nov-13/O	< 0.02		
Zinc	mg/L	0.005	SM 3120	12-Nov-13/O	0.242		
Oil & Grease-Total	mg/L	1.0	SM 5520	19-Nov-13/K	294		



Gord Murphy
Lab Supervisor

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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C.O.C.: G35593

REPORT No. B13-29381

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 08-Nov-13

JOB/PROJECT NO.:

DATE REPORTED: 19-Nov-13

P.O. NUMBER:

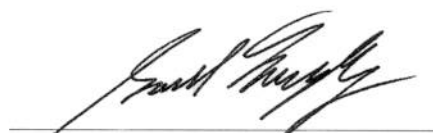
SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Waste Water				
			Sample I.D.	B13-29381-1				
			Date Collected	08-Nov-13				
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed				
Fecal Coliform	cfu/100mL	1	MOE E3371	08-Nov-13/O	6100000			

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill



Gord Murphy
Lab Supervisor

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G35592

REPORT No. B13-29380

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Brain Fleming

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 08-Nov-13

JOB/PROJECT NO.:

DATE REPORTED: 19-Nov-13

P.O. NUMBER:

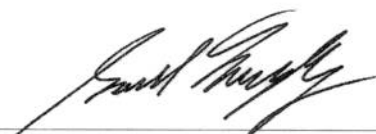
SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	Raw Drinking Water - Water Truck 063			
			Sample I.D.	B13-29380-1			
			Date Collected	05-Nov-13			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
Phenolics	mg/L	0.001	MOEE 3179	12-Nov-13/O	< 0.001		
Turbidity	NTU	0.1	SM 2130	12-Nov-13/O	0.7		
Surfactants Content	mg/L	0.05	SM-5540-C	15-Nov-13/O	< 0.05	2	
Total Dissolved Solids	mg/L	3	SM 2540D	13-Nov-13/O	332		
Chloride	mg/L	0.5	SM4110C	08-Nov-13/O	84.6		
Fluoride	mg/L	0.1	SM4110C	08-Nov-13/O	0.3		
Nitrate (N)	mg/L	0.1	SM4110C	08-Nov-13/O	0.1		
Sulphate	mg/L	1	SM4110C	08-Nov-13/O	49		
Dissolved Organic Carbon	mg/L	0.2	EPA 415.1	18-Nov-13/O	3.5		
Total Cyanide	mg/L	0.005	SM 4500CN	14-Nov-13/K	< 0.005		
Arsenic	mg/L	0.0001	EPA 200.8	12-Nov-13/O	0.0014		
Barium	mg/L	0.001	SM 3120	12-Nov-13/O	0.006		
Cadmium	mg/L	0.00002	EPA 200.8	12-Nov-13/O	< 0.00002		
Chromium	mg/L	0.002	SM 3120	12-Nov-13/O	< 0.002		
Chromium (VI)	mg/L	0.01	MOEE 3056	12-Nov-13/O	< 0.01	1	
Iron	mg/L	0.005	SM 3120	12-Nov-13/O	0.008		
Lead	mg/L	0.00002	EPA 200.8	12-Nov-13/O	0.00027		
Manganese	mg/L	0.001	SM 3120	12-Nov-13/O	0.001		
Selenium	mg/L	0.001	EPA 200.8	12-Nov-13/O	< 0.001		
Silver	mg/L	0.00002	EPA 200.8	12-Nov-13/O	< 0.00002		
Zinc	mg/L	0.005	SM 3120	12-Nov-13/O	0.009		

1 Chromium (VI) result is based on total chromium

2 Subcontracted to Niagara Analytical



Gord Murphy
Lab Supervisor

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G23557

REPORT No. B12-14054

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Jerry Fox

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 12-Jun-12

DATE REPORTED: 18-Jun-12

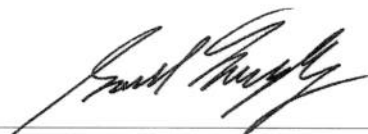
SAMPLE MATRIX: Waste Water

JOB/PROJECT NO.: Sewer Decanting Lagoon #1

P.O. NUMBER:

WATERWORKS NO.

Parameter			BOD	Total Suspended Solids			
Units			mg/L	mg/L			
M.D.L.			3	3			
Reference Method			SM 5210B	SM 2540D			
Date Analyzed/Site			13-Jun-12/O	14-Jun-12/O			
Client I.D.	Sample I.D.	Date Collected					
Sewer Lagoon #1 Zone 1	B12-14054-1	06-Jun-12	109	50			
Sewer Lagoon #1 Zone 2	B12-14054-2	06-Jun-12	35	12			
Sewer Lagoon #1 Zone 3	B12-14054-3	06-Jun-12	77	40			



Gord Murphy
Lab Supervisor

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

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C.O.C.: G23558

REPORT No. B12-24679

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Jerry Fox

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 27-Sep-12

JOB/PROJECT NO.: Sewer Decanting

DATE REPORTED: 03-Oct-12

P.O. NUMBER:

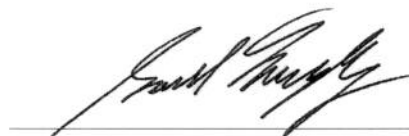
SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Zone-1 Beginning of Decanting	Zone-2 Middle of Decanting	Zone-3 End of Decanting	
			Sample I.D.	B12-24679-1	B12-24679-2	B12-24679-3	
			Date Collected	25-Sep-12	25-Sep-12	25-Sep-12	
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	28-Sep-12/O	101	55	< 3
Total Suspended Solids	mg/L	3	SM 2540D	28-Sep-12/O	136	68	8

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill



Gord Murphy
Lab Supervisor

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C.O.C.: G23556

REPORT No. B12-14059

Report To:

Municipality of Igloolik
PO Box 30,
Igloolik NU X0A 0L0 Canada

Attention: Jerry Fox

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Fax: 613-526-1244

DATE RECEIVED: 12-Jun-12

DATE REPORTED: 18-Jun-12

SAMPLE MATRIX: Waste Water

JOB/PROJECT NO.: Sewer Decanting Lagoon #2

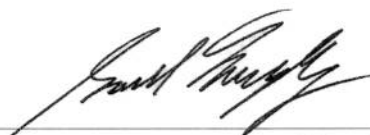
P.O. NUMBER:

WATERWORKS NO.

Parameter			BOD	Total Suspended Solids			
Units			mg/L	mg/L			
M.D.L.			3	3			
Reference Method			SM 5210B	SM 2540D			
Date Analyzed/Site			13-Jun-12/O	14-Jun-12/O			
Client I.D.	Sample I.D.	Date Collected					
Sewer Lagoon #2 Zone 1	B12-14059-1	06-Jun-12	200	33			
Sewer Lagoon #2 Zone 2	B12-14059-2	06-Jun-12	164	32			
Sewer Lagoon #2 Zone 3	B12-14059-3	06-Jun-12	<20	6			

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill



Gord Murphy
Lab Supervisor

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