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Hamlet of Taloyoak
PO Box 8
Taloyoak, Nunavut
X0B 1B0

Tel: 867-561-2300
Fax: 867-561-5057
Email: sao@taloyoak.ca

Water, sewage, waste samples results-2018



Water Licence: 3BM-TAL 1419

Hamlet of Taloyoak, NU

Date submitted: Feb 19, 2019

Appendix A:

Water Test Reports 2018

Water Licence: 3BM-TAL 1419

Hamlet of Taloyoak, NU



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180223

- FINAL REPORT -

Prepared For: Hamlet of Taloyoak

Address: P.O. Box 8
Taloyoak, NU, X0E 1B0

Attn: Larry Banks

Facsimile: 867-561-5057

Final report has been reviewed and approved by:

Glen Hudy
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) to ISO/IEC 17025 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: Friday, May 25, 2018

Print Date: *Friday, May 25, 2018*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-1**

Taiga Sample ID: **001**

Client Project: Taloyoak Water System

Sample Type: Raw Water

Received Date: 01-May-18

Sampling Date: 30-Apr-18

Sampling Time:

Location: Intake PH, WTP and Truckfill

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Organic Carbon, Dissolved	3.8	0.5	mg/L	03-May-18	SM5310:B	
Organic Carbon, Total	4.0	0.5	mg/L	03-May-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	131	0.4	mg/L	01-May-18	SM2320:B	
Colour, Apparent	8	5	CU	01-May-18	SM2120:B	
Conductivity, Specific (@25C)	373	0.4	µS/cm	01-May-18	SM2510:B	
pH	7.73		pH units	01-May-18	SM4500-H:B	
Solids, Total Dissolved	76	10	mg/L	04-May-18	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	04-May-18	SM2540:D	
Turbidity	0.22	0.05	NTU	01-May-18	SM2130:B	
<u>Major Ions</u>						
Calcium	30.6	0.1	mg/L	01-May-18	SM4110:B	
Chloride	31.1	0.7	mg/L	01-May-18	SM4110:B	
Fluoride	0.1	0.1	mg/L	01-May-18	SM4110:B	

ReportDate: Friday, May 25, 2018

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-1**

Taiga Sample ID: **001**

Hardness	137	0.7	mg/L	01-May-18	SM4110:B
Magnesium	14.7	0.1	mg/L	01-May-18	SM4110:B
Nitrate as Nitrogen	0.32	0.01	mg/L	01-May-18	SM4110:B
Nitrite as Nitrogen	< 0.01	0.01	mg/L	01-May-18	SM4110:B
Potassium	1.7	0.1	mg/L	01-May-18	SM4110:B
Sodium	19.4	0.1	mg/L	01-May-18	SM4110:B
Sulphate	16	1	mg/L	01-May-18	SM4110:B

Microbiology

Coliforms, Total	< 1.0	1.0	MPN/100ml	01-May-18	SM9223:B
Escherichia coli	< 1.0	1.0	MPN/100ml	01-May-18	SM9223:B

Subcontracted Inorganics

Sulphide	< 0.0180	0.018	mg/L	04-May-18	APHA4500-S2
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Subcontracted Organics

Cyanide, Weak Acid Dissociable	< 0.0010	0.001	mg/L	08-May-18	APHA4500-CN
Phenols, Total	< 0.0010	0.001	mg/L	09-May-18	AB ENV.06537

Trace Metals, Total

Aluminum	0.9	0.6	µg/L	09-May-18	EPA200.8
Antimony	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Arsenic	0.3	0.2	µg/L	09-May-18	EPA200.8
Barium	5.2	0.1	µg/L	09-May-18	EPA200.8
Beryllium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Bismuth	< 0.2	0.2	µg/L	09-May-18	EPA200.8
Boron	20.7	0.9	µg/L	09-May-18	EPA200.8
Cadmium	< 0.04	0.04	µg/L	09-May-18	EPA200.8
Cesium	< 0.1	0.1	µg/L	09-May-18	EPA200.8

ReportDate: Friday, May 25, 2018

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-1

Taiga Sample ID: 001

Chromium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Copper	1.4	0.2	µg/L	09-May-18	EPA200.8
Iron	7	5	ug/L	09-May-18	EPA200.8
Lead	0.1	0.1	µg/L	09-May-18	EPA200.8
Lithium	3.0	0.2	µg/L	09-May-18	EPA200.8
Manganese	1.5	0.1	µg/L	09-May-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	09-May-18	EPA200.8
Molybdenum	0.9	0.1	µg/L	09-May-18	EPA200.8
Nickel	0.1	0.1	µg/L	09-May-18	EPA200.8
Rubidium	1.1	0.1	µg/L	09-May-18	EPA200.8
Selenium	0.4	0.3	µg/L	09-May-18	EPA200.8
Silver	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Strontium	61.6	0.1	µg/L	09-May-18	EPA200.8
Thallium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Tin	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Titanium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Uranium	0.5	0.1	µg/L	09-May-18	EPA200.8
Vanadium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Zinc	5.5	0.4	µg/L	09-May-18	EPA200.8

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **WTP**

Taiga Sample ID: **002**

Client Project: Taloyoak Water System

Sample Type: Treated Water

Received Date: 01-May-18

Sampling Date: 30-Apr-18

Sampling Time:

Location: Intake PH, WTP and Truckfill

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Organic Carbon, Dissolved	3.6	0.5	mg/L	03-May-18	SM5310:B	
Organic Carbon, Total	3.9	0.5	mg/L	03-May-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	130	0.4	mg/L	01-May-18	SM2320:B	
Colour, Apparent	5	5	CU	01-May-18	SM2120:B	
Conductivity, Specific (@25C)	375	0.4	µS/cm	01-May-18	SM2510:B	
pH	7.87		pH units	01-May-18	SM4500-H:B	
Solids, Total Dissolved	86	10	mg/L	04-May-18	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	04-May-18	SM2540:D	
Turbidity	0.20	0.05	NTU	01-May-18	SM2130:B	
<u>Major Ions</u>						
Calcium	31.7	0.1	mg/L	01-May-18	SM4110:B	
Chloride	32.1	0.7	mg/L	01-May-18	SM4110:B	
Fluoride	0.1	0.1	mg/L	01-May-18	SM4110:B	
Hardness	142	0.7	mg/L	01-May-18	SM4110:B	
Magnesium	15.1	0.1	mg/L	01-May-18	SM4110:B	

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **WTP**

Taiga Sample ID: **002**

Nitrate as Nitrogen	0.36	0.01	mg/L	01-May-18	SM4110:B
Nitrite as Nitrogen	< 0.01	0.01	mg/L	01-May-18	SM4110:B
Potassium	1.7	0.1	mg/L	01-May-18	SM4110:B
Sodium	19.5	0.1	mg/L	01-May-18	SM4110:B
Sulphate	16	1	mg/L	01-May-18	SM4110:B

