

**COCHRANE**

**WATER / WASTE WATER SERVICES**



**GLACKMEYER LAGOON**

**2025 ANNUAL REPORT**

**Reference Index**

**2025 Annual Report**

- A- Annual Performance Report**
- B- Annual Summary**
- C- Discharge Analytical Report**

**ANNUAL**  
**PERFORMANCE**  
**REPORT**

## **Annual Performance Report**

This report is prepared to comply with Section 9 (5) of the Environmental Compliance Approval Number 1561-ADZNH4, issued February 21, 2017. The report shall contain:

- a) A summary and interpretation of all monitoring data and a comparison to the effluent limits outlined Condition 6, including an overview of the success and adequacy of the Works;

### **RAW SEWAGE RESULTS**

<b>RAW SEWAGE</b>	<b>MONTHLY AVERAGE RESULTS</b>
BOD	150.6 mg/l
SUSPENDED SOLIDS	104.7 mg/l
TOTAL PHOSPHORUS	6.9 mg/l
TKN	52.5 mg/l
AMMONIA	29.3 mg/l
CBOD	163.8 mg/L
pH	7.61 mg/L

*The following are samples taken before and during discharging the Glackmeyer Lagoon.*

<b>Test</b>	<b>Prior to Discharge</b> May 6, 2025	<b>Beginning of Discharge</b> May 20, 2025	<b>During Discharge (25%)</b> May 23, 2025	<b>During Discharge (50%)</b> May 26, 2025	<b>During Discharge (75%)</b> May 28, 2025	<b>End of Discharge</b> May 30, 2025
pH	7.94	8.04	8.79	7.96	7.47	7.66
CBOD	14.7	12.7	8.2	11	4.8	33
SUSPENDED SOLIDS	38	101	16.3	22.3	7.67	707
PHOSPHORUS	0.766	0.985	0.615	1.6	0.575	1.51
E.Coli	0	10	0	0	0	2
Un-Ionized AMMONIA	0.013	0.019	0.007	0.014	0.009	0.008
AMMONIA	1.31	0.23	0.05	0.25	0.36	0.52

- b) A description of any operating problems encountered, and corrective actions taken;

*None.*

- c) A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;

*None.*

- d) A summary of any effluent assurance or control measures undertaken in the reporting period;

*The monitoring programs consists of regular weekly rounds ensuring all equipment is functioning (valves) and take a weekly pH sample in both lagoons during months when access is available (ex. snow) and weekly from the pumping station pit.*

- e) A summary of the calibration and maintenance carried out on all effluent monitoring equipment;

*The effluent flow meter was calibrated on April 11 2024.*

- f) A description of efforts made, and results achieved in meeting the Effluent Objectives of Condition 5.

*The attached Data Summary shows the Glackmeyer Lagoon has not exceeded the effluent concentrations for the CBOD (30 mg/l ), however the Total Suspended Solids (40 mg/L) and the Phosphorus Criteria (1.0mg/L) were exceeded. pH levels (6.5-8.5) were maintained. In the future, weather conditions will be monitored at the lagoon, as well as training on sampling for all operators to ensure to minimize exceedances.*

- g) A tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;

*None.*

- h) A summary of any complaints received during the reporting period and any steps taken to address the complaints;

*None.*

- i) A summary of all by-pass, spills or abnormal discharge events;

*None.*

- j) A copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;

*None.*

- k) A report summarizing all modifications completed as results of Schedule B, Section 3;

*None.*

- l) Any other information the Water Supervisor requires from time to time;

*None.*

*This is the report on the Glackmeyer Lagoon for the year 2025. I certify that the information in this document and all the attachments is correct, accurate and complete to the best of my knowledge.*

Prepared by,  
Melissa Hoogenhoud  
Environmental Services and Compliance Supervisor

