Omemee Wastewater System

2024 Annual Wastewater Performance Report

Wastewater System Works Number: 110001630

Wastewater System Operating Authorities: City of Kawartha Lakes and Ontario Clean Water Agency

Reporting Period: January 1st – December 31st, 2024

OCWA

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Annual Wastewater Performance Report

City of Kawartha Lakes

Kawartha Lakes
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2024 Annual Wastewater System Performance Report

Executive Summary

The Omemee Sewage Lagoons is a dual lagoon system with effluent being discharged to a large subsurface disposal system (LSSDS) and seasonal spray irrigation with a Rated Capacity of 1,353 m^3/day and is located in Omemee, Ontario. The entire system is comprised of two pumping stations within the collection system, two facultative lagoons, large subsurface disposal system and spray irrigation system. The facility is owned by the City of Kawartha Lakes with the lagoon system and sewage pumping stations operated by Ontario Clean Water Agency and the remaining collection system operated by City staff. The treatment system is operated in accordance with Environmental Compliance Approval (ECA) #2737-B4DH46 issued September 28, 2018 and the collection system is operated in accordance with the Consolidated Linear Infrastructure Environmental Compliance Approval #141-W601 issued June 20, 2023. The wastewater system is classified as a Class I Wastewater Treatment and Class I Wastewater Collection subsystems under O. Reg. 129/04.

The two facultative lagoons are approximately 3.6 hectares in size, with an approximate storage volume of 178,000 m^3. Partially treated effluent from the sewage forcemain on Beaver Road passes through a drop manhole located at the east end of the lagoons. Influent is routed to the North lagoon for initial treatment and then directed to the South lagoon for final treatment. The treated effluent is discharged to the large subsurface disposal system, with the ability to also dispose of treated effluent to the spray irrigation system.

The Omemee wastewater collection system consists of a series of gravity sewers, two pumping stations and associated forcemains directing raw sewage to the lagoons. Alum is added at the Sturgeon Street sewage pumping station to aide in settling of solids and to reduce phosphorus levels in treated effluent.

The City of Kawartha Lakes and Ontario Clean Water Agency prepares a report summarizing system operation and performance for every municipal wastewater system annually. This report has been prepared to satisfy the reporting requirements within Environmental Compliance Approval (ECA) #2737-B4DH46 and Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) #141-W601. Unless otherwise noted within this report, the Omemee Sewage Works complies with all requirements of the regulating authorities and the approvals it operates under.

The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office by appointment and the City's website. Notification that the reports are

available free of charge will be made on the City of Kawartha Lakes website. The City of Kawartha Lakes Public Works Administration Office is located at 322 Kent Street West in Lindsay, Ontario.

Reporting Requirements – Wastewater Treatment Plant

In accordance with the amended ECA #2737-B4DH46, Section 11(4) – REPORTING, the owner shall prepare a performance report on a calendar basis and submit to the Ministry of Environment, Conservation and Parks by March 31 of the calendar year following the period being reported upon.

Section 11(4) – REPORTING

The performance report is required to contain the following:

a) a summary and interpretation of all Influent monitoring data, and a review of the historical trend of sewage characteristics and flow rates;
b) a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;
c) a summary of any deviation from the monitoring schedule and reasons for the currently reporting year and a schedule for the next reporting year;
d) a summary of all operating issues encountered and corrective actions;
e) a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
f) a summary of any effluent quality assurance or control measures undertaken;
g) a summary of the calibration and maintenance carried out on all Influent and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
h) a summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations:
    i. when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of Final Effluent quality;
    ii. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;
i) an estimate of the volume of sludge in the lagoon cells. Sludge volume is to be measured every five (5) years, but may be estimated in the interim years. A summary of disposal locations and volumes of sludge disposed of must also be provided if sludge was disposed of during the reporting period;
j) a summary of any complaints received and any steps taken to address the complaints;
k) a summary of all Bypasses, Overflows, other situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;

l) a summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 10, including a report on status of implementation of all modification.
m) a summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination including expenditures and proposed projects to eliminate Bypass/Overflows with estimated budget forecast for the year following that for which the report is submitted.

During the reporting period of 2024, the Ontario Clean Water Agency (OCWA) operated the Omemee Sewage Lagoons on behalf of the Corporation of the City of Kawartha Lakes. OCWA's goals have remained consistent during this period and remain consistent with the following priorities:

- provide quality assurance, safety and environmental compliance of facility operations;
- assist our clients in achieving compliance;
- provide advice on up-to-date technology in Operations and Maintenance service delivery.

This report will show that the Ontario Clean Water Agency has made every attempt to achieve its goals through its operational performance. This performance was enhanced through the use of an electronic process data collection database, an electronic maintenance and work order database, an electronic operational excellence database, a training program focused on providing the right skills to staff – also captured and tracked by the use of an electronic database and a multi-skilled, flexible workforce.

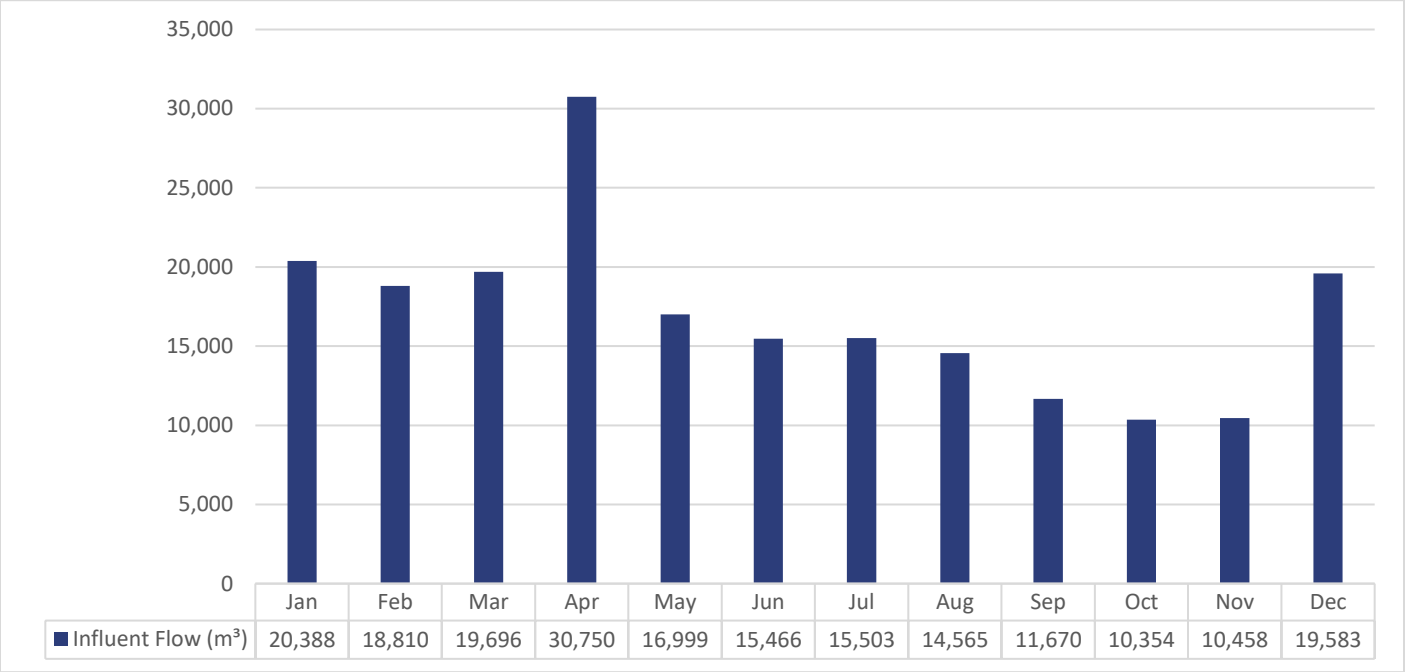
This report will show that the requirements of the facility ECA including effluent monitoring, effluent plume monitoring and reporting requirements were consistently met and that effluent quality was consistently within ECA requirements.

Summary of Influent Monitoring Data

(a) Environmental Compliance Approval Number 2737-B4DH46 requires a summary and interpretation of all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates.

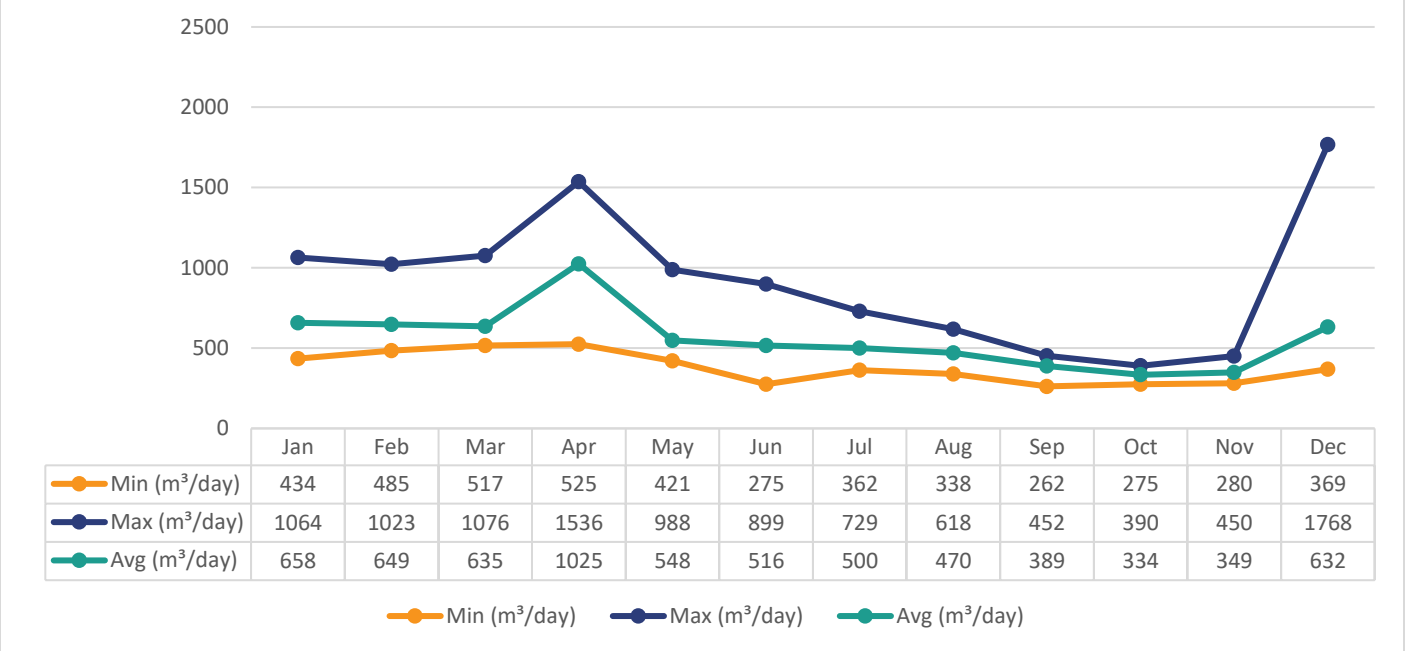
The Environmental Compliance Approval requires that everything practicable be undertaken to operate the Sewage Treatment Plant so that the annual average daily influent is within the Rated Capacity. The Rated Capacity of the Omemee Sewage Lagoon is 1,353 m^3/day and the 2024 annual average daily influent flow was 558.04 m^3/day or 41.24 % of the Rated Capacity. The total Influent flow in 2024 was 204,242.05 m^3.

Graph 1. 2024 Influent Monthly Flow Totals



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Influent Flow (m^3)	20,388	18,810	19,696	30,750	16,999	15,466	15,503	14,565	11,670	10,354	10,458	19,583

Graph 2. 2024 Influent Daily Minimum, Maximum and Average Flows



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min (m^3/day)	434	485	517	525	421	275	362	338	262	275	280	369
Max (m^3/day)	1064	1023	1076	1536	988	899	729	618	452	390	450	1768
Avg (m^3/day)	658	649	635	1025	548	516	500	470	389	334	349	632

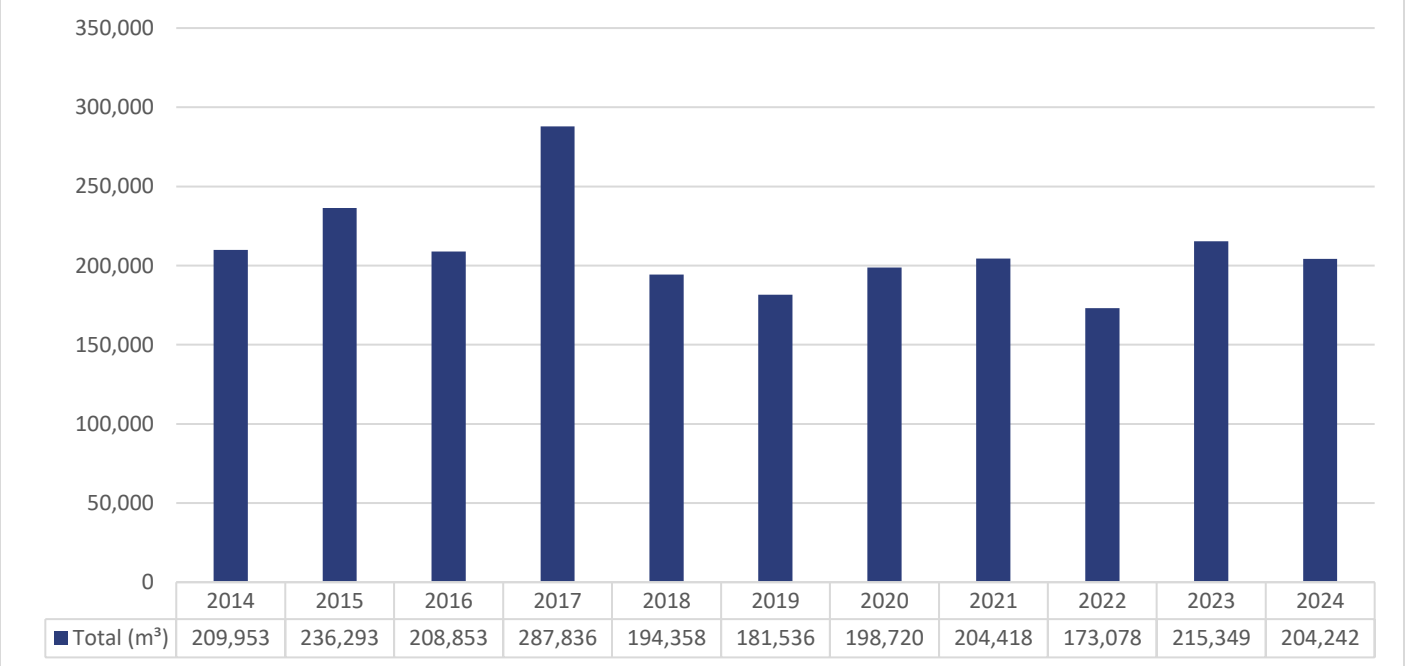
Table 1 reviews the historical trend of the influent sewage characteristics for the Omemee Sewage Lagoon, as required by Environmental Compliance Approval #2737-B4DH46, Condition 10 (4) (a).

Table 1. 2014 – 2024 Historical Average Influent Sewage Characteristics for the Omemee Sewage Lagoon

	BOD (mg/L)	TSS (mg/L)	Phosphorus (mg/L)	TKN (mg/L)
2014	122.91	107.08	2.48	22.13
2015	134.63	133.81	2.42	21.71
2016	187.66	218.58	3.36	28.15
2017	117.08	168.75	2.09	18.15
2018	157.18	267.45	3.49	28.10
2019	117.42	138.92	2.23	21.18
2020	122.42	134.75	2.15	21.53
2021	130.29	195.46	2.94	25.22
2022	167.08	169.33	2.47	24.37
2023	193.17	164.75	2.76	25.13
2024	97.71	117.36	2.00	19.55

Table 1 shows the historical average influent sewage characteristics for the Omemee Sewage Lagoon for the years of 2014 to 2024. Historically, the parameters have been increasing slightly each reporting year. During the reporting period for this report, all of the parameters (BOD, TSS, Phosphorus and TKN) have decreased in comparison to 2023.

Graph 3. 2014 – 2024 Historical Influent Flows for the Omemee Sewage Lagoon



Graph 3 shows the historical influent flows for the Omemee Sewage Lagoons from 2014 to 2024. Since 2017, the influent flows have remained consistent. The increased influent flow in 2017 can be attributed to the extremely wet spring season.

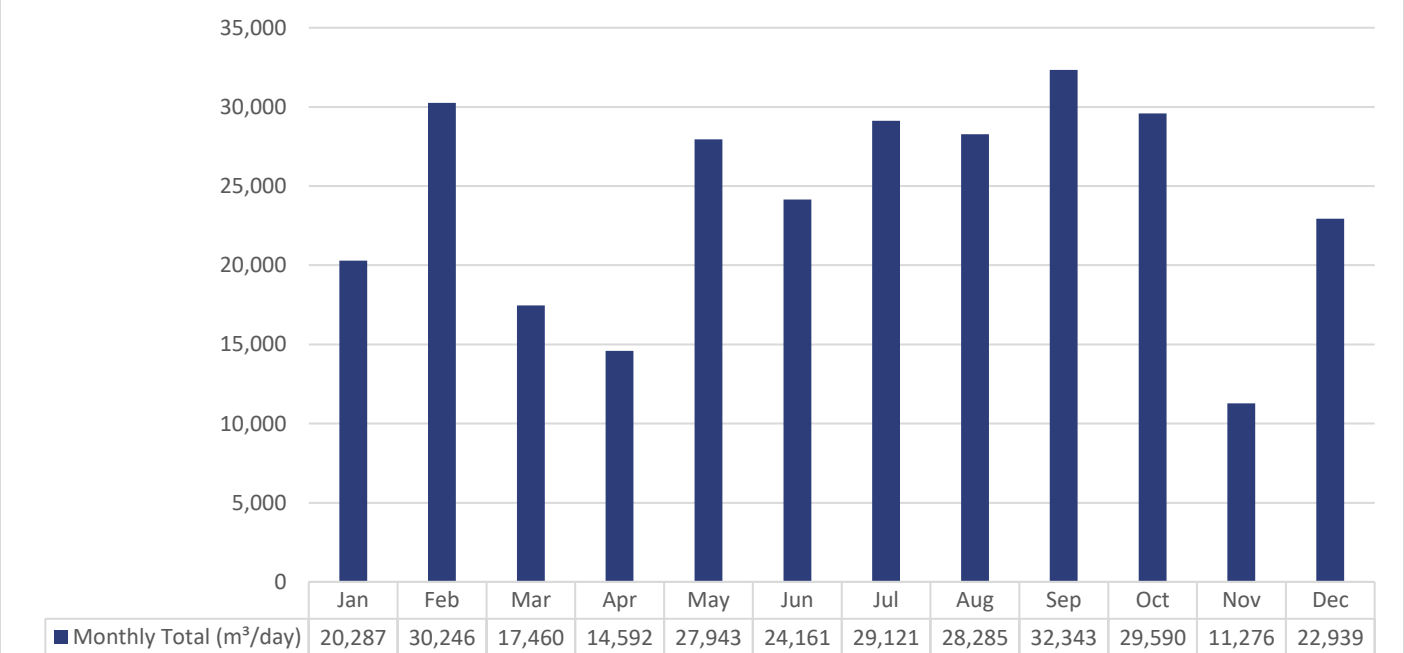
Summary of Final Effluent Monitoring Data

(b) Environmental Compliance Approval #2737-B4DH46 requires a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rate, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works.

