

From: [taiga](#)
To: wtp@hayriver.com; [Wendy Bidwell](#); [Erica Janes](#)
Subject: Emailing: 211585 - 2122 - FINAL REPORT, 211585 - 2122 - FINAL REPORT
Date: Monday, November 22, 2021 11:53:04 AM
Attachments: [211585 - 2122 - FINAL REPORT.pdf](#)
[211585 - 2122 - FINAL REPORT.xls](#)

John,

Please see attached for final report 211585.

Have a good day.

Mársı | Kinanāskomitin | Thank you | Merci | Hai' | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsi
Glen Hudy
Chemist, Quality Assurance
Environmental Protection and Waste Management
Environment and Natural Resources
Government of the Northwest Territories

Taiga Environmental Laboratory
PO Box 1320
Yellowknife, NT X1A 2L9

Phone: 867-767-9235 Ext. 53154
Fax: 867-920-8740
www.enr.gov.nt.ca

Survey: <https://www.surveymonkey.com/r/TaigaLab>

Your message is ready to be sent with the following file or link attachments:

211585 - 2122 - FINAL REPORT
211585 - 2122 - FINAL REPORT

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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.:
211585

- FINAL REPORT -

Prepared For: Town of Hay River

Address: 100 - 62 Woodland Drive
Hay River, NT
X0E 1G1

Attn: John Kay

Facsimile: (867) 874-3237

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: November-22-21

Print Date: *November-22-21*

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Taiga Environmental Laboratory

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

Taiga Batch No.:
211585

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **MSS20210824-2-4**

Taiga Sample ID: **001**

Client Project: MSS20210824-2-4

Sample Type: Sewage

Received Date: 25-Aug-21

Sampling Date: 24-Aug-21

Sampling Time: 13:20

Location: SNP0053-2

Report Status: **Final**

| Test Parameter | Result | Detection Limit | Units | Analysis Date | Analytical Method * | Qualifier |
|---|--------|-----------------|----------|---------------|---------------------|-----------|
| <u>Inorganics - Nutrients</u> | | | | | | |
| Ammonia as Nitrogen | 0.518 | 0.005 | mg/L | 27-Aug-21 | TEL068 | |
| Biochemical Oxygen Demand | < 2 | 2 | mg/L | 25-Aug-21 | TEL019 | |
| CBOD | < 2 | 2 | mg/L | 25-Aug-21 | TEL019 | |
| Organic Carbon, Total | 38.5 | 0.5 | mg/L | 01-Sep-21 | TEL033 | |
| Ortho-Phosphate as Phosphorus | 0.917 | 0.002 | mg/L | 27-Aug-21 | TEL069 | |
| Phosphorous, Dissolved | 0.933 | 0.002 | mg/L | 30-Aug-21 | TEL069 | |
| Phosphorous, Total | 1.20 | 0.002 | mg/L | 30-Aug-21 | TEL069 | |
| <u>Inorganics - Physicals</u> | | | | | | |
| Alkalinity, Total (as CaCO ₃) | 262 | 0.4 | mg/L | 25-Aug-21 | TEL060 | |
| Conductivity, Specific (@25C) | 579 | 0.4 | µS/cm | 25-Aug-21 | TEL059 | |
| pH | 7.77 | | pH units | 25-Aug-21 | TEL058 | |
| Solids, Total Dissolved | 400 | 10 | mg/L | 31-Aug-21 | TEL009 | |
| Solids, Total Suspended | 12 | 3 | mg/L | 31-Aug-21 | TEL008 | |

Major Ions

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Taiga Batch No.:
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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **MSS20210824-2-4**

Taiga Sample ID: **001**

| | | | | | |
|---------------------|------|------|------|-----------|--------|
| Chloride | 33.3 | 0.7 | mg/L | 26-Aug-21 | TEL055 |
| Fluoride | 0.1 | 0.1 | mg/L | 26-Aug-21 | TEL055 |
| Nitrate as Nitrogen | 0.79 | 0.01 | mg/L | 26-Aug-21 | TEL055 |
| Sulphate | 2 | 1 | mg/L | 26-Aug-21 | TEL055 |

Microbiology

| | | | | | |
|------------------|------|---|-----------|-----------|--------|
| Coliforms, Fecal | 26 | 1 | CFU/100mL | 25-Aug-21 | TEL017 |
| Enterococci | 20.9 | 1 | MPN/100ml | 25-Aug-21 | TEL053 |

Organics

| | | | | | |
|-----------------------------|-------|---|------|-----------|--------|
| Hexane Extractable Material | < 2.0 | 2 | mg/L | 01-Sep-21 | TEL072 |
|-----------------------------|-------|---|------|-----------|--------|

