



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

Taiga Batch No.:
220944

- FINAL REPORT -

Prepared For: Town of Norman Wells

Address: Box 5
Norman Wells, NT
X0E 0V0

Attn: Hugo Pabke

Facsimile: (867) 587-3724

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
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: June-23-22

Print Date: *June-30-22*

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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.:
220944

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-1**

Taiga Sample ID: **001**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 27-May-22

Sampling Date: 26-May-22

Sampling Time: 10:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
CBOD	5	2	mg/L	27-May-22	TEL019	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO ₃)	89.4	0.4	mg/L	27-May-22	TEL060	
Conductivity, Specific (@25C)	229	0.4	µS/cm	27-May-22	TEL059	
pH	7.53		pH units	27-May-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	31-May-22	TEL008	
<u>Microbiology</u>						
Coliforms, Fecal	< 1	1	CFU/100mL	27-May-22	TEL017	
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2	mg/L	30-May-22	TEL072	
Oil and Grease, visible	Non-visible			27-May-22	Visual Exam	
<u>Subcontracted Inorganics</u>						
Nitrate as Nitrogen	< 0.0050	0.005	mg/L	03-Jun-22	EPA300.1	
Nitrite as N	< 0.0010	0.001	mg/L	03-Jun-22	EPA300.1	
NO ₂ +NO ₃ - N	< 0.0051	0.0051	mg/L	03-Jun-22	EPA300.1	

ReportDate: June-23-22

Print Date: **June-30-22**



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: S18L3-003-1

Taiga Sample ID: 001

Phosphorous, Total	0.257	0.02	mg/L	08-Jun-22	APHA4500:P
<u>Subcontracted Nutrients</u>					
Ammonia as Nitrogen	0.0121	0.005	mg/L	07-Jun-22	SM4500 NH3
Nitrogen, Total	1.26	0.03	mg/L	08-Jun-22	APHA4500-P(I)
Organic Carbon, Total	15.9	0.5	mg/L	08-Jun-22	APHA5310
<u>Subcontracted Organics</u>					
Phenols, Total	< 0.0010	0.001	mg/L	04-Jun-22	AB ENV.06537



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Taiga Batch No.:
220944

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **002**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 27-May-22

Sampling Date: 26-May-22

Sampling Time: 10:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
CBOD	< 2	2	mg/L	27-May-22	TEL019	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	322	0.4	µS/cm	27-May-22	TEL059	
pH	7.52		pH units	27-May-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	31-May-22	TEL008	
<u>Major Ions</u>						
Calcium	46.0	0.1	mg/L	18-Jun-22	TEL055	
Magnesium	13.8	0.1	mg/L	18-Jun-22	TEL055	
Potassium	1.0	0.1	mg/L	18-Jun-22	TEL055	
Sodium	7.0	0.1	mg/L	18-Jun-22	TEL055	
<u>Microbiology</u>						
Coliforms, Fecal	< 1	1	CFU/100mL	27-May-22	TEL017	
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2	mg/L	30-May-22	TEL072	
Oil and Grease, visible	Non-visible			27-May-22	Visual Exam	
<u>Subcontracted Inorganics</u>						

ReportDate: June-23-22

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **002**

Nitrate as Nitrogen	< 0.0050	0.005	mg/L	03-Jun-22	EPA300.1
Nitrite as N	< 0.0010	0.001	mg/L	03-Jun-22	EPA300.1
NO ₂ +NO ₃ - N	< 0.0051	0.0051	mg/L	03-Jun-22	EPA300.1
Phosphorous, Total	0.0245	0.002	mg/L	08-Jun-22	APHA4500:P
Sulphate	58.0	0.05	mg/L	03-Jun-22	EPA300.1
<u>Subcontracted Nutrients</u>					
Ammonia as Nitrogen	0.0072	0.005	mg/L	07-Jun-22	SM4500 NH3
Nitrogen, Total	0.677	0.03	mg/L	08-Jun-22	APHA4500-P(I)
Organic Carbon, Total	22.9	0.5	mg/L	08-Jun-22	APHA5310
<u>Subcontracted Organics</u>					
Phenols, Total	< 0.0010	0.001	mg/L	04-Jun-22	AB ENV.06537
<u>Trace Metals, Total</u>					
Arsenic	0.4	0.2	µg/L	08-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Chromium	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Copper	1.1	0.2	µg/L	08-Jun-22	TEL035
Iron	97	5	µg/L	08-Jun-22	TEL035
Lead	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Mercury	0.03	0.01	µg/L	08-Jun-22	TEL035
Nickel	0.9	0.1	µg/L	08-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Zinc	< 5.0	5	µg/L	08-Jun-22	TEL035

ReportDate: June-23-22

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Taiga Batch No.:
220944

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **003**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 27-May-22