## **ANNUAL SUMMARY**



**DISCHARGE**

**ANALYTICAL**

**REPORTS**



**TESTMARK Laboratories Ltd.**

Committed to Quality and Service

## CERTIFICATE OF ANALYSIS

Client: Michael Nelson  
Company: Town of Cochrane - Wastewater  
Address: 171 Fourth Ave, Box 490  
Cochrane, ON, P0L 1C0  
Phone: (705) 272-5086  
Email: michael.nelson@cochraneontario.com

Work Order Number: 575513  
PO #: 12595  
Regulation: Information not provided  
Project #:  
DWS #:  
Sampled By: Benoit Parent

Date Order Received: 5/6/2025  
Arrival Temperature: 9 C

Analysis Started: 5/7/2025  
Analysis Completed: 5/13/2025

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
Northcell prior to discharge	2137329	Wastewater	Grab		5/6/2025	9:40 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD) 5-Day.	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Timmins	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500



**CERTIFICATE OF ANALYSIS**

Town of Cochrane - Wastewater

Work Order Number: 575513

**REPORT COMMENTS**

**Bacti Lot(s): 2448**

This report has been approved by:

Aline de Chevigny  
Production Coordinator CET

**WORK ORDER RESULTS**

<b>Sample Description</b>	Northcell prior to discharge		
<b>Sample Date</b>	5/6/2025 9:40 AM		
<b>Lab ID</b>	2137329		
<b>Field Parameters</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Field pH	7.65	N/A	pH
Field Temp	12.2	N/A	°C

<b>Sample Description</b>	Northcell prior to discharge		
<b>Sample Date</b>	5/6/2025 9:40 AM		
<b>Lab ID</b>	2137329		
<b>General Chemistry</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Ammonia (as N)	1.31	0.01	mg/L
pH	7.94	N/A	pH
Total Phosphorus (as P)	0.766	0.004*	mg/L
Un-Ionized Ammonia (Calc.)	0.013	0.002	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 575513

<b>Sample Description</b>	Northcell prior to discharge		
<b>Sample Date</b>	5/6/2025 9:40 AM		
<b>Lab ID</b>	2137329		
<b>Microbiology</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Escherichia coli	0	1	CFU/100mL

<b>Sample Description</b>	Northcell prior to discharge		
<b>Sample Date</b>	5/6/2025 9:40 AM		
<b>Lab ID</b>	2137329		
<b>Oxygen Demand</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Carbonaceous BOD	14.7	1	mg/L

<b>Sample Description</b>	Northcell prior to discharge		
<b>Sample Date</b>	5/6/2025 9:40 AM		
<b>Lab ID</b>	2137329		
<b>Received Temperature</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Received Temperature	9	N/A	°C

<b>Sample Description</b>	Northcell prior to discharge		
<b>Sample Date</b>	5/6/2025 9:40 AM		
<b>Lab ID</b>	2137329		
<b>Solids</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Total Suspended Solids	38.0	1.3	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 575513

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

Quality Control: All associated Quality Control data is available on request.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

Reproduction of Report: Report shall not be reproduced, except in full, without the approval of Testmark Laboratories Ltd.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

Regulation Comparisons: Disclaimer: Please note that regulation criteria are provided for comparative purposes, however the onus on ensuring the validity of this comparison rests with the client.

\*Dilution: In the MDL column an asterisk (\*) indicates a sample dilution was performed.



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## CERTIFICATE OF ANALYSIS

Client: Michael Nelson  
Company: Town of Cochrane - Wastewater  
Address: 171 Fourth Ave, Box 490  
Cochrane, ON, P0L 1C0  
Phone: (705) 272-9093  
Email: michael.nelson@cochraneontario.com

Work Order Number: 579393  
PO #: 12595  
Regulation: Information not provided  
Project #: Discharge  
DWS #:   
Sampled By: Benoit Parent

Date Order Received: 5/20/2025  
Arrival Temperature: 7 C

Analysis Started: 5/21/2025  
Analysis Completed: 5/27/2025

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Lagoon - 0% Discharge	2145979	Wastewater	Grab		5/20/2025	8:11 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD) 5-Day.	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Timmins	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 579393