Microbiology

Coliforms, Total	< 1.0	1.0	MPN/100ml	01-May-18	SM9223:B
Escherichia coli	< 1.0	1.0	MPN/100ml	01-May-18	SM9223:B

Organics

Bromodichloromethane	0.016	0.005	mg/L	09-May-18	EPA8260B	110
Bromoform	< 0.005	0.005	mg/L	09-May-18	EPA8260B	110
Chloroform	0.018	0.005	mg/L	09-May-18	EPA8260B	110
Dibromochloromethane	0.011	0.005	mg/L	09-May-18	EPA8260B	110
Trihalomethanes, Total	0.048	0.005	mg/L	09-May-18	EPA8260B	110

Subcontracted Inorganics

Sulphide	< 0.0180	0.018	mg/L	04-May-18	APHA4500-S2
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Subcontracted Organics

Cyanide, Weak Acid Dissociable	< 0.0010	0.001	mg/L	08-May-18	APHA4500-CN
Phenols, Total	< 0.0010	0.001	mg/L	09-May-18	AB ENV.06537

Trace Metals, Total

Aluminum	1.8	0.6	µg/L	09-May-18	EPA200.8
Antimony	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Arsenic	0.3	0.2	µg/L	09-May-18	EPA200.8
Barium	5.5	0.1	µg/L	09-May-18	EPA200.8
Beryllium	< 0.1	0.1	µg/L	09-May-18	EPA200.8

ReportDate: Friday, May 25, 2018

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **WTP**

Taiga Sample ID: **002**

Bismuth	< 0.2	0.2	µg/L	09-May-18	EPA200.8
Boron	21.7	0.9	µg/L	09-May-18	EPA200.8
Cadmium	< 0.04	0.04	µg/L	09-May-18	EPA200.8
Cesium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Chromium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Copper	16.7	0.2	µg/L	09-May-18	EPA200.8
Iron	6	5	ug/L	09-May-18	EPA200.8
Lead	0.7	0.1	µg/L	09-May-18	EPA200.8
Lithium	3.4	0.2	µg/L	09-May-18	EPA200.8
Manganese	0.8	0.1	µg/L	09-May-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	09-May-18	EPA200.8
Molybdenum	0.9	0.1	µg/L	09-May-18	EPA200.8
Nickel	0.4	0.1	µg/L	09-May-18	EPA200.8
Rubidium	1.1	0.1	µg/L	09-May-18	EPA200.8
Selenium	0.3	0.3	µg/L	09-May-18	EPA200.8
Silver	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Strontium	60.4	0.1	µg/L	09-May-18	EPA200.8
Thallium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Tin	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Titanium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Uranium	0.6	0.1	µg/L	09-May-18	EPA200.8
Vanadium	0.1	0.1	µg/L	09-May-18	EPA200.8
Zinc	37.9	0.4	µg/L	09-May-18	EPA200.8

ReportDate: Friday, May 25, 2018

Print Date: **Friday, May 25, 2018**

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truckfill**

Taiga Sample ID: **003**

Client Project: Taloyaok Water System

Sample Type: Treated Water for delivery

Received Date: 01-May-18

Sampling Date: 30-Apr-18

Sampling Time:

Location: Intake PH, WTP and Truckfill

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Organic Carbon, Dissolved	3.9	0.5	mg/L	03-May-18	SM5310:B	
Organic Carbon, Total	4.0	0.5	mg/L	03-May-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	131	0.4	mg/L	01-May-18	SM2320:B	
Colour, Apparent	5	5	CU	01-May-18	SM2120:B	
Conductivity, Specific (@25C)	379	0.4	µS/cm	01-May-18	SM2510:B	
pH	7.86		pH units	01-May-18	SM4500-H:B	
Solids, Total Dissolved	92	10	mg/L	04-May-18	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	04-May-18	SM2540:D	
Turbidity	0.19	0.05	NTU	01-May-18	SM2130:B	
<u>Major Ions</u>						
Calcium	32.5	0.1	mg/L	02-May-18	SM4110:B	
Chloride	31.9	0.7	mg/L	02-May-18	SM4110:B	
Fluoride	0.1	0.1	mg/L	02-May-18	SM4110:B	
Hardness	142	0.7	mg/L	02-May-18	SM4110:B	
Magnesium	14.8	0.1	mg/L	02-May-18	SM4110:B	

ReportDate: Friday, May 25, 2018

Print Date: **Friday, May 25, 2018**

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truckfill**

Taiga Sample ID: **003**

Nitrate as Nitrogen	0.32	0.01	mg/L	02-May-18	SM4110:B
Nitrite as Nitrogen	< 0.01	0.01	mg/L	02-May-18	SM4110:B
Potassium	1.7	0.1	mg/L	02-May-18	SM4110:B
Sodium	19.5	0.1	mg/L	02-May-18	SM4110:B
Sulphate	16	1	mg/L	02-May-18	SM4110:B

Microbiology

Coliforms, Total	< 1.0	1.0	MPN/100ml	01-May-18	SM9223:B
Escherichia coli	< 1.0	1.0	MPN/100ml	01-May-18	SM9223:B

Organics

Bromodichloromethane	0.008	0.005	mg/L	09-May-18	EPA8260B
Bromoform	< 0.005	0.005	mg/L	09-May-18	EPA8260B
Chloroform	0.015	0.005	mg/L	09-May-18	EPA8260B
Dibromochloromethane	0.007	0.005	mg/L	09-May-18	EPA8260B
Trihalomethanes, Total	0.032	0.005	mg/L	09-May-18	EPA8260B

Subcontracted Inorganics

Sulphide	< 0.0180	0.018	mg/L	04-May-18	APHA4500-S2
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Subcontracted Organics

Cyanide, Weak Acid Dissociable	< 0.0010	0.001	mg/L	08-May-18	APHA4500-CN
Phenols, Total	< 0.0010	0.001	mg/L	09-May-18	AB ENV.06537

Trace Metals, Total

Aluminum	1.2	0.6	µg/L	09-May-18	EPA200.8
Antimony	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Arsenic	0.3	0.2	µg/L	09-May-18	EPA200.8
Barium	5.3	0.1	µg/L	09-May-18	EPA200.8
Beryllium	< 0.1	0.1	µg/L	09-May-18	EPA200.8