The Performance Assessment Report (PAR) Wastewater/Lagoon is attached in **Appendix I**.

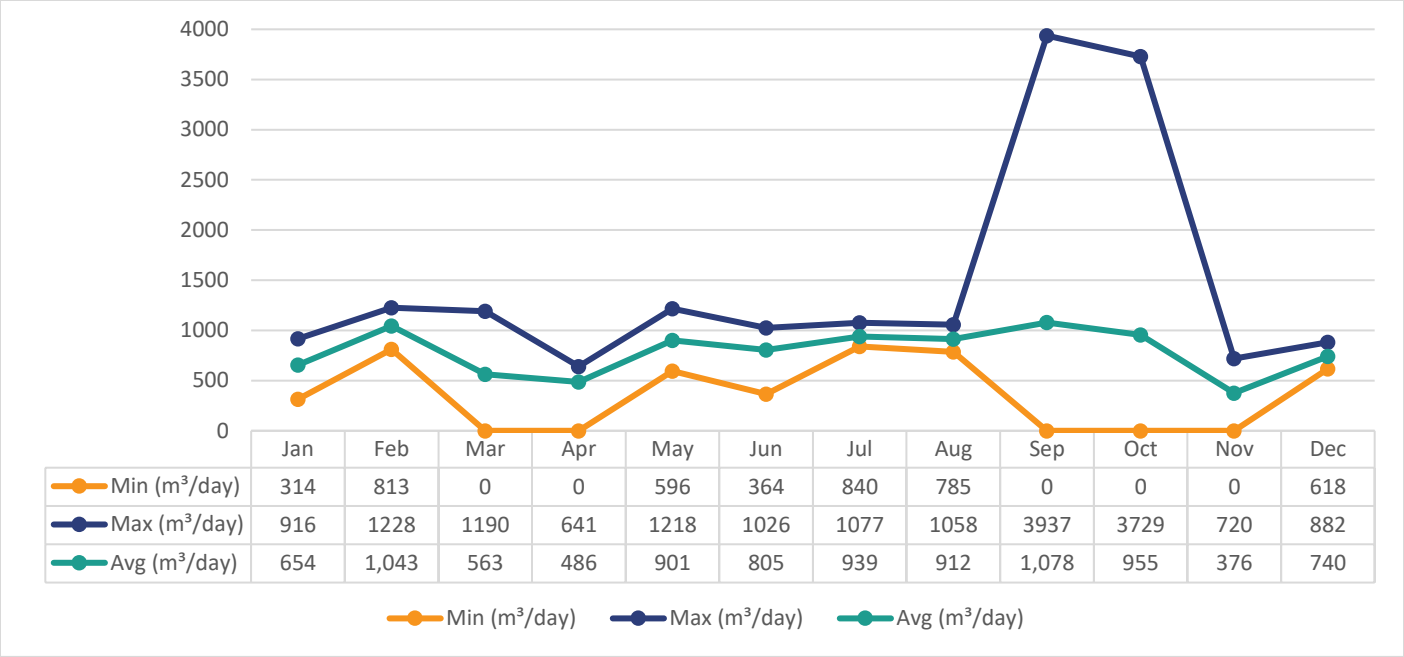
The following graphs provide final effluent flows for 2024 at the Omemee Sewage Lagoon. Final effluent is directed to the subsurface sewage disposal system during the winter months, and to the spray irrigation system typically during the warmer months, when all conditions were met. During the reporting period, final effluent was directed to the subsurface sewage disposal system and to the spray irrigation system.

Graph 4. 2024 Effluent Monthly Flow Totals



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Total (m^3/day)	20,287	30,246	17,460	14,592	27,943	24,161	29,121	28,285	32,343	29,590	11,276	22,939

Graph 5. 2024 Effluent Daily Minimum, Maximum and Average Flows



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min (m³/day)	314	813	0	0	596	364	840	785	0	0	0	618
Max (m³/day)	916	1228	1190	641	1218	1026	1077	1058	3937	3729	720	882
Avg (m³/day)	654	1,043	563	486	901	805	939	912	1,078	955	376	740

Table 2 outlines the effluent criteria limits set out in Section 7(1), Schedule C of Environmental Compliance Approval Number 2737-B4DH46 as follows:

Table 2. Omemee Sewage Lagoon – Final Effluent Compliance Limits 2024

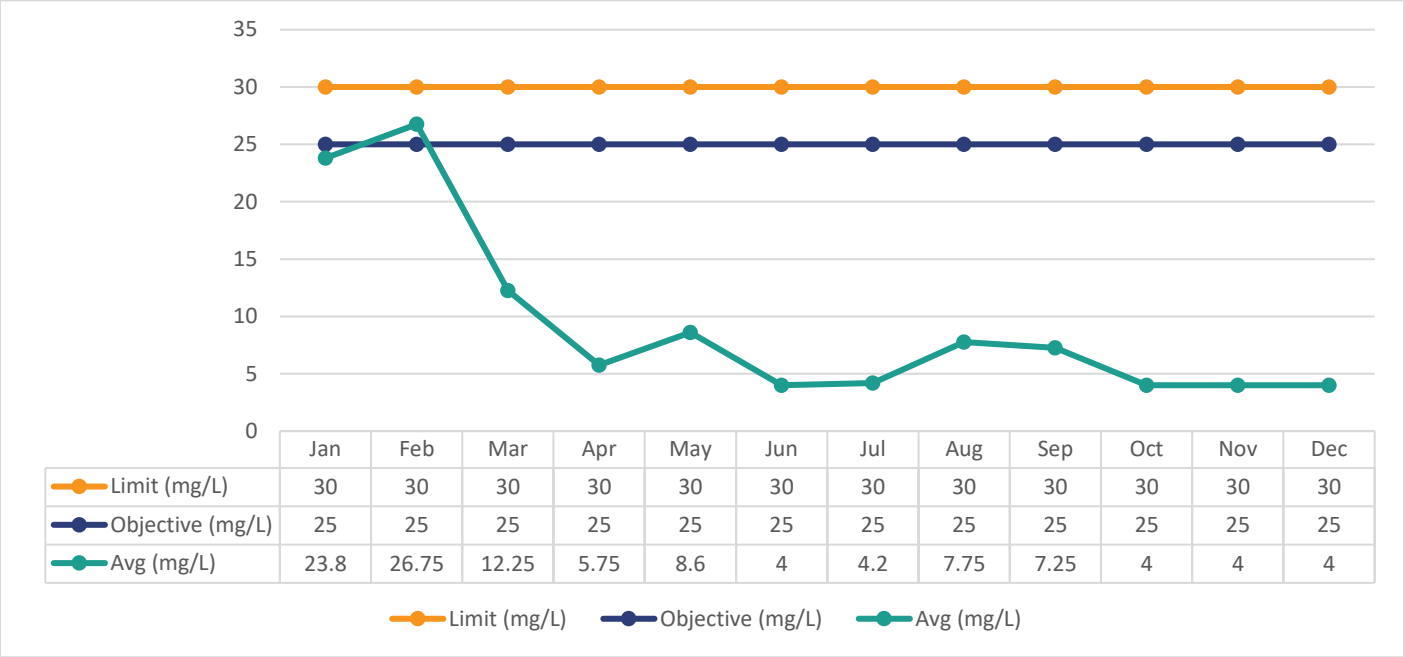
Effluent Parameter	Average Effluent Concentration Limit (mg/L)	Actual Monthly Average Effluent Concentration (mg/L)	Compliant Y/N
$CBOD_5$	30.0	9.42	Y
Total Suspended Solids	40.0	13.27	Y
Total Phosphorus	1.0	0.43	Y

Overall during the reporting period of 2024, the Omemee Sewage Lagoon final effluent generally met the compliance requirements as prescribed in the Environmental Compliance Approval Number 2737-B4DH46.

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)

ECA Number 2737-B4DH46 (issued September 28, 2018) set the $CBOD_5$ monthly average concentration limit at 30.0 mg/L and the monthly average concentration objective at 25.0 mg/L. For 2024, the $CBOD_5$ monthly average concentration was 9.42 mg/L.

Graph 6. 2024 Monthly $CBOD_5$ Final Effluent Concentration Comparisons

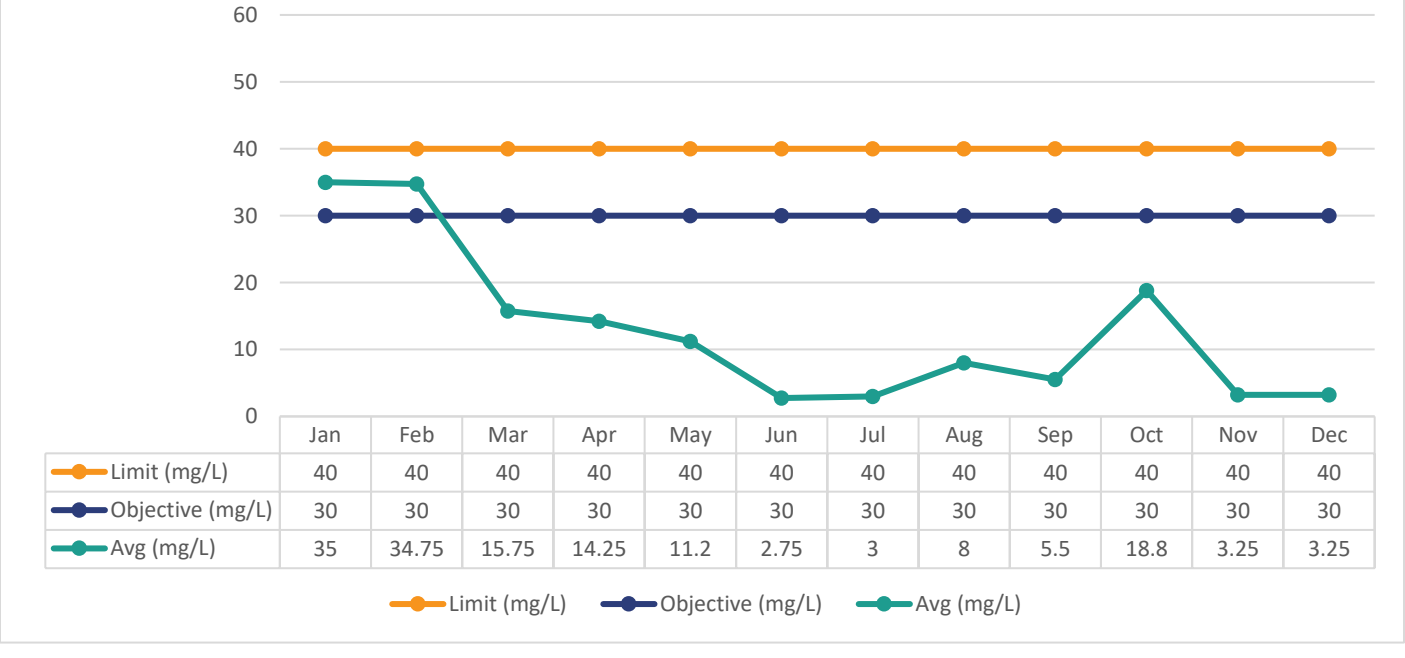


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/L)	30	30	30	30	30	30	30	30	30	30	30	30
Objective (mg/L)	25	25	25	25	25	25	25	25	25	25	25	25
Avg (mg/L)	23.8	26.75	12.25	5.75	8.6	4	4.2	7.75	7.25	4	4	4

Total Suspended Solids (TSS)

ECA Number 2737-B4DH46 set the Total Suspended Solids (TSS) monthly average concentration limit at 40.0 mg/L and the monthly average concentration objective at 30.0 mg/L. For 2024, the TSS monthly average concentration was 13.27 mg/L.

Graph 7. 2024 Monthly TSS Final Effluent Concentration Comparisons

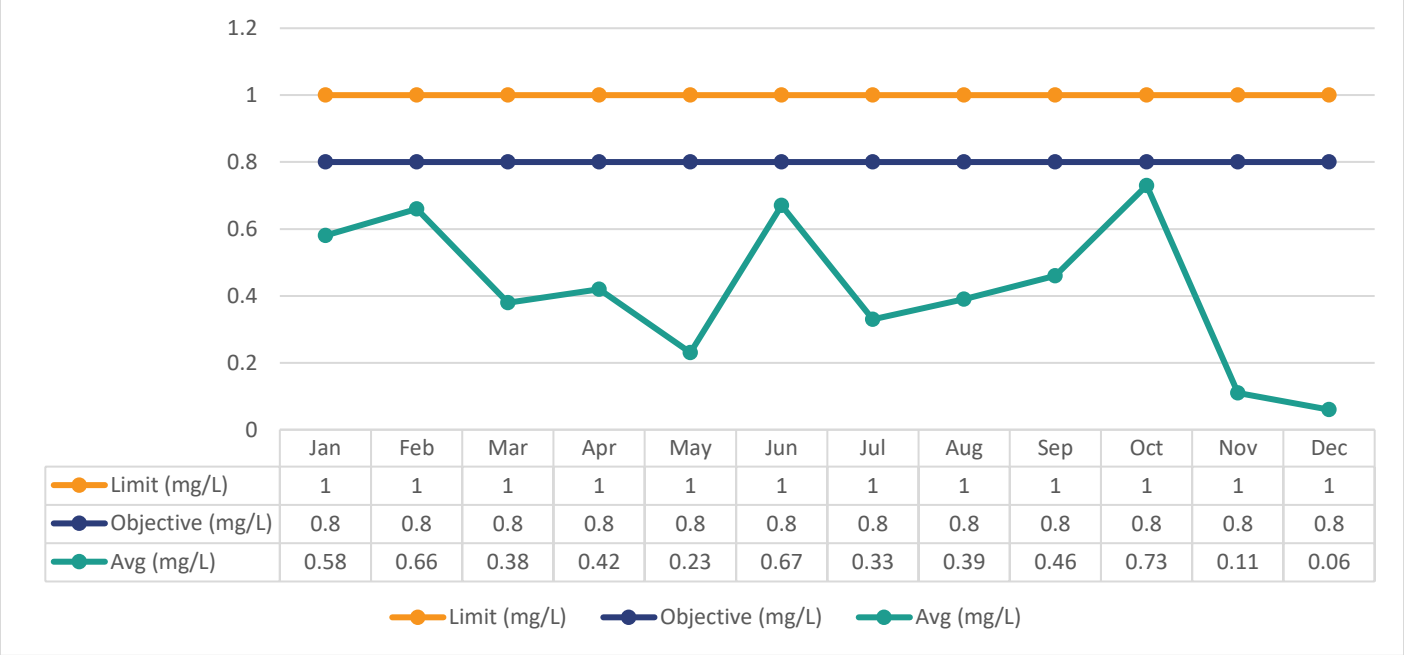


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/L)	40	40	40	40	40	40	40	40	40	40	40	40
Objective (mg/L)	30	30	30	30	30	30	30	30	30	30	30	30
Avg (mg/L)	35	34.75	15.75	14.25	11.2	2.75	3	8	5.5	18.8	3.25	3.25

Total Phosphorus (TP)

ECA Number 2737-B4DH46 set the Total Phosphorus annual average concentration limit at 1.0 mg/L and the annual average concentration objective at 0.8 mg/L. For 2024, the Total Phosphorus annual average concentration was 0.43 mg/L

Graph 8. 2024 Annual Total Phosphorus Final Effluent Concentration Comparisons



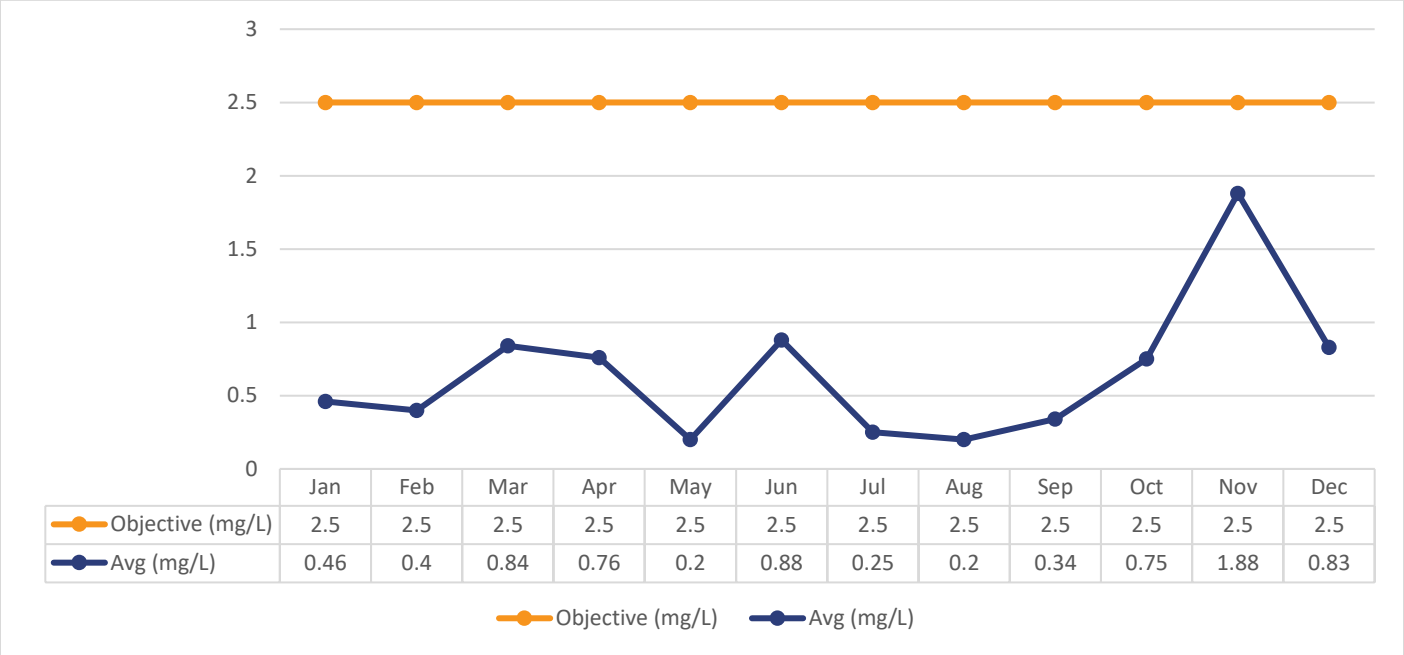
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limit (mg/L)	1	1	1	1	1	1	1	1	1	1	1	1
Objective (mg/L)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Avg (mg/L)	0.58	0.66	0.38	0.42	0.23	0.67	0.33	0.39	0.46	0.73	0.11	0.06

Additional Parameter

Nitrite and Nitrate as Nitrogen

ECA Number 2737-B4DH46 set the Nitrite and Nitrate as Nitrogen monthly average concentration objective at 2.5 mg/L. For 2024, the Nitrite and Nitrate as Nitrogen monthly average concentration was 0.63 mg/L.

Graph 9. 2024 Monthly Nitrite and Nitrate as Nitrogen Final Effluent Concentration Comparison



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Objective (mg/L)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Avg (mg/L)	0.46	0.4	0.84	0.76	0.2	0.88	0.25	0.2	0.34	0.75	1.88	0.83

Monitoring Schedule Deviations

(c) a summary of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting period.