This report has been approved by:

Aline de Chevigny  
Production Coordinator CET

### WORK ORDER RESULTS

<b>Sample Description</b>	North Lagoon - 0% Discharge		
<b>Sample Date</b>	5/20/2025 8:11 AM		
<b>Lab ID</b>	2145979		
<b>Field Parameters</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Field pH	8.64	N/A	pH
Field Temp	11.6	N/A	°C

<b>Sample Description</b>	North Lagoon - 0% Discharge		
<b>Sample Date</b>	5/20/2025 8:11 AM		
<b>Lab ID</b>	2145979		
<b>General Chemistry</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Ammonia (as N)	0.23	0.01	mg/L
pH	8.04	N/A	pH
Total Phosphorus (as P)	0.985	0.002	mg/L
Un-ionized Ammonia (Calc.)	0.019	0.002	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 579393

<b>Sample Description</b>	North Lagoon - 0% Discharge		
<b>Sample Date</b>	5/20/2025 8:11 AM		
<b>Lab ID</b>	2145979		
<b>Microbiology</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Escherichia coli	10	2	CFU/100mL

<b>Sample Description</b>	North Lagoon - 0% Discharge		
<b>Sample Date</b>	5/20/2025 8:11 AM		
<b>Lab ID</b>	2145979		
<b>Oxygen Demand</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Carbonaceous BOD	12.7	1	mg/L

<b>Sample Description</b>	North Lagoon - 0% Discharge		
<b>Sample Date</b>	5/20/2025 8:11 AM		
<b>Lab ID</b>	2145979		
<b>Received Temperature</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Received Temperature	7	N/A	°C

<b>Sample Description</b>	North Lagoon - 0% Discharge		
<b>Sample Date</b>	5/20/2025 8:11 AM		
<b>Lab ID</b>	2145979		
<b>Solids</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Total Suspended Solids	101	2	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 579393

### LEGEND

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## CERTIFICATE OF ANALYSIS

Client: Michael Nelson  
Company: Town of Cochrane - Wastewater  
Address: 171 Fourth Ave, Box 490  
Cochrane, ON, P0L 1C0  
Phone: (705) 272-9093  
Email: michael.nelson@cochraneontario.com

Work Order Number: 579754  
PO #: 12595  
Regulation: Information not provided  
Project #: Discharge  
DWS #:   
Sampled By: Michael Nelson

Date Order Received: 5/23/2025  
Arrival Temperature: 17 C

Analysis Started: 5/23/2025  
Analysis Completed: 6/2/2025

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Lagoon - 25% Discharge	2147081	Wastewater	Grab		5/23/2025	10:15 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD) 5-Day.	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
TP Water (A23.2)	Timmins	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 579754

This report has been approved by:

Aline de Chevigny  
Production Coordinator CET

### WORK ORDER RESULTS

<b>Sample Description</b>	North Lagoon - 25% Discharge		
<b>Sample Date</b>	5/23/2025 10:15 AM		
<b>Lab ID</b>	2147081		
<b>Field Parameters</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Field pH	8.78	N/A	pH
Field Temp	14.9	N/A	°C

<b>Sample Description</b>	North Lagoon - 25% Discharge		
<b>Sample Date</b>	5/23/2025 10:15 AM		
<b>Lab ID</b>	2147081		
<b>General Chemistry</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Ammonia (as N)	0.05	0.01	mg/L
pH	8.79	N/A	pH
Total Phosphorus (as P)	0.615	0.004*	mg/L
Un-ionized Ammonia (Calc.)	0.007	0.002	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 579754

<b>Sample Description</b>	North Lagoon - 25% Discharge		
<b>Sample Date</b>	5/23/2025 10:15 AM		
<b>Lab ID</b>	2147081		
<b>Microbiology</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Escherichia coli	0 [0]	1	CFU/100mL

