



WATER LICENCE ANNUAL REPORT

DEASE ARM, GREAT BEAR LAKE
WATER LICENCE NO. S24L3-001
REPORTING YEAR: 2024

Report Prepared for:
GREAT BEAR LAKE LODGE LTD.

Prepared by:
PLUMMER'S ARCTIC LODGES

Version 1.0
February 2025
Great Bear Lake, Northwest Territories

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VERSION CONTROL & REVISIONS

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1 INTRODUCTION

Beginning December 1, 2024, and no later than every December 1 thereafter, the Licensee shall submit an Annual Water Licence Report to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 2, Condition 1. The Annual Water Licence Report referred to in Part B, Condition 19 of this Licence shall include, but not be limited to, the following information:

- a) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources, as required in Part D, Condition 1 of this Licence;
- b) A summary of the calibration and status of the meters and devices referred to in Part B, Condition 18 of this Licence;
- c) A summary of engagement activities conducted in accordance with the approved Engagement Plan, referred to in Part B, Condition 20 of this Licence;
- d) A summary of how Traditional Knowledge was incorporated into decision making;
- e) A summary of Construction activities conducted in accordance with Part E of this Licence;
- f) A summary of major maintenance activities conducted in accordance with this Licence;
- g) A summary of activities conducted in accordance with the approved Waste Management Plan, referred to in Part F, Condition 3 of this Licence, including:
 - i. A summary of approved updates or changes to the process or facilities required for the management of Waste;
 - ii. Monthly and annual quantities, in cubic metres, of solid Waste discharged to the Solid Waste Disposal Facilities;
 - iii. Monthly and annual quantities of Sewage discharged to the Sewage Disposal Facilities;
 - iv. Monthly and annual quantities, in cubic metres, of Sewage solids and/or sludge removed from the septic tanks and discharged to the Solid Waste Disposal Facilities;
- h) A summary of activities conducted in accordance with the approved Spill Contingency Plan, referred to in Part H, Condition 2 of this Licence, including:
 - i. A list and description for all Unauthorized Discharges, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e., open or closed), in accordance with the reporting requirements in Part H, Condition 2 of this Licence; and
 - ii. An outline of any spill training carried out;
- i) A summary of any Closure and Reclamation work completed;
- j) Tabular summaries of all data and information generated under the SNP in Schedule 1 of this Licence, in Excel format;
- k) A list of any non-compliance(s) with the conditions of this Licence or any directive from the Board pursuant to the conditions of this Licence;
- l) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; and
- m) Any other details requested by the Board by July 1 of the year being reported.

2 SUMMARY OF WATER USE

- a) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources, as required in Part D, Condition 1 of this Licence;

Table 1 – Water Usage

Month	Volume from Water Intake at Great Bear Lake Lodge Ltd. (m ³)	Volume of water from any other source (m ³)	Total Volume (m ³)
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	0	0	0
June	138	0	138
July	206	0	206
August	206	0	206
September	67	0	67
October	0	0	0
November	0	0	0
December	0	0	0
Totals	617	0	617

- b) A summary of the calibration and status of the meters and devices referred to in Part B, Condition 18 of this Licence;

The water use meter at Great Bear Lake Lodge was fully operational and properly calibrated throughout the 2024 operating season.

3 SUMMARY OF ENGAGEMENT ACTIVITIES

- c) A summary of engagement activities conducted in accordance with the approved Engagement Plan, referred to in Part B, Condition 20 of this Licence;

All affected parties (Délįnę Got'ine Government) were contacted throughout the season and the engagements can be referenced in the engagement log. Before the commencement of the upcoming 2025 season, an update will be sent to the Délįnę Got'ine Government including notification of the upcoming season as well as job postings.

- d) A summary of how Traditional Knowledge was incorporated into decision making;

Great Bear Lake Lodge starting in the Spring of 2021 has been trying, and to date, unsuccessfully coordinate a Traditional Knowledge Study for the Great Bear Lake Lodge area to be completed with the Délįnę Got'ine Government. Great Bear Lake Lodge will continue to communicate with representatives from Délįnę to have one completed.

4 SUMMARY OF CONSTRUCTION ACTIVITIES

- e) A summary of Construction activities conducted in accordance with Part E of this Licence;

There were no construction activities during the 2024 operating season.

5 SUMMARY OF MAINTENANCE ACTIVITIES

- f) A summary of major maintenance activities conducted in accordance with this Licence;

No major maintenance activities or modifications were completed. Minor routine and preventative maintenance were completed throughout the season as needed.

