King's Bay Wastewater System

2024 Annual Wastewater Performance Report

Wastewater System Works Number: 110003665

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

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

OCWA

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Annual Wastewater Performance Report

City of Kawartha Lakes

Kawartha Lakes
Jump In

Table of Contents

2024 Annual Wastewater System Performance Report

Executive Summary

The King's Bay Environmental Centre Sewage Works has two separate sewage treatment trains and a subsurface disposal system with a Rated Capacity of 170 m^3/day and is located in Seagrave, Ontario. The facility is owned by the City of Kawartha Lakes with the treatment system is operated by Ontario Clean Water Agency and the collection system operated by City staff. The treatment system is operated in accordance with Environmental Compliance Approval (ECA) #7037-A77JLP issued February 16, 2016 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 II Wastewater Treatment and Class II Wastewater Collection subsystems under O. Reg. 129/04.

The two (2) separate sewage treatment trains are each housed in an above ground structure, with the following processes: primary settling tank/sludge storage tank, Rotating Biological Contactor (RBC), and secondary clarifier tank. Prior to being discharged into the treatment trains, sewage enters an influent sanitary sewage pumping station with submersible sewage grinder pumps. Phosphorus removal is achieved using alum with chemical injection points in the first and third stage of the RBC. Treated flow is directed to the subsurface disposal system, which is comprised of four in ground shallow buried pressure absorption trench beds. Biosolids are removed and hauled to the Lindsay WPCP.

The King's Bay wastewater collection system consists of a series of gravity sewers.

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) #7037-A77JLP and Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) #141-W601. Unless otherwise noted within this report, the King's Bay Environmental Centre 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 #7037-A77JLP, Section 10(6) – 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 10(6) – REPORTING

The performance report is required to contain the following:

a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7, including an overview of the success and adequacy of the Works;
b) a description of any operating problems encountered and corrective actions taken;
c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming a part of the Works;
d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
e) a summary of the calibration and maintenance procedures conducted on all monitoring equipment; and
f) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6.
g) a tabulation of the volume of sludge generated in the reporting period and an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed;
h) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
i) a summary of all by-pass, spill or abnormal discharge events;
j) a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;
k) a report summarizing all modifications completed as a result of Schedule B, Section 3; and
l) any other information the Water Supervisor requires from time to time.

During the reporting period of 2024, the Ontario Clean Water Agency (OCWA) operated the King's Bay Environmental Centre Sewage Works 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 advise 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.

Summary of Monitoring Data to Limits and Objectives

(a) Attached as **Appendix I** is a copy of the 2024 Performance Assessment Report (PAR) for the King's Bay Environmental Centre Sewage Works showing effluent criteria. The PAR contains: a tabulation of all monthly average raw sewage and final effluent sample results obtained during the reporting period, a tabulation of average daily flows, and monthly volumes for the reporting period, and a tabulation of calculated total loading of BOD_5, suspended solids, total phosphorus, and ammonia + ammonium as nitrogen concentrations in the final effluent.

Attached as **Appendix II: Groundwater Monitoring**, are the results of the groundwater monitoring as required by the Environmental Compliance Approval – Table 3.

The following table summarizes the average concentration and annual average loading of the effluent parameters $CBOD_5$, Total Suspended Solids, Total Phosphorus, and pH in comparison to the effluent limits and objectives specified by the Environmental Compliance Approval. Attached in **Appendix III**, a summary of the final effluent pH and temperature recorded at the facility. The recording frequency required by the Environmental Compliance Approval is monthly.