ReportDate: Friday, May 25, 2018

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truckfill**

Taiga Sample ID: **003**

Bismuth	< 0.2	0.2	µg/L	09-May-18	EPA200.8
Boron	21.3	0.9	µg/L	09-May-18	EPA200.8
Cadmium	< 0.04	0.04	µg/L	09-May-18	EPA200.8
Cesium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Chromium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Copper	4.6	0.2	µg/L	09-May-18	EPA200.8
Iron	6	5	ug/L	09-May-18	EPA200.8
Lead	0.2	0.1	µg/L	09-May-18	EPA200.8
Lithium	3.1	0.2	µg/L	09-May-18	EPA200.8
Manganese	0.9	0.1	µg/L	09-May-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	09-May-18	EPA200.8
Molybdenum	1.0	0.1	µg/L	09-May-18	EPA200.8
Nickel	0.2	0.1	µg/L	09-May-18	EPA200.8
Rubidium	1.1	0.1	µg/L	09-May-18	EPA200.8
Selenium	0.7	0.3	µg/L	09-May-18	EPA200.8
Silver	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Strontium	62.3	0.1	µg/L	09-May-18	EPA200.8
Thallium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Tin	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Titanium	< 0.1	0.1	µg/L	09-May-18	EPA200.8
Uranium	0.6	0.1	µg/L	09-May-18	EPA200.8
Vanadium	0.1	0.1	µg/L	09-May-18	EPA200.8
Zinc	4.3	0.4	µg/L	09-May-18	EPA200.8

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Print Date: **Friday, May 25, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180223

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truckfill**

Taiga Sample ID: **003**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

110 *Reported result uncertain, due to air in vial.*

*** 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: Friday, May 25, 2018

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- FINAL REPORT -

Prepared For: Hamlet of Taloyoak

Address: P.O. Box 8
Taloyoak, NU, X0E 1B0

Attn: Ted Laszczak

Facsimile: 867-561-5057

Final report has been reviewed and approved by:

Glen Hudy
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) to ISO/IEC 17025 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: Friday, October 05, 2018

Print Date: *Friday, October 05, 2018*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-1**

Taiga Sample ID: **001**

Client Project: Taloyoak Water System

Sample Type: Raw Water

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 11:00

Location: TALOYOAK, NU

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Organic Carbon, Dissolved	3.5	0.5	mg/L	24-Sep-18	SM5310:B	
Organic Carbon, Total	3.4	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	94.8	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	276	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	8.29		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Dissolved	122	10	mg/L	17-Sep-18	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	17-Sep-18	SM2540:D	
Turbidity	0.38	0.05	NTU	13-Sep-18	SM2130:B	
<u>Major Ions</u>						
Calcium	21.3	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	22.7	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	103	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	12.0	0.1	mg/L	15-Sep-18	SM4110:B	

ReportDate: Friday, October 05, 2018

Print Date: **Friday, October 05, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-1**

Taiga Sample ID: **001**

Nitrate as Nitrogen	0.24	0.01	mg/L	15-Sep-18	SM4110:B
Potassium	1.8	0.1	mg/L	15-Sep-18	SM4110:B
Sodium	10.1	0.1	mg/L	15-Sep-18	SM4110:B
Sulphate	12	1	mg/L	15-Sep-18	SM4110:B

Microbiology

Coliforms, Total	< 1.0	1.0	MPN/100ml	13-Sep-18	SM9223:B
Escherichia coli	< 1.0	1.0	MPN/100ml	13-Sep-18	SM9223:B

Subcontracted Inorganics

Sulphide	< 0.0015	0.0015	mg/L	24-Sep-18	APHA4500-S2
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Subcontracted Organics

Cyanide, Total	< 0.0050	0.005	mg/L	26-Sep-18	APHA4500-CN
Phenols, Total	0.0013	0.001	mg/L	21-Sep-18	AB ENV.06537

Trace Metals, Total

Aluminum	1.7	0.6	µg/L	03-Oct-18	EPA200.8
Antimony	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Arsenic	0.2	0.2	µg/L	03-Oct-18	EPA200.8
Barium	4.1	0.1	µg/L	03-Oct-18	EPA200.8
Beryllium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Bismuth	< 0.2	0.2	µg/L	03-Oct-18	EPA200.8
Boron	13.7	0.9	µg/L	03-Oct-18	EPA200.8
Cadmium	< 0.04	0.04	µg/L	03-Oct-18	EPA200.8
Cesium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Chromium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Copper	0.4	0.2	µg/L	03-Oct-18	EPA200.8

ReportDate: Friday, October 05, 2018

Print Date: **Friday, October 05, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-1

Taiga Sample ID: 001

Iron	< 5	5	ug/L	03-Oct-18	EPA200.8
Lead	< 0.1	0.1	ug/L	03-Oct-18	EPA200.8
Lithium	2.0	0.2	ug/L	03-Oct-18	EPA200.8
Manganese	3.1	0.1	ug/L	03-Oct-18	EPA200.8
Mercury	< 0.01	0.01	ug/L	03-Oct-18	EPA200.8
Molybdenum	0.7	0.1	ug/L	03-Oct-18	EPA200.8
Nickel	0.1	0.1	ug/L	03-Oct-18	EPA200.8
Rubidium	0.8	0.1	ug/L	03-Oct-18	EPA200.8
Selenium	< 0.3	0.3	ug/L	03-Oct-18	EPA200.8
Silver	< 0.1	0.1	ug/L	03-Oct-18	EPA200.8
Strontium	46.7	0.1	ug/L	03-Oct-18	EPA200.8
Thallium	< 0.1	0.1	ug/L	03-Oct-18	EPA200.8
Tin	< 0.1	0.1	ug/L	03-Oct-18	EPA200.8
Titanium	0.1	0.1	ug/L	03-Oct-18	EPA200.8
Uranium	0.4	0.1	ug/L	03-Oct-18	EPA200.8
Vanadium	0.1	0.1	ug/L	03-Oct-18	EPA200.8
Zinc	1.1	0.4	ug/L	03-Oct-18	EPA200.8

ReportDate: Friday, October 05, 2018
Print Date: *Friday, October 05, 2018*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **WTP**

Taiga Sample ID: **002**

Client Project: Taloyoak Water System

Sample Type: Treated Water

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 11:00

Location: TALOYOAK, NU

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Organic Carbon, Dissolved	3.5	0.5	mg/L	24-Sep-18	SM5310:B	
Organic Carbon, Total	3.6	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	94.1	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	277	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	8.27		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	17-Sep-18	SM2540:D	
Turbidity	0.33	0.05	NTU	13-Sep-18	SM2130:B	
<u>Major Ions</u>						
Calcium	24.1	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	23.4	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	127	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	16.3	0.1	mg/L	15-Sep-18	SM4110:B	
Nitrate as Nitrogen	0.25	0.01	mg/L	15-Sep-18	SM4110:B	
Potassium	2.5	0.1	mg/L	15-Sep-18	SM4110:B	
Sodium	13.6	0.1	mg/L	15-Sep-18	SM4110:B	

ReportDate: Friday, October 05, 2018

Print Date: **Friday, October 05, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **WTP**

Taiga Sample ID: **002**

Sulphate	12	1	mg/L	15-Sep-18	SM4110:B
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Microbiology

Coliforms, Total	< 1.0	1.0	MPN/100ml	13-Sep-18	SM9223:B
Escherichia coli	< 1.0	1.0	MPN/100ml	13-Sep-18	SM9223:B