6 SUMMARY OF ACTIVITIES – WASTE MANAGEMENT PLAN

- g) A summary of activities conducted in accordance with the approved Waste Management Plan, referred to in Part F, Condition 3 of this Licence, including:

All waste streams were managed following the approved waste management plan. All non-combustible and non-sewage waste was segregated and transported to Yellowknife to an approved waste disposal facility.

- i. A summary of approved updates or changes to the process or facilities required for the management of Waste;

No updates or changes were made to the process or facilities required for the management of waste during the 2024 season.

- ii. Monthly and annual quantities, in cubic metres, of solid Waste discharged to the Solid Waste Disposal Facilities;

Table 2 - Quantities of Solid Waste Discharged to the Solid Waste Disposal Facilities

Month	Volume of Sewage Solids (m ³)	Volume of Ash (m ³)
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	11	1.5
October	0	0
November	0	0
December	0	0
Totals	11	1.5

Table 3 - Quantities of Sewage Discharged to Sewage Disposal Facilities

Month	Type of Waste	Volume of Waste (m ³)	Location of Discharge
January	N/A	0	N/A
February	N/A	0	N/A
March	N/A	0	N/A
April	N/A	0	N/A
May	N/A	0	N/A
June	Greywater/Sewage	60	Septic Tank/Cobble Field
July	Greywater/Sewage	120	Septic Tank/Cobble Field
August	Greywater/Sewage	120	Septic Tank/Cobble Field
September	Greywater/Sewage	60	Septic Tank/Cobble Field
October	N/A	0	N/A
November	N/A	0	N/A
December	N/A	0	N/A
Totals	-	360	-

7 SUMMARY OF ACTIVITIES – SPILL CONTINGENCY PLAN

- h) A summary of activities conducted in accordance with the approved Spill Contingency Plan, referred to in Part H, Condition 2 of this Licence, including:
- i. A list and description for all Unauthorized Discharges, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e., open or closed), in accordance with the reporting requirements in Part H, Condition 2 of this Licence; and

No unauthorized discharges occurred during the 2024 operating season.

- ii. An outline of any spill training carried out;

All staff underwent a site-specific orientation upon arriving at Great Bear Lake Lodge including the designation of a spill commander and alternate, the locations of the spill contingency plan on-site, and the locations of the spill response equipment and how to use it.

8 SUMMARY OF ACTIVITIES – CLOSURE AND RECLAMATION PLAN

- i) A summary of any Closure and Reclamation work completed;

There are currently no plans to end or suspend operations at Great Bear Lake Lodge. No closure or reclamation activities occurred, therefore, the closure and reclamation plan is not applicable at this time.

9 SURVEILLANCE NETWORK PROGRAM SUMMARY

- j) A summary of activities conducted in accordance with the approved Spill Contingency Plan, referred to in Part H, Condition 2 of this Licence, including:

Table 1 - SNP Station Coordinates

SNP Station	Latitude	Longitude
SNP Station 15-1 (Water Intake)	66.708654	-119.682016
SNP Station 15-2	66.709878	-119.670334

Table 2 - Summary of SNP Data Analysis at SNP Station 15-2

Parameter	Sample 1 - June 27, 2024	Sample 2 – Sept 5, 2024
Nitrite as Nitrogen	< 0.01 mg/L	< 0.01 mg/L
Biochemical Oxygen Demand	< 2 mg/L	< 2 mg/L
Organic Carbon, Total	2.5 mg/L	2.3 mg/L
Nitrate as Nitrogen	0.07 mg/L	0.08 mg/L
Sulphate	14 mg/L	16 mg/L
Solids, Total Suspended	< 3 mg/L	< 3 mg/L
Chloride	5.7 mg/L	5.5 mg/L
Coliforms, Fecal	1 mg/L	< 1 mg/L

10 SUMMARY OF ACTIONS TAKEN

- i) A list of any non-compliance(s) with the conditions of this Licence or any directive from the Board pursuant to the conditions of this Licence;

There have been no non-compliance(s) associated with the 2024 operating season.

- j) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; and

An inspection of the Lodge was conducted on July 18, 2024, by Acting Manager, Resource Management Crystal Wegernoski and Manager, Resource Management Danielle Rogers. No concerns were raised in the inspection report.