Table 1 outlines the effluent criteria limits as set out in Section 7(1) of Environmental Compliance Approval No. 7037-A77JLP as follows:

Table 1. Final Effluent Compliance Limits 2024

Effluent Parameter (Column 1)	Average Effluent Concentration (mg/L) (Column 2)	Actual Annual Average Effluent Concentration (mg/L)	Compliant (Y/N)	Average Total Effluent Loading Limit (kg/d) (Column 3)	Actual Annual Average Effluent Loading (kg/d)	Compliant (Y/N)
$CBOD_5$	15.0	6.38	Y	N/A	N/A	N/A
Total Suspended Solids	15.0	11.60	Y	N/A	N/A	N/A
Total Phosphorus	1.0	0.29	Y	0.17	0.01	Y

Effluent Parameter (Column 1)	Average Effluent Concentration (mg/L) (Column 2)	Actual Annual Average Effluent Concentration (mg/L)	Compliant (Y/N)	Average Total Effluent Loading Limit (kg/d) (Column 3)	Actual Annual Average Effluent Loading (kg/d)	Compliant (Y/N)
pH	6.0 to 9.0, inclusive, at all times	7.58	Y	N/A	N/A	N/A

Note: Condition 7(2) states that for the purposes of determining compliance with and enforcing subsection (1);

a) The Annual Average Concentration of $CBOD_5$ and Total Suspended Solids named in Column 1 of subsection (1) shall not exceed the corresponding maximum concentration set out in Column 2 of subsection (1).
b) The Annual Average Loading of a parameter named in Column 1 of subsection (1).
c) The Annual Average Loading of a parameter named in Column 1 of subsection (1) shall not exceed the corresponding maximum waste loading set out in Column 3 of subsection (1).

The maximum raw flow into the facility was 75.45 m^3/day, which occurred in April 2024. This is well below the allowable peak flow rate of approximately 666.0 m^3/day and is also well below the rated capacity of 170 m^3/day listed in the Environmental Compliance Approval. The average daily flow for 2024 was 43.55 m^3/day.

ECA Condition 6(2)(b) states: "The Owner shall use best efforts to operate the works within the Rated Capacity of the Works". Rated Capacity is defined as Average Daily Flow for which the Works are approved to handle. Table 2 provides a summary of the average daily influent flows in comparison with the rated capacity of 170 m^3/day.

Table 2. Effluent Objectives Influent Flow Data for 2024

	Avg. Daily Flow (m^3)	ECA Rated Capacity (m^3)	Compliant Y/N
January	42.94	170.0	Y
February	39.30	170.0	Y
March	38.82	170.0	Y
April	53.72	170.0	Y
May	53.76	170.0	Y
June	46.22	170.0	Y
July	43.55	170.0	Y
August	40.09	170.0	Y
September	39.77	170.0	Y
October	40.35	170.0	Y

	Avg. Daily Flow (m^3)	ECA Rated Capacity (m^3)	Compliant Y/N
November	41.28	170.0	Y
December	42.77	170.0	Y

