

From: [Wendy Bidwell](#)
To: [Susan Christie](#); [Clifford - Works Department](#)
Cc: [Joshua Gauthier](#); [Erica Janes](#)
Subject: Annual Decant at Fort Providence Sewage Disposal Facility - Authorization to Decant - September 27 2022
Date: Tuesday, September 27, 2022 11:57:28 AM
Attachments: [221132 - 2223 - FINAL REPORT.pdf](#)
Importance: High

Good afternoon Susan and Clifford,

The Hamlet is approved to proceed with decant operations at Cell #5 of the Sewage Disposal Facilities commencing today, September 27, 2022. I have attached the pre-decant sample results here. Please note that the pH level is slightly elevated (9.07) in the results attached. It meets licence criteria as this only specifies a pH above 9. Something to keep an eye on though, especially if it continues on an upward trend.

In addition, **please let Josh and I know when decant commences and ends. If decant is longer than a week, a weekly sample will be required for every week that the Hamlet decants as per the licence (see below table).** I recommend taking the sample on the same day as last time, that way you know the samples will make it to the lab on time. Clifford should also request more sample bottles from the lab, if it is anticipated that decant will take longer than a week. Total effluent discharge volumes will need to be included in the annual water licence report, so it's important that this information is tracked and recorded as well.

SNP station	Location	Sampling Frequency	Sampling Parameters	Rationale
1412-2	Sewage effluent from the Sewage Disposal Facilities	Prior to discharge and weekly during discharge	pH, CBOD ₅ , Total Suspended Solids, Ammonia, Total Phosphorus, Nitrate, Nitrite, Faecal Coliforms, Oil and Grease	Site of compliance. To monitor final effluent quality prior to discharge to the Receiving Environment.

If either of you have any questions regarding decant operations, don't hesitate to contact Josh, or

myself.

Regards,

Wendy

Mársı | Kinanāskomitin | Thank you | Merci | Hǵı' | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsi

Wendy Bidwell

Pronouns: she/her/hers

Senior Water Resource Officer

South Slave Region

Department of Environment and Natural Resources

Government of the Northwest Territories

Highway #5

PO Box 900

Fort Smith, NT X0E 0P0

Phone: 867-872-6421

Cell: 867-446-3775

Fax: 867-872-4250

www.gov.nt.ca

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please delete it immediately and notify us by telephone. Thank you.



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

Taiga Batch No.:
221132

- FINAL REPORT -

Prepared For: Hamlet of Fort Providence

Address: General Delivery
Fort Providence, NT
X0E 0L0

Attn: Susan Christie

Facsimile: (867) 699-4624

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: July-15-22

Print Date: *July-15-22*

Page 1 of 5



Taiga Environmental Laboratory

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

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

Taiga Batch No.:
221132

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **2016-2**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 16-Jun-22

Sampling Date: 16-Jun-22

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ortho-Phosphate as Phosphorus	2.69	0.002	mg/L	17-Jun-22	TEL069	
Phosphorous, Total	4.67	0.002	mg/L	23-Jun-22	TEL069	
<u>Inorganics - Physicals</u>						
Conductivity, Specific (@25C)	619	0.4	µS/cm	16-Jun-22	TEL059	
pH	7.22		pH units	07-Jul-22	TEL058	11
Solids, Total Suspended	270	3	mg/L	22-Jun-22	TEL008	
<u>Major Ions</u>						
Calcium	240	0.1	mg/L	18-Jun-22	TEL055	
Magnesium	132	0.1	mg/L	18-Jun-22	TEL055	
Potassium	271	0.1	mg/L	18-Jun-22	TEL055	
Sodium	545	0.1	mg/L	18-Jun-22	TEL055	
Sulphate	3	1	mg/L	17-Jun-22	TEL055	
<u>Organics</u>						
Benzene	< 2.0	2	ug/L	27-Jun-22	TEL075	
Ethylbenzene	< 2.0	2	ug/L	27-Jun-22	TEL075	

ReportDate: July-15-22

Print Date: July-15-22



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

Taiga Batch No.:
221132

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **2016-2**

Taiga Sample ID: **001**

Hexane Extractable Material	11.0	2	mg/L	17-Jun-22	TEL072
Hydrocarbons, Volatile	< 0.3	0.3	mg/L	27-Jun-22	TEL076
Toluene	22.1	2	ug/L	27-Jun-22	TEL075
Xylenes	4.3	2	ug/L	27-Jun-22	TEL075
<u>Subcontracted Organics</u>					
F2: C10-C16	1.08	0.1	mg/L	27-Jun-22	EPA3510
F3: C16-C34	3.48	0.25	mg/L	27-Jun-22	EPA3510
F4: C34-C50	0.39	0.25	mg/L	27-Jun-22	EPA3510
Phenols, Total	0.8330	0.01	mg/L	01-Jul-22	AB ENV.06537
<u>Trace Metals, Total</u>					
Cadmium	0.3	0.1	µg/L	27-Jun-22	TEL035
Chromium	22.8	0.1	µg/L	27-Jun-22	TEL035
Cobalt	9.3	0.1	µg/L	27-Jun-22	TEL035
Copper	16.0	0.2	µg/L	27-Jun-22	TEL035
Iron	7890	5	µg/L	27-Jun-22	TEL035
Lead	3.4	0.1	µg/L	27-Jun-22	TEL035
Manganese	1190	0.1	µg/L	27-Jun-22	TEL035
Mercury	0.11	0.01	µg/L	27-Jun-22	TEL035
Nickel	54.2	0.1	µg/L	27-Jun-22	TEL035
Zinc	139	5	µg/L	27-Jun-22	TEL035

ReportDate: July-15-22
Print Date: **July-15-22**

Page 3 of 5



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

Taiga Batch No.:
221132

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **1412-2**

Taiga Sample ID: **002**

Client Project:

Sample Type: Water

Received Date: 16-Jun-22

Sampling Date: 16-Jun-22

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Ammonia as Nitrogen	16.3	0.005	mg/L	22-Jun-22	TEL068	
CBOD	11	2	mg/L	17-Jun-22	TEL019	
Phosphorous, Total	4.33	0.002	mg/L	23-Jun-22	TEL069	
<u>Inorganics - Physicals</u>						
pH	9.07		pH units	17-Jun-22	TEL058	
Solids, Total Suspended	30	3	mg/L	22-Jun-22	TEL008	
<u>Major Ions</u>						
Nitrate as Nitrogen	0.31	0.01	mg/L	17-Jun-22	TEL055	
Nitrite as Nitrogen	0.59	0.01	mg/L	17-Jun-22	TEL055	
<u>Microbiology</u>						
Coliforms, Fecal	3	1	CFU/100mL	16-Jun-22	TEL017	
<u>Organics</u>						
Hexane Extractable Material	< 2.0	2	mg/L	17-Jun-22	TEL072	

ReportDate: July-15-22

Print Date: **July-15-22**



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

Taiga Batch No.:
221132

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **1412-2**

Taiga Sample ID: **002**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

11 *Holding time exceeded before sample analysis.*

*** 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-15-22

Print Date: *July-15-22*

Page 5 of 5