Sampling Date: 26-May-22

Sampling Time: 10:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
CBOD	2	2	mg/L	27-May-22	TEL019	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	368	0.4	µS/cm	27-May-22	TEL059	
pH	7.93		pH units	27-May-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	31-May-22	TEL008	
<u>Major Ions</u>						
Calcium	49.3	0.1	mg/L	18-Jun-22	TEL055	
Magnesium	15.0	0.1	mg/L	18-Jun-22	TEL055	
Potassium	0.9	0.1	mg/L	18-Jun-22	TEL055	
Sodium	13.3	0.1	mg/L	18-Jun-22	TEL055	
<u>Microbiology</u>						
Coliforms, Fecal	< 1	1	CFU/100mL	27-May-22	TEL017	
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2	mg/L	30-May-22	TEL072	
Oil and Grease, visible	Non-visible			27-May-22	Visual Exam	
<u>Subcontracted Inorganics</u>						

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Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **003**

Nitrate as Nitrogen	< 0.0050	0.005	mg/L	03-Jun-22	EPA300.1
Nitrite as N	< 0.0010	0.001	mg/L	03-Jun-22	EPA300.1
NO ₂ +NO ₃ - N	< 0.0051	0.0051	mg/L	03-Jun-22	EPA300.1
Phosphorous, Total	0.0172	0.002	mg/L	08-Jun-22	APHA4500:P
Sulphate	61.6	0.05	mg/L	03-Jun-22	EPA300.1
<u>Subcontracted Nutrients</u>					
Ammonia as Nitrogen	0.0093	0.005	mg/L	07-Jun-22	SM4500 NH3
Nitrogen, Total	0.739	0.03	mg/L	08-Jun-22	APHA4500-P(J)
Organic Carbon, Total	23.7	0.5	mg/L	08-Jun-22	APHA5310
<u>Subcontracted Organics</u>					
Phenols, Total	< 0.0010	0.001	mg/L	04-Jun-22	AB ENV.06537
<u>Trace Metals, Total</u>					
Arsenic	0.5	0.2	µg/L	08-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Chromium	0.2	0.1	µg/L	08-Jun-22	TEL035
Copper	0.7	0.2	µg/L	08-Jun-22	TEL035
Iron	179	5	µg/L	08-Jun-22	TEL035
Lead	0.1	0.1	µg/L	08-Jun-22	TEL035
Mercury	0.01	0.01	µg/L	08-Jun-22	TEL035
Nickel	1.2	0.1	µg/L	08-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	08-Jun-22	TEL035
Zinc	< 5.0	5	µg/L	08-Jun-22	TEL035

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Taiga Batch No.:

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **003**

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

Taiga Batch No.:
221217

- FINAL REPORT -

Prepared For: Town of Norman Wells

Address: Box 5
Norman Wells, NT
X0E 0V0

Attn: Jerrod Kummer

Facsimile: (867) 587-3724

Final report has been reviewed and approved by:

A handwritten signature in black ink, appearing to read 'Glen Hudy', is written over a horizontal line.

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.
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 - Environment Canada
 - USEPA
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ReportDate: July-14-22

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

Taiga Batch No.:
221217

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 24-Jun-22

Sampling Date: 23-Jun-22

Sampling Time: 10:00

Location: Norman Wells

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	28-Jun-22	TEL068	
CBOD	< 2	2	mg/L	24-Jun-22	TEL019	
Nitrogen, Total	0.73	0.06	mg/L	28-Jun-22	TEL066	
Organic Carbon, Total	27.2	0.5	mg/L	28-Jun-22	TEL033	
Phosphorous, Total	0.026	0.002	mg/L	29-Jun-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	435	0.4	µS/cm	24-Jun-22	TEL059	
pH	7.55		pH units	24-Jun-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	27-Jun-22	TEL008	
<u>Major Ions</u>						
Calcium	58.8	0.1	mg/L	25-Jun-22	TEL055	
Magnesium	19.5	0.1	mg/L	25-Jun-22	TEL055	
Nitrate as Nitrogen	< 0.01	0.01	mg/L	25-Jun-22	TEL055	
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	25-Jun-22	TEL055	

ReportDate: July-14-22

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Taiga Batch No.:
221217

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Nitrite as Nitrogen	< 0.01	0.01	mg/L	25-Jun-22	TEL055
Potassium	0.7	0.1	mg/L	25-Jun-22	TEL055
Sodium	9.1	0.1	mg/L	25-Jun-22	TEL055
Sulphate	102	1	mg/L	25-Jun-22	TEL055

Microbiology

Coliforms, Fecal	< 1	1	CFU/100mL	24-Jun-22	TEL017
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Organics

Hexane Extractable Material	< 2.0	2	mg/L	27-Jun-22	TEL072
Oil and Grease, visible	Non-visible			24-Jun-22	Visual Exam

Subcontracted Organics

Phenols, Total	< 0.0010	0.001	mg/L	07-Jul-22	AB ENV.06537
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Trace Metals, Total

Arsenic	0.4	0.2	µg/L	30-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Chromium	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Copper	0.5	0.2	µg/L	30-Jun-22	TEL035
Iron	78	5	µg/L	30-Jun-22	TEL035
Lead	0.3	0.1	µg/L	30-Jun-22	TEL035
Mercury	< 0.01	0.01	µg/L	30-Jun-22	TEL035
Nickel	1.0	0.1	µg/L	30-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Zinc	< 5.0	5	µg/L	30-Jun-22	TEL035