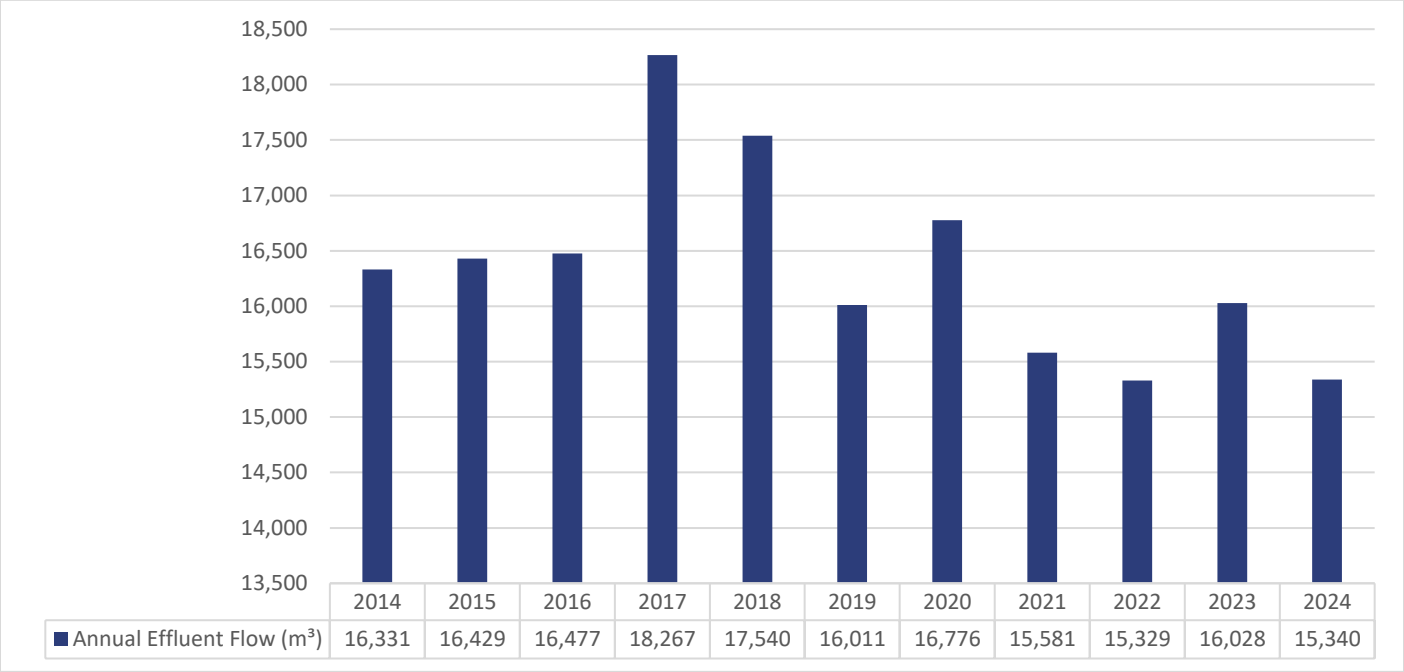
Table 3 provides a summary of the average daily effluent flows in comparison with the rated capacity of 170.0 m^3/day.

Table 3. Effluent Objectives Effluent Flow Data for 2024

	Avg. Daily Flow (m^3)	ECA Rated Capacity (m^3)	Compliant Y/N
January	41.77	170.0	Y
February	38.45	170.0	Y
March	36.37	170.0	Y
April	51.27	170.0	Y
May	51.83	170.0	Y
June	43.76	170.0	Y
July	41.16	170.0	Y
August	39.16	170.0	Y
September	36.84	170.0	Y
October	37.23	170.0	Y
November	41.82	170.0	Y
December	43.25	170.0	Y

Graph 1 provides a summary of the annual total effluent flows from 2014 to 2024.

Graph 1. Annual Total Effluent Flow Comparison



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annual Effluent Flow (m^3)	16,331	16,429	16,477	18,267	17,540	16,011	16,776	15,581	15,329	16,028	15,340

The final effluent quality for total phosphorus was well below the limits set in the Environmental Compliance Approval. The annual average concentration for total phosphorus was 0.29 mg/L (limit of 1.0 mg/L) and the annual average loading for total phosphorus was 0.01 kg/day (limit of 0.17 kg/day based on design average day flow of 170.0 m^3/day).

The pH of the effluent ranged from 7.10 to 7.94, which are within the range of the 6.0 to 9.0 required by the Environmental Compliance Approval.

The total suspended solids effluent objective was not met but the limit was met in 2024. The annual effluent average of 11.60 mg/L exceeded the objective of 10.0 mg/L but met the limit of 15.0 mg/L.

The carbonaceous biochemical oxygen demand effluent objective and limit was met in 2024. The annual effluent average of 6.38 mg/L met the objective of 10.0 mg/L and met the limit of 15.0 mg/L.

During the reporting period, work continued to bring and keep the system in compliance. Adjustments to the system include: alum dosage, the timers on the return sludge system to optimize the return rate, and removal of sludge from the system by a licensed waste hauler to lower the solids build-up. The facility operators continued to closely monitor the process and make necessary adjustments as required.