Organics

Bromodichloromethane	< 0.005	0.005	mg/L	20-Sep-18	EPA8260B
Bromoform	< 0.005	0.005	mg/L	20-Sep-18	EPA8260B
Chloroform	< 0.005	0.005	mg/L	20-Sep-18	EPA8260B
Dibromochloromethane	< 0.005	0.005	mg/L	20-Sep-18	EPA8260B
Trihalomethanes, Total	< 0.005	0.005	mg/L	20-Sep-18	EPA8260B

Subcontracted Inorganics

Sulphide	< 0.0015	0.0015	mg/L	24-Sep-18	APHA4500-S2
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Subcontracted Organics

Cyanide, Total	< 0.0050	0.005	mg/L	26-Sep-18	APHA4500-CN
Phenols, Total	0.0019	0.001	mg/L	21-Sep-18	AB ENV.06537

Trace Metals, Total

Aluminum	3.9	0.6	µg/L	03-Oct-18	EPA200.8
Antimony	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Arsenic	0.3	0.2	µg/L	03-Oct-18	EPA200.8
Barium	4.1	0.1	µg/L	03-Oct-18	EPA200.8
Beryllium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Bismuth	< 0.2	0.2	µg/L	03-Oct-18	EPA200.8
Boron	13.5	0.9	µg/L	03-Oct-18	EPA200.8
Cadmium	< 0.04	0.04	µg/L	03-Oct-18	EPA200.8
Cesium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8

ReportDate: Friday, October 05, 2018

Print Date: **Friday, October 05, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: WTP

Taiga Sample ID: 002

Chromium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Copper	1.4	0.2	µg/L	03-Oct-18	EPA200.8
Iron	6	5	ug/L	03-Oct-18	EPA200.8
Lead	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Lithium	2.1	0.2	µg/L	03-Oct-18	EPA200.8
Manganese	2.6	0.1	µg/L	03-Oct-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	03-Oct-18	EPA200.8
Molybdenum	0.7	0.1	µg/L	03-Oct-18	EPA200.8
Nickel	0.2	0.1	µg/L	03-Oct-18	EPA200.8
Rubidium	0.9	0.1	µg/L	03-Oct-18	EPA200.8
Selenium	< 0.3	0.3	µg/L	03-Oct-18	EPA200.8
Silver	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Strontium	46.5	0.1	µg/L	03-Oct-18	EPA200.8
Thallium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Tin	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Titanium	0.3	0.1	µg/L	03-Oct-18	EPA200.8
Uranium	0.4	0.1	µg/L	03-Oct-18	EPA200.8
Vanadium	0.1	0.1	µg/L	03-Oct-18	EPA200.8
Zinc	4.1	0.4	µg/L	03-Oct-18	EPA200.8

ReportDate: Friday, October 05, 2018

Print Date: *Friday, October 05, 2018*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truck hose**

Taiga Sample ID: **003**

Client Project: Taloyoak Water System

Sample Type: Treated Water

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 11:00

Location: TALOYOAK, NU

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Organic Carbon, Dissolved	3.2	0.5	mg/L	24-Sep-18	SM5310:B	
Organic Carbon, Total	3.3	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	94.7	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	280	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	8.23		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	17-Sep-18	SM2540:D	
Turbidity	0.43	0.05	NTU	13-Sep-18	SM2130:B	
<u>Major Ions</u>						
Calcium	25.5	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	23.7	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	139	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	18.2	0.1	mg/L	15-Sep-18	SM4110:B	
Nitrate as Nitrogen	0.23	0.01	mg/L	15-Sep-18	SM4110:B	
Potassium	2.3	0.1	mg/L	15-Sep-18	SM4110:B	
Sodium	16.2	0.1	mg/L	15-Sep-18	SM4110:B	

ReportDate: Friday, October 05, 2018

Print Date: **Friday, October 05, 2018**

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truck hose**

Taiga Sample ID: **003**

Sulphate	12	1	mg/L	15-Sep-18	SM4110:B
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Microbiology

Coliforms, Total	< 1.0	1.0	MPN/100ml	13-Sep-18	SM9223:B
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Escherichia coli	< 1.0	1.0	MPN/100ml	13-Sep-18	SM9223:B
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Organics

Bromodichloromethane		0.005	mg/L		EPA8260B	111
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Bromoform		0.005	mg/L		EPA8260B	111
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Chloroform		0.005	mg/L		EPA8260B	111
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Dibromochloromethane		0.005	mg/L		EPA8260B	111
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Trihalomethanes, Total		0.005	mg/L		EPA8260B	111
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Subcontracted Inorganics

Sulphide	< 0.0015	0.0015	mg/L	24-Sep-18	APHA4500-S2
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Subcontracted Organics

Cyanide, Total	< 0.0050	0.005	mg/L	26-Sep-18	APHA4500-CN
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Phenols, Total	0.0016	0.001	mg/L	21-Sep-18	AB ENV.06537
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Trace Metals, Total

Aluminum	16.7	0.6	µg/L	03-Oct-18	EPA200.8
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Antimony	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
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Arsenic	0.2	0.2	µg/L	03-Oct-18	EPA200.8
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Barium	4.1	0.1	µg/L	03-Oct-18	EPA200.8
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Beryllium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
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Bismuth	< 0.2	0.2	µg/L	03-Oct-18	EPA200.8
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Boron	13.8	0.9	µg/L	03-Oct-18	EPA200.8
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Cadmium	< 0.04	0.04	µg/L	03-Oct-18	EPA200.8
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Cesium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
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ReportDate: Friday, October 05, 2018

Print Date: **Friday, October 05, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truck hose**

Taiga Sample ID: **003**

Chromium	0.1	0.1	µg/L	03-Oct-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Copper	8.7	0.2	µg/L	03-Oct-18	EPA200.8
Iron	26	5	ug/L	03-Oct-18	EPA200.8
Lead	0.2	0.1	µg/L	03-Oct-18	EPA200.8
Lithium	2.0	0.2	µg/L	03-Oct-18	EPA200.8
Manganese	3.2	0.1	µg/L	03-Oct-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	03-Oct-18	EPA200.8
Molybdenum	0.7	0.1	µg/L	03-Oct-18	EPA200.8
Nickel	0.2	0.1	µg/L	03-Oct-18	EPA200.8
Rubidium	0.9	0.1	µg/L	03-Oct-18	EPA200.8
Selenium	0.4	0.3	µg/L	03-Oct-18	EPA200.8
Silver	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Strontium	46.5	0.1	µg/L	03-Oct-18	EPA200.8
Thallium	< 0.1	0.1	µg/L	03-Oct-18	EPA200.8
Tin	0.1	0.1	µg/L	03-Oct-18	EPA200.8
Titanium	2.0	0.1	µg/L	03-Oct-18	EPA200.8
Uranium	0.4	0.1	µg/L	03-Oct-18	EPA200.8
Vanadium	0.2	0.1	µg/L	03-Oct-18	EPA200.8
Zinc	7.8	0.4	µg/L	03-Oct-18	EPA200.8