ReportDate: July-14-22

Print Date: **July-14-22**



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

Taiga Batch No.:
221217

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Client Project: S18L3-003
Sample Type: Freshwater
Received Date: 24-Jun-22
Sampling Date: 23-Jun-22
Sampling Time: 10:00
Location: Norman Wells
Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	< 0.005	0.005	mg/L	28-Jun-22	TEL068	
CBOD	2	2	mg/L	24-Jun-22	TEL019	
Nitrogen, Total	0.78	0.06	mg/L	28-Jun-22	TEL066	
Organic Carbon, Total	28.7	0.5	mg/L	28-Jun-22	TEL033	
Phosphorous, Total	0.042	0.002	mg/L	29-Jun-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	464	0.4	µS/cm	24-Jun-22	TEL059	
pH	7.95		pH units	24-Jun-22	TEL058	
Solids, Total Suspended	46	3	mg/L	27-Jun-22	TEL008	
<u>Major Ions</u>						
Calcium	60.3	0.1	mg/L	25-Jun-22	TEL055	
Magnesium	20.3	0.1	mg/L	25-Jun-22	TEL055	
Nitrate as Nitrogen	< 0.01	0.01	mg/L	25-Jun-22	TEL055	
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	25-Jun-22	TEL055	
Nitrite as Nitrogen	< 0.01	0.01	mg/L	25-Jun-22	TEL055	
Potassium	0.5	0.1	mg/L	25-Jun-22	TEL055	

ReportDate: July-14-22
Print Date: July-14-22



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Sodium	14.6	0.1	mg/L	25-Jun-22	TEL055
Sulphate	101	1	mg/L	25-Jun-22	TEL055
<u>Microbiology</u>					
Coliforms, Fecal	4	1	CFU/100mL	24-Jun-22	TEL017
<u>Organics</u>					
Hexane Extractable Material	< 2.0	2	mg/L	27-Jun-22	TEL072
Oil and Grease, visible	Non-visible			24-Jun-22	Visual Exam
<u>Subcontracted Organics</u>					
Phenols, Total	< 0.0010	0.001	mg/L	07-Jul-22	AB ENV.06537
<u>Trace Metals, Total</u>					
Arsenic	0.9	0.2	µg/L	30-Jun-22	TEL035
Cadmium	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Chromium	1.1	0.1	µg/L	30-Jun-22	TEL035
Copper	2.5	0.2	µg/L	30-Jun-22	TEL035
Iron	1240	5	µg/L	30-Jun-22	TEL035
Lead	0.6	0.1	µg/L	30-Jun-22	TEL035
Mercury	< 0.01	0.01	µg/L	30-Jun-22	TEL035
Nickel	2.8	0.1	µg/L	30-Jun-22	TEL035
Silver	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Thallium	< 0.1	0.1	µg/L	30-Jun-22	TEL035
Zinc	6.3	5	µg/L	30-Jun-22	TEL035

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Taiga Batch No.:

221217

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Return**

Taiga Sample ID: **003**

Client Project: S18L3-003

Sample Type: Potable

Received Date: 24-Jun-22

Sampling Date: 23-Jun-22

Sampling Time: 10:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Organics						
Bromodichloromethane	4.0	1	ug/L	28-Jun-22	TEL074	
Bromoform	< 1.0	1	ug/L	28-Jun-22	TEL074	
Chloroform	53.3	1	ug/L	28-Jun-22	TEL074	
Dibromochloromethane	< 1.0	1	ug/L	28-Jun-22	TEL074	
Trihalomethanes, Total	57.5	1	ug/L	28-Jun-22	TEL074	

ReportDate: July-14-22

Print Date: **July-14-22**



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

Taiga Batch No.:

221217

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Distribution**

Taiga Sample ID: **004**

Client Project: S18L3-003

Sample Type: Potable

Received Date: 24-Jun-22

Sampling Date: 23-Jun-22

Sampling Time: 10:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Organics						
Bromodichloromethane	3.5	1	ug/L	28-Jun-22	TEL074	
Bromoform	< 1.0	1	ug/L	28-Jun-22	TEL074	
Chloroform	42.3	1	ug/L	28-Jun-22	TEL074	
Dibromochloromethane	< 1.0	1	ug/L	28-Jun-22	TEL074	
Trihalomethanes, Total	46.0	1	ug/L	28-Jun-22	TEL074	

ReportDate: July-14-22

Print Date: **July-14-22**

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **Distribution**

Taiga Sample ID: **004**

* 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: July-14-22

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Taiga Batch No.:
221343

- FINAL REPORT -

Prepared For: Town of Norman Wells

Address: Box 5
Norman Wells, NT
X0E 0V0

Attn: Jerrod Kummer

Facsimile: (867) 587-3724

Final report has been reviewed and approved by:

A handwritten signature in black ink, appearing to read "Glen Hudy".