The 2024 Omemee Sewage Lagoon Sampling Calendar was established and the sample day was Wednesday. There was one (1) deviation from the sample plan during the reporting period.

Table 3. Deviations from Sample Plan in 2024

Sample Date	Deviation	Alternate Sample Date
Dec. 25, 2024	Stat Holiday – Christmas Day	Dec. 27, 2024

The sample plan for 2025 has been established and the sample day is on Thursday. A copy of the 2025 Omemee Sewage Lagoon Sampling Calendar is included in **Appendix II**.

Operational Challenges and Corrective Actions

(d) a summary of all operating issues encountered and corrective actions taken.

The following details describe all operating problems encountered during the reporting period and the corrective actions taken.

Table 4. 2024 Omemee Sewage Lagoon Operational Challenges

Month	Challenges	Corrective Actions
February 2024	Subsurface Pump 1 – faulting on overload	Repair pump, test and put on-line.
March 2024	Valve between Lagoon Cells	Repair rusted handle to operate valve.
May 2024	Subsurface Pump 4	Replaced pump 4, test and put on-line.
June 2024	Subsurface Pump 1 – no flow	Repair pump 1, test and put on-line.

Maintenance Summary

(e) a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works.

OCWA uses a Work Maintenance System (WMS). WMS is a maintenance tracking system that can generate work orders as well as give summaries of completed and scheduled work. During the year, the operating authority at the facility generates scheduled work orders on a weekly, monthly and annual basis. The service work is recorded in the work order history. This ensures routine and preventative maintenance is carried out and assets are maintained to manufacturer's and/or industry standards. Emergency and capital repair maintenance is completed and added to the system.

Refer to **Appendix III: WMS Work Order Summary**

Effluent Quality Assurance and Control Measures

(f) a summary of any effluent quality assurance or control measures undertaken.

Effluent quality assurance is maintained in several ways. All final effluent samples collected during the reporting period to meet ECA sampling requirements were submitted to SGS Canada Inc. – Lakefield laboratory for analysis. SGS Canada Inc. – Lakefield has been deemed accredited by the Canadian Association for Laboratory Accreditation (CALA), meeting strict provincial guidelines including an extensive quality assurance/quality control program. By choosing this laboratory, the Ontario Clean Water Agency is ensuring appropriate control measures are undertaken during sample analysis. Sampling calendars issued to the operators denote frequency of sampling and these calendars are submitted to the Process Compliance Technician at the end of each month.

Raw and effluent samples are collected as per the Environmental Compliance Approval and the results are reviewed on a regular basis to ensure compliance with the site's objectives and limits.

Calibrations

(g) a summary of the calibration and maintenance carried out on all Influent and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of the equipment as required in this Approval or recommended by the manufacturer.

Calibration on influent and effluent monitoring equipment were performed by Franklin Empire on November 9, 2024 for equipment located at the Sewage Lagoon and the Sewage Pumping Stations. Refer to **Appendix IV: Calibration Report.**

Best Efforts to Achieve Design Objectives of Condition 6

(h) a summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations:

i. when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of Final Effluent quality;
ii. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;

Continuous efforts made to meet the Effluent Objectives at the Omemee Sewage Lagoon in 2024 include:

- Sampling effluent as per the ECA;
- Visual inspection of the effluent while performing rounds and sampling;
- Inspection of lagoon berms;
- Inspection of subsurface disposal areas;
- Ensuring that Alum is being dosed;
- Annual calibration of the flow meters;
- Performing preventative maintenance activities in accordance with work order schedules;
- Monitoring treatment processes through review of lab results;
- Inspection of sewage pumping stations;
- Visual inspection of wet wells;
- Inspection of spray irrigation system and fields;
- Inspection of monitoring wells.

Additional Reporting Requirements:

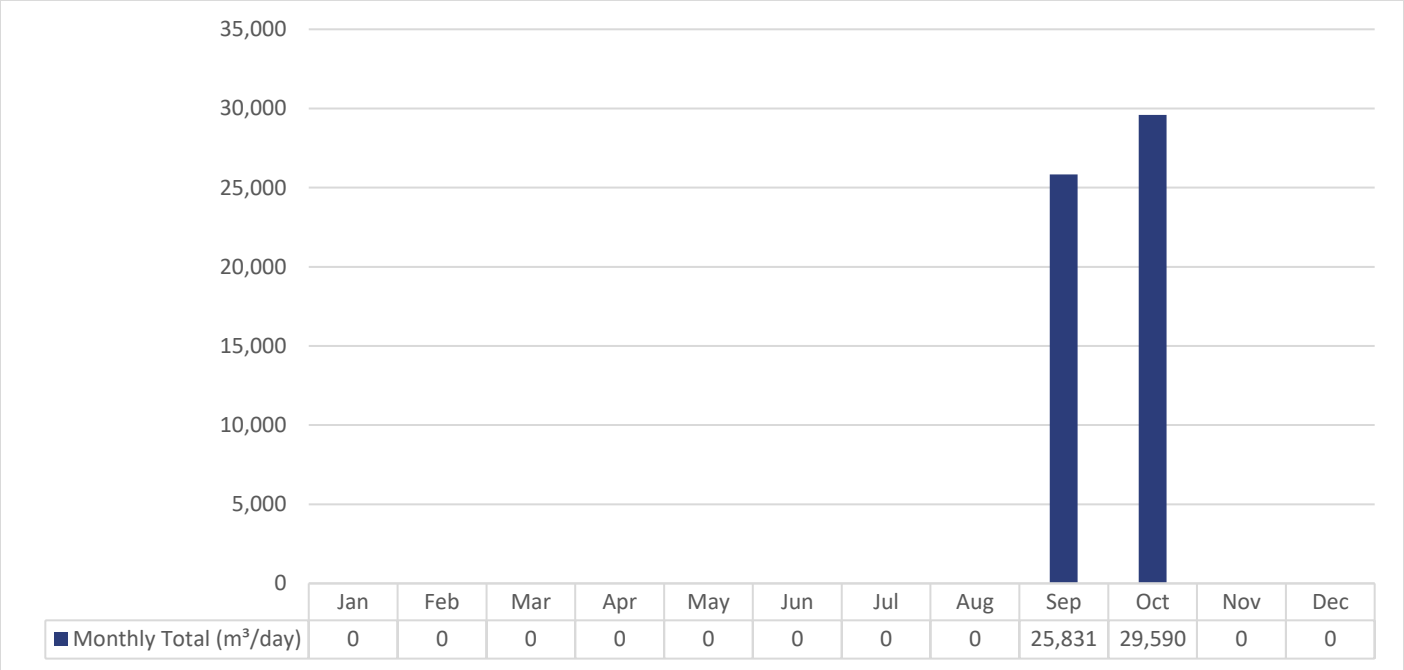
The spray irrigation system was in operation in 2024 under the authority of Provincial Officer's Order Number 1-L4E0C issued on May 8, 2019 and amended on April 26, 2021. ECA Number 2737-

B4DH46 does not require any information pertaining to the spray irrigation be included in the Omemee Sewage Lagoon annual performance report.

The spray irrigation system commenced operation on September 10, 2024. The spray irrigation system ceased operation on November 18, 2024 after the winterization process was completed. Notifications were provided to all stakeholders as required by the Provincial Officer's Order.

The following information has been included in this report as a substantial amount of final effluent was disposed of via spray irrigation in 2024.

Graph 10. 2024 Monthly Effluent Flow to Spray Irrigation System



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Total (m^3/day)	0	0	0	0	0	0	0	0	25,831	29,590	0	0

Groundwater Monitoring Program

During the reporting period, ECA Number 2737-B4DH46, stipulates that from the two (2) groundwater monitoring wells down-gradient of the subsurface disposal system samples shall be collected at the frequency specified, by the means of the specified sample type and analyzed for each parameter outlined in Schedule D. Each monitoring well was sampled or an attempt made where the well was found to be dry, in Quarter 1, 2 and 4 of 2024. Quarter 3 sampling was missed. Not all parameters were sampled during 2024 as prescribed in the ECA, as the Operating Authority was following the requirements of the issued Provincial Officer's Order. Moving forward, quarterly sampling and testing for the required parameters for the two identified monitoring wells will be completed as prescribed in ECA. Please see attached **Appendix V: Monitoring Wells**, which provides the results of the two groundwater monitoring wells.

Additionally, as per Provincial Officer's Order 1-L4E0C issued on May 8, 2019 and amended on April 26, 2021, an additional fifteen (15) groundwater monitoring wells were identified to be sampled on a quarterly basis, and analyzed for each parameter identified in the Order. Please see attached **Appendix V: Monitoring Wells**, which provides the results of these groundwater monitoring wells. The Provincial Officer's Order was amended again November 18, 2024 and renumbered as 1-676860750-A2. The amendments included changes to the well monitoring program and drilling of additional wells. These changes will primarily be implemented in 2025.

Sewage Pumping Station (SPS) Capacity Assessment:

The Church St. SPS rated capacity is 64 L/s which equals 5,530 m³/day. The maximum influent daily flow in 2024 was 638.00 m³, which does not exceed the SPS rated capacity.

Table 5. 2024 Influent Flows at Church St. SPS

Month	Max Daily Flow (m³/day)	Average Daily Flow (m³/day)
January	286.00	171.39
February	326.00	189.86
March	340.00	189.04
April	638.00	338.86
May	301.20	157.37
June	287.00	156.73
July	226.55	143.96
August	184.00	135.00
September	149.00	105.10
October	97.50	82.54
November	108.00	79.82
December	550.00	167.39

The Sturgeon St. SPS was upgraded under Environmental Compliance Approval 6602-8X8FXB and the rated capacity is 122 L/s which equals 10,500 m³/day. The maximum influent daily flow in 2024 was 1,768.00 m³, which does not exceed the raw rated capacity.

Table 6. 2024 Influent Flows at Sturgeon St. SPS

Month	Max Daily Flow (m³/day)	Average Daily Flow (m³/day)
January	1,064.00	657.68
February	1,023.00	648.62
March	1,076.00	635.36
April	1,536.00	1,025.00
May	988.00	548.35

Month	Max Daily Flow (m³/day)	Average Daily Flow (m³/day)
June	899.00	515.53
July	729.00	500.10
August	618.00	469.84
September	452.00	389.00
October	390.00	334.00
November	450.00	348.60
December	1,768.00	631.71

Sludge

(i) an estimate of the volume of sludge in the lagoon cells. Sludge volume is to be measured every five (5) years, but may be estimated in the interim years. A summary of disposal locations and volumes of sludge disposed of must also be provided if sludge was disposed of during the reporting period.

The estimated volume of sludge in the lagoon cells in 2024 was 6,280 m³. During the reporting period, no sludge was disposed of from the Omemee Sewage Lagoon.

Complaints

(j) A summary of any complaints received and any steps taken to address the complaints.

Table 7. 2024 Complaints Received

Date	Issue	Actions Taken
June 3, 2024	Resident reported smell of sewage and wet area along side of road on Sturgeon Rd.	Determine was a forcemain break, repairs were made.
September 16, 2024	Resident reported odour coming from Sturgeon Street SPS.	Replaced carbon pucks at SPS to reduce odour.

By-pass, Spill or Abnormal Discharge Events

(k) A summary of By-pass, Spill or Abnormal Discharge Events

Bypasses

There were not any bypasses at the Omemee Sewage Lagoons during 2024.

Spills

There was one spill within the sewage collection system at the Omemee Sewage Lagoon in 2024. The spill was identified on June 3, 2024 along the road side South of 91 Sturgeon Road, which was the result of a forcemain break. The start of the break was unknown, but was estimated that approximately 5 L/min was flowing into the ditch where it was contained and a total of 1500 L was spilled. Break was repaired and contaminated soil removed and disposed of at Lindsay Landfill. Approximately 30 tonnes of material was removed from the contaminated site.

Overflows

There were not any overflows at the Omemee Sewage Lagoons or pumping stations in 2024.

Situations Outside Normal Operating Conditions

Abnormal Discharge Events

There were not any abnormal discharge events at the Omemee Sewage Lagoons in 2024.

Refer to **Appendix V: Bypasses, Overflows, Spills or Abnormal Events** for copies of the quarterly Bypass and Overflow reports, and Notice of Exceedance submitted to the Ministry of Environment, Conservation and Parks.

Notice of Modifications to Sewage Works

(l) There were not any Notices of Modifications to Sewage Works initiated, worked on or completed in 2024.

Conformance with Procedure F-5-1

(m) a summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination including expenditures and proposed projects to eliminate Bypass/Overflows with estimated budget forecast for the year following that for which the report is submitted.

During the 2024 reporting period there were no incidents of a bypass or overflow within the sanitary sewer system.

The City of Kawartha Lakes continues to work on a Master Servicing Study and Capacity Assessment for all facilities analyzing existing capacity and future growth requirements. Sanitary sewer flushing is conducted on an annual basis (3 years of dead ends/trouble areas and 4th year is a full system flush). During this program, any manholes with infiltration issues are identified and are included in operational maintenance contracts for grouting, frame and cover replacements, etc.

There was no rehabilitation work that was completed in the system in 2024.

Reporting Requirements – Wastewater Collection System

In accordance with the Consolidated Linear Infrastructure – Environmental Compliance Approval #141-W601 the owner shall prepare a performance report on a calendar basis and submit to the Ministry of Environment, Conservation and Parks by March 31 of the calendar year following the period being reported upon.

4.6 (a) a summary of all required monitoring data along with an interpretation of the data and any conclusions drawn from the data evaluation about the need for future modifications to the Authorized System or system operations.

The Omemee Sewage Collection System consists of works for the collection and transmission of sewage, comprising approximately 8.2 km in total linear length of gravity sewers discharging to two pumping stations, eventually leading to the Omemee Sewage Lagoons.

Raw sewage flow data from the Sturgeon St. and Church St. pumping stations, along with an interpretation of the data and any conclusions drawn from the data evaluation, are captured in ECA No. 2737-B4DH46 reporting requirements, sections **(a)** and **(b)** above.

4.6 (b) a summary of any operating problems encountered and corrective actions taken.

Below is a summary of any operating problems encountered in the collection system and any corrective actions taken.

Table 8. 2024 Summary of Operating Problems in Collection System and Corrective Actions (not including pumping stations)

Date	Operational Issue	Corrective Actions Taken
May 15, 2024	Sanitary Sewer Backup between 50 – 64 Walnut St. W.	While staff inspecting manholes found system was backing up. Sewer main line flushed.
June 3, 2024	Forcemain break along Sturgeon Road, just South of #91. Found to be gasket around 12” pipe was leaking.	26” of pipe was cut out and replaced with a new section of pipe and two 12” Hymax fittings.

4.6 (c) a summary of all calibration, maintenance, and repairs carried out on any major structure, equipment, apparatus, mechanisms, or thing forming part of the Municipal Sewage Collection System.

A regular scheduled calibration and maintenance program has been kept up to date as scheduled on a daily, weekly, semi-annual and annual basis. All equipment calibration and maintenance scheduling and standard procedures are provided by Maximo Computerized Maintenance System.

Attached is **Appendix V: Maintenance Summary**, a Work Order Summary report, showing all preventative and corrective maintenance activities performed at the Omemee Sewage Lagoons, including the collection system, during 2024.

4.6 (d) a summary of any complaints related to the Sewage Works received during the reporting period and any steps taken to address the complaints.

Complaints related to the Omemee Sewage Collection System and steps taken to address the complaints for 2024 are included in Table 7. Summary of Community Complaints.

4.6 (e) a summary of all Alterations to the Authorized System within the reporting period that are authorized by this Approval including a list of Alterations that pose a Significant Drinking Water Threat.

There were no Alterations made to the Omemee Sewage Collection System in 2024.

4.6 (f) a summary of all Collection System Overflow(s) and Spill(s) of Sewage, including:

i) Dates;

ii) Volumes and durations

iii) If applicable, loadings for total suspended solids, BOD, total phosphorus, and total Kjeldahl nitrogen, and sampling results for E. coli;

iv) Disinfection, if any; and

v) Any adverse impact(s) and any corrective actions, if applicable.

The Omemee Sewage Collection system did not experience any collection system Overflows but one Spill occurred in 2024.

There was one spill within the sewage collection system for the Omemee Sewage Lagoon system in 2024. The spill was identified on June 3, 2024 at a section of the forcemain along Sturgeon Road just South of #91. Approximately 1500 L of sewage/contaminated water was removed from the ditch by a licensed sewage hauler. Although the start of the break is unknown, it is estimated that the leak was occurring at around 5 L/min. Corrective actions included excavating the area, making repairs to the forcemain pipe, removing contaminated water and soil in area of contained spill.

It was not possible to collect a sample from the spill, therefore there are no monitoring results to comment on.

4.6 (g) a summary of efforts made to reduce Collection System Overflows, Spills, STP Overflows, and/or STP Bypasses, including the following items, as applicable:

i) A description of projects undertaken and completed in the Authorized System that result in overall overflow reduction or elimination including expenditures and proposed projects to eliminate overflows with estimated budget forecast for the year following that for which the report is submitted.

Annually manhole inspections are completed by City operations staff within the collection systems to identify any deficiencies that may result in excess flows increasing the risk of potential overflows. In an effort to reduce all excess flows, the City has an annual manhole rehabilitation program which includes but is not limited to grouting; moduloc replacement; and frame and cover replacements.

Operationally, where manholes are located in lower lying areas and are at risk of being submerged and contributing to inflow, rain bladders are installed to prevent excess water from entering the system, further reducing the risk of overflow.

During the 2024 reporting period there were no incidents of a bypass or overflow within the sanitary sewer system or the WWTP. There were no additional operational activities that were performed to help reduce overflow potential in 2024.

There is a budget of $30,000 to make repairs to two manholes located on Walnut St, and an additional $6000 budget available for any necessary operational repairs within the collection system for 2025. These projects are not specifically to eliminate bypasses or overflows, but would help mitigate the risk.

ii) Details of the establishment and maintenance of a PPCP, including a summary of project progresses compared to the PPCP's timeline.

The Omemee Sewage Collection system does not contain combined sewers and therefore is not required to complete a Pollution Prevention and Control Plan (PPCP).

iii) An assessment of the effectiveness of each action taken.

None to report at this time.

iv) An assessment of the ability to meet Procedure F-5-1 or Procedure F-5-5 objectives (as applicable) and if able to meet the objectives, an overview of next steps and estimated timelines to meet the objectives.

N/A

v) Public reporting approach including proactive efforts

SOP WWC02 Wastewater Bypass/Overflow Notification Procedure has been developed and has been in practice since 2021, which clearly outlines all reporting protocols to both regulatory agencies and the public in various situations. This procedure was developed in consultation with

Ontario Clean Water Agency, Ministry of Environment, Conservation and Parks and Ministry of Health.

