



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

Taiga Batch No.:
130709

- 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:

- 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



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Taiga Batch No.:
130709

- 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 *	Qualifier
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	217	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	1070	0.4	µS/cm	23-Aug-13	SM2510:B	
pH	7.56		pH units	23-Aug-13	SM4500-H:B	
Solids, Total Suspended	42	3	mg/L	29-Aug-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.310	0.005	mg/L	04-Sep-13	SM4500-NH ₃ :	
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	

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-3

Taiga Sample ID: 001

Nitrite as Nitrogen	0.12	0.01	mg/L	23-Aug-13	SM4110:B
Potassium	9.9	0.1	mg/L	23-Aug-13	SM4110:B
Sodium	98.3	0.1	mg/L	23-Aug-13	SM4110:B
Sulphate	136	1	mg/L	23-Aug-13	SM4110:B

Microbiology

Coliforms, Fecal (other)	TNTC	1	CFU/100mL	23-Aug-13	SM9222:D	86
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Organics

Oil and Grease, visible	Non-visible			29-Aug-13	Visual Exam
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Trace Metals, Total

Aluminum	32	5	µg/L	28-Aug-13	EPA200.8
Arsenic	2.2	0.2	µg/L	28-Aug-13	EPA200.8
Cadmium	< 0.1	0.1	µg/L	28-Aug-13	EPA200.8
Chromium	3.0	0.1	µg/L	28-Aug-13	EPA200.8
Cobalt	< 0.1	0.1	µg/L	28-Aug-13	EPA200.8
Copper	3.8	0.2	µg/L	28-Aug-13	EPA200.8
Iron	856	5	µg/L	28-Aug-13	EPA200.8
Lead	< 0.1	0.1	µg/L	28-Aug-13	EPA200.8
Manganese	51.1	0.1	µg/L	28-Aug-13	EPA200.8
Nickel	2.5	0.1	µg/L	28-Aug-13	EPA200.8
Zinc	6	5	µg/L	28-Aug-13	EPA200.8

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Taiga Batch No.:
130709

- 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 *	Qualifier
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	202	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	802	0.4	µS/cm	23-Aug-13	SM2510:B	
pH	8.65		pH units	23-Aug-13	SM4500-H:B	
Solids, Total Suspended	115	3	mg/L	29-Aug-13	SM2540:D	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	1.20	0.005	mg/L	04-Sep-13	SM4500-NH ₃ :	
Biochemical Oxygen Demand	58	2	mg/L	23-Aug-13	SM5210:B	
CBOD	56	2	mg/L	23-Aug-13	SM5210:B	
<u>Major Ions</u>						
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	

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- 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
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Organics

Oil and Grease, visible	Non-visible			29-Aug-13	Visual Exam
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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

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- 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 *	Qualifier
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	240	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	2270	0.4	µS/cm	23-Aug-13	SM2510:B	
pH	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	
<u>Major Ions</u>						
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	

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-2**

Taiga Sample ID: **003**

Potassium	46.2	0.1	mg/L	23-Aug-13	SM4110:B
Sodium	123	0.1	mg/L	23-Aug-13	SM4110:B
Sulphate	930	1	mg/L	23-Aug-13	SM4110:B

Microbiology

Coliforms, Fecal (other)	87	1	CFU/100mL	23-Aug-13	SM9222:D
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Organics

Oil and Grease, visible	Non-visible	29-Aug-13	Visual Exam
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Trace Metals, Total

Aluminum	82	5	µg/L	28-Aug-13	EPA200.8
Arsenic	4.0	0.2	µg/L	28-Aug-13	EPA200.8
Cadmium	< 0.1	0.1	µg/L	28-Aug-13	EPA200.8
Chromium	1.1	0.1	µg/L	28-Aug-13	EPA200.8
Cobalt	< 0.1	0.1	µg/L	28-Aug-13	EPA200.8
Copper	3.4	0.2	µg/L	28-Aug-13	EPA200.8
Iron	6940	5	µg/L	28-Aug-13	EPA200.8
Lead	1.8	0.1	µg/L	28-Aug-13	EPA200.8
Manganese	208	0.1	µg/L	28-Aug-13	EPA200.8
Nickel	5.5	0.1	µg/L	28-Aug-13	EPA200.8
Zinc	74	5	µg/L	28-Aug-13	EPA200.8

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Taiga Batch No.:
130709

- 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 *	Qualifier
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	220	0.4	mg/L	23-Aug-13	SM2320:B	
Conductivity, Specific (@ 25°C)	1090	0.4	µS/cm	23-Aug-13	SM2510:B	
pH	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	
<u>Major Ions</u>						
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	

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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
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Organics

Oil and Grease, visible	Non-visible			29-Aug-13	Visual Exam
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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

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **004**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

86 *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