ReportDate: Friday, October 05, 2018

Print Date: *Friday, October 05, 2018*

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180934

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Truck hose**

Taiga Sample ID: **003**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

111 *Vial 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

ReportDate: Friday, October 05, 2018

Print Date: *Friday, October 05, 2018*

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Appendix B:

Sewage Effluent Test Reports 2018

Water Licence: 3BM-TAL 1419

Hamlet of Taloyoak, NU



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- FINAL REPORT -

Prepared For: Hamlet of Taloyoak

Address: P.O. Box 8
Taloyoak, NU, X0E 1B0

Attn: Ted Laszczak

Facsimile: 867-561-5057

Final report has been reviewed and approved by:

Glen Hudy
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) to ISO/IEC 17025 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: Tuesday, August 07, 2018

Print Date: *Tuesday, August 07, 2018*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-3**

Taiga Sample ID: **001**

Client Project: Taloyoak Sewage and Solid Waste

Sample Type: Sewage Water

Received Date: 18-Jul-18

Sampling Date: 17-Jul-18

Sampling Time: 11:00

Location: Sewage Lagoon, Wetland, and Solid Waste
Runoff

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	6.92	0.005	mg/L	26-Jul-18	SM4500-NH3:G	
Biochemical Oxygen Demand	17	2	mg/L	18-Jul-18	SM5210:B	
CBOD	14	2	mg/L	18-Jul-18	SM5210:B	
Organic Carbon, Total	34.9	0.5	mg/L	30-Jul-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	223	0.4	mg/L	18-Jul-18	SM2320:B	
Conductivity, Specific (@25C)	841	0.4	µS/cm	18-Jul-18	SM2510:B	
pH	7.62		pH units	18-Jul-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	23-Jul-18	SM2540:D	
<u>Major Ions</u>						
Calcium	46.8	0.1	mg/L	19-Jul-18	SM4110:B	
Chloride	103	0.7	mg/L	19-Jul-18	SM4110:B	
Hardness	216	0.7	mg/L	19-Jul-18	SM4110:B	
Magnesium	24.1	0.1	mg/L	19-Jul-18	SM4110:B	

ReportDate: Tuesday, August 07, 2018

Print Date: Tuesday, August 07, 2018

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-3**

Taiga Sample ID: **001**

Nitrate as Nitrogen	0.76	0.01	mg/L	19-Jul-18	SM4110:B
Potassium	19.4	0.1	mg/L	19-Jul-18	SM4110:B
Sodium	77.0	0.1	mg/L	19-Jul-18	SM4110:B
Sulphate	31	1	mg/L	19-Jul-18	SM4110:B

Microbiology

Coliforms, Fecal	58	1	CFU/100mL	18-Jul-18	SM9222:D
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Organics

Benzene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
Ethylbenzene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
F2: C10-C16	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
F3: C16-C34	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
F4: C34-C50	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
Hydrocarbons, Total Purgeable	< 0.3	0.3	mg/L	20-Jul-18	EPA8015
Oil and Grease, visible	Non-visible			18-Jul-18	Visual Exam
Toluene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
Xylenes	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B

Subcontracted Organics

Phenols, Total	0.0020	0.001	mg/L	24-Jul-18	AB ENV.06537
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Trace Metals, Total

Aluminum	41.5	5	µg/L	25-Jul-18	EPA200.8
Arsenic	1.0	0.2	µg/L	25-Jul-18	EPA200.8
Cadmium	< 0.1	0.1	µg/L	25-Jul-18	EPA200.8
Chromium	0.2	0.1	µg/L	25-Jul-18	EPA200.8
Cobalt	0.3	0.1	µg/L	25-Jul-18	EPA200.8

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-3

Taiga Sample ID: 001

Copper	3.7	0.2	µg/L	25-Jul-18	EPA200.8
Iron	423	5	µg/L	25-Jul-18	EPA200.8
Lead	0.1	0.1	µg/L	25-Jul-18	EPA200.8
Manganese	60.2	0.1	µg/L	25-Jul-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	25-Jul-18	EPA200.8
Nickel	1.5	0.1	µg/L	25-Jul-18	EPA200.8
Zinc	< 5.0	5	µg/L	25-Jul-18	EPA200.8

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **002**

Client Project: Taloyoak Sewage and Solid Waste

Sample Type: Solid Waste Run

Received Date: 18-Jul-18

Sampling Date: 17-Jul-18

Sampling Time: 11:00

Location: Sewage Lagoon, Wetland, and Solid Waste
Runoff

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	>95.04	2	mg/L	18-Jul-18	SM5210:B	55
CBOD	>94.20	2	mg/L	18-Jul-18	SM5210:B	55
Organic Carbon, Total	261	0.5	mg/L	30-Jul-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	770	0.4	mg/L	18-Jul-18	SM2320:B	
Conductivity, Specific (@25C)	5110	0.4	µS/cm	18-Jul-18	SM2510:B	
pH	7.92		pH units	18-Jul-18	SM4500-H:B	
Solids, Total Suspended	24	3	mg/L	23-Jul-18	SM2540:D	
<u>Major Ions</u>						
Calcium	415	0.1	mg/L	19-Jul-18	SM4110:B	
Chloride	636	0.7	mg/L	20-Jul-18	SM4110:B	
Hardness	1740	0.7	mg/L	19-Jul-18	SM4110:B	
Magnesium	170	0.1	mg/L	19-Jul-18	SM4110:B	
Nitrate as Nitrogen	2.75	0.01	mg/L	20-Jul-18	SM4110:B	
Potassium	164	0.1	mg/L	19-Jul-18	SM4110:B	

ReportDate: Tuesday, August 07, 2018

Print Date: **Tuesday, August 07, 2018**

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **002**

Sodium	488	0.1	mg/L	19-Jul-18	SM4110:B
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Sulphate	1170	1	mg/L	20-Jul-18	SM4110:B
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Microbiology

Coliforms, Fecal	20	10	CFU/100mL	18-Jul-18	SM9222:D
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Organics

Benzene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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Ethylbenzene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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F2: C10-C16	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
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F3: C16-C34	0.3	0.2	mg/L	30-Jul-18	EPA8015B
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F4: C34-C50	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
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Hydrocarbons, Total Extractable	0.4	0.2	mg/L	30-Jul-18	EPA8015B
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Hydrocarbons, Total Purgeable	< 0.3	0.3	mg/L	20-Jul-18	EPA8015
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Oil and Grease, visible	Non-visible			18-Jul-18	Visual Exam
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Toluene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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Xylenes	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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Subcontracted Organics

Phenols, Total	0.0905	0.001	mg/L	24-Jul-18	AB ENV.06537
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Trace Metals, Total