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Appendix I:

Process Assessment Report Wastewater/Lagoon

Ontario Clean Water Agency
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Performance Assessment Report Standard ECA

From 1/1/2024 to 12/31/2024

5901 OMEMEE WASTEWATER TREATMENT LAGOON 110001630

	1 / 2024	2/ 2024	3/ 2024	4/ 2024	5/ 2024	6/ 2024	7/ 2024	8/ 2024	9/ 2024	10/ 2024	11/ 2024	12/ 2024	Total	Avg	Max	Criteria
Flows																
Raw Flow: Total - Raw m³/d	20,388.00	18,810.00	19,696.10	30,750.00	16,999.00	15,466.00	15,503.00	14,565.00	11,670.00	10,354.00	10,457.95	19,583.00	204,242.05			0.00
Raw Flow: Avg - Raw m³/d	657.68	648.62	635.36	1,025.00	548.35	515.53	500.10	469.84	389.00	334.00	348.60	631.71		558.04		1,353.00
Raw Flow: Max - Raw m³/d	1,064.00	1,023.00	1,076.00	1,536.00	988.00	899.00	729.00	618.00	452.00	390.00	450.00	1,768.00			1,768.00	0.00
Raw Flow: Count - Raw m³/d	31.00	29.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	366.00			0.00
Eff. Flow: Total - Eff m³/d	20,286.58	30,246.40	17,460.00	14,591.70	27,943.40	24,160.90	29,121.00	28,285.00	32,343.00	29,590.00	11,276.10	22,938.50	288,242.58			0.00
Eff. Flow: Avg - Eff m³/d	654.41	1,042.98	563.23	486.39	901.40	805.36	939.39	912.42	1,078.10	954.52	375.87	739.95		787.55		1,353.00
Eff. Flow: Max - Eff m³/d	916.00	1,227.70	1,190.00	641.00	1,218.00	1,026.00	1,077.00	1,058.00	3,937.00	3,729.00	720.00	881.50			3,937.00	0.00
Eff Flow: Count - Eff m³/d	31.00	29.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	366.00			0.00
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw mg/L	91.00	137.00	56.00	121.00	15.00	85.50	68.00	88.00	84.00	121.00	178.00	128.00		97.71	178.00	0.00
Raw: # of samples of BOD5 - Raw mg/L	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Eff: Avg cBOD5 - Final Effluent Including Bypass mg/L	23.80	26.75	12.25	5.75 <	8.60 <	4.00 <	4.20	7.75 <	7.25 <	4.00 <	4.00 <	4.00		9.42	26.75	30.00
Eff: # of samples of cBOD5 - Final Effluent Including Bypass mg/L	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	52.00			0.00
Loading: cBOD5 - Final Effluent Including Bypass kg/d	15.575	27.900	6.900	2.797 <	7.752 <	3.221 <	3.945	7.071 <	7.816 <	3.818 <	1.503 <	2.960		7.42	27.90	
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw mg/L	109.00	135.00	74.00	139.00	110.00	128.50	116.00	92.00	121.00	114.00	98.00	172.00		117.38	172.00	0.00
Raw: # of samples of TSS - Raw mg/L	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Eff: Avg TSS - Final Effluent Including Bypass mg/L	35.00	34.75	15.75	14.25 <	11.20 <	2.75	3.00	8.00	5.50	18.80	3.25 <	3.25		13.27	35.00	40.00
Eff: # of samples of TSS - Final Effluent Including Bypass mg/L	5.00	4.00	4.00	4.00	5.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	52.00			0.00
Loading: TSS - Final Effluent Including Bypass kg/d	22.904	36.244	8.871	6.931 <	10.096 <	2.215	2.818	7.299	5.930	17.945	1.222 <	2.405		10.45	36.24	
Total Phosphorus: TP																
Raw: Avg TP - Raw mg/L	1.24	1.66	1.02	2.93	0.30	1.98	1.71	1.98	2.12	2.60	3.14	3.32		2.00	3.32	0.00

Performance Assessment Report Standard ECA

From 1/1/2024 to 12/31/2024

Raw: # of samples of TP - Raw mg/L	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Eff: Avg TP - Final Effluent Including Bypass mg/L	0.58	0.66	0.38	0.42	0.23	0.67	0.33	0.39	0.46	0.73	0.11	0.06		0.43	0.73	1.00
Eff: # of samples of TP - Final Effluent Including Bypass mg/L	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Loading: TP - Final Effluent Including Bypass kg/d	0.380	0.688	0.214	0.204	0.207	0.540	0.310	0.356	0.496	0.697	0.041	0.044		0.35	0.70	
Nitrogen Series																
Raw: Avg TKN - Raw mg/L	16.20	25.20	8.80	29.60	2.70	22.00	15.80	17.60	22.00	22.40	29.70	22.60		19.55	29.70	0.00
Raw: # of samples of TKN - Raw mg/L	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	13.00			0.00
Eff: Avg NO3-N - Eff mg/L	0.46	0.40	0.78	0.70	0.18	0.61	0.21	0.17	< 0.32	< 0.63	1.78	0.83		0.59	1.78	0.00
Eff: Avg NO2-N - Eff mg/L	< 0.03	< 0.03	< 0.06	< 0.08	< 0.04	0.27	< 0.05	< 0.06	< 0.05	< 0.13	< 0.11	< 0.03		< 0.08	< 0.27	0.00
Disinfection																
Eff: GMD E. Coli - Eff cfu/100mL	820.00	980.00	74.00	2.00	152.00	14.00	78.00	58.00	60.00	520.00	16.00	10.00				
Eff: # of samples of E. Coli - Eff cfu/100mL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00			0.00

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Appendix II:

2025 Omemee Sewage Lagoon Sampling Calendar

Ontario Clean Water Agency
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Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge
Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

January 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
			1 **Stat Holiday New Year's Day**	**2** ☐ Weekly ☐ Monthly	**3**	**4**
5	**6**	**7**	**8**	**9** ☐ Weekly ☐ Quarterly	**10**	**11**
12	**13**	**14**	**15**	**16** ☐ Weekly	**17**	**18**
19	**20**	**21**	**22**	**23** ☐ Weekly	**24**	**25**
26	**27**	**28**	**29**	**30** ☐ Weekly	**31**	

Ontario Clean Water Agency
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Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

February 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
						1
2	**3**	**4**	**5**	**6** ☐ Weekly ☐ Monthly	**7**	**8**
9	**10**	**11**	**12**	**13** ☐ Weekly	**14**	**15**
16	**17** **Stat Holiday Family Day**	**18**	**19**	**20** ☐ Weekly	**21**	**22**
23	**24**	**25**	**26**	**27** ☐ Weekly	**28**	

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
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Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
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PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge
Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

March 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
						1
2	**3**	**4**	**5**	**6** ☐ Weekly ☐ Monthly	**7**	**8**
9	**10**	**11**	**12**	**13** ☐ Weekly	**14**	**15**
16	**17**	**18**	**19**	**20** ☐ Weekly Start of Spring GWM Sampling Period	**21**	**22**
23	**24**	**25**	**26**	**27** ☐ Weekly	**28**	**29**
30	**31**					

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
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2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge
Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

April 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
		1	**2**	**3** ☐ Weekly ☐ Monthly ☐ Quarterly	**4**	**5**
6	**7**	**8**	**9**	**10** ☐ Weekly	**11**	**12**
13	**14**	**15**	**16**	**17** ☐ Weekly	**18** **Stat Holiday Good Friday**	**19**
20	**21** **Stat Holiday Easter Monday**	**22**	**23**	**24** ☐ Weekly	**25**	**26**
27	**28**	**29**	**30**			

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen
Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

May 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
				1 ☐ Weekly ☐ Monthly	**2**	**3**
4	**5**	**6**	**7**	**8** ☐ Weekly	**9**	**10**
11	**12**	**13**	**14**	**15** ☐ Weekly	**16**	**17**
18	**19** **Stat Holiday Victoria Day**	**20**	**21**	**22** ☐ Weekly	**23**	**24**
25	**26**	**27**	**28**	**29** ☐ Weekly	**30**	**31**

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen
Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

June 2025

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5 ☐ Weekly ☐ Monthly	6	7
8	9	10	11	12 ☐ Weekly	13	14
15	16	17	18	19 ☐ Weekly	20 Finish of Spring GWM Sampling Period	21
22	23	24	25	26 ☐ Weekly	27	28
29	30					

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen
Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly
Groundwater Monitoring MW-1 and MW-2
(January, April, July, October)
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge
Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

July 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
		1 **Stat Holiday Canada Day**	**2**	**3** ☐ Weekly ☐ Monthly ☐ Quarterly	**4**	**5**
6	**7**	**8**	**9**	**10** ☐ Weekly	**11**	**12**
13	**14**	**15**	**16**	**17** ☐ Weekly	**18**	**19**
20	**21**	**22**	**23**	**24** ☐ Weekly	**25**	**26**
27	**28**	**29**	**30**	**31** ☐ Weekly		

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen
Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

August 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
					1	**2**
3	**4** **Stat Holiday** **Civic Holiday**	**5**	**6**	**7** ☐ Weekly ☐ Monthly	**8**	**9**
10	**11**	**12**	**13**	**14** ☐ Weekly	**15**	**16**
17	**18**	**19**	**20**	**21** ☐ Weekly	**22**	**23**
24	**25**	**26**	**27**	**28** ☐ Weekly	**29**	**30**
31						

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

September 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
	1 **Stat Holiday Labour Day**	**2**	**3**	**4** ☐ Weekly ☐ Monthly	**5**	**6**
7	**8**	**9**	**10**	**11** ☐ Weekly	**12**	**13**
14	**15**	**16**	**17**	**18** ☐ Weekly	**19**	**20**
21	**22** Start of Fall GWM Sampling Period	**23**	**24**	**25** ☐ Weekly	**26**	**27**
28	**29**	**30** **Stat Holiday NDT&R**			Sample Collection Time Frames (Days)	Weekly >5 & <10 Bi-Weekly >10 & <20 Monthly >20 & <40 Quarterly >60 & <120 Annual +/- 30 days 36 Months +/- 60 days 60 Months +/- 90 days

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen
Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

October 2025

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 ☐ Weekly ☐ Monthly ☐ Quarterly	3	4
5	6	7	8	9 ☐ Weekly	10	11
12	13 **Stat Holiday Thanksgiving Day**	14	15	16 ☐ Weekly	17	18
19	20	21	22	23 ☐ Weekly	24	25
26	27	28	29	30 ☐ Weekly	31	

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge
Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

November 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
						1
2	**3**	**4**	**5**	**6** ☐ Weekly ☐ Monthly	**7**	**8**
9	**10**	**11** **Stat Holiday Remembrance Day**	**12**	**13** ☐ Weekly	**14**	**15**
16	**17**	**18**	**19**	**20** ☐ Weekly	**21**	**22**
23	**24**	**25**	**26**	**27** ☐ Weekly	**28**	**29**
30						

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Sampling Calendar
Omemee Lagoons (5901) Works #110001630

Weekly
Final – Grab - CBOD5, TSS, Total Ammonia Nitrogen, Nitrate, Nitrite, Nitrate and Nitrite as Nitrogen

Monthly
Raw − Grab - BOD5, SS, Total Phosphorus, TKN, NH3+NH4
Cell − Grab - CBOD5, SS, Total Phosphorus, NH3+NH4, Nitrate, Nitrite, E.coli

Quarterly **(January, April, July, October)**
Groundwater Monitoring MW-1 and MW-2
Total Dissolved Solids, Dissolved Organic Carbon, pH, BOD, Chemical Oxygen Demand, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorous, Total Coliform, E. Coli
Attempt to collect samples and notify PCT and SOM if the water level is too low in the well to collect a sample.

Spring and Fall
Groundwater Monitoring MW-101B, MW-105B, MW-106B, MW-109B, MW-110, MW-111B, MW-1, MW-2, MW-3, MW-4 (A410222)
Well Levels of all 19 Groundwater Monitoring Wells (Record on Worksheet and facility logbook)
Total Dissolved Solids, pH, Nitrate Nitrogen, Nitrite Nitrogen, TKN, Hardness, Total Phosphorus
Conductivity measurements on MW-3, MW-4(A410222), MW-105B
PPCP Samples on MW-3, MW-4 (A410222), MW-105B, North Lagoon Cell
1. Attempt to collect samples from all identified monitoring wells as per Provincial Officer's Order 1-676860750 (issued Oct. 4, 2024).
2. Notify PCT/Manager and record in facility logbook, etc., if the water level is too low in the well to collect a sample or the well is dry.
3. A second attempt for sampling must be completed within the quarter for any monitoring wells where samples were not collected on the first attempt due to low water levels or the well was dry. Record all attempts in the facility logbook.
4. Spring = March 20 to June 20, Fall = September 22 to December 21.

Emergency Discharge Samples to be collected prior to discharge, first day of discharge, every three days during discharge, the last day of the discharge and the day after the discharge has stopped.
Note: The MECP must be notified 24 hrs. prior to the start of each discharge (705-755-4300)

Operator Name:_____ **Operator Signature:**_____ **Date:**_____

(all collection and submission complete as per ECA, etc. plus any special requirements). Federal regulations (WSER) do not apply at this facility in 2025.

December 2025

Sun	*Mon*	*Tue*	*Wed*	*Thu*	*Fri*	*Sat*
	1	**2**	**3**	**4** ☐ Weekly ☐ Monthly	**5** *Please review SGS's Holiday schedule prior to sampling	**6**
7	**8**	**9**	**10**	**11** ☐ Weekly	**12**	**13**
14	**15**	**16**	**17**	**18** ☐ Weekly	**19**	**20**
21 Finish of Fall GWM Sampling Period	**22**	**23**	**24** ☐ Weekly	**25** **Stat Holiday Christmas Day**	**26** **Stat Holiday Boxing Day**	**27**
28	**29**	**30**	**31** ☐ Weekly			

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix III:

WMS Workorder Summary

Workorder Summary Report

Report Start Date: Jan 1, 2024 12:00 AM

Report End Date: Dec 31, 2024 11:59 PM

Location: 5901*

Work Order Type: CALL,EMER

Work Order Class:

			WorkOrder		Workorder Details			
WO #	Asset Description	Location Description	Type	Class	Work Order Description	Status	Actual Start	Actual Finsh
3901693	TANK PROCESS WETWELL [STURGEON ST]	5901, Sturgeon SPS, Process	CALL	Inspection	5901, Sturgeon SPS, Float Mode, Alarm	CLOSE	4/13/24 06:07 AM	4/13/24 11:00 AM
3901694	TANK PROCESS WETWELL [STURGEON ST]	5901, Sturgeon SPS, Process	CALL	Inspection	5901, Sturgeon SPS, Float Mode, Alarm	CLOSE	4/14/24 09:16 AM	4/14/24 11:00 AM
3902181		5901, Sturgeon SPS, Facility	CALL	Refurbish/ Replace/Repair	5901, Sturgeon SPS, Float Mode, Alarm	CLOSE	4/11/24 07:30 PM	4/11/24 11:30 PM
3902630	TANK PROCESS WETWELL [STURGEON ST]	5901, Sturgeon SPS, Process	CALL	Refurbish/ Replace/Repair	5901, Sturgeon SPS, Float Mode, Alarm	CLOSE	4/15/24 07:19 PM	4/15/24 11:15 PM
3996950		5901, Omemee Wastewater Collection	EMER	Refurbish/ Replace/Repair	5901, Omemee Wastewater Collection, Forcemain Repair, Sturgeon Rd	CLOSE	6/3/24 10:00 AM	6/4/24 01:14 PM
4191929	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	CALL	Refurbish/ Replace/Repair	5901, Sturgeon SPS, Engines Running Past 2 Hrs, Alarm	CLOSE	10/2/24 08:28 PM	10/2/24 09:15 PM
4194029	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	CALL	Inspection	5901, Sturgeon SPS, Burglary, Alarm	CLOSE	10/11/24 04:19 PM	10/11/24 05:30 PM
4238759	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	CALL	Compliance	5901, Omemee Lagoon, No Test Signal Alarm	CLOSE	11/21/24 09:30 PM	11/21/24 09:45 PM
4238778	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	CALL	Compliance	5901, Omemee Lagoon, No Test Signal Alarm	CLOSE	11/23/24 09:30 PM	11/23/24 09:45 PM
4278128	UPS BATTERY BANK [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Backup Power	CALL	Refurbish/ Replace/Repair	5901, Sturgeon SPS, UPS Backup Power, Fail	CLOSE	12/6/24 04:00 PM	12/6/24 05:00 PM

Workorder Summary Report

Report Start Date: Jan 1, 2024 12:00 AM

Report End Date: Dec 31, 2024 11:59 PM

Location: 5901*

Work Order Type: CAP,CORR

Work Order Class:

			WorkOrder		Workorder Details			
WO #	Asset Description	Location Description	Type	Class	Work Order Description	Status	Actual Start	Actual Finsh
2967520		5901, Omemee Lagoon, Facility	CORR	Refurbish/ Replace/Repair	DEFERRED, 5901, Omemee Lagoon, Follow Up, Pole Repairs	COMP	8/24/22 10:30 AM	1/29/25 08:43 AM
3148537		5901, Omemee Lagoon	CORR	Community Complaint	DEFERRED, 5901, Omemee Lagoon, Special Sampling, Complaint, Farmers Field	COMP	12/19/22 10:00 AM	1/29/25 08:53 AM
3759866	PUMP SUBMERSIBLE P004 SUBSURFACE	5901, Omemee Lagoon, Process	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Pump 1 Subsurface, Faulting on Overload	CLOSE	2/26/24 08:25 AM	2/26/24 08:25 AM
3765544		5901, Omemee Lagoon, Process, Process Control & Monitoring	CAP	Compliance	5901, Omemee Lagoon, Well Monitoring & Sampling Program POO# 1-L4E0C (2024)	COMP	1/31/24 11:52 AM	12/31/24 03:30 PM
3804510		5901, Omemee Lagoon, Process, Process Control & Monitoring	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Data Mapping, Communication Repair	CLOSE	4/12/24 02:00 PM	4/12/24 02:00 PM
3807227		5901, Omemee Lagoon	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, UPS Lagoon, Replace	CLOSE	3/18/24 08:40 AM	3/18/24 08:40 AM
3847217		5901, Omemee Lagoon, Facility	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Facility,Valve Repair Between Cells	CLOSE	3/25/24 07:09 AM	3/25/24 07:09 AM
3948169	PUMP SUBMERSIBLE P004 SUBSURFACE [LAGOON]	5901, Omemee Lagoon, Process	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Pump Submersible P004 Subsurface, Replacement	CLOSE	5/16/24 09:49 AM	5/16/24 09:49 AM
3997183		5901, Sturgeon SPS	CORR	Refurbish/ Replace/Repair	5901, Sturgeon SPS, Float Mode Issue, Repair	CLOSE	6/4/24 01:27 PM	6/4/24 01:27 PM

3997575		5901, Omemee Lagoon, Facility	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Grass Cutting	CLOSE	6/10/24 09:38 AM	7/10/24 09:38 AM
3997691	PUMP SUBMERSIBLE P001 SUBSURFACE [LAGOON]	5901, Omemee Lagoon, Process	CORR	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Pump Submersible P001 Subsurface, No Flow, Repair	CLOSE	6/26/24 09:26 AM	6/26/24 09:26 AM
4143074	MOTOR PUMP SUBMERSIBLE P004 SUBSURFACE	5901, Omemee Lagoon, Process	CAP	Refurbish/ Replace/Repair	5901, Omemee Lagoon, Motor Pump Submersible P004 Surface [LAGOON], Repair	COMP	1/28/25 08:30 AM	1/28/25 12:30 PM
4196185		5901, Omemee Lagoon, Facility	CAP	Compliance	5901, Omemee Lagoon, 2x Monitor Wells at Site, Install	COMP	10/29/24 09:59 AM	1/29/25 08:48 AM
4277147	UPS BATTERY BANK [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Backup Power	CORR	Refurbish/ Replace/Repair	5901, Sturgeon SPS, UPS Backup Power Failed, Replace	CLOSE	12/6/24 03:05 PM	12/6/24 06:00 PM