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
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: July-31-22

Print Date: *July-31-22*

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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.:
221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 08-Jul-22

Sampling Date: 07-Jul-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Cations by ICP-MS</u>						
Calcium	58.5	0.1	mg/L	12-Jul-22	TEL035	
Magnesium	17.2	0.1	mg/L	12-Jul-22	TEL035	
Potassium	0.8	0.1	mg/L	12-Jul-22	TEL035	
Sodium	8.9	0.1	mg/L	12-Jul-22	TEL035	
<u>Inorganics - Nutrients</u>						
CBOD	< 2	2	mg/L	08-Jul-22	TEL019	
Nitrogen, Total	0.93	0.06	mg/L	11-Jul-22	TEL066	
Organic Carbon, Total	32.9	0.5	mg/L	15-Jul-22	TEL033	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	425	0.4	µS/cm	08-Jul-22	TEL059	
pH	7.54		pH units	08-Jul-22	TEL058	
Solids, Total Suspended	4	3	mg/L	13-Jul-22	TEL008	
<u>Microbiology</u>						
Coliforms, Fecal	1	1	CFU/100mL	08-Jul-22	TEL017	
<u>Organics</u>						

ReportDate: July-31-22

Print Date: **July-31-22**



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

Taiga Batch No.:
221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Hexane Extractable Material	< 2.0	2	mg/L	12-Jul-22	TEL072
<u>Subcontracted Inorganics</u>					
Nitrate as Nitrogen	0.0201	0.005	mg/L	18-Jul-22	EPA300.1
Nitrite as N	0.0016	0.001	mg/L	18-Jul-22	EPA300.1
NO ₂ +NO ₃ - N	0.0217	0.0051	mg/L	18-Jul-22	EPA300.1
Phosphorous, Total	0.0901	0.002	mg/L	16-Jul-22	APHA4500:P
Sulphate	57.5	0.05	mg/L	18-Jul-22	EPA300.1
<u>Subcontracted Nutrients</u>					
Ammonia as Nitrogen	0.0493	0.005	mg/L	20-Jul-22	SM4500 NH3
<u>Subcontracted Organics</u>					
Phenols, Total	< 0.0010	0.001	mg/L	20-Jul-22	AB ENV.06537
<u>Trace Metals, Total</u>					
Aluminum	27.1	5	µg/L	13-Jul-22	TEL035
Antimony	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Arsenic	0.9	0.2	µg/L	13-Jul-22	TEL035
Barium	56.4	0.1	µg/L	13-Jul-22	TEL035
Beryllium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Bismuth	< 0.2	0.2	µg/L	13-Jul-22	TEL035
Boron	16.3	0.9	µg/L	13-Jul-22	TEL035
Cadmium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Cesium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Chromium	0.1	0.1	µg/L	13-Jul-22	TEL035
Cobalt	0.1	0.1	µg/L	13-Jul-22	TEL035
Copper	0.5	0.2	µg/L	13-Jul-22	TEL035
Iron	273	5	µg/L	13-Jul-22	TEL035

ReportDate: July-31-22

Print Date: **July-31-22**



Taiga Environmental Laboratory

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

Taiga Batch No.:

221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Lead	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Lithium	4.5	0.2	µg/L	13-Jul-22	TEL035
Manganese	127	0.1	µg/L	13-Jul-22	TEL035
Mercury	< 0.01	0.01	µg/L	13-Jul-22	TEL035
Molybdenum	1.1	0.1	µg/L	13-Jul-22	TEL035
Nickel	1.2	0.1	µg/L	13-Jul-22	TEL035
Rubidium	0.7	0.1	µg/L	13-Jul-22	TEL035
Selenium	< 0.5	0.5	µg/L	13-Jul-22	TEL035
Silver	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Strontium	169	0.1	µg/L	13-Jul-22	TEL035
Thallium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Tin	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Titanium	0.6	0.1	µg/L	13-Jul-22	TEL035
Uranium	0.3	0.1	µg/L	13-Jul-22	TEL035
Vanadium	0.2	0.1	µg/L	13-Jul-22	TEL035
Zinc	< 5.0	5	µg/L	13-Jul-22	TEL035

ReportDate: July-31-22

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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.:
221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Client Project: S18L3-003
Sample Type: Freshwater
Received Date: 08-Jul-22
Sampling Date: 07-Jul-22
Sampling Time: 11:00
Location: Norman Wells
Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Cations by ICP-MS</u>						
Calcium	62.0	0.1	mg/L	12-Jul-22	TEL035	
Magnesium	19.4	0.1	mg/L	12-Jul-22	TEL035	
Potassium	0.6	0.1	mg/L	12-Jul-22	TEL035	
Sodium	13.3	0.1	mg/L	12-Jul-22	TEL035	
<u>Inorganics - Nutrients</u>						
CBOD	< 2	2	mg/L	08-Jul-22	TEL019	
Nitrogen, Total	0.93	0.06	mg/L	12-Jul-22	TEL066	
Organic Carbon, Total	32.4	0.5	mg/L	15-Jul-22	TEL033	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	470	0.4	µS/cm	08-Jul-22	TEL059	
pH	8.27		pH units	08-Jul-22	TEL058	
Solids, Total Suspended	6	3	mg/L	13-Jul-22	TEL008	
<u>Microbiology</u>						
Coliforms, Fecal	1	1	CFU/100mL	08-Jul-22	TEL017	
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2	mg/L	12-Jul-22	TEL072	

ReportDate: July-31-22
Print Date: **July-31-22**



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

Taiga Batch No.:
221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Subcontracted Inorganics