<b>Sample Description</b>	North Lagoon - 25% Discharge		
<b>Sample Date</b>	5/23/2025 10:15 AM		
<b>Lab ID</b>	2147081		
<b>Oxygen Demand</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Carbonaceous BOD	8.2	3	mg/L

<b>Sample Description</b>	North Lagoon - 25% Discharge		
<b>Sample Date</b>	5/23/2025 10:15 AM		
<b>Lab ID</b>	2147081		
<b>Solids</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Total Suspended Solids	16.30	0.67	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 579754

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

Quality Control: All associated Quality Control data is available on request.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

Reproduction of Report: Report shall not be reproduced, except in full, without the approval of Testmark Laboratories Ltd.

ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

Regulation Comparisons: Disclaimer: Please note that regulation criteria are provided for comparative purposes, however the onus on ensuring the validity of this comparison rests with the client.

\*Dilution: In the MDL column an asterisk (\*) indicates a sample dilution was performed.



**TESTMARK Laboratories Ltd.**

Committed to Quality and Service

## CERTIFICATE OF ANALYSIS

Client: Michael Nelson  
Company: Town of Cochrane - Wastewater  
Address: 171 Fourth Ave, Box 490  
Cochrane, ON, P0L 1C0  
Phone: (705) 272-9093  
Email: michael.nelson@cochraneontario.com

Work Order Number: 580164  
PO #: 12595  
Regulation: Information not provided  
Project #: Discharge  
DWS #:   
Sampled By: Michael Nelson

Date Order Received: 5/27/2025  
Arrival Temperature: 18 C

Analysis Started: 5/27/2025  
Analysis Completed: 6/3/2025

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Lagoon - 50% Discharge	2148657	Wastewater	Grab		5/26/2025	11:00 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD) 5-Day.	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Timmins	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500



**TESTMARK Laboratories Ltd.**

Committed to Quality and Service

## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580164

### REPORT COMMENTS

Bacti Lot(s): 2448

This report has been approved by:

Aline de Chevigny

Production Coordinator CET

### WORK ORDER RESULTS

<b>Sample Description</b>	North Lagoon - 50% Discharge		
<b>Sample Date</b>	5/26/2025 11:00 AM		
<b>Lab ID</b>	2148657		
<b>Field Parameters</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Field pH	8.27	N/A	pH
Field Temp	17.2	N/A	°C

<b>Sample Description</b>	North Lagoon - 50% Discharge		
<b>Sample Date</b>	5/26/2025 11:00 AM		
<b>Lab ID</b>	2148657		
<b>General Chemistry</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Ammonia (as N)	0.25	0.01	mg/L
pH	7.96	N/A	pH
Total Phosphorus (as P)	1.60	0.02*	mg/L
Un-Ionized Ammonia (Calc.)	0.014	0.002	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580164

<b>Sample Description</b>	North Lagoon - 50% Discharge		
<b>Sample Date</b>	5/26/2025 11:00 AM		
<b>Lab ID</b>	2148657		
<b>Microbiology</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Escherichia coli	0	1	CFU/100mL

<b>Sample Description</b>	North Lagoon - 50% Discharge		
<b>Sample Date</b>	5/26/2025 11:00 AM		
<b>Lab ID</b>	2148657		
<b>Oxygen Demand</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Carbonaceous BOD	11	3	mg/L

<b>Sample Description</b>	North Lagoon - 50% Discharge		
<b>Sample Date</b>	5/26/2025 11:00 AM		
<b>Lab ID</b>	2148657		
<b>Received Temperature</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Received Temperature	18	N/A	°C

<b>Sample Description</b>	North Lagoon - 50% Discharge		
<b>Sample Date</b>	5/26/2025 11:00 AM		
<b>Lab ID</b>	2148657		
<b>Solids</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Total Suspended Solids	22.30	0.67	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580164

### LEGEND

Dates: Dates are formatted as mm/dd/year throughout this report.

MDL: Method detection limit or minimum reporting limit.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

Quality Control: All associated Quality Control data is available on request.