Workorder Summary Report

Report Start Date: Jan 1, 2024 12:00 AM

Report End Date: Dec 31, 2024 11:59 PM

Location: 5901*

Work Order Type: OPER,PM

Work Order Class:

			WorkOrder		Workorder Details			
WO #	Asset Description	Location Description	Type	Class	Work Order Description	Status	Actual Start	Actual Finsh
3711444		5901, Omemee Lagoon	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5901 - KTS	CLOSE	2/1/24 12:00 AM	2/1/24 12:00 AM
3711451		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	1/1/24 12:00 AM	1/31/24 12:00 AM
3711453		5901, Omemee Lagoon	PM	Inspection	Daily Operational Activities (1y) - 5901 - KTS	COMP	1/2/25 09:55 AM	1/2/25 09:55 AM
3711458	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	2/8/24 12:00 AM	2/8/24 12:00 AM
3711465	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	2/8/24 12:00 AM	2/8/24 12:00 AM
3713024		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	2/8/24 12:00 AM	2/8/24 12:00 AM
3713027		5901, Omemee Lagoon	PM	Inspection	Water Well Inspection (3m) - 5901 Lagoon Monitoring Wells - KTS	CLOSE	1/19/24 02:30 PM	1/19/24 02:30 PM
3713346		5901, Omemee Lagoon	PM	Compliance	FEP Contact List Update (1y) - 5901 - KTS	CLOSE	4/16/24 12:00 AM	4/16/24 12:00 AM
3714016	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	2/8/24 12:00 AM	2/8/24 12:00 AM
3714035	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	2/8/24 12:00 AM	2/8/24 12:00 AM
3714042	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	2/8/24 12:00 AM	2/8/24 12:00 AM

3735502		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	2/1/24 12:00 AM	2/1/24 12:00 AM
3738231		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	1/16/24 12:00 AM	1/16/24 12:00 AM
3739437		5901, Omemee Lagoon	PM	Inspection	Well Level Monitoring & Sampling POO# 1-L4E0C (3m) – 5901 – KTS	CLOSE	1/9/24 12:00 AM	1/9/24 12:00 AM
3768081		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	2/1/24 12:00 AM	2/29/24 12:00 AM
3768083	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3768090	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3769317		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3769762	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3769781	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3769788	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3785264		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	3/12/24 12:00 AM	3/12/24 12:00 AM
3787025		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	2/14/24 12:00 AM	2/14/24 12:00 AM
3809903		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	3/1/24 12:00 AM	3/28/24 12:00 AM
3809905	BLOWER ROTORY LOBE [LAGOON]	5901, Omemee Lagoon, Process	PM	Refurbish/ Replace/Repair	Blower Insp/Service (1y) - 5901 Lagoon-KTS	COMP	12/27/24 01:29 PM	12/27/24 01:29 PM
3809918	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM
3809925	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM

3811249		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM
3811533	PUMP CENT 02 DISCH [LAGOON]	5901, Omemee Lagoon, Process	PM	Inspection	Pump Cent Insp/Service (1y) - 5901 Lagoon- KTS	COMP	12/27/24 01:50 PM	12/27/24 01:50 PM
3811993	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM
3812012	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM
3812019	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM
3828833		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	3/28/24 12:00 AM	3/28/24 12:00 AM
3830542		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	3/7/24 12:00 AM	3/8/24 12:00 AM
3854628		5901, Omemee Lagoon	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5901 - KTS	CLOSE	4/16/24 12:00 AM	4/16/24 12:00 AM
3854635		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	4/18/24 12:00 AM	4/18/24 12:00 AM
3854637	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	4/18/24 12:00 AM	4/18/24 12:00 AM
3854644	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	4/18/24 12:00 AM	4/18/24 12:00 AM
3856076		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	4/17/24 12:00 AM	4/17/24 12:00 AM
3856079		5901, Omemee Lagoon	PM	Inspection	Water Well Inspection (3m) - 5901 Lagoon Monitoring Wells - KTS	CLOSE	4/25/24 12:00 AM	4/25/24 12:00 AM
3856418	TANK PROCESS WETWELL [STURGEON ST]	5901, Sturgeon SPS, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5901 Sturgeon - KTS	CLOSE	6/18/24 07:00 AM	6/18/24 10:00 AM
3857165	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	4/18/24 12:00 AM	4/18/24 12:00 AM
3857184	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	4/18/24 12:00 AM	4/18/24 12:00 AM

3857191	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	4/18/24 12:00 AM	4/18/24 12:00 AM
3858128	TANK PROCESS WETWELL [CHURCH ST]	5901, Church SPS, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5901 Church - KTS	CLOSE	6/18/24 10:00 AM	6/18/24 12:00 PM
3876643		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	4/16/24 12:00 AM	4/16/24 12:00 AM
3878857		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	4/23/24 12:00 AM	4/23/24 12:00 AM
3880040		5901, Omemee Lagoon	PM	Inspection	Well Level Monitoring & Sampling POO# 1-L4E0C (3m) – 5901 – KTS	CLOSE	4/25/24 12:00 AM	4/25/24 12:00 AM
3907266		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	5/30/24 12:00 AM	5/30/24 12:00 AM
3907268	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	5/17/24 01:25 PM	5/17/24 01:25 PM
3907275	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	5/30/24 12:00 AM	5/30/24 12:00 AM
3908518		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	5/30/24 12:00 AM	5/30/24 12:00 AM
3909269	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	5/30/24 12:00 AM	5/30/24 12:00 AM
3909288	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	5/16/24 12:00 AM	5/16/24 12:00 AM
3909295	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	5/16/24 12:00 AM	5/30/24 12:00 AM
3918530		5901, Omemee Lagoon	PM	Inspection	Lifting Devices & Fall Arrest Inspection by Contractor (1y) - 5901 - KTS	CLOSE	6/26/24 12:00 AM	6/26/24 12:00 AM
3927701		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	5/30/24 12:00 AM	5/30/24 12:00 AM
3929514		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	5/9/24 12:00 AM	5/9/24 12:00 AM

3955720		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	6/28/24 12:00 AM	6/28/24 12:00 AM
3955722	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3955729	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3956916		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3957585	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3957604	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3957611	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3972424		5901, Sturgeon SPS	PM	Refurbish/ Replace/Repair	Drive VFD Insp (1y) - 5901 - KTS	COMP	12/27/24 01:33 PM	12/27/24 01:33 PM
3977291		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
3978184		5901, Omemee Lagoon	PM	Inspection	Aeration Pod Inspection & Cleaning (1y) - 5901 - KTS	COMP	1/21/25 02:11 PM	1/21/25 02:11 PM
3979116		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	6/27/24 12:00 AM	6/27/24 12:00 AM
4000348	TANK PROCESS WETWELL [LAGOON SPS]	5901, Omemee Lagoon, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5901 Lagoon SPS - KTS	CLOSE	6/18/24 12:00 PM	6/18/24 03:00 PM
4005364		5901, Omemee Lagoon	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5901 - KTS	CLOSE	7/25/24 12:00 AM	7/25/24 12:00 AM
4005371		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	7/25/24 12:00 AM	7/25/24 12:00 AM
4005373	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	7/30/24 12:00 AM	7/30/24 12:00 AM
4005380	ENGINE DIESEL GENERATOR	5901, Sturgeon SPS, Facility, Power Generation,	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	7/30/24 12:00 AM	7/30/24 12:00 AM
4006786		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	7/30/24 12:00 AM	7/30/24 12:00 AM

4006789		5901, Omemee Lagoon	PM	Inspection	Water Well Inspection (3m) - 5901 Lagoon Monitoring Wells - KTS	CLOSE	8/7/24 12:00 AM	8/7/24 12:00 AM
4007435	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	7/25/24 12:00 AM	7/25/24 12:00 AM
4007454	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	7/25/24 12:00 AM	7/25/24 12:00 AM
4007461	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	7/25/24 12:00 AM	7/25/24 12:00 AM
4024656		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	7/25/24 12:00 AM	7/25/24 12:00 AM
4026645		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	7/10/24 03:27 PM	7/10/24 03:27 PM
4027728		5901, Omemee Lagoon	PM	Inspection	Well Level Monitoring & Sampling POO# 1-L4E0C (3m) – 5901 – KTS	CLOSE	9/24/24 01:18 PM	9/24/24 01:18 PM
4054721		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	8/21/24 12:00 AM	8/21/24 12:00 AM
4054723	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	8/23/24 02:50 PM	8/23/24 02:50 PM
4054730	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	8/21/24 12:00 AM	8/21/24 12:00 AM
4055986		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	8/21/24 12:00 AM	8/21/24 12:00 AM
4056395	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	8/21/24 12:00 AM	8/21/24 12:00 AM
4056414	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	8/21/24 12:00 AM	8/21/24 12:00 AM
4056421	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	8/20/24 12:00 AM	8/20/24 12:00 AM
4072432		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	8/21/24 12:00 AM	8/21/24 12:00 AM
4074065		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	8/1/24 12:00 AM	8/31/24 12:00 AM

4099063		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	10/2/24 12:00 AM	10/2/24 12:00 AM
4099065	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	9/24/24 12:00 AM	9/24/24 12:00 AM
4099072	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	9/24/24 12:00 AM	9/24/24 12:00 AM
4100293		5901, Omemee Lagoon	PM	Calibration	Online Process Equipment Calibration Service by Contractor (1y) - 5901 - KTS	CLOSE	11/6/24 12:00 AM	11/6/24 12:00 AM
4100298		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	9/24/24 12:00 AM	9/24/24 12:00 AM
4101208	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	10/2/24 12:00 AM	10/2/24 12:00 AM
4101228	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	10/2/24 12:00 AM	10/2/24 12:00 AM
4101235	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	10/2/24 12:00 AM	10/2/24 12:00 AM
4119856		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	10/2/24 12:00 AM	10/2/24 12:00 AM
4121782		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	9/23/24 10:10 AM	9/23/24 10:10 AM
4132513	METER LEVEL LIT 106 SPRAYER WETWELL [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Calibration	Meter Level LIT 106 Calibration/Service (1y) 5901	CLOSE	11/6/24 12:00 AM	11/6/24 12:00 AM
4142019	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Refurbish/ Replace/Repair	Engine Diesel Inspection/Service by Contractor (1y) - 5901 Sturgeon - KTS	CLOSE	9/24/24 12:00 AM	9/24/24 12:00 AM
4142025	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Refurbish/ Replace/Repair	Engine Diesel Inspection/Service by Contractor (1y) - 5901 Church - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4148614		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Heater Unit Insp. (1y) - 5901 Lagoon- KTS	COMP	11/13/24 12:00 AM	11/13/24 12:00 AM
4149649		5901, Omemee Lagoon	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5901 - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM

4149656		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	COMP	10/31/24 12:00 AM	10/31/24 12:00 AM
4149658	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4149665	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4151118		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4151121		5901, Omemee Lagoon	PM	Inspection	Water Well Inspection (3m) - 5901 Lagoon Monitoring Wells - KTS	COMP	11/27/24 12:00 AM	11/27/24 12:00 AM
4151372	TANK PROCESS WETWELL [STURGEON ST]	5901, Sturgeon SPS, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5901 Sturgeon - KTS	CLOSE	12/10/24 07:39 AM	12/10/24 07:39 AM
4151987	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4152006	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4152013	PANEL ALARM/DIALER	5901, Omemee Lagoon, Process, Process Control &	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4153093	TANK PROCESS WETWELL [CHURCH ST]	5901, Church SPS, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5901 Church - KTS	CLOSE	12/5/24 12:00 AM	12/5/24 12:00 AM
4170020		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	COMP	10/2/24 12:00 AM	10/2/24 12:00 AM
4172186		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	10/15/24 10:32 AM	10/15/24 10:32 AM
4173266		5901, Omemee Lagoon	PM	Inspection	Well Level Monitoring & Sampling POO# 1-L4E0C (3m) – 5901 – KTS	CLOSE	11/27/24 12:00 AM	11/27/24 12:00 AM
4184753	VALVE RELIEF AIR [STURGEON ROAD]	5901, Omemee Wastewater Collection	PM	Refurbish/ Replace/Repair	Valve Relief Air Cleaning/Inspection (6m) - 5901 Sturgeon Rd - KTS	CLOSE	12/5/24 12:00 AM	12/5/24 12:00 AM
4199880		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4199882	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4199889	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM

4201088		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4201193	FILTER CARBON ODOUR CONTROL CANNISTER [STURGEON]	5901, Sturgeon SPS, Process, Tertiary Treatment, Filtration	PM	Inspection	Filter Carbon Insp. (1y) - 5901 Sturgeon - KTS	CLOSE	11/29/24 12:00 AM	11/29/24 12:00 AM
4201202	FILTER CARBON ODOUR CONTROL CANISTER [STURGEON]	5901, Sturgeon SPS, Process, Tertiary Treatment, Filtration	PM	Inspection	Filter Carbon Insp. (1y) - 5901 Sturgeon - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4201592	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4201611	PANEL ALARM/DIALER [CHURCH]	5901, Church SPS, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Church - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4201618	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	PM	Inspection	Alarm Dialer (1m) - 5901 Lagoon - KTS	CLOSE	11/29/24 12:00 AM	11/29/24 12:00 AM
4216646		5901, Omemee Lagoon	PM	HEALTH AND SAFETY	HS03 H & S Equipment Check (1m) - 5901 - KTS	CLOSE	11/28/24 12:00 AM	11/28/24 12:00 AM
4218273		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	11/18/24 11:01 AM	11/18/24 11:01 AM
4239258	PANEL ALARM/DIALER [LAGOON]	5901, Omemee Lagoon, Process, Process Control & Monitoring	OPER	Compliance	5901, Omemee Lagoon, No Test Signal Alarm	CLOSE	11/25/24 09:30 PM	11/25/24 09:45 PM
4241859		5901, Omemee Lagoon	PM	Inspection	Building and Grounds Maintenance (1m) - 5901 - KTS	COMP	12/5/24 12:00 AM	12/5/24 12:00 AM
4241861	PANEL ALARM/DIALER [STURGEON]	5901, Sturgeon SPS, Facility, IT Equipment	PM	Inspection	Alarm Dialer (1m) - 5901 Sturgeon - KTS	COMP	12/6/24 12:00 AM	12/6/24 12:00 AM
4241868	ENGINE DIESEL GENERATOR [STURGEON]	5901, Sturgeon SPS, Facility, Power Generation, Engines	PM	Inspection	Engine Diesel (1m) - 5901 Sturgeon - KTS	COMP	12/6/24 12:00 AM	12/6/24 12:00 AM
4243042		5901, Omemee Lagoon	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5901 - KTS	COMP	12/6/24 12:00 AM	12/6/24 12:00 AM
4243512	ENGINE DIESEL GENERATOR [CHURCH ST]	5901, Church SPS, Facility, Power Generation, Backup Power	PM	Inspection	Engine Diesel (1m) - 5901 Church - KTS	COMP	12/6/24 12:00 AM	12/6/24 12:00 AM
4260069		5901, Omemee Lagoon	OPER	Compliance	Operator PDM Entry & Review (1m) - 5901 - KTS	CLOSE	12/6/24 08:07 AM	12/6/24 08:07 AM

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix IV:

Calibration Reports

Franklin Empire Inc,
550 Braidwood Ave
Peterborough ON K9J 1W1, CANADA

Tel: (705) 745-1626
Fax: (705) 745-3493

OCWA Kawartha

Omemee SPS and Lagoon Flows 2024

CALIBRATION REPORT

Report No.: OCWA 24 FIT Lagoon

Date: 09-Nov-24

SITE:	Omemee Lagoon	**SERVICE DATE:**	November 9, 2024
PROCESS AREA:	Flow to spray system	**TECHNICIAN:**	MM
INSTR. TAG:	FIT Lagoon	**JOB REFERENCE:**	OCWA 24
MANUFACTURER:	Krohne		
MODEL:	IFC010		
SERIAL No.:	00177980		
OCWA Code:	0000291043		

Input	**(Test)**	**Output**	**(Signal)**	**(Process)**
Type:	GS 8 (X val)	**Type or EGU:**	mA	Liter/sec
Min:	0.00	**Min:**	4.00	0.00
Max:	11.41	**Max:**	20.00	250.00
DN (mm):	200			
GK=1 GKL=2	2		100.5 ohms	open to ground
GK:	4.575			
Constant:	4177.44			

			Before Calibration		**After Calibration**	
Input (Y pos)	**Knob Setting**	**Calc. O/P (mA)**	**Output (mA)**	**%Error**	**Output (mA)**	**%Error**
0.00	0	4.00	3.99	-0.25%	3.99	-0.25%
0.50	A	4.70	4.68	-0.43%	4.68	-0.43%
1.00	B	5.40	5.38	-0.37%	5.38	-0.37%
2.00	C	6.80	6.79	-0.15%	6.79	-0.15%
5.00	D	11.01	11.00	-0.09%	11.00	-0.09%
10.00	E	18.02	18.00	-0.11%	18.00	-0.11%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	Krohne	
Model:	Model 87	GS 8B	
Serial No.:	13440128	U1127700020705	
Last Cal. Date:	Feb. 16, 2024	Mar. 26, 2024	

Comments:

AS FOUND: PASS **AS LEFT:** PASS

CERTIFIED BY:

Flowmeter Verification Certificate Transmitter

OCWA Kawartha	Omemee Lagoons
Customer	Plant
Pump 1	--------
Order code	Tag Name
PROMAG 53 W DN100	1.2394 - 1.2394
Device type	K-Factor
H607FA16000	6
Serial number	Zero point
V2.03.00	V1.05.03
Software Version Transmitter	Software Version I/O-Module
11/06/2024	09:25
Verification date	Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Pulse Output 1	Passed	1 P
Test Sensor	Passed	

FieldCheck Details	**Simubox Details**
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
03/2024	03/2024
Last Calibration Date	Last Calibration Date

Date Operator's Sign Inspector's Sign

Overall results:

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. [1)]

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.