Nitrate as Nitrogen	0.0221	0.005	mg/L	18-Jul-22	EPA300.1
Nitrite as N	< 0.0010	0.001	mg/L	18-Jul-22	EPA300.1
NO ₂ +NO ₃ - N	0.0221	0.0051	mg/L	18-Jul-22	EPA300.1
Phosphorous, Total	0.0216	0.002	mg/L	16-Jul-22	APHA4500:P
Sulphate	76.2	0.05	mg/L	18-Jul-22	EPA300.1

Subcontracted Nutrients

Ammonia as Nitrogen	0.0209	0.005	mg/L	20-Jul-22	SM4500 NH3
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Subcontracted Organics

Phenols, Total	< 0.0010	0.001	mg/L	20-Jul-22	AB ENV.06537
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Trace Metals, Total

Aluminum	41.3	5	µg/L	13-Jul-22	TEL035
Antimony	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Arsenic	0.9	0.2	µg/L	13-Jul-22	TEL035
Barium	44.9	0.1	µg/L	13-Jul-22	TEL035
Beryllium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Bismuth	< 0.2	0.2	µg/L	13-Jul-22	TEL035
Boron	17.8	0.9	µg/L	13-Jul-22	TEL035
Cadmium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Cesium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Chromium	0.1	0.1	µg/L	13-Jul-22	TEL035
Cobalt	0.2	0.1	µg/L	13-Jul-22	TEL035
Copper	0.6	0.2	µg/L	13-Jul-22	TEL035
Iron	163	5	µg/L	13-Jul-22	TEL035
Lead	< 0.1	0.1	µg/L	13-Jul-22	TEL035

ReportDate: July-31-22

Print Date: **July-31-22**



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

Taiga Batch No.:
221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Lithium	6.6	0.2	µg/L	13-Jul-22	TEL035
Manganese	23.6	0.1	µg/L	13-Jul-22	TEL035
Mercury	< 0.01	0.01	µg/L	13-Jul-22	TEL035
Molybdenum	1.1	0.1	µg/L	13-Jul-22	TEL035
Nickel	1.3	0.1	µg/L	13-Jul-22	TEL035
Rubidium	0.5	0.1	µg/L	13-Jul-22	TEL035
Selenium	< 0.5	0.5	µg/L	13-Jul-22	TEL035
Silver	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Strontium	170	0.1	µg/L	13-Jul-22	TEL035
Thallium	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Tin	< 0.1	0.1	µg/L	13-Jul-22	TEL035
Titanium	0.9	0.1	µg/L	13-Jul-22	TEL035
Uranium	0.5	0.1	µg/L	13-Jul-22	TEL035
Vanadium	0.5	0.1	µg/L	13-Jul-22	TEL035
Zinc	< 5.0	5	µg/L	13-Jul-22	TEL035

ReportDate: July-31-22

Print Date: *July-31-22*

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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.:

221343

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

*** 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: July-31-22

Print Date: **July-31-22**

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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.:
221642

- FINAL REPORT -

Prepared For: Town of Norman Wells

Address: Box 5
Norman Wells, NT
X0E 0V0

Attn: Hugo Pabke

Facsimile: (867) 587-3724

Final report has been reviewed and approved by:

A handwritten signature in black ink, appearing to read "Glen Hudy".

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.
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ReportDate: August-29-22

Print Date: *August-29-22*

Page 1 of 8



Taiga Environmental Laboratory

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

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

Taiga Batch No.:
221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 11-Aug-22

Sampling Date: 10-Aug-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Cations by ICP-MS</u>						
Calcium	72.0	0.1	mg/L	18-Aug-22	TEL035	
Magnesium	22.2	0.1	mg/L	18-Aug-22	TEL035	
Potassium	1.3	0.1	mg/L	18-Aug-22	TEL035	
Sodium	16.1	0.1	mg/L	18-Aug-22	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.018	0.005	mg/L	17-Aug-22	TEL068	
CBOD	< 2	2	mg/L	11-Aug-22	TEL019	
Nitrogen, Total	1.17	0.06	mg/L	13-Aug-22	TEL066	
Organic Carbon, Total	32.0	0.5	mg/L	17-Aug-22	TEL033	
Phosphorous, Total	0.160	0.002	mg/L	18-Aug-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	520	0.4	µS/cm	11-Aug-22	TEL059	
pH	7.37		pH units	11-Aug-22	TEL058	
Solids, Total Suspended	16	3	mg/L	12-Aug-22	TEL008	

Major Ions

ReportDate: August-29-22

Print Date: *August-29-22*



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

Taiga Batch No.:
221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: S18L3-003-2

Taiga Sample ID: 001

Nitrate as Nitrogen	< 0.01	0.01	mg/L	12-Aug-22	TEL055
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	12-Aug-22	TEL055
Nitrite as Nitrogen	< 0.01	0.01	mg/L	12-Aug-22	TEL055
Sulphate	72	1	mg/L	12-Aug-22	TEL055

Microbiology

Coliforms, Fecal	15	1	CFU/100mL	11-Aug-22	TEL017
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Organics

Hexane Extractable Material	< 2.0	2	mg/L	12-Aug-22	TEL072
Oil and Grease, visible	Non-visible			11-Aug-22	Visual Exam