11 DETAILS REQUESTED BY THE BOARD

- m) Any other details requested by the Board by July 1 of the year being reported.

As of July 1, 2024, there were no additional details requested by the board.

12 APPENDIX A: 2024 ENGAGEMENT LOG

See below.

Date (mm-dd)	Attendees	Engagement Type	Topic	Engagement	Result
05-31	Deline Northern Store	Email	Employment Opportunity	Advertising for seasonal workers.	Hired 3 housekeeping staff from Deline.
06-18	Danny Gaudet	In-Person	Potential TOL Amendment	Set meeting for 9:00 June 19.	Meeting set.
06-19	Danny Gaudet	Text	Potential TOL Amendment	Meeting moved to 12:00.	Danny delayed by another meeting.
06-19	Danny Gaudet	Text	Potential TOL Amendment	Danny rescheduled to 2:30 at Northwright Terminal.	Danny unable to attend.
07-04	Gina Bayha	Email	Bear Island Land Camp Trip	Gina wanted coordinates for Bear Island for annual land camp trip.	Coordinated provided.
07-06	Danny Gaudet	Email	Fuel Delivery	Asked for quote for fuel delivery to GBLL.	Danny requested details to provide a quote. Details given.
07-18	Danny Gaudet	Email	Fuel Delivery	Danny gave a quote.	Quote was too high, airplane delivery determined to be cheaper than boat.
08-14	Danny Gaudet	Text	Potential TOL Amendment	Request availability for meeting.	None. Message was received but no availability was given.
08-21	Danny Gaudet	Text	Potential TOL Amendment	Request availability for meeting.	None. Message was received but no availability was given.
08-23	Valine	Email	Potential TOL Amendment	ITI introduced Valine to assist with setting up a meeting.	None. Message was received but no availability was given.
08-26	Valine	Email	Potential TOL Amendment	Requested assistance to set up meeting	None. Message was received but

					no availability was given.
08-26	Danny Gaudet	Text	Potential TOL Amendment	Requested assistance to set up meeting	None. Message was received but no availability was given.
09-04	Danny Gaudet	Text	Potential TOL Amendment	Requested assistance to set up meeting	None. Message was received but no availability was given.
09-20	Danny Gaudet	Text	Potential TOL Amendment	Requested assistance to set up meeting	None. Message was received but no availability was given.
09-24	Danny Gaudet	Text	Potential TOL Amendment	Requested assistance to set up meeting	None. Message was received but no availability was given.
10-01	Todd Slack	Email	Potential TOL Amendment	ITI asked Mr. Slack to assist in setting up a meeting with Danny.	None. Message was received but no availability was given.
10-01	Paulina	Email	Potential TOL Amendment	ITI introduced and requested assistance with setting up meeting	None. Message was received but no availability was given.
10-07	Paulina	Email	Potential TOL Amendment	GBLL followed up with Paulina.	None. Message was received but no availability was given.
10-21	Paulina	Email	Potential TOL Amendment	Paulina informed GBLL that the file had been assigned to Gina who would be in contact.	None. Message was received but no availability was given.
10-29	Paulina	Email	Potential TOL Amendment	GBLL requested introduction to Gina to start conversation	None. Message was received but

					no availability was given.
11-21	Verna Tanaton	Text	DRCC Kingston Lodge	Verna told them that we were good people to work for.	None.
12-25	Verna Tanaton	Text	Season's Greetings	Verna and her grandpa Alfred wished us all Merry Christmas.	Happy Holidays.

13 APPENDIX B: TAIGA ENVIRONMENTAL LABORATORY FINAL REPORTS

See below.



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

Taiga Batch No.:
240871

- FINAL REPORT -

Prepared For: Plummer's Arctic Lodge

Address: 5 Lessard Drive
Yellowknife, NT

Attn: Chuk Coulter

Facsimile:

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.
- Results are based on the specific tests at the time of analysis, does not represent the conditions during sampling and relates only to the items tested.