Endress+Hauser
People for Process Automation

FieldCheck - Result Tab Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Lagoons**
Order code	**Pump 1**	Tag Name	**--------**
Device type	**PROMAG 53 W DN100**	K-Factor	**1.2394 - 1.2394**
Serial number	**H607FA16000**	Zero point	**6**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**09:25**

Verification Flow end value (100 %): 31.416 l/s
Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	1.571 l/s (5%)	1.50 %	-0.61 %
✓		3.142 l/s (10.0%)	1.00 %	-0.59 %
✓		15.708 l/s (50.0%)	0.60 %	0.01 %
✓		31.416 l/s (100%)	0.55 %	0.07 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.003 mA
✓		4.800 mA (5%)	0.05 mA	0.004 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.009 mA
✓		12.000 mA (50.0%)	0.05 mA	0.006 mA
✓		20.000 mA (100%)	0.05 mA	0.021 mA
✓	Pulse Output 1	125 P	1 P	0 P
		Start value	**Limits range**	**Measured value**
	Test Sensor			
✓	Coil Curr. Rise	5.000 ms	0.000..14.250 ms	6.440 ms
✓	Coil Curr. Stability		---	---
✓	Electrode Integrity	mV	0.0..300.001 mV	3.272 mV

Legend of symbols

✓	✗	–	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Lagoons**
Order code	**Pump 1**	Tag Name	**--------**
Device type	**PROMAG 53 W DN100**	K-Factor	**1.2394 - 1.2394**
Serial number	**H607FA16000**	Zero point	**6**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**09:25**

Curent Output	**Assign**	**Current Range**	**Value 0_4mA**	**Value 20 mA**		
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 l/s	10.00 l/s		
Pulse Output	**Assign**	**Pulse Value**	**Output signal**	**Pulse width**		
Terminal 24/25	VOLUME FLOW	5.000 l/P	Passive/Positive	100.01 ms		

Actual System Ident. 121.0

Flowmeter Verification Certificate Transmitter

OCWA Kawartha	Omemee Lagoons
Customer	Plant
Pump #2	--------
Order code	Tag Name
PROMAG 53 W DN100	1.2614 - 1.2614
Device type	K-Factor
H607FB16000	-15
Serial number	Zero point
V2.03.00	V1.05.03
Software Version Transmitter	Software Version I/O-Module
11/06/2024	09:40
Verification date	Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Pulse Output 1	Passed	1 P
Test Sensor	Passed	

FieldCheck Details	**Simubox Details**
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
03/2024	03/2024
Last Calibration Date	Last Calibration Date

Date Operator's Sign Inspector's Sign

Overall results:

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. [1)]

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.

Endress+Hauser
People for Process Automation

FieldCheck - Result Tab Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Lagoons**
Order code	**Pump #2**	Tag Name	**--------**
Device type	**PROMAG 53 W DN100**	K-Factor	**1.2614 - 1.2614**
Serial number	**H607FB16000**	Zero point	**-15**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**09:40**

Verification Flow end value (100 %): 31.416 l/s
Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	1.571 l/s (5%)	1.50 %	-0.55 %
✓		3.142 l/s (10.0%)	1.00 %	-0.53 %
✓		15.708 l/s (50.0%)	0.60 %	-0.00 %
✓		31.416 l/s (100%)	0.55 %	0.03 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.004 mA
✓		4.800 mA (5%)	0.05 mA	0.003 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.009 mA
✓		12.000 mA (50.0%)	0.05 mA	0.005 mA
✓		20.000 mA (100%)	0.05 mA	0.022 mA
✓	Pulse Output 1	125 P	1 P	0 P
		Start value	**Limits range**	**Measured value**
	Test Sensor			
✓	Coil Curr. Rise	5.000 ms	0.000..14.250 ms	6.261 ms
✓	Coil Curr. Stability		---	---
✓	Electrode Integrity	mV	0.0..300.001 mV	128.013 mV

Legend of symbols

✓	✗	–	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Lagoons**
Order code	**Pump #2**	Tag Name	**--------**
Device type	**PROMAG 53 W DN100**	K-Factor	**1.2614 - 1.2614**
Serial number	**H607FB16000**	Zero point	**-15**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**09:40**

Curent Output	**Assign**	**Current Range**	**Value 0_4mA**	**Value 20 mA**		
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 l/s	10.00 l/s		
Pulse Output	**Assign**	**Pulse Value**	**Output signal**	**Pulse width**		
Terminal 24/25	VOLUME FLOW	5.000 l/P	Passive/Positive	100.01 ms		

Actual System Ident. 121.0

Flowmeter Verification Certificate Transmitter

OCWA Kawartha	Omemee Lagoons
Customer	Plant
Pump 3	--------
Order code	Tag Name
PROMAG 53 W DN100	1.2518 - 1.2518
Device type	K-Factor
H607FC16000	5
Serial number	Zero point
V2.03.00	V1.05.03
Software Version Transmitter	Software Version I/O-Module
11/06/2024	09:56
Verification date	Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Pulse Output 1	Passed	1 P
Test Sensor	Passed	

FieldCheck Details	**Simubox Details**
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
03/2024	03/2024
Last Calibration Date	Last Calibration Date

Date Operator's Sign Inspector's Sign

Overall results:

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. [1)]

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.

FieldCheck - Result Tab Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Lagoons**
Order code	**Pump 3**	Tag Name	**--------**
Device type	**PROMAG 53 W DN100**	K-Factor	**1.2518 - 1.2518**
Serial number	**H607FC16000**	Zero point	**5**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**09:56**

Verification Flow end value (100 %): 31.416 l/s
Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	1.571 l/s (5%)	1.50 %	-0.59 %
✓		3.142 l/s (10.0%)	1.00 %	-0.58 %
✓		15.708 l/s (50.0%)	0.60 %	0.01 %
✓		31.416 l/s (100%)	0.55 %	0.05 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.003 mA
✓		4.800 mA (5%)	0.05 mA	0.003 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.009 mA
✓		12.000 mA (50.0%)	0.05 mA	0.005 mA
✓		20.000 mA (100%)	0.05 mA	0.021 mA
✓	Pulse Output 1	125 P	1 P	0 P
		Start value	**Limits range**	**Measured value**
	Test Sensor			
✓	Coil Curr. Rise	5.000 ms	0.000..14.250 ms	6.359 ms
✓	Coil Curr. Stability		---	---
✓	Electrode Integrity	mV	0.0..300.001 mV	6.558 mV

Legend of symbols

✓	✗	–	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Lagoons**
Order code	**Pump 3**	Tag Name	**--------**
Device type	**PROMAG 53 W DN100**	K-Factor	**1.2518 - 1.2518**
Serial number	**H607FC16000**	Zero point	**5**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**09:56**

Curent Output	**Assign**	**Current Range**	**Value 0_4mA**	**Value 20 mA**		
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 l/s	10.00 l/s		
Pulse Output	**Assign**	**Pulse Value**	**Output signal**	**Pulse width**		
Terminal 24/25	VOLUME FLOW	5.000 l/P	Passive/Positive	100.01 ms		

Actual System Ident. 121.0

SIEMENS MAGFLO® Verification Certificate

Customer:

Name	OCWA Kawartha
Address	Omemee WW
Phone	
Email	

MAGFLO® Identification:

TAG No./Name	0
Sensor Code No.	7ME658
Sensor Serial No.	PBD-MN174541
Converter Code No.	7ME691
Converter Serial No.	N1L9110136
Location	WW Pump 4

Results:

Verification file name or No.		FIT 104
Converter		Passed
Sensor	Insulation	Passed
	Magnetic Circuit	Passed

Velocity	Current Output			Frequency Output		
Theoretical	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.803mA	0.33%	0.500kHz	0.500kHz	0.08%
1.0m/s	5.600mA	5.603mA	0.20%	1.000kHz	1.001kHz	0.08%
3.0m/s	8.800mA	8.804mA	0.09%	3.000kHz	3.002kHz	0.07%

Current Output 4-20mA Frequency Output 0-10kHz

Converter Settings:

Basic

Qmax.	10.0 l/s
Flow Direction	Positive
Low flow Cut-off	1.50%
Empty Pipe	ON

Output

Current Output	ON (4-20mA)
Time Constant	5.0 Sec.
Relay Output	Error Level
Digital Output	Pulse
Frequency Range	N/A
Time Constant	N/A
Volume/pulse	5.0 l/p
Pulse width	0.066 sec.
Pulse polarity	Positiv

Totalizer 1 value before test	306623.78125 m³
Totalizer 1 value after test	306623.8125 m³
Totalizer 2 value before test	5.24036694 m³
Totalizer 2 value after test	5.24037027 m³

Sensor Details:

Size	DN 100 4 IN
Cal. Factor	7.70578146
Correction Factor	1.0
Excitation Freq.	7.5Hz

Verificator Details (083F5060)

Serial No.	000811N218
Device No.	91739
Software Version	1.40
PC-Software Version	4.02
Cal. date	2024.10.09
ReCal. date	2025.10.09

Comments

These tests verify that the flowmeter is functioning within 2% deviation of the original test parameters.

Verification is traceable to National and International Standards.

Date and signature

2024.11.06 M Manley

Flowmeter Verification Certificate Transmitter

OCWA Kawartha	Omemee Sewage
Customer	Plant
Church St SPS	--------
Order code	Tag Name
PROMAG 53 P DN200	1.0162 - 1.0162
Device type	K-Factor
H6027B16000	1
Serial number	Zero point
V2.03.00	V1.05.03
Software Version Transmitter	Software Version I/O-Module
11/06/2024	11:24
Verification date	Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Pulse Output 1	Passed	1 P
Test Sensor	Passed	

FieldCheck Details	**Simubox Details**
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
03/2024	03/2024
Last Calibration Date	Last Calibration Date

Date Operator's Sign Inspector's Sign

Overall results:

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. [1)]

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.

Endress+Hauser

People for Process Automation

FieldCheck - Result Tab Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Sewage**
Order code	**Church St SPS**	Tag Name	**--------**
Device type	**PROMAG 53 P DN200**	K-Factor	**1.0162 - 1.0162**
Serial number	**H6027B16000**	Zero point	**1**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**11:24**

Verification Flow end value (100 %): 125.664 l/s
Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	6.283 l/s (5%)	1.50 %	-0.63 %
✓		12.566 l/s (10.0%)	1.00 %	0.02 %
✓		62.832 l/s (50.0%)	0.60 %	0.03 %
✓		125.665 l/s (100%)	0.55 %	0.06 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.001 mA
✓		4.800 mA (5%)	0.05 mA	0.000 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.013 mA
✓		12.000 mA (50.0%)	0.05 mA	-0.000 mA
✓		20.000 mA (100%)	0.05 mA	0.009 mA
✓	Pulse Output 1	125 P	1 P	0 P
		Start value	**Limits range**	**Measured value**
	Test Sensor			
✓	Coil Curr. Rise	13.300 ms	0.000..27.625 ms	18.625 ms
✓	Coil Curr. Stability		---	---
✓	Electrode Integrity	mV	0.0..300.001 mV	0.000 mV

Legend of symbols

✓	✗	–	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Sewage**
Order code	**Church St SPS**	Tag Name	**--------**
Device type	**PROMAG 53 P DN200**	K-Factor	**1.0162 - 1.0162**
Serial number	**H6027B16000**	Zero point	**1**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**11:24**

Curent Output	**Assign**	**Current Range**	**Value 0_4mA**	**Value 20 mA**		
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 l/s	100.01 l/s		
Pulse Output	**Assign**	**Pulse Value**	**Output signal**	**Pulse width**		
Terminal 24/25	VOLUME FLOW	50.000 l/P	Passive/Positive	100.01 ms		

Actual System Ident. 123.0

Flowmeter Verification Certificate Transmitter

OCWA Kawartha	Omemee Sewage
Customer	Plant
Sturgeon St SPS	--------
Order code	Tag Name
PROMAG 53 P DN300	1.2756 - 1.2756
Device type	K-Factor
H6027C16000	-2
Serial number	Zero point
V2.03.00	V1.05.03
Software Version Transmitter	Software Version I/O-Module
11/06/2024	11:43
Verification date	Verification time

Verification result Transmitter: Passed

Test item	Result	Applied Limits
Amplifier	Passed	Basis: 0.55 %
Current Output 1	Passed	0.05 mA
Pulse Output 1	Passed	1 P
Test Sensor	Passed	

FieldCheck Details	**Simubox Details**
550149	
Production number	Production number
1.07.10	1.00.01
Software Version	Software Version
03/2024	03/2024
Last Calibration Date	Last Calibration Date

Date Operator's Sign Inspector's Sign

Overall results:

The achieved test results show that the instrumment is completely functional, and the measuring results lie within +/- 1% of the original calibration. [1)]

The calibration of the Fieldcheck test system is fully traceable to national standards.

1) Prerequisite is an additional proof of electrode integrity with a high voltage test.

Endress+Hauser

People for Process Automation

FieldCheck - Result Tab Transmitter

Customer	**OCWA Kawartha**
Order code	**Sturgeon St SPS**
Device type	**PROMAG 53 P DN300**
Serial number	**H6027C16000**
Software Version Transmitter	**V2.03.00**
Verification date	**11/06/2024**

Plant	**Omemee Sewage**
Tag Name	**--------**
K-Factor	**1.2756 - 1.2756**
Zero point	**-2**
Software Version I/O-Module	**V1.05.03**
Verification time	**11:43**

Verification Flow end value (100 %): 282.743 l/s
Flow speed 4.00 m/s

Passed / Failed	Test item	Simul. Signal	Limit Value	Deviation
	Test Transmitter			
✓	Amplifier	14.137 l/s (5%)	1.50 %	-0.50 %
✓		28.274 l/s (10.0%)	1.00 %	-0.65 %
✓		141.373 l/s (50.0%)	0.60 %	0.02 %
✓		282.744 l/s (100%)	0.55 %	0.05 %
✓	Current Output 1	4.000 mA (0%)	0.05 mA	0.000 mA
✓		4.800 mA (5%)	0.05 mA	-0.000 mA
✓		5.600 mA (10.0%)	0.05 mA	-0.017 mA
✓		12.000 mA (50.0%)	0.05 mA	-0.006 mA
✓		20.000 mA (100%)	0.05 mA	0.001 mA
✓	Pulse Output 1	125 P	1 P	0 P
		Start value	**Limits range**	**Measured value**
	Test Sensor			
✓	Coil Curr. Rise	18.100 ms	0.000..36.625 ms	23.379 ms
✓	Coil Curr. Stability		---	---
✓	Electrode Integrity	mV	0.0..300.001 mV	6.561 mV

Legend of symbols

✓	✗	–	?	!
Passed	Failed	not tested	not testable	Attention

FieldCheck: Parameters Transmitter

Customer	**OCWA Kawartha**	Plant	**Omemee Sewage**
Order code	**Sturgeon St SPS**	Tag Name	**--------**
Device type	**PROMAG 53 P DN300**	K-Factor	**1.2756 - 1.2756**
Serial number	**H6027C16000**	Zero point	**-2**
Software Version Transmitter	**V2.03.00**	Software Version I/O-Module	**V1.05.03**
Verification date	**11/06/2024**	Verification time	**11:43**

Curent Output	**Assign**	**Current Range**	**Value 0_4mA**	**Value 20 mA**		
Terminal 26/27	VOLUME FLOW	4-20 mA active	0.0 l/s	200.01 l/s		
Pulse Output	**Assign**	**Pulse Value**	**Output signal**	**Pulse width**		
Terminal 24/25	VOLUME FLOW	100.001 l/P	Passive/Positive	100.01 ms		

Actual System Ident. 123.0

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix V:

Monitoring Wells

Customized Monthly Report

From 01/01/2024 to 12/31/2024

Facility Name: OMEMEE WASTEWATER TREATMENT LAGOON
Receiver: Subsurface

Facility Org Number: 5901
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 1220

Works: 110001630
Facility Classification: Class 1 Wastewater Treatment
Total Design Capacity: 10540 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

																		2024		
MW1			Jan 2024		Apr 2024		Nov 2024		Dec 2024			Total			Avg			Max		Min
Biochemical Oxygen Demand: BOD5 - mg/L																				
	Lab Count								1.00			1.00								
	Lab Month.Max							<	4.00							<		4.00		
	Lab Month.Mean							<	4.00					<	4.00					
	Lab Month.Min							<	4.00										<	4.00
Total hardness (as CaCO3) - mg/L																				
	Lab Count		1.00		1.00		1.00		1.00			4.00								
	Lab Month.Max		982.00		1050.00		1850.00		382.00									1850.00		
	Lab Month.Mean		982.00		1050.00		1850.00		382.00						1066.00					
	Lab Month.Min		982.00		1050.00		1850.00		382.00											382.00
Chemical Oxygen Demand: COD - mg/L																				
	Lab Count								1.00			1.00								
	Lab Month.Max							<	8.00							<		8.00		
	Lab Month.Mean							<	8.00					<	8.00					
	Lab Month.Min							<	8.00										<	8.00
Dissolved Organic Carbon: DOC - mg/L																				
	Lab Count								1.00			1.00								
	Lab Month.Max								1.00									1.00		
	Lab Month.Mean								1.00						1.00					
	Lab Month.Min								1.00											1.00
E. Coli: EC - cfu/100mL																				

Customized Monthly Report

From 01/01/2024 to 12/31/2024

Facility Name: OMEMEE WASTEWATER TREATMENT LAGOON
Receiver: Subsurface

Facility Org Number: 5901
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 1220

Works: 110001630
Facility Classification: Class 1 Wastewater Treatment
Total Design Capacity: 10540 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

	Lab Count							1.00		1.00							
	Lab Month.Max						<	2.00					<	2.00			
	Lab Month.Mean						<	2.00			<	2.00					
	Lab Month.Min						<	2.00							<	2.00	
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L																	
	Lab Count		1.00		1.00		1.00		1.00		4.00						
	Lab Month.Max		1.84		1.36		0.71		0.22						1.84		
	Lab Month.Mean		1.84		1.36		0.71		0.22				1.03				
	Lab Month.Min		1.84		1.36		0.71		0.22								0.22
Nitrite as N: NO2-N - mg/L																	
	Lab Count		1.00		1.00		1.00		1.00		4.00						
	Lab Month.Max	<	0.03	<	0.03	<	0.03	<	0.03					<	0.03		
	Lab Month.Mean	<	0.03	<	0.03	<	0.03	<	0.03			<	0.03				
	Lab Month.Min	<	0.03	<	0.03	<	0.03	<	0.03							<	0.03
Nitrate as N: NO3-N - mg/L																	
	Lab Count		1.00		1.00		1.00		1.00		4.00						
	Lab Month.Max		1.84		1.36		0.71		0.22						1.84		
	Lab Month.Mean		1.84		1.36		0.71		0.22				1.03				
	Lab Month.Min		1.84		1.36		0.71		0.22								0.22
pH - ---																	
	Lab Count		1.00		1.00		1.00		1.00		4.00						
	Lab Month.Max		7.87		7.80		7.59		8.09						8.09		
	Lab Month.Mean		7.87		7.80		7.59		8.09				7.84				
	Lab Month.Min		7.87		7.80		7.59		8.09								7.59

Customized Monthly Report

From 01/01/2024 to 12/31/2024

Facility Name: OMEMEE WASTEWATER TREATMENT LAGOON
Receiver: Subsurface

Facility Org Number: 5901
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 1220

Works: 110001630
Facility Classification: Class 1 Wastewater Treatment
Total Design Capacity: 10540 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Total Coliform: TC - cfu/100mL																	
Lab Count								1.00		1.00							
Lab Month.Max							<	20.00					<	20.00			
Lab Month.Mean							<	20.00			<	20.00					
Lab Month.Min							<	20.00							<	20.00	
Total Dissolved Solids: TDS - mg/L																	
Lab Count		1.00		1.00		1.00		1.00		4.00							
Lab Month.Max		317.00		351.00		257.00		197.00						351.00			
Lab Month.Mean		317.00		351.00		257.00		197.00				280.50					
Lab Month.Min		317.00		351.00		257.00		197.00								197.00	
Total Kjeldahl Nitrogen: TKN - mg/L																	
Lab Count		1.00		1.00		1.00		1.00		4.00							
Lab Month.Max		0.70		0.50	<	0.50	<	0.50						0.70			
Lab Month.Mean		0.70		0.50	<	0.50	<	0.50			<	0.55					
Lab Month.Min		0.70		0.50	<	0.50	<	0.50							<	0.50	
Total Phosphorus: TP - mg/L																	
Lab Count		1.00		1.00		1.00		1.00		4.00							
Lab Month.Max	<	0.00	<	0.00	<	0.00		0.35						0.35			
Lab Month.Mean	<	0.00	<	0.00	<	0.00		0.35			<	0.09					
Lab Month.Min	<	0.00	<	0.00	<	0.00		0.35							<	0.00	
Well Level - m																	
IH Edited Count		1.00		1.00		1.00				3.00							
IH Month.Max		3.03		2.44		3.07								3.07			
IH Month.Mean		3.03		2.44		3.07						2.85					