Subcontracted Organics

Phenols, Total	< 0.0010	0.001	mg/L	22-Aug-22	AB ENV.06537
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Trace Metals, Total

Aluminum	41.6	0.6	µg/L	19-Aug-22	TEL035
Antimony	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Arsenic	0.7	0.2	µg/L	19-Aug-22	TEL035
Barium	82.7	0.1	µg/L	19-Aug-22	TEL035
Beryllium	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Bismuth	< 0.2	0.2	µg/L	19-Aug-22	TEL035
Boron	8.5	0.9	µg/L	19-Aug-22	TEL035
Cadmium	< 0.0	0.04	µg/L	19-Aug-22	TEL035
Cesium	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Chromium	0.1	0.1	µg/L	19-Aug-22	TEL035
Cobalt	0.3	0.1	µg/L	19-Aug-22	TEL035
Copper	0.3	0.2	µg/L	19-Aug-22	TEL035
Iron	715	5	µg/L	19-Aug-22	TEL035

ReportDate: August-29-22

Print Date: August-29-22



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

Taiga Batch No.:
221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Lead	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Lithium	5.9	0.2	µg/L	19-Aug-22	TEL035
Manganese	585	0.1	µg/L	19-Aug-22	TEL035
Mercury	0.01	0.01	µg/L	19-Aug-22	TEL035
Molybdenum	0.3	0.1	µg/L	19-Aug-22	TEL035
Nickel	1.0	0.1	µg/L	19-Aug-22	TEL035
Rubidium	0.8	0.1	µg/L	19-Aug-22	TEL035
Selenium	0.3	0.3	µg/L	19-Aug-22	TEL035
Silver	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Strontium	205	0.1	µg/L	19-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Tin	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Titanium	0.5	0.1	µg/L	19-Aug-22	TEL035
Uranium	0.2	0.1	µg/L	19-Aug-22	TEL035
Vanadium	0.2	0.1	µg/L	19-Aug-22	TEL035
Zinc	2.0	0.4	µg/L	19-Aug-22	TEL035

ReportDate: August-29-22
Print Date: *August-29-22*



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

Taiga Batch No.:
221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Client Project: S18L3-003
Sample Type: Freshwater
Received Date: 11-Aug-22
Sampling Date: 10-Aug-22
Sampling Time: 11:00
Location: Norman Wells
Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Cations by ICP-MS</u>						
Calcium	42.7	0.1	mg/L	18-Aug-22	TEL035	
Magnesium	20.1	0.1	mg/L	18-Aug-22	TEL035	
Potassium	0.5	0.1	mg/L	18-Aug-22	TEL035	
Sodium	18.4	0.1	mg/L	18-Aug-22	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.016	0.005	mg/L	17-Aug-22	TEL068	
CBOD	< 2	2	mg/L	11-Aug-22	TEL019	
Nitrogen, Total	1.30	0.06	mg/L	13-Aug-22	TEL066	
Organic Carbon, Total	33.7	0.5	mg/L	17-Aug-22	TEL033	
Phosphorous, Total	0.014	0.002	mg/L	18-Aug-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	378	0.4	µS/cm	11-Aug-22	TEL059	
pH	8.39		pH units	11-Aug-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	12-Aug-22	TEL008	
<u>Major Ions</u>						
Nitrate as Nitrogen	< 0.01	0.01	mg/L	12-Aug-22	TEL055	

ReportDate: August-29-22
Print Date: August-29-22



Taiga Environmental Laboratory

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

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

Taiga Batch No.:
221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	12-Aug-22	TEL055
Nitrite as Nitrogen	< 0.01	0.01	mg/L	12-Aug-22	TEL055
Sulphate	58	1	mg/L	12-Aug-22	TEL055

Microbiology

Coliforms, Fecal	21	1	CFU/100mL	11-Aug-22	TEL017
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Organics

Hexane Extractable Material	< 2.0	2	mg/L	12-Aug-22	TEL072
Oil and Grease, visible	Non-visible			11-Aug-22	Visual Exam

Subcontracted Organics

Phenols, Total	< 0.0010	0.001	mg/L	22-Aug-22	AB ENV.06537
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Trace Metals, Total

Aluminum	46.0	0.6	µg/L	19-Aug-22	TEL035
Antimony	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Arsenic	1.1	0.2	µg/L	19-Aug-22	TEL035
Barium	34.2	0.1	µg/L	19-Aug-22	TEL035
Beryllium	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Bismuth	< 0.2	0.2	µg/L	19-Aug-22	TEL035
Boron	12.2	0.9	µg/L	19-Aug-22	TEL035
Cadmium	< 0.0	0.04	µg/L	19-Aug-22	TEL035
Cesium	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Chromium	0.1	0.1	µg/L	19-Aug-22	TEL035
Cobalt	0.2	0.1	µg/L	19-Aug-22	TEL035
Copper	0.7	0.2	µg/L	19-Aug-22	TEL035
Iron	160	5	µg/L	19-Aug-22	TEL035
Lead	< 0.1	0.1	µg/L	19-Aug-22	TEL035