Field Data: Reports containing Field Parameters represent data that has been collected and provided by the client. Testmark is not responsible for the validity of this data which may be used in subsequent calculations.

Sample Condition Deviations: A noted sample condition deviation may affect the validity of the result. Results apply to the sample(s) as received.

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ICPMS Dustfall Insoluble: The ICPMS Dustfall Insoluble Portion method analyzes only the particulate matter from the Dustfall Sampler which is retained on the analysis filter during the Dustfall method.

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\*Dilution: In the MDL column an asterisk (\*) indicates a sample dilution was performed.



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## CERTIFICATE OF ANALYSIS

Client: Michael Nelson  
Company: Town of Cochrane - Wastewater  
Address: 171 Fourth Ave, Box 490  
Cochrane, ON, P0L 1C0  
Phone: (705) 272-9093  
Email: michael.nelson@cochraneontario.com

Work Order Number: 580368  
PO #: 12595  
Regulation: Information not provided  
Project #: Discharge  
DWS #:   
Sampled By: Michael Nelson

Date Order Received: 5/28/2025  
Arrival Temperature: 20 C

Analysis Started: 5/28/2025  
Analysis Completed: 6/4/2025

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Lagoon - 75% Discharge	2149344	Wastewater	Grab		5/28/2025	9:15 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD) 5-Day.	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Timmins	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580368

This report has been approved by:

Aline de Chevigny  
Production Coordinator CET

### WORK ORDER RESULTS

Sample Description	North Lagoon - 75% Discharge		
Sample Date	5/28/2025 9:15 AM		
Lab ID	2149344		
Field Parameters	Result	MDL	Units
Field pH	7.83	N/A	pH
Field Temp	19.1	N/A	°C

Sample Description	North Lagoon - 75% Discharge		
Sample Date	5/28/2025 9:15 AM		
Lab ID	2149344		
General Chemistry	Result	MDL	Units
Ammonia (as N)	0.36	0.01	mg/L
pH	7.47	N/A	pH
Total Phosphorus (as P)	0.575	0.004*	mg/L
Un-ionized Ammonia (Calc.)	0.009	0.002	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580368

<b>Sample Description</b>	North Lagoon - 75% Discharge		
<b>Sample Date</b>	5/28/2025 9:15 AM		
<b>Lab ID</b>	2149344		
<b>Microbiology</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Escherichia coli	0	1	CFU/100mL

<b>Sample Description</b>	North Lagoon - 75% Discharge		
<b>Sample Date</b>	5/28/2025 9:15 AM		
<b>Lab ID</b>	2149344		
<b>Oxygen Demand</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Carbonaceous BOD	4.8	0.5	mg/L

<b>Sample Description</b>	North Lagoon - 75% Discharge		
<b>Sample Date</b>	5/28/2025 9:15 AM		
<b>Lab ID</b>	2149344		
<b>Received Temperature</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Received Temperature	20	N/A	°C

<b>Sample Description</b>	North Lagoon - 75% Discharge		
<b>Sample Date</b>	5/28/2025 9:15 AM		
<b>Lab ID</b>	2149344		
<b>Solids</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Total Suspended Solids	7.67	0.67	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580368

### LEGEND

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## CERTIFICATE OF ANALYSIS

Client: Michael Nelson  
Company: Town of Cochrane - Wastewater  
Address: 171 Fourth Ave, Box 490  
Cochrane, ON, P0L 1C0  
Phone: (705) 272-9093  
Email: michael.nelson@cochraneontario.com

Work Order Number: 580667  
PO #: 12595  
Regulation: Information not provided  
Project #: Discharge  
DWS #:   
Sampled By: Benoit Parent

Date Order Received: 5/30/2025  
Arrival Temperature: 15 C

Analysis Started: 5/30/2025  
Analysis Completed: 6/9/2025

### WORK ORDER SUMMARY

ANALYSES WERE PERFORMED ON THE FOLLOWING SAMPLES. THE RESULTS RELATE ONLY TO THE ITEMS TESTED.