	Jan 2024	Apr 2024	Nov 2024	Dec 2024	Total	Avg	Max	Min
IH Month.Min	3.03	2.44	3.07					2.44
					2024			
MW2	**Jan 2024**	**Apr 2024**	**Nov 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Well Level - m	Well not accessible	Well not accessible	Dry Well	Dry Well				
IH Edited Count			1.00	1.00	2.00			
IH Month.Max			7.21	7.30			7.30	
IH Month.Mean			7.21	7.30		7.26		
IH Month.Min			7.21	7.30				7.21

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-1 (A148770)

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
09-Jan-19	157		1	7.75	<4	<8	0.32	<0.03	0.9	3180	3.15	0	0	N/A
03-Apr-19	191		1	8.01	4	18	<0.06	<0.03	<0.5	4390	3.91	12	0	N/A
18-Jul-19	226		1	7.74	<4	<8	0.09	<0.03	<0.5	530	0.003	30	<5	0.1
23-Oct-19	269		1	7.78	<4	8	0.66	<0.03	<0.5	1730	<0.03	2	<2	0.1
22-Jan-20	246		1	7.85	<4	<8	0.29	<0.03	<0.5	5670	<0.003	<5	<5	<0.1
13-May-20	234	409	1	7.86	<4	<8	0.25	<0.03	<0.5	2020	<0.003	<10	<10	0.1
28-Jul-20	220	370	1	7.92	<4	<8	0.36	<0.03	<0.5	1540	0.003	5	<5	<0.1
04-Nov-20	231	367	2	8.1	<4	<8	0.46	<0.03	<0.5	6040	<0.003	20	<5	<0.1
23-Feb-21	211	319	2	7.98	<4	<8	0.38	<0.03	<0.5	498	0.068	<2	0	<0.1
04-May-21	194	353		8.17			0.32	<0.03	<0.5	351	<0.003			<0.1
19-Aug-21	269	444		7.78			0.79	<0.03	<0.5	845	<0.003			<0.1
23-Nov-21	237	341		7.75			0.84	<0.03	<0.5	1100	0.013			<0.1
10-Mar-22	211	349		8.13			0.16	<0.03	0.9	1030	<0.003			<0.1
22-Jun-22	211	275		8.25			0.14	<0.03	<0.5	3050	<0.003			<0.1
21-Sep-22	220	411		8.17			1.16	<0.03	<0.5	563	<0.003			<0.1
06-Dec-22	263	438		7.92			1.45	<0.03	<0.5	2370	0.005			<0.1
28-Mar-23	226	405		8.22			0.44	<0.03	<0.5	438	<0.003			<0.1
22-Jun-23	206	323		7.58			0.28	<0.03	<0.5	1440	<0.003			<0.1
17-Oct-23	217	381		7.64			0.62	<0.03	<0.5	2220	<0.003			<0.1
09-Jan-24	317	495		7.87			1.84	<0.03	0.7	982	<0.003			<0.1
25-Apr-24	351	549		7.8			1.36	<0.03	0.5	1050	<0.003			<0.1
27-Nov-24	257			7.59			0.71	<0.03	<0.5	1850	<0.003			
23-Dec-24	197		1	8.09	<4	<8	0.22	<0.03	<0.5	382	0.352	<20	<2	
09-Jan-25	229		2	7.61	<4	9	0.30	<0.03	<0.5	457	0.345	<2	<2	

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-2 (A148769)

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
03-Apr-19	231		2	8.01	4	37	2.02	<0.03	1.2	1270	0.99	<20	<20	N/A
18-Jul-19	Well not													
27-Nov-19	Dry Well													
22-Jan-20	260		1	7.56	<4	<8	1.6	<0.03	0.7	375	0.008	<5	<5	<0.1
13-May-20	451	827	1	7.61	<4	<8	1.64	<0.03	<0.5	694	<0.003	<5	<5	<0.1
28-Jul-20	Well not	accessible												
04-Nov-20	Dry Well													
08-Dec-20	Dry Well													
23-Feb-21	Dry Well													
04-May-21	249	459		8.06			1.14	<0.03	<0.5	349	<0.003			<0.1
19-Aug-21	Well not	accessible												
23-Nov-21	Dry Well													
10-Mar-22	Dry Well													
22-Jun-22	Well not	accessible												
21-Sep-22	Well not	accessible												
06-Dec-22	Dry Well													
28-Mar-23	251	372		8.27			0.24	<0.03	<0.5	366	<0.003			<0.1
22-Jun-23	Well not	accessible												
17-Oct-23	Well not	accessible												
09-Jan-24	Well not	accessible												
25-Apr-24	Well not	accessible												
27-Nov-24	Well Dry													
23-Dec-24	Well Dry													
09-Jan-25	Well Dry													

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-3

Date	TDS	Conductivity	pH	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP
27-Nov-24	Well Dry							
12-Dec-24	Well Dry							

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-4 (A410222)

Date	TDS	Conductivity	pH	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP
27-Nov-24	574	763	7.39	1.6	<0.03	<0.5	5730	0.034

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-101B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	203		<1.0	8.09	<2	17	0.24	<0.06	<0.5	187	<0.009	<2	<2	0.2
18-Jul-19	200		<1	7.91	<4	<8	0.09	<0.03	<0.5	1810	0.003	<5	<5	<0.1
25-Oct-19	200		<1	7.69	<4	<8	0.09	<0.03	<0.5	1530	<0.03	2	1	<0.1
23-Jan-20	191		<1	7.7	<4	11	<0.06	<0.03	<0.5	431	0.007	<5	<5	<0.1
13-May-20	169	305	<1	7.89	<4	<8	<0.06	<0.03	<0.5	3160	<0.003	<10	<10	<0.1
01-Sep-20	194	307	<1	7.77	<4	<8	<0.06	<0.03	<0.5	3130	<0.003	<20	<20	<0.1
04-Nov-20	177	307	<1	8.13	<4	<8	<0.06	<0.03	<0.5	2480	<0.003	<5	<5	<0.1
23-Feb-21	160	272	1	7.94	<4	<8	<0.06	<0.03	<0.5	1320	<0.003	<20	<20	<0.1
04-May-21	154	289		8.14			<0.06	<0.03	<0.5	1910	<0.003			<0.1
19-Aug-21	223	299		7.99			<0.06	<0.03	<0.5	1480	<0.003			<0.1
23-Nov-21	186	256		7.76			<0.06	<0.03	<0.5	797	0.005			<0.1
17-Mar-22	197	299		7.73			<0.06	<0.03	<0.5	1030	<0.003			<0.1
22-Jun-22	229	319		8.22			<0.06	<0.03	<0.5	3010	<0.003			<0.1
21-Sep-22	223	386		8.15			0.19	<0.03	<0.5	1180	<0.003			<0.1
06-Dec-22	223	352		7.78			0.13	<0.03	<0.5	1240	<0.003			<0.1
28-Mar-23	200	346		8.25			<0.06	<0.03	<0.5	955	<0.003			<0.1
22-Jun-23	220	318		7.66			0.06	<0.03	<0.5	5050	<0.003			<0.1
17-Oct-23	563	735		7.9			1.08	<0.03	<0.5	1520	<0.003			<0.1
09-Jan-24	260	396		7.83			0.2	<0.03	0.8	1700	0.038			<0.1
25-Apr-24	263	389		7.86			<0.06	<0.03	<0.5	2480	<0.003			<0.1
27-Nov-24	369			7.40			0.59	<0.03	<0.5	1350	<0.003			

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-102B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
23-Nov-09	277		2.3	7.89	15	24	<0.05	<0.06	<0.5	217	<0.01	120	<2	<0.1
23-Aug-19	360		1	7.75	<4	9	0.15	<0.03	<0.5	13300	<0.003	820	<20	0.2
25-Oct-19	331		<1	7.59	<4	<8	0.22	<0.03	<0.5	16400	<0.03	156	<2	0.1
22-Jan-20	Dry Well													
25-Feb-20	Dry Well													
13-May-20	Dry Well													
28-Jul-20	309	538	<1	7.82	<4	<8	0.11	<0.03	<0.5	1340	<0.003	<20	<20	<0.1
04-Nov-20	329	549	1	7.72	4	<8	0.16	<0.03	<0.5	1670	<0.003	8	<2	<0.1
23-Feb-21	331	488	1	7.7	<4	8	0.14	<0.03	<0.5	2270	<0.003	<20	<20	<0.1
04-May-21	360	537		8.03			0.16	<0.03	<0.5	770	<0.003			<0.1
19-Aug-21	389	527		7.71			0.15	<0.03	<0.5	1230	0.027			<0.1
23-Nov-21	337	461		7.48			0.22	<0.03	<0.5	384	0.009			<0.1
17-Mar-22	323	525		7.49			<0.03	0.19	<0.5	1670	<0.003			<0.1
22-Jun-22	326	502		8.1			0.16	<0.03	<0.5	1860	0.003			<0.1
21-Sep-22	294	507		8.07			0.22	<0.03	<0.5	768	0.064			<0.1
06-Dec-22	294	518		7.82			0.3	<0.03	<0.5	500	<0.003			0.3
28-Mar-23	311	497		8.1			0.18	<0.03	<0.5	722	<0.003			<0.1
22-Jun-23	331	522		7.56			0.23	<0.03	<0.5	1920	<0.003			<0.1
17-Oct-23	337	537		8.07			0.16	<0.03	<0.5	1120	0.003			<0.1
09-Jan-24	354	487		7.84			0.22	<0.03	<0.5	625	<0.003			<0.1
25-Apr-24	317	527		7.84			0.30	<0.03	<0.5	534	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-103

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	329		<1.0	7.89	<2	17	4.8	<0.06	<0.5	315	<0.009	<2	<2	<0.1
16-Jul-19	374		1	7.48	<4	8	6.14	<0.03	0.9	3500	<0.003	<5	<5	<0.1
23-Oct-19	351		<1	7.77	<4	<8	7.00	<0.03	<0.5	1280	0.12	14	<2	0.1
23-Jan-20	349		1	7.48	<4	<8	6.57	<0.03	<0.5	849	0.004	<5	<5	<0.1
12-May-20	406	495	1	7.59	<4	<8	5.45	<0.03	<0.5	486	<0.003	0	0	<0.1
28-Jul-20	329	550	1	7.75	<4	<8	7.1	<0.03	<0.5	2000	<0.003	<5	<5	<0.1
04-Nov-20	337	558	1	8.02	<4	<8	7.91	<0.03	<0.5	1520	<0.003	<5	<5	<0.1
23-Feb-21	349	507	1	7.79	<4	<8	7.51	<0.03	<0.5	2610	<0.003	<20	<20	<0.1
04-May-21	303	556		8.02			7.16	<0.03	<0.5	440	<0.003			<0.1
19-Aug-21	374	551		7.76			8.16	<0.03	<0.5	1000	<0.003			<0.1
23-Nov-21	311	459		7.52			7.82	<0.03	<0.5	2220	<0.003			<0.1
10-Mar-22	297	509		8.11			3.93	<0.03	<0.5	786	<0.003			<0.1
22-Jun-22	360	533		8.09			7.39	<0.03	<0.5	5550	<0.003			<0.1
21-Sep-22	309	560		8.01			8.3	<0.03	0.6	635	<0.003			<0.1
07-Dec-22	360	550		7.64			7.86	<0.03	<0.5	926	<0.003			<0.1
28-Mar-23	269	460		8.08			3.5	<0.03	<0.5	1510	<0.003			<0.1
22-Jun-23	323	537		7.49			5.68	<0.03	<0.5	1750	0.026			<0.1
17-Oct-23	371	560		7.96			7.45	<0.03	<0.5	1140	0.005			<0.1
09-Jan-24	400	582		7.82			8.18	<0.03	<0.5	456	<0.003			<0.1
25-Apr-24	320	547		7.82			5.21	<0.03	<0.5	1020	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-104B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	377		1.6	7.86	<2	16	<0.05	<0.06	<0.5	358	<0.009	<2	<2	<0.1
16-Jul-19	451		2	7.52	5	<8	0.08	<0.03	0.9	12300	0.004	200	<20	0.1
23-Oct-19	403		<1	7.58	<4	<8	0.31	<0.03	<0.5	1890	<0.03	440	<20	0.1
22-Jan-20	354		1	7.26	<4	<8	0.35	<0.03	0.7	504	<0.003	<5	<5	<0.1
13-May-20	363	617	1	7.43	<4	<8	0.39	<0.03	<0.5	3830	<0.003	<10	<10	<0.1
28-Jul-20	374	603	1	7.51	<4	<8	0.35	<0.03	<0.5	1660	<0.003	5	<5	<0.1
04-Nov-20	349	614	1	7.95	<4	<8	0.32	<0.03	<0.5	1190	<0.003	<2	<2	<0.1
23-Feb-21	360	539	1	7.63	<4	<8	0.32	<0.03	<0.5	2410	<0.003	<20	<20	<0.1
04-May-21	383	589		7.92			0.28	<0.03	<0.5	959	0.005			<0.1
19-Aug-21	394	587		7.34			0.29	<0.03	<0.5	1110	0.003			<0.1
23-Nov-21	346	498		7.36			0.26	<0.03	<0.5	499	<0.003			<0.1
17-Mar-22	369	601		7.34			0.33	<0.03	<0.5	823	<0.003			<0.1
22-Jun-22	374	581		8.1			0.36	<0.03	<0.5	621	0.006			<0.1
21-Sep-22	329	603		8.01			0.28	<0.03	<0.5	413	<0.003			<0.1
06-Dec-22	506	584		7.63			0.32	<0.03	<0.5	504	<0.003			<0.1
28-Mar-23	380	570		8			0.54	<0.03	<0.5	606	0.004			<0.1
22-Jun-23	386	604		7.26			0.41	<0.03	<0.5	1060	<0.003			<0.1
17-Oct-23	374	627		8			0.33	<0.03	<0.5	1150	<0.003			<0.1
09-Jan-24	363	599		7.79			0.43	<0.03	<0.5	943	<0.003			<0.1
25-Apr-24	380	618		7.73			0.54	<0.03	<0.5	611	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-105B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	286		<1.0	7.96	<2	14	1.28	<0.06	0.9	255	<0.009	<2	<2	0.2
18-Jul-19	411		2	7.63	<4	<8	13.4	<0.03	1.4	1790	0.003	<5	<5	0.1
23-Oct-19	383		<1	7.76	<4	<8	14.4	<0.03	<0.5	1300	0.04	100	<20	<0.1
22-Jan-20	409		1	7.49	<4	16	17.7	<0.03	<0.5	1220	<0.003	<5	<5	<0.1
13-May-20	394	626	1	7.56	<4	<8	18.3	<0.03	0.5	575	<0.003	<5	<5	<0.1
28-Jul-20	443	605	1	7.8	<4	<8	18.1	<0.03	<0.5	1090	<0.003	<5	<5	<0.1
04-Nov-20	417	623	1	8.02	<4	<8	18.8	<0.03	0.5	1360	<0.003	5	<5	<0.1
23-Feb-21	434	572	1	7.74	<4	<8	21	<0.03	<0.5	1040	0.192	<5	<5	<0.1
04-May-21	451	631		8			21.7	<0.03	<0.5	821	<0.003			<0.1
19-Aug-21	451	615		7.63			20.7	<0.03	<0.5	957	<0.003			<0.1
23-Nov-21	397	530		7.53			21.9	<0.03	<0.5	706	0.004			<0.1
10-Mar-22	414	626		8.09			20.6	<0.03	<0.5	2340	<0.003			<0.1
22-Jun-22	471	618		8.12			22.4	<0.03	<0.5	1130	<0.003			<0.1
21-Sep-22	411	658		8.01			24.7	<0.03	<0.5	705	<0.003			<0.1
06-Dec-22	420	612		7.9			22.5	<0.03	<0.5	942	<0.003			<0.1
28-Mar-23	394	598		8.07			20.3	<0.03	<0.5	525	<0.003			<0.1
22-Jun-23	446	614		7.46			20.2	<0.03	<0.5	3570	0.015			<0.1
17-Oct-23	429	652		8.04			21	<0.03	2.9	1830	<0.003			<0.1
09-Jan-24	460	584		7.84			21	<0.03	<0.5	1110	0.014			<0.1
25-Apr-24	320	515		7.77			11.2	<0.03	<0.5	918	<0.003			<0.1
27-Nov-24	409	445		7.52			19.9	<0.03	0.6	1080	<0.003			

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-106B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	266		<1.0	8.08	7	18	<0.05	<0.06	<0.5	242	0.065	<2	<2	0.3
18-Jul-19	329		1	7.82	<4	<8	<0.06	<0.03	<0.5	12900	0.019	<20	<20	0.2
23-Oct-19	306		1	7.92	<4	<8	<0.06	<0.03	<0.5	2650	<0.03	<100	<20	0.2
22-Jan-20	306		1	7.86	8	<8	<0.06	<0.03	1.3	13200	6.48	<5	<5	0.1
13-May-20	291	481	1	7.90	<4	<8	<0.06	<0.03	<0.5	2560	0.018	<10	<10	0.1
28-Jul-20	283	458	1	7.95	<4	<8	<0.06	<0.03	<0.5	6870	0.003	<5	<5	0.1
05-Nov-20	294	455	<1	7.94	<4	<8	<0.06	<0.03	<0.5	3210	<0.003	20	<20	0.1
23-Feb-21	286	435	1	7.84	<4	<8	<0.06	<0.03	<0.5	12700	<0.003	<20	<20	<0.1
14-May-21	343	479		7.82			<0.06	<0.03	<0.5	2460	0.023			0.1
19-Aug-21	371	471		7.9			<0.06	<0.03	<0.5	1930	<0.003			0.1
23-Nov-21	311	433		7.79			<0.06	<0.03	<0.5	550	0.008			0.2
10-Mar-22	314	515		8.11			<0.06	<0.03	<0.5	6060	0.004			<0.1
22-Jun-22	371	510		8.21			<0.06	<0.03	<0.5	8210	0.006			<0.1
21-Sep-22	334	512		8.09			<0.06	<0.03	<0.5	511	0.003			<0.1
06-Dec-22	314	486		7.95			<0.06	<0.03	<0.5	10200	0.004			<0.1
28-Mar-23	366	561		8.11			<0.06	<0.03	<0.5	5610	0.013			<0.1
22-Jun-23	323	526		7.57			<0.06	<0.03	<0.5	4350	0.005			<0.1
17-Oct-23	329	556		8.03			<0.06	0.05	<0.5	3580	<0.003			0.1
09-Jan-24	354	519		7.81			<0.06	<0.03	<0.5	2290	0.003			0.1
25-Apr-24	369	532		8.06			<0.06	<0.03	<0.5	892	0.059			<0.1
27-Nov-24	420			7.48			<0.06	<0.03	<0.5	3890	0.004			