ReportDate: August-29-22

Print Date: *August-29-22*



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

Taiga Batch No.:
221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Lithium	7.2	0.2	µg/L	19-Aug-22	TEL035
Manganese	14.0	0.1	µg/L	19-Aug-22	TEL035
Mercury	0.01	0.01	µg/L	19-Aug-22	TEL035
Molybdenum	0.8	0.1	µg/L	19-Aug-22	TEL035
Nickel	1.3	0.1	µg/L	19-Aug-22	TEL035
Rubidium	0.4	0.1	µg/L	19-Aug-22	TEL035
Selenium	< 0.3	0.3	µg/L	19-Aug-22	TEL035
Silver	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Strontium	136	0.1	µg/L	19-Aug-22	TEL035
Thallium	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Tin	< 0.1	0.1	µg/L	19-Aug-22	TEL035
Titanium	1.1	0.1	µg/L	19-Aug-22	TEL035
Uranium	0.4	0.1	µg/L	19-Aug-22	TEL035
Vanadium	0.7	0.1	µg/L	19-Aug-22	TEL035
Zinc	0.7	0.4	µg/L	19-Aug-22	TEL035

ReportDate: August-29-22
Print Date: *August-29-22*



Taiga Environmental Laboratory

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

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

Taiga Batch No.:

221642

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

*** 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: August-29-22

Print Date: *August-29-22*

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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.:
221925

- FINAL REPORT -

Prepared For: Town of Norman Wells

Address: Box 5
Norman Wells, NT
X0E 0V0

Attn: Jerrod Kummer

Facsimile: (867) 587-3724

Final report has been reviewed and approved by:

A handwritten signature in black ink, appearing to read 'Glen Hudy', is written over a horizontal line.

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
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: October-18-22

Print Date: *October-18-22*

Page 1 of 10



Taiga Environmental Laboratory

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

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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-2**

Taiga Sample ID: **001**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 15-Sep-22

Sampling Date: 14-Sep-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Cations by ICP-MS</u>						
Calcium	68.8	0.1	mg/L	22-Sep-22	TEL035	
Magnesium	22.4	0.1	mg/L	22-Sep-22	TEL035	
Potassium	1.6	0.1	mg/L	22-Sep-22	TEL035	
Sodium	22.1	0.1	mg/L	22-Sep-22	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.010	0.005	mg/L	20-Sep-22	TEL068	
CBOD	< 2	2	mg/L	15-Sep-22	TEL019	
Nitrogen, Total	1.15	0.06	mg/L	16-Sep-22	TEL066	
Organic Carbon, Total	30.1	0.5	mg/L	20-Sep-22	TEL033	
Phosphorous, Total	0.018	0.002	mg/L	23-Sep-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	549	0.4	µS/cm	15-Sep-22	TEL059	
pH	7.36		pH units	15-Sep-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	16-Sep-22	TEL008	

Major Ions

ReportDate: October-18-22

Print Date: **October-18-22**



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Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: S18L3-003-2

Taiga Sample ID: 001

Nitrate as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055
Nitrite as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055
Sulphate	60	1	mg/L	16-Sep-22	TEL055

Microbiology

Coliforms, Fecal	2	1	CFU/100mL	15-Sep-22	TEL017
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Organics

Oil and Grease, visible	Non-visible			15-Sep-22	Visual Exam
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Subcontracted Organics

Hexane Extractable Material		5	mg/L		APHA 5520B	255
Phenols, Total		0.001	mg/L		AB ENV.06537	255

Trace Metals, Total

Aluminum	29.9	0.6	µg/L	26-Sep-22	TEL035
Arsenic	0.5	0.2	µg/L	26-Sep-22	TEL035
Cadmium	< 0.04	0.04	µg/L	26-Sep-22	TEL035
Chromium	0.1	0.1	µg/L	26-Sep-22	TEL035
Copper	0.3	0.2	µg/L	26-Sep-22	TEL035
Iron	490	5	µg/L	26-Sep-22	TEL035
Lead	< 0.1	0.1	µg/L	26-Sep-22	TEL035
Mercury	< 0.01	0.01	µg/L	26-Sep-22	TEL035
Nickel	1.1	0.1	µg/L	26-Sep-22	TEL035
Thallium	< 0.1	0.1	µg/L	26-Sep-22	TEL035
Zinc	5.0	0.4	µg/L	26-Sep-22	TEL035

ReportDate: October-18-22

Print Date: *October-18-22*



Taiga Environmental Laboratory

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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-3**

Taiga Sample ID: **002**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 15-Sep-22

Sampling Date: 14-Sep-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Cations by ICP-MS</u>						
Calcium	54.0	0.1	mg/L	22-Sep-22	TEL035	
Magnesium	27.1	0.1	mg/L	22-Sep-22	TEL035	
Potassium	0.6	0.1	mg/L	22-Sep-22	TEL035	
Sodium	20.1	0.1	mg/L	22-Sep-22	TEL035	
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.008	0.005	mg/L	20-Sep-22	TEL068	
CBOD	< 2	2	mg/L	15-Sep-22	TEL019	
Nitrogen, Total	1.10	0.06	mg/L	16-Sep-22	TEL066	
Organic Carbon, Total	30.2	0.5	mg/L	20-Sep-22	TEL033	
Phosphorous, Total	0.014	0.002	mg/L	23-Sep-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	516	0.4	µS/cm	15-Sep-22	TEL059	
pH	8.05		pH units	15-Sep-22	TEL058	
Solids, Total Suspended	< 3	3	mg/L	16-Sep-22	TEL008	
<u>Major Ions</u>						
Nitrate as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055	