Aluminum	233	5	µg/L	25-Jul-18	EPA200.8
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Arsenic	9.4	0.2	µg/L	25-Jul-18	EPA200.8
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Cadmium	0.1	0.1	µg/L	25-Jul-18	EPA200.8
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Chromium	7.6	0.1	µg/L	25-Jul-18	EPA200.8
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Cobalt	2.6	0.1	µg/L	25-Jul-18	EPA200.8
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Copper	13.2	0.2	µg/L	25-Jul-18	EPA200.8
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Iron	1610	5	µg/L	25-Jul-18	EPA200.8
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Print Date: **Tuesday, August 07, 2018**



Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **002**

Lead	1.9	0.1	µg/L	25-Jul-18	EPA200.8
Manganese	1210	0.1	µg/L	25-Jul-18	EPA200.8
Mercury	0.04	0.01	µg/L	25-Jul-18	EPA200.8
Nickel	20.7	0.1	µg/L	25-Jul-18	EPA200.8
Zinc	86.4	5	µg/L	25-Jul-18	EPA200.8

ReportDate: Tuesday, August 07, 2018

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-6

Taiga Sample ID: 003

Client Project: Taloyoak Sewage and Solid Waste

Sample Type: Sewage-Solid Waste Effluent

Received Date: 18-Jul-18

Sampling Date: 17-Jul-18

Sampling Time: 11:00

Location: Sewage Lagoon, Wetland, and Solid Waste
Runoff

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	5	2	mg/L	18-Jul-18	SM5210:B	
CBOD	5	2	mg/L	18-Jul-18	SM5210:B	
Organic Carbon, Total	21.0	0.5	mg/L	30-Jul-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	219	0.4	mg/L	18-Jul-18	SM2320:B	
Conductivity, Specific (@25C)	915	0.4	µS/cm	18-Jul-18	SM2510:B	
pH	8.14		pH units	18-Jul-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	23-Jul-18	SM2540:D	
<u>Major Ions</u>						
Calcium	71.2	0.1	mg/L	19-Jul-18	SM4110:B	
Chloride	101	0.7	mg/L	19-Jul-18	SM4110:B	
Hardness	304	0.7	mg/L	19-Jul-18	SM4110:B	
Magnesium	30.6	0.1	mg/L	19-Jul-18	SM4110:B	
Nitrate as Nitrogen	0.16	0.01	mg/L	19-Jul-18	SM4110:B	
Potassium	7.0	0.1	mg/L	19-Jul-18	SM4110:B	

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-6**

Taiga Sample ID: **003**

Sodium	71.4	0.1	mg/L	19-Jul-18	SM4110:B
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Sulphate	92	1	mg/L	19-Jul-18	SM4110:B
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Microbiology

Coliforms, Fecal	2	1	CFU/100mL	18-Jul-18	SM9222:D
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Organics

Benzene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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Ethylbenzene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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F2: C10-C16	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
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F3: C16-C34	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
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F4: C34-C50	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
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Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	30-Jul-18	EPA8015B
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Hydrocarbons, Total Purgeable	< 0.3	0.3	mg/L	20-Jul-18	EPA8015
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Oil and Grease, visible	Non-visible			18-Jul-18	Visual Exam
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Toluene	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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Xylenes	< 0.002	0.002	mg/L	20-Jul-18	EPA8260B
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Subcontracted Organics

Phenols, Total	0.0028	0.001	mg/L	24-Jul-18	AB ENV.06537
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Trace Metals, Total

Aluminum	27.7	5	µg/L	25-Jul-18	EPA200.8
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Arsenic	0.7	0.2	µg/L	25-Jul-18	EPA200.8
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Cadmium	< 0.1	0.1	µg/L	25-Jul-18	EPA200.8
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Chromium	0.2	0.1	µg/L	25-Jul-18	EPA200.8
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Cobalt	0.2	0.1	µg/L	25-Jul-18	EPA200.8
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Copper	1.5	0.2	µg/L	25-Jul-18	EPA200.8
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Iron	353	5	µg/L	25-Jul-18	EPA200.8
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Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: TAL-6

Taiga Sample ID: 003

Lead	< 0.1	0.1	µg/L	25-Jul-18	EPA200.8
Manganese	31.6	0.1	µg/L	25-Jul-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	25-Jul-18	EPA200.8
Nickel	1.2	0.1	µg/L	25-Jul-18	EPA200.8
Zinc	< 5.0	5	µg/L	25-Jul-18	EPA200.8

ReportDate: Tuesday, August 07, 2018

Print Date: Tuesday, August 07, 2018

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-5**

Taiga Sample ID: **004**

Client Project: Taloyoak Sewage and Solid Waste

Sample Type: Metal and Soil

Received Date: 18-Jul-18

Sampling Date: 17-Jul-18

Sampling Time: 11:00

Location: Sewage Lagoon, Wetland, and Solid Waste
Runoff

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	20-Jul-18	SM4500-NH3:G	
Biochemical Oxygen Demand	3	2	mg/L	18-Jul-18	SM5210:B	
CBOD	3	2	mg/L	18-Jul-18	SM5210:B	
Organic Carbon, Total	11.4	0.5	mg/L	31-Jul-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	53.3	0.4	mg/L	18-Jul-18	SM2320:B	
Conductivity, Specific (@25C)	125	0.4	µS/cm	18-Jul-18	SM2510:B	
pH	8.88		pH units	18-Jul-18	SM4500-H:B	
Solids, Total Suspended	< 3	3	mg/L	23-Jul-18	SM2540:D	
<u>Major Ions</u>						
Calcium	11.9	0.1	mg/L	19-Jul-18	SM4110:B	
Chloride	3.1	0.7	mg/L	19-Jul-18	SM4110:B	
Hardness	56.1	0.7	mg/L	19-Jul-18	SM4110:B	
Magnesium	6.4	0.1	mg/L	19-Jul-18	SM4110:B	
Nitrate as Nitrogen	0.14	0.01	mg/L	19-Jul-18	SM4110:B	

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Taiga Environmental Laboratory

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-5**

Taiga Sample ID: **004**

Nitrite as Nitrogen	< 0.01	0.01	mg/L	19-Jul-18	SM4110:B
Potassium	1.2	0.1	mg/L	19-Jul-18	SM4110:B
Sodium	2.6	0.1	mg/L	19-Jul-18	SM4110:B
Sulphate	4	1	mg/L	19-Jul-18	SM4110:B

Microbiology

Coliforms, Fecal	< 1	1	CFU/100mL	18-Jul-18	SM9222:D
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Organics

Benzene		0.002	mg/L		EPA8260B	16
Ethylbenzene		0.002	mg/L		EPA8260B	16
F2: C10-C16		0.2	mg/L		EPA8015B	16
F3: C16-C34		0.2	mg/L		EPA8015B	16
F4: C34-C50		0.2	mg/L		EPA8015B	16
Hydrocarbons, Total Extractable		0.2	mg/L		EPA8015B	16
Hydrocarbons, Total Purgeable		0.3	mg/L		EPA8015	16
Oil and Grease, visible	Non-visible			18-Jul-18	Visual Exam	
Toluene		0.002	mg/L		EPA8260B	16
Xylenes		0.002	mg/L		EPA8260B	16