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-107B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	343		<1.0	7.97	3	17	<0.05	<0.06	<0.5	296	<0.009	<2	<2	0.1
18-Jul-19	443		1	7.66	<4	<8	<0.06	<0.03	<0.5	11700	<0.003	<20	<20	0.1
25-Oct-19	454		<1	7.57	<4	<8	<0.06	<0.03	<0.5	6520	<0.03	<2	<2	0.1
22-Jan-20	Dry Well													
25-Feb-20	394		1	7.61	<4	<8	<0.06	<0.03	<0.5	4010	<0.003	<5	<5	<0.1
13-May-20	414	651	1	7.77	<4	<8	<0.06	<0.03	<0.5	3830	<0.003	<10	<10	0.1
28-Jul-20	420	622	1	7.72	<4	14	<0.06	<0.03	<0.5	3550	<0.003	100	10	<0.1
05-Nov-20	411	597	<1	7.82	<4	<8	<0.06	<0.03	<0.5	3320	<0.003	<5	<5	<0.1
23-Feb-21	431	570	1	7.85	<4	8	<0.06	<0.03	<0.5	2020	<0.003	520	<5	<0.1
14-May-21	480	629		7.75			0.08	<0.03	<0.5	2550	0.039			<0.1
19-Aug-21	471	628		7.75			<0.06	<0.03	<0.5	1120	<0.003			<0.1
23-Nov-21	440	541		7.51			<0.06	<0.03	<0.5	420	0.014			<0.1
10-Mar-22	397	685		8.11			<0.06	<0.03	<0.5	1170	<0.003			<0.1
22-Jun-22	483	653		8.12			<0.06	<0.03	<0.5	6340	<0.003			<0.1
21-Sep-22	429	649		8.03			<0.06	<0.03	<0.5	846	0.19			<0.1
06-Dec-22	420	624		7.97			<0.06	<0.03	<0.5	1310	<0.003			<0.1
28-Mar-23	411	656		8.1			<0.06	<0.03	<0.5	941	0.004			<0.1
22-Jun-23	494	676		7.44			<0.06	<0.03	<0.5	1420	<0.003			<0.1
17-Oct-23	437	697		7.98			<0.06	<0.03	<0.5	2000	0.012			<0.1
09-Jan-24	494	624		7.96			<0.06	<0.03	0.9	2270	<0.003			<0.1
25-Apr-24	463	691		7.86			<0.06	<0.03	<0.5	1130	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-108B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	186		1.2	8.2	<2	16	0.06	<0.06	<0.5	177	<0.009	<2	<2	0.1
23-Aug-19	263		<1	7.99	<4	10	0.06	<0.03	<0.5	1860	0.185	40	<2	0.2
23-Oct-19	569		<1	7.83	<4	<8	0.13	<0.03	<0.5	12300	<0.03	140	<20	0.1
23-Jan-20	297		<1	7.97	<4	<8	0.12	<0.03	<0.5	1710	<0.003	5	<5	<0.1
13-May-20	289	485	<1	7.72	<4	<8	0.06	<0.03	<0.5	1110	<0.003	20	<10	<0.1
01-Sep-20	274	477	1	7.69	<4	26	<0.06	<0.03	<0.5	3800	<0.003	260	<5	<0.1
05-Nov-20	286	458	<1	7.96	<4	<8	0.07	<0.03	<0.5	832	0.025	40	<2	<0.1
23-Feb-21	269	415	1	7.98	<4	<8	0.08	<0.03	<0.5	2120	<0.003	110	<5	<0.1
14-May-21	300	461		7.83			<0.06	<0.03	<0.5	783	0.062			0.2
19-Aug-21	303	455		7.92			0.07	<0.03	<0.5	1810	0.305			<0.1
23-Nov-21	283	393		7.75			0.08	<0.03	<0.5	1740	0.008			<0.1
10-Mar-22	260	483		8.13			0.07	<0.03	<0.5	1120	<0.003			<0.1
22-Jun-22	289	466		8.22			0.08	<0.03	<0.5	2030	0.004			<0.1
21-Sep-22	266	475		8.12			0.08	<0.03	<0.5	484	<0.003			<0.1
06-Dec-22	271	452		8.05			0.16	<0.03	<0.5	677	<0.003			<0.1
28-Mar-23	277	449		8.14			0.07	<0.03	<0.5	833	<0.003			<0.1
22-Jun-23	309	473		7.59			0.11	<0.03	<0.5	670	<0.003			<0.1
17-Oct-23	306	479		8.1			0.07	<0.03	<0.5	540	<0.003			<0.1
09-Jan-24	303	370		7.88			0.07	<0.03	<0.5	519	<0.003			<0.1
25-Apr-24	309	473		7.87			0.06	<0.03	<0.5	588	0.089			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-109B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	223		1.1	8.11	<2	17	<0.05	<0.06	1	168	0.021	<2	<2	0.4
18-Jul-19	229		<1	7.88	<4	<8	<0.06	<0.03	0.7	15200	0.006	20	<20	0.3
25-Oct-19	257		1	7.9	<4	<8	<0.06	<0.03	0.6	9060	0.2	<2	<2	0.2
23-Jan-20	257		1	7.82	4	12	<0.06	<0.03	<0.5	13600	0.011	5	<5	0.1
13-May-20	240	368	1	7.85	<4	<8	<0.06	<0.03	<0.5	2410	0.006	780	<20	0.2
01-Sep-20	240	357	1	7.9	<4	16	<0.06	<0.03	<0.5	2260	<0.003	<5	<5	0.1
05-Nov-20	223	348	1	7.97	9	<8	<0.06	<0.03	<0.5	1440	<0.003	440	<2	0.1
23-Feb-21	280	435	2	7.96	<4	8	0.24	<0.03	<0.5	3080	0.217	400	<100	0.1
14-May-21	249	351		8.03			<0.06	<0.03	<0.5	2710	0.08			<0.1
19-Aug-21	420	346		8.02			<0.06	<0.03	<0.5	6480	<0.003			0.2
23-Nov-21	206	284		7.93			<0.06	<0.03	<0.5	6840	0.006			0.2
10-Mar-22	270	350		8.22			<0.06	<0.03	0.6	12300	0.006			0.1
22-Jun-22	234	342		8.28			<0.06	<0.03	<0.5	2730	0.009			0.1
21-Sep-22	237	355		8.17			<0.06	<0.03	<0.5	397	0.009			<0.1
06-Dec-22	203	299		8.11			<0.06	<0.03	<0.5	2280	0.005			0.1
28-Mar-23	229	353		8.31			<0.06	<0.03	<0.5	2310	0.009			<0.1
22-Jun-23	237	318		7.75			<0.06	<0.03	<0.05	23800	<0.003			0.2
17-Oct-23	203	366		8.28			<0.06	<0.03	<0.5	8290	0.005			0.2
09-Jan-24	257	346		7.87			<0.06	<0.03	0.5	2250	0.004			0.1
25-Apr-24	254	382		7.92			<0.06	<0.03	<0.5	1100	0.012			0.1
27-Nov-24	226			7.87			<0.06	<0.03	<0.5	6910	<0.003			

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-110

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
23-Nov-09	326		1.1	7.78	<4	<8	0.5	<0.06	<0.5	210	<0.01	2	<2	<0.1
18-Jul-19	283		<1	7.74	<4	<8	2.18	<0.03	0.7	1870	<0.003	<20	<20	<0.1
27-Nov-19	Dry Well													
22-Jan-20	Dry Well													
25-Feb-20	Dry Well													
13-May-20	229	392	1	7.76	<4	<8	0.87	<0.03	<0.5	3480	<0.003	<10	<10	<0.1
28-Jul-20	Dry Well													
01-Sep-20	Dry Well													
04-Nov-20	Dry Well													
08-Dec-20	Dry Well													
23-Feb-21	Dry Well													
19-Aug-21	Dry Well													
23-Nov-21	Dry Well													
10-Mar-22	Dry Well													
22-Jun-22	Dry Well													
21-Sep-22	Dry Well													
06-Dec-22	Dry Well													
28-Mar-23	Dry Well													
22-Jun-23	Dry well													
17-Oct-23	Dry Well													
09-Jan-24	Dry well													
25-Apr-24	Dry Well													

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-111B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	363		<1.0	7.93	<2	20	5.96	<0.06	0.6	320	<0.009	<2	<2	0.1
16-Jul-19	397		1	7.64	<4	<8	0.74	<0.03	0.8	344	0.003	0	0	0.1
23-Oct-19	409		<1	7.76	<4	<8	0.75	<0.03	<0.5	522	<0.03	<20	<20	<0.1
23-Jan-20	377		1	7.52	<4	27	0.7	<0.03	<0.5	1540	<0.003	<5	<5	<0.1
12-May-20	380	567	<1	7.61	<4	<8	0.2	<0.03	<0.5	634	<0.003	80	<20	<0.1
28-Jul-20	369	585	1	7.8	<4	<8	0.95	<0.03	<0.5	439	0.023	28	<2	<0.1
04-Nov-20	349	566	1	8.07	<4	<8	1.96	<0.03	<0.5	425	<0.003	20	<2	<0.1
23-Feb-21	334	504	1	7.98	<4	<8	0.87	<0.03	<0.5	507	<0.003	<5	<5	<0.1
04-May-21	346	557		8.05			0.73	<0.03	<0.5	432	<0.003			<0.1
19-Aug-21	411	597		7.7			1	<0.03	<0.5	439	<0.003			<0.1
23-Nov-21	331	477		7.53			1.22	<0.03	<0.5	480	<0.003			<0.1
10-Mar-22	351	571		8.14			0.55	<0.03	<0.5	653	<0.003			<0.1
22-Jun-22	334	568		8.11			0.41	0.03	<0.5	671	<0.003			<0.1
21-Sep-22	349	590		8.05			1.06	<0.03	<0.5	319	<0.003			<0.1
07-Dec-22	371	559		7.79			1.1	<0.03	<0.5	1110	0.011			0.2
28-Mar-23	323	539		8.08			0.73	<0.03	<0.5	454	<0.003			<0.1
22-Jun-23	360	567		7.53			0.31	<0.03	<0.5	584	<0.003			<0.1
17-Oct-23	926	1240		7.95			1.44	<0.03	0.7	823	<0.003			<0.1
09-Jan-24	446	751		7.84			0.54	<0.03	<0.5	480	<0.003			<0.1
25-Apr-24	486	736		7.7			0.56	<0.03	<0.5	485	<0.003			<0.1
27-Nov-24	534			7.4			1.38	<0.03	<0.5	1380	0.034			

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-113B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
23-Nov-09	294		<1.0	7.76	<4	<8	1.61	0.08	<0.5	245	<0.01	108	<2	0.1
16-Jul-19	374		1	7.53	<4	<8	1.11	<0.03	0.8	15200	0.237	<20	<20	<0.1
23-Oct-19	306		<1	7.65	<4	<8	1.36	<0.03	<0.5	5250	<0.03	800	<20	<0.1
23-Jan-20	286		<1	7.64	<4	<8	1.69	<0.03	<0.5	5900	<0.003	<5	<5	<0.1
12-May-20	343	496	1	7.44	<4	<8	1.2	<0.03	<0.5	11800	<0.003	<100	<20	<0.1
01-Sep-20	286	490	<1	7.49	<4	18	1	<0.03	<0.5	852	<0.003	20	<10	<0.1
04-Nov-20	283	506	1	8.01	<4	<8	1.26	<0.03	<0.5	5920	0.063	<20	<20	<0.1
23-Feb-21	303	461	1	7.68	<4	<8	1.61	<0.03	<0.5	5850	<0.003	<20	<20	<0.1
04-May-21	297	498		8			1.37	<0.03	<0.5	950	0.003			<0.1
19-Aug-21	323	495		7.59			1.42	<0.03	<0.5	1320	<0.003			<0.1
23-Nov-21	334	438		7.42			1.67	<0.03	<0.5	467	0.003			<0.1
10-Mar-22	306	520		8.06			1.55	<0.03	<0.5	2460	<0.003			<0.1
22-Jun-22	294	480		8.08			1.43	<0.03	<0.5	1160	0.003			<0.1
21-Sep-22	297	510		8.03			1.75	<0.03	<0.5	819	<0.003			<0.1
07-Dec-22	314	519		7.59			1.97	<0.03	<0.5	1670	<0.003			<0.1
28-Mar-23	311	466		8.03			1.76	<0.03	<0.5	509	<0.003			<0.1
22-Jun-23	317	492		7.43			1.22	<0.03	<0.5	1820	<0.003			<0.1
17-Oct-23	334	517		8.08			1.83	<0.03	<0.5	2440	<0.003			<0.1
09-Jan-24	343	474		7.8			2.02	<0.03	<0.5	2540	<0.003			<0.1
25-Apr-24	314	506		7.66			2.16	<0.03	<0.5	1470	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-114B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
23-Nov-09	289		<1.0	7.67	<4	<8	0.75	<0.06	<0.5	262	<0.01	40	<2	<0.1
16-Jul-19	400		1	7.71	<4	<8	0.74	<0.03	<0.5	1650	0.006	<5	<5	<0.1
23-Oct-19	289		<1	7.8	<4	<8	0.89	<0.03	<0.5	372	<0.03	<2	<2	<0.1
23-Jan-20	286		<1	7.6	<4	15	1.07	<0.03	<0.5	418	<0.003	<5	<5	<0.1
12-May-20	283	436	<1	7.76	<4	<8	0.61	<0.03	<0.5	316	<0.003	0	0	<0.1
01-Sep-20	254	448	1	7.63	<4	<8	0.77	<0.03	<0.5	3530	<0.003	<2	<2	<0.1
04-Nov-20	263	438	<1	8.03	<4	<8	1	<0.03	<0.5	1640	0.012	<5	<5	<0.1
23-Feb-21	260	427	1	7.73	<4	<8	1.11	<0.03	<0.5	345	<0.003	<5	<5	<0.1
04-May-21	286	465		8.11			1.08	<0.03	<0.5	330	<0.003			<0.1
19-Aug-21	323	454		7.78			1.04	<0.03	<0.5	555	0.006			<0.1
23-Nov-21	280	376		7.63			1.07	<0.03	<0.5	344	<0.003			<0.1
10-Mar-22	260	469		8.12			1.12	<0.03	<0.5	305	<0.003			<0.1
22-Jun-22	271	420		8.1			0.74	<0.03	<0.5	3450	<0.003			<0.1
21-Sep-22	257	456		8.08			0.83	<0.03	<0.5	373	<0.003			<0.1
07-Dec-22	263	459		7.83			0.94	<0.03	<0.5	301	<0.003			<0.1
28-Mar-23	260	451		8.12			1.03	<0.03	<0.5	260	0.003			<0.1
22-Jun-23	260	436		7.49			0.54	<0.03	<0.5	497	<0.003			<0.1
17-Oct-23	306	460		8.07			0.94	<0.03	<0.5	265	<0.003			<0.1
09-Jan-24	286	465		7.89			1.02	<0.03	<0.5	238	<0.003			<0.1
25-Apr-24	260	475		7.85			1.07	<0.03	<0.5	295	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-115B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
23-Nov-09	271		<1.0	7.86	<4	<8	1.04	<0.06	<0.5	243	<0.01	<2	<2	<0.1
16-Jul-19	334		1	7.7	<4	<8	0.45	<0.03	0.7	18200	<0.003	20	<20	<0.1
23-Oct-19	286		<1	7.88	<4	<8	0.47	<0.03	<0.5	211	<0.03	200	<100	<0.1
23-Jan-20	246		<1	7.71	<4	<8	0.37	<0.03	<0.5	13100	0.005	<5	<5	<0.1
12-May-20	314	431	<1	7.77	<4	<8	0.28	<0.03	<0.5	8730	<0.003	<100	<20	<0.1
28-Jul-20	274	438	1	7.89	<4	<8	0.4	<0.03	<0.5	1770	0.006	40	<5	<0.1
04-Nov-20	334	569	1	8.07	<4	<8	8.65	<0.03	<0.5	572	<0.003	6400	<20	<0.1
23-Feb-21	223	417	1	8	<4	<8	0.35	<0.03	<0.5	3290	0.012	80	<20	<0.1
04-May-21	206	443		8.09			0.43	<0.03	<0.5	650	0.003			<0.1
19-Aug-21	314	429		7.94			0.21	<0.03	<0.5	968	<0.003			<0.1
23-Nov-21	240	361		7.65			0.24	<0.03	<0.5	1610	<0.003			<0.1
10-Mar-22	255	463		8.15			0.51	<0.03	<0.5	12800	1.81			<0.1
22-Jun-22	257	435		8.17			0.29	<0.03	<0.5	4990	<0.003			<0.1
15-Sep-22	226	442		8.09			0.38	<0.03	<0.5	567	<0.003			<0.1
07-Dec-22	243	427		7.83			0.12	<0.03	<0.5	3100	<0.003			<0.1
28-Mar-23	231	454		8.05			0.42	<0.03	<0.5	402	<0.003			<0.1
22-Jun-23	283	451		7.62			0.23	<0.03	<0.5	7480	0.004			<0.1
17-Oct-23	294	450		8.15			0.26	<0.03	<0.5	571	<0.003			<0.1
09-Jan-24	257	442		7.9			0.18	<0.03	<0.5	673	<0.003			<0.1
25-Apr-24	289	460		7.94			0.32	<0.03	<0.5	635	<0.003			<0.1

Omemee Sewage Lagoons
Groundwater Monitoring Program

MW-116B

Date	TDS	Conductivity	DOC	pH	BOD	COD	Nitrate (N)	Nitrite (N)	TKN	Hardness	TP	TC	EC	Ammonia (N)
17-Feb-11	337		<1.0	8.02	<2	21	8.34	<0.06	<0.5	291	<0.009	<2	<2	<0.1
16-Jul-19	349		1	7.66	<4	<8	7.15	<0.03	1.1	4340	0.003	<20	<20	<0.1
23-Oct-19	363		<1	7.85	<4	<8	7.36	<0.03	<0.5	1380	<0.03	<20	<20	<0.1
23-Jan-20	343		1	7.54	<4	11	8.07	<0.03	0.7	1170	0.003	<5	<5	<0.1
12-May-20	391	522	<1	7.58	<4	<8	7.78	<0.03	<0.5	3650	<0.003	<20	<5	<0.1
28-Jul-20	311	563	1	7.79	<4	16	7.55	<0.03	0.5	1530	<0.003	15	<5	0.2
04-Nov-20	257	435	<1	8.11	<4	<8	0.16	<0.03	<0.5	6630	<0.003	<5	<5	<0.1
23-Feb-21	323	547	1	8.03	<4	13	8.95	<0.03	0.6	989	<0.003	<20	<20	<0.1
04-May-21	340	568		8.09			8.82	<0.03	<0.5	650	0.051			<0.1
19-Aug-21	346	558		7.79			8.43	<0.03	<0.5	1060	<0.003			<0.1
23-Nov-21	317	474		7.47			8.69	<0.03	<0.5	1040	<0.003			<0.1
10-Mar-22	340	587		8.15			8.89	<0.03	<0.5	335	<0.003			<0.1
22-Jun-22	Well not	accessible												
21-Sep-22	Well not	accessible												
07-Dec-22	Well not	accessible												
28-Mar-23	Well not	accessible												
22-Jun-23	Well not	accessible												
17-Oct-23	Well not	accessible												
09-Jan-24	Well not	accessible												
25-Apr-24	Well not	accessible												