ReportDate: October-18-22

Print Date: **October-18-22**



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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: S18L3-003-3

Taiga Sample ID: 002

Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055
Nitrite as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055
Sulphate	111	1	mg/L	16-Sep-22	TEL055

Microbiology

Coliforms, Fecal	2	1	CFU/100mL	15-Sep-22	TEL017
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Organics

Oil and Grease, visible	Non-visible			15-Sep-22	Visual Exam
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Subcontracted Organics

Hexane Extractable Material	< 5.0	5	mg/L	04-Oct-22	APHA 5520B
Phenols, Total	< 0.0010	0.001	mg/L	22-Sep-22	AB ENV.06537

Trace Metals, Total

Aluminum	64.7	0.6	µg/L	26-Sep-22	TEL035
Arsenic	0.8	0.2	µg/L	26-Sep-22	TEL035
Cadmium	< 0.04	0.04	µg/L	26-Sep-22	TEL035
Chromium	0.2	0.1	µg/L	26-Sep-22	TEL035
Copper	0.9	0.2	µg/L	26-Sep-22	TEL035
Iron	234	5	µg/L	26-Sep-22	TEL035
Lead	0.2	0.1	µg/L	26-Sep-22	TEL035
Mercury	< 0.01	0.01	µg/L	26-Sep-22	TEL035
Nickel	1.4	0.1	µg/L	26-Sep-22	TEL035
Thallium	< 0.1	0.1	µg/L	26-Sep-22	TEL035
Zinc	3.7	0.4	µg/L	26-Sep-22	TEL035

ReportDate: October-18-22
Print Date: *October-18-22*



Taiga Environmental Laboratory

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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-003-1**

Taiga Sample ID: **003**

Client Project: S18L3-003

Sample Type: Freshwater

Received Date: 15-Sep-22

Sampling Date: 14-Sep-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	0.076	0.005	mg/L	20-Sep-22	TEL068	
CBOD	17	2	mg/L	15-Sep-22	TEL019	
Nitrogen, Total	1.88	0.06	mg/L	16-Sep-22	TEL066	
Organic Carbon, Total	29.6	0.5	mg/L	20-Sep-22	TEL033	
Phosphorous, Total	0.241	0.002	mg/L	23-Sep-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	412	0.4	µS/cm	15-Sep-22	TEL059	
pH	7.66		pH units	15-Sep-22	TEL058	
Solids, Total Suspended	47	3	mg/L	16-Sep-22	TEL008	
<u>Major Ions</u>						
Nitrate as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055	
Nitrate+Nitrite as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055	
Nitrite as Nitrogen	< 0.01	0.01	mg/L	16-Sep-22	TEL055	
<u>Microbiology</u>						
Coliforms, Fecal	16	1	CFU/100mL	15-Sep-22	TEL017	
<u>Subcontracted Organics</u>						

ReportDate: October-18-22

Print Date: **October-18-22**



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

Taiga Batch No.:

221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: S18L3-003-1

Taiga Sample ID: 003

Hexane Extractable Material < 5.0 5 mg/L 04-Oct-22 APHA 5520B

ReportDate: October-18-22

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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-002-7 Distribution**

Taiga Sample ID: **004**

Client Project: S18L3-003

Sample Type: Potable

Received Date: 15-Sep-22

Sampling Date: 14-Sep-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Subcontracted Organics</u>						
Bromodichloromethane	0.0040	0.001	mg/L	25-Sep-22	SW-846	
Bromoform	< 0.0010	0.001	mg/L	25-Sep-22	SW-846	
Chloroform	0.0251	0.001	mg/L	25-Sep-22	SW-846	
Dibromochloromethane	< 0.0010	0.001	mg/L	25-Sep-22	SW-846	
Trihalomethanes, Total	0.0291	0.002	mg/L	25-Sep-22	SW-846	

ReportDate: October-18-22

Print Date: **October-18-22**

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Taiga Environmental Laboratory

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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-002-7 Return**

Taiga Sample ID: **005**

Client Project: S18L3-003

Sample Type: Potable

Received Date: 15-Sep-22

Sampling Date: 14-Sep-22

Sampling Time: 11:00

Location: Norman Wells

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Subcontracted Organics</u>						
Bromodichloromethane	0.0052	0.001	mg/L	25-Sep-22	SW-846	
Bromoform	< 0.0010	0.001	mg/L	25-Sep-22	SW-846	
Chloroform	0.0352	0.001	mg/L	25-Sep-22	SW-846	
Dibromochloromethane	< 0.0010	0.001	mg/L	25-Sep-22	SW-846	
Trihalomethanes, Total	0.0404	0.002	mg/L	25-Sep-22	SW-846	

ReportDate: October-18-22

Print Date: **October-18-22**



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

Taiga Batch No.:
221925

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **S18L3-002-7 Return**

Taiga Sample ID: **005**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

255 *Sample misplaced by subcontracting lab; 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: October-18-22

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