Subcontracted Organics

Phenols, Total	0.0016	0.001	mg/L	24-Jul-18	AB ENV.06537
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Trace Metals, Total

Aluminum	32.7	5	µg/L	25-Jul-18	EPA200.8
Arsenic	1.8	0.2	µg/L	25-Jul-18	EPA200.8
Cadmium	< 0.1	0.1	µg/L	25-Jul-18	EPA200.8
Chromium	0.1	0.1	µg/L	25-Jul-18	EPA200.8
Cobalt	< 0.1	0.1	µg/L	25-Jul-18	EPA200.8

ReportDate: Tuesday, August 07, 2018

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Print Date: **Tuesday, August 07, 2018**



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-5**

Taiga Sample ID: **004**

Copper	2.0	0.2	µg/L	25-Jul-18	EPA200.8
Iron	123	5	µg/L	25-Jul-18	EPA200.8
Lead	0.1	0.1	µg/L	25-Jul-18	EPA200.8
Manganese	6.1	0.1	µg/L	25-Jul-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	25-Jul-18	EPA200.8
Nickel	0.4	0.1	µg/L	25-Jul-18	EPA200.8
Zinc	< 5.0	5	µg/L	25-Jul-18	EPA200.8

ReportDate: Tuesday, August 07, 2018

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180569

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-5**

Taiga Sample ID: **004**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

- 16** *Test requested but no sample bottle received*
- 55** *BOD result is inconclusive; residual DO was less than 1 mg/L. For evaluation purposes only.*

*** 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: Tuesday, August 07, 2018

Print Date: **Tuesday, August 07, 2018**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- FINAL REPORT -

Prepared For: Hamlet of Taloyoak

Address: P.O. Box 8
Taloyoak, NU, X0E 1B0

Attn: Ted Laszczak

Facsimile: 867-561-5057

Final report has been reviewed and approved by:

Glen Hudy
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) to ISO/IEC 17025 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: Wednesday, October 10, 2018

Print Date: *Wednesday, October 10, 2018*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-6**

Taiga Sample ID: **001**

Client Project: Taloyoak Sewage + Solid Waste

Sample Type: Effluent Final

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 10:00

Location: Sewage Lagoon, Wetland of Taloyoak

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	3.92	0.005	mg/L	15-Sep-18	SM4500-NH3:G	
Biochemical Oxygen Demand	37	2	mg/L	13-Sep-18	SM5210:B	
CBOD	34	2	mg/L	13-Sep-18	SM5210:B	
Organic Carbon, Total	32.8	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	242	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	1080	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	7.71		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Suspended	14	3	mg/L	17-Sep-18	SM2540:D	
<u>Major Ions</u>						
Calcium	101	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	127	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	442	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	45.9	0.1	mg/L	15-Sep-18	SM4110:B	

ReportDate: Wednesday, October 10, 2018

Print Date: **Wednesday, October 10, 2018**

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Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-6**

Taiga Sample ID: **001**

Nitrate as Nitrogen	0.81	0.01	mg/L	15-Sep-18	SM4110:B
Potassium	14.9	0.1	mg/L	15-Sep-18	SM4110:B
Sodium	81.1	0.1	mg/L	15-Sep-18	SM4110:B
Sulphate	115	1	mg/L	15-Sep-18	SM4110:B

Microbiology

Coliforms, Fecal	800	100	CFU/100mL	13-Sep-18	SM9222:D
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Organics

Benzene	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B
Ethylbenzene	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B
F2: C10-C16	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
F3: C16-C34	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
F4: C34-C50	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
Hydrocarbons, Total Purgeable	< 0.3	0.3	mg/L	15-Sep-18	EPA8015
Toluene	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B
Xylenes	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B

Subcontracted Organics

Phenols, Total	0.0031	0.001	mg/L	21-Sep-18	AB ENV.06537
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Trace Metals, Total

Aluminum	15.2	5	µg/L	04-Oct-18	EPA200.8
Antimony	0.5	0.1	µg/L	04-Oct-18	EPA200.8
Barium	11.5	0.1	µg/L	04-Oct-18	EPA200.8
Cadmium	< 0.1	0.1	µg/L	04-Oct-18	EPA200.8
Chromium	0.2	0.1	µg/L	04-Oct-18	EPA200.8
Cobalt	0.2	0.1	µg/L	04-Oct-18	EPA200.8

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-6**

Taiga Sample ID: **001**

Copper	3.3	0.2	µg/L	04-Oct-18	EPA200.8
Lead	0.1	0.1	µg/L	04-Oct-18	EPA200.8
Manganese	34.6	0.1	µg/L	04-Oct-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	04-Oct-18	EPA200.8
Nickel	1.5	0.1	µg/L	04-Oct-18	EPA200.8
Zinc	< 5.0	5	µg/L	04-Oct-18	EPA200.8

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Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **002**

Client Project: Taloyoak Sewage + Solid Waste

Sample Type: Solid Waste Run

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 10:00

Location: Sewage Lagoon, Wetland of Taloyoak

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	15.4	0.005	mg/L	15-Sep-18	SM4500-NH3:G	
Biochemical Oxygen Demand	22	2	mg/L	13-Sep-18	SM5210:B	
CBOD	19	2	mg/L	13-Sep-18	SM5210:B	
Organic Carbon, Total	114	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	635	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	4450	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	7.85		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Suspended	68	3	mg/L	17-Sep-18	SM2540:D	
<u>Major Ions</u>						
Calcium	420	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	551	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	1140	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	22.6	0.1	mg/L	15-Sep-18	SM4110:B	
Nitrate as Nitrogen	2.69	0.01	mg/L	15-Sep-18	SM4110:B	
Potassium	150	0.1	mg/L	15-Sep-18	SM4110:B	

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Taiga Environmental Laboratory

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **002**

Sodium	471	0.1	mg/L	15-Sep-18	SM4110:B
Sulphate	995	1	mg/L	15-Sep-18	SM4110:B

Microbiology

Coliforms, Fecal	< 100	100	CFU/100mL	13-Sep-18	SM9222:D
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Organics

Benzene	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B
Ethylbenzene	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B
F2: C10-C16	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
F3: C16-C34	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
F4: C34-C50	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
Hydrocarbons, Total Extractable	< 0.2	0.2	mg/L	18-Sep-18	EPA8015B
Hydrocarbons, Total Purgeable	< 0.3	0.3	mg/L	15-Sep-18	EPA8015
Toluene	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B
Xylenes	< 0.002	0.002	mg/L	15-Sep-18	EPA8260B