Subcontracted Inorganics

| | | | | | |
|-----------|------|-------|------|-----------|----------|
| Calcium | 82.5 | 0.05 | mg/L | 02-Sep-21 | EPA200.2 |
| Hardness | 279 | 0.5 | mg/L | 02-Sep-21 | EPA200.2 |
| Magnesium | 17.8 | 0.005 | mg/L | 02-Sep-21 | EPA200.2 |
| Potassium | 4.04 | 0.05 | mg/L | 02-Sep-21 | EPA200.2 |
| Sodium | 25.4 | 0.05 | mg/L | 02-Sep-21 | EPA200.2 |

Subcontracted Nutrients

| | | | | | |
|--------------------------|------|------|------|-----------|------------------|
| Kjeldahl Nitrogen, Total | 1.89 | 0.05 | mg/L | 15-Nov-21 | APHA4500-NORG (T |
|--------------------------|------|------|------|-----------|------------------|

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

Taiga Batch No.:
211585

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **MSS20210824-3-4**

Taiga Sample ID: **002**

Client Project: MSS20210824-3-4

Sample Type: Sewage

Received Date: 25-Aug-21

Sampling Date: 24-Aug-21

Sampling Time: 13:48

Location: SNP0053-3

Report Status: **Final**

| Test Parameter | Result | Detection Limit | Units | Analysis Date | Analytical Method * | Qualifer |
|--------------------------------------|--------|-----------------|----------|---------------|---------------------|----------|
| <u>Inorganics - Nutrients</u> | | | | | | |
| Ammonia as Nitrogen | 23.4 | 0.005 | mg/L | 27-Aug-21 | TEL068 | |
| Biochemical Oxygen Demand | 30 | 2 | mg/L | 25-Aug-21 | TEL019 | |
| CBOD | 24 | 2 | mg/L | 25-Aug-21 | TEL019 | |
| Organic Carbon, Total | 37.6 | 0.5 | mg/L | 01-Sep-21 | TEL033 | |
| Ortho-Phosphate as Phosphorus | 3.15 | 0.002 | mg/L | 27-Aug-21 | TEL069 | |
| Phosphorous, Dissolved | 3.17 | 0.002 | mg/L | 30-Aug-21 | TEL069 | |
| Phosphorous, Total | 3.90 | 0.002 | mg/L | 30-Aug-21 | TEL069 | |
| <u>Inorganics - Physicals</u> | | | | | | |
| Alkalinity, Total (as CaCO3) | 503 | 0.4 | mg/L | 25-Aug-21 | TEL060 | |
| Conductivity, Specific (@25C) | 1310 | 0.4 | µS/cm | 25-Aug-21 | TEL059 | |
| pH | 7.64 | | pH units | 25-Aug-21 | TEL058 | |
| Solids, Total Dissolved | 730 | 10 | mg/L | 31-Aug-21 | TEL009 | |
| Solids, Total Suspended | 52 | 3 | mg/L | 31-Aug-21 | TEL008 | |
| <u>Major Ions</u> | | | | | | |
| Chloride | 110 | 0.7 | mg/L | 26-Aug-21 | TEL055 | |
| Fluoride | < 0.1 | 0.1 | mg/L | 26-Aug-21 | TEL055 | |

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **MSS20210824-3-4**

Taiga Sample ID: **002**

| | | | | | |
|--|--------|-------|-----------|-----------|------------------|
| Nitrate as Nitrogen | < 0.01 | 0.01 | mg/L | 26-Aug-21 | TEL055 |
| Sulphate | 44 | 1 | mg/L | 26-Aug-21 | TEL055 |
| <u>Microbiology</u> | | | | | |
| Coliforms, Fecal | 27000 | 1000 | CFU/100mL | 25-Aug-21 | TEL017 |
| Enterococci | 3280 | 10 | MPN/100ml | 25-Aug-21 | TEL053 |
| <u>Organics</u> | | | | | |
| Hexane Extractable Material | 12.2 | 2 | mg/L | 01-Sep-21 | TEL072 |
| <u>Subcontracted Inorganics</u> | | | | | |
| Calcium | 135 | 0.05 | mg/L | 02-Sep-21 | EPA200.2 |
| Hardness | 526 | 0.5 | mg/L | 02-Sep-21 | EPA200.2 |
| Magnesium | 45.8 | 0.005 | mg/L | 02-Sep-21 | EPA200.2 |
| Potassium | 10.0 | 0.05 | mg/L | 02-Sep-21 | EPA200.2 |
| Sodium | 58.8 | 0.05 | mg/L | 02-Sep-21 | EPA200.2 |
| <u>Subcontracted Nutrients</u> | | | | | |
| Kjeldahl Nitrogen, Total | 25.4 | 0.05 | mg/L | 15-Nov-21 | APHA4500-NORG (T |

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: **MSS20210824-3-4**

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

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