ReportDate: July 12, 2024

Print Date: *July 15, 2024*



Taiga Environmental Laboratory

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

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

Taiga Batch No.:
240871

- CERTIFICATE OF ANALYSIS -

Client Sample ID:

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 27-Jun-24

Sampling Date: 27-Jun-24

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Cations by ICP-MS</u>						
Hardness	72.5	0.7	mg/L	02-Jul-24	TEL035	
Sodium	4.9	0.1	mg/L	02-Jul-24	TEL035	
<u>Inorganics - Nutrients</u>						
CBOD	< 2	2	mg/L	27-Jun-24	TEL019	
Organic Carbon, Dissolved	2.5	0.5	mg/L	05-Jul-24	TEL033	
Organic Carbon, Total	2.5	0.5	mg/L	06-Jul-24	TEL033	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO3)	56.3	0.4	mg/L	27-Jun-24	TEL060	
Conductivity, Specific (@25C)	163	0.4	µS/cm	27-Jun-24	TEL059	
pH	8.08		pH units	27-Jun-24	TEL058	
Solids, Total Dissolved	106	10	mg/L	02-Jul-24	TEL009	
Solids, Total Suspended	< 3	3	mg/L	02-Jul-24	TEL008	
<u>Major Ions</u>						
Chloride	5.7	0.7	mg/L	06-Jul-24	TEL055	233
Nitrate as Nitrogen	0.07	0.01	mg/L	06-Jul-24	TEL055	233

ReportDate: July 12, 2024

Print Date: July 15, 2024



Taiga Environmental Laboratory

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

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

Taiga Batch No.:

240871

- CERTIFICATE OF ANALYSIS -

Client Sample ID:

Taiga Sample ID: **001**

Nitrite as Nitrogen	< 0.01	0.01	mg/L	06-Jul-24	TEL055	233
Sulphate	14	1	mg/L	06-Jul-24	TEL055	233
<u>Microbiology</u>						
Coliforms, Fecal	1	1	CFU/100mL	27-Jun-24	TEL017	

ReportDate: July 12, 2024

Print Date: *July 15, 2024*

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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.:

240871

- CERTIFICATE OF ANALYSIS -

Client Sample ID:

Taiga Sample ID: **001**

- DATA QUALIFIERS -

Data Qualifier Descriptions:

233 *Equipment failure; sample analyzed past hold time.*

*** 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 12, 2024

Print Date: *July 15, 2024*

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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.:
241364

- FINAL REPORT -

Prepared For: Plummer's Arctic Lodge

Address: 5 Lessard Drive
Yellowknife, NT

Attn: Chuk Coulter

Facsimile:

Final report has been reviewed and approved by:

A handwritten signature in black ink, appearing to read 'B Koswan', written over a horizontal line.

Bradley Koswan
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: 20-Sep-24

Print Date: 20-Sep-24



Taiga Environmental Laboratory

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

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

Taiga Batch No.:
241364

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 05-Sep-24

Sampling Date: 05-Sep-24

Sampling Time: 10:00

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Cations by ICP-MS</u>						
Hardness	74.0	0.7	mg/L	12-Sep-24	TEL035	
Sodium	4.7	0.1	mg/L	12-Sep-24	TEL035	
<u>Inorganics - Nutrients</u>						
CBOD	< 2	2	mg/L	05-Sep-24	TEL019	
Organic Carbon, Dissolved	2.2	0.5	mg/L	14-Sep-24	TEL033	
Organic Carbon, Total	2.3	0.5	mg/L	14-Sep-24	TEL033	
<u>Inorganics - Physicals</u>						
Alkalinity, Total (as CaCO3)	59.4	0.4	mg/L	05-Sep-24	TEL060	
Conductivity, Specific (@25C)	166	0.4	µS/cm	05-Sep-24	TEL059	
pH	7.41		pH units	05-Sep-24	TEL058	
Solids, Total Dissolved	46	10	mg/L	16-Sep-24	TEL009	
Solids, Total Suspended	< 3	3	mg/L	16-Sep-24	TEL008	
<u>Major Ions</u>						
Chloride	5.5	0.7	mg/L	06-Sep-24	TEL055	
Nitrate as Nitrogen	0.08	0.01	mg/L	06-Sep-24	TEL055	

ReportDate: 20-Sep-24

Print Date: 20-Sep-24



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

Taiga Batch No.:

241364

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP**

Taiga Sample ID: **001**

Nitrite as Nitrogen	< 0.01	0.01	mg/L	06-Sep-24	TEL055
Sulphate	16	1	mg/L	06-Sep-24	TEL055
<u>Microbiology</u>					
Coliforms, Fecal	< 1	1	CFU/100mL	05-Sep-24	TEL017

ReportDate: 20-Sep-24

Print Date: 20-Sep-24

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

Taiga Batch No.:

241364

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **SNP**

Taiga Sample ID: **001**

*** 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: 20-Sep-24

Print Date: 20-Sep-24

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