Subcontracted Organics

Phenols, Total	0.0079	0.001	mg/L	21-Sep-18	AB ENV.06537
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Trace Metals, Total

Aluminum	78.0	5	µg/L	04-Oct-18	EPA200.8
Antimony	50.5	0.1	µg/L	04-Oct-18	EPA200.8
Barium	42.0	0.1	µg/L	04-Oct-18	EPA200.8
Cadmium	< 0.1	0.1	µg/L	04-Oct-18	EPA200.8
Chromium	3.7	0.1	µg/L	04-Oct-18	EPA200.8
Cobalt	1.5	0.1	µg/L	04-Oct-18	EPA200.8
Copper	5.2	0.2	µg/L	04-Oct-18	EPA200.8
Lead	0.6	0.1	µg/L	04-Oct-18	EPA200.8

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Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-4**

Taiga Sample ID: **002**

Manganese	529	0.1	µg/L	04-Oct-18	EPA200.8
Mercury	0.02	0.01	µg/L	04-Oct-18	EPA200.8
Nickel	13.3	0.1	µg/L	04-Oct-18	EPA200.8
Zinc	16.3	5	µg/L	04-Oct-18	EPA200.8

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Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-3**

Taiga Sample ID: **003**

Client Project: Taloyoak Sewage + Solid Waste

Sample Type: Effluent Final

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 10:00

Location: Sewage Lagoon, Wetland of Taloyoak

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	6.43	0.005	mg/L	15-Sep-18	SM4500-NH3:G	
Biochemical Oxygen Demand	50	2	mg/L	13-Sep-18	SM5210:B	
CBOD	49	2	mg/L	13-Sep-18	SM5210:B	
Organic Carbon, Total	69.3	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	237	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	885	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	8.63		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Suspended	50	3	mg/L	17-Sep-18	SM2540:D	
<u>Major Ions</u>						
Calcium	49.3	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	107	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	200	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	18.6	0.1	mg/L	15-Sep-18	SM4110:B	
Nitrate as Nitrogen	1.05	0.01	mg/L	15-Sep-18	SM4110:B	
Potassium	18.8	0.1	mg/L	15-Sep-18	SM4110:B	

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-3**

Taiga Sample ID: **003**

Sodium	88.1	0.1	mg/L	15-Sep-18	SM4110:B
Sulphate	44	1	mg/L	15-Sep-18	SM4110:B

Microbiology

Coliforms, Fecal	3400	100	CFU/100mL	13-Sep-18	SM9222:D
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Subcontracted Organics

Phenols, Total	0.0027	0.001	mg/L	21-Sep-18	AB ENV.06537
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Trace Metals, Total

Aluminum	26.9	5	µg/L	04-Oct-18	EPA200.8
Antimony	0.5	0.1	µg/L	04-Oct-18	EPA200.8
Barium	3.1	0.1	µg/L	04-Oct-18	EPA200.8
Cadmium	< 0.1	0.1	µg/L	04-Oct-18	EPA200.8
Chromium	0.2	0.1	µg/L	04-Oct-18	EPA200.8
Cobalt	0.3	0.1	µg/L	04-Oct-18	EPA200.8
Copper	8.1	0.2	µg/L	04-Oct-18	EPA200.8
Lead	0.1	0.1	µg/L	04-Oct-18	EPA200.8
Manganese	42.0	0.1	µg/L	04-Oct-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	04-Oct-18	EPA200.8
Nickel	1.9	0.1	µg/L	04-Oct-18	EPA200.8
Zinc	8.4	5	µg/L	04-Oct-18	EPA200.8

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Taiga Environmental Laboratory

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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-2**

Taiga Sample ID: **004**

Client Project: Taloyoak Sewage + Solid Waste

Sample Type: Sewage Lagoon Water

Received Date: 13-Sep-18

Sampling Date: 12-Sep-18

Sampling Time: 10:00

Location: Sewage Lagoon, Wetland of Taloyoak

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	22.6	0.005	mg/L	01-Oct-18	SM4500-NH3:G	
Biochemical Oxygen Demand	74	2	mg/L	13-Sep-18	SM5210:B	
CBOD	73	2	mg/L	13-Sep-18	SM5210:B	
Organic Carbon, Dissolved	42.0	0.5	mg/L	24-Sep-18	SM5310:B	
Organic Carbon, Total	99.4	0.5	mg/L	25-Sep-18	SM5310:B	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	257	0.4	mg/L	13-Sep-18	SM2320:B	
Conductivity, Specific (@25C)	940	0.4	µS/cm	13-Sep-18	SM2510:B	
pH	7.96		pH units	13-Sep-18	SM4500-H:B	
Solids, Total Suspended	70	3	mg/L	17-Sep-18	SM2540:D	
<u>Major Ions</u>						
Calcium	47.0	0.1	mg/L	15-Sep-18	SM4110:B	
Chloride	102	0.7	mg/L	15-Sep-18	SM4110:B	
Hardness	179	0.7	mg/L	15-Sep-18	SM4110:B	
Magnesium	15.0	0.1	mg/L	15-Sep-18	SM4110:B	
Nitrate as Nitrogen	0.76	0.01	mg/L	15-Sep-18	SM4110:B	

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Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-2**

Taiga Sample ID: **004**

Potassium	23.0	0.1	mg/L	15-Sep-18	SM4110:B
Sodium	75.0	0.1	mg/L	15-Sep-18	SM4110:B
Sulphate	44	1	mg/L	15-Sep-18	SM4110:B

Microbiology

Coliforms, Fecal	610000	10000	CFU/100mL	13-Sep-18	SM9222:D
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Subcontracted Organics

Phenols, Total	0.0260	0.010	mg/L	21-Sep-18	AB ENV.06537	207
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Trace Metals, Total

Aluminum	56.1	5	µg/L	04-Oct-18	EPA200.8
Antimony	0.6	0.1	µg/L	04-Oct-18	EPA200.8
Barium	3.2	0.1	µg/L	04-Oct-18	EPA200.8
Cadmium	< 0.1	0.1	µg/L	04-Oct-18	EPA200.8
Chromium	0.3	0.1	µg/L	04-Oct-18	EPA200.8
Cobalt	0.4	0.1	µg/L	04-Oct-18	EPA200.8
Copper	19.1	0.2	µg/L	04-Oct-18	EPA200.8
Lead	0.3	0.1	µg/L	04-Oct-18	EPA200.8
Manganese	40.3	0.1	µg/L	04-Oct-18	EPA200.8
Mercury	< 0.01	0.01	µg/L	04-Oct-18	EPA200.8
Nickel	1.9	0.1	µg/L	04-Oct-18	EPA200.8
Zinc	24.4	5	µg/L	04-Oct-18	EPA200.8

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Taiga Environmental Laboratory
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Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180935

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **TAL-2**

Taiga Sample ID: **004**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

207 *Detection limit adjusted due to sample matrix effects*

*** 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

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