Sample Description	Lab ID	Matrix	Type	Comments	Date Collected	Time Collected
North Lagoon - 100% Discharge	2150495	Wastewater	Grab		5/30/2025	9:25 AM

### METHODS AND INSTRUMENTATION

THE FOLLOWING METHODS WERE USED FOR YOUR SAMPLE(S):

Method	Lab	Description	Reference
Ammonia Water (A42)	Timmins	Determination of Ammonia/Ammonium in Water	Modified from EPA 350.1
CBOD (A3)	Kirkland Lake	Determination of Carbonaceous Biochemical Oxygen Demand (CBOD) 5-Day.	Modified from SM-5210-B
E.coli by MF on mFC-BCIG (A10)	Timmins	Determination of E. coli in water by Membrane Filtration on mFC-BCIG media	Modified from MOE E3371
Field pH (R112)	Timmins	Client Supplied Field Determination of pH of Water	Field Test
Field Temp (R113)	Timmins	Client Supplied Field Determination of Temperature of Water	Field Test
pH of Water (A2.0)	Timmins	Determination of Water pH by Ion Selective Electrode	Modified from APHA-4500H+ B
Received Temperature (A113)	Timmins	Temperature of Sample Upon Receipt	In House
TP Water (A23.2)	Timmins	Determination of Total Phosphorus in Water.	Modified from EPA 365.3 and ESS 310.2,
TSS (A27)	Timmins	Determination of Total Suspended Solids in water by gravimetry	Modified from SM-2540
Un-Ionized NH3 (A42.4)	Timmins	Calculation of Un-Ionized Ammonia, based on Client Field pH and Temperature	Modified from APHA-4500



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580667

This report has been approved by:

Aline de Chevigny  
Production Coordinator CET

### WORK ORDER RESULTS

Sample Description	North Lagoon - 100% Discharge		
Sample Date	5/30/2025 9:25 AM		
Lab ID	2150495		
Field Parameters	Result	MDL	Units
Field pH	7.67	N/A	pH
Field Temp	18	N/A	°C

Sample Description	North Lagoon - 100% Discharge		
Sample Date	5/30/2025 9:25 AM		
Lab ID	2150495		
General Chemistry	Result	MDL	Units
Ammonia (as N)	0.52	0.01	mg/L
pH	7.66	N/A	pH
Total Phosphorus (as P)	1.51	0.02*	mg/L
Un-ionized Ammonia (Calc.)	0.008	0.002	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580667

<b>Sample Description</b>	North Lagoon - 100% Discharge		
<b>Sample Date</b>	5/30/2025 9:25 AM		
<b>Lab ID</b>	2150495		
<b>Microbiology</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Escherichia coli	<2 [<2]	2	CFU/100mL

<b>Sample Description</b>	North Lagoon - 100% Discharge		
<b>Sample Date</b>	5/30/2025 9:25 AM		
<b>Lab ID</b>	2150495		
<b>Oxygen Demand</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Carbonaceous BOD	33	6	mg/L

<b>Sample Description</b>	North Lagoon - 100% Discharge		
<b>Sample Date</b>	5/30/2025 9:25 AM		
<b>Lab ID</b>	2150495		
<b>Received Temperature</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Received Temperature	15	N/A	°C

<b>Sample Description</b>	North Lagoon - 100% Discharge		
<b>Sample Date</b>	5/30/2025 9:25 AM		
<b>Lab ID</b>	2150495		
<b>Solids</b>	<b>Result</b>	<b>MDL</b>	<b>Units</b>
Total Suspended Solids	707.0	6.7	mg/L



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## CERTIFICATE OF ANALYSIS

Town of Cochrane - Wastewater

Work Order Number: 580667

### LEGEND

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[ ]: Results for laboratory replicates are shown in square brackets immediately below the associated sample result for ease of comparison.

Organic Soil Analysis: Data reported for organic analysis in soils samples are corrected for moisture content.

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