Groundwater Monitoring Wells

The well levels were measured once in Quarter 1, 2, 3 and 4 of 2024. The well levels for the eight groundwater monitoring wells are found in **Appendix IV: Groundwater Monitor Wells – Levels**.

The groundwater quality monitoring in the eight monitoring wells (**Appendix II**) show consistent results with a few anomalies for pH, conductivity, $CBOD_5$, total phosphorus, total suspended solids, nitrite, nitrate, and nitrate + nitrite.

The Provincial Water Quality Objective for pH is 6.5 – 8.5 and all samples collected from the eight monitoring wells fell within this range. The Provincial Water Quality Objectives does not outline objectives or interim objectives for any of the remaining parameters.

The Amended ECA issued February 16, 2016 has changed the groundwater monitoring to Quarterly water levels and semi-annual samples for: pH, Conductivity, Total Phosphorus, Nitrate Nitrogen, Total Suspended Solids and $CBOD_5$. It also specifies that Total Phosphorus is to be a field filtered grab sample. The trigger value is a concentration of 0.3 mg/L in either GW1 or GW8.

The following table (Table 4) shows the performance related to groundwater.

Table 4. Groundwater Well Monitoring Performance for Total Phosphorus

Well #	March 2024	September 2024
Up Gradient		
Well 5	0.004	0.004
Well 4	<0.003	<0.003
Down Gradient – East Trench		
Well 3 (5 m)	0.011	0.015
Well 2 (10 m)	<0.003	<0.003
Well 1 (15 m)	0.007	0.008
Down Gradient – West Trench		
Well 6 (5 m)	<0.003	0.013
Well 7 (10 m)	<0.003	<0.003
Well 8 (15 m)	<0.003	<0.003

Note: all results in mg/L unless otherwise noted.

Operational Challenges and Corrective Actions

(b) Historically the facility has experienced a number of challenges primarily with breakdowns of the rotating biological contactors (RBC), which has affected the effluent quality. During the reporting period, both RBC units continued to function as designed. Adjustments to the system include: alum dosage, the timers on the return sludge system to optimize the return rate, and removal of sludge from the system by a licensed waste hauler to lower the solids build-up. The operators are continuing to closely monitor the process and make necessary adjustments as required.

Maintenance Summary

(c) Ontario Clean Water Agency (OCWA) maintenance activities are based on a computerized Work Management System (WMS) using the Maixmo application. In its developmental stages, each piece of equipment at the operating facility was tagged with unique bar code numbers, and this information was entered into the electronic WMS database. In addition, data regarding the description of the equipment, model number, serial number, the equipment type, location at the facility as related to process, serviceable status, manufacturer's suggested maintenance activities, all risk factor information and average month usage was also recorded.

Once the equipment inventory was established, preventative maintenance procedures and schedules were developed for each piece of equipment. Each work order generated by the Preventative Maintenance schedule includes materials and parts required, any special tool requirements, work protection, job safety planning, running checks, a preventative maintenance job procedures, and upon completion of the task, the work order is closed out.

Corrective or breakdown maintenance is required when equipment is determined to be non-serviceable, or the potential for non-serviceability exists. All preventative and corrective/breakdown maintenance in OCWA and more specifically the King's Bay Environmental Centre Sewage Works is executed and accounted for under a Maximo work order.

Attached is **Appendix V: Maintenance Summary**, a Work Order Summary report showing all preventative and corrective maintenance activities performed at the King's Bay Environmental Centre during 2024.

Effluent Quality Assurance or Control

(d) Effluent control measures include in-house sampling and testing for operational parameters such as suspended solids, pH, phosphorus, and temperature. In-house testing provides real time results, which are then evaluated to determine if process changes are necessary to enhance operational performance. All in-house sampling and analysis are performed by certified operations

staff utilizing approved methods and protocols for sampling, analysis and recording as specified in the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works", the Ministry's publication, "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" and the publication, "Standard Methods for the Examination of Water and Wastewater".

All effluent samples collected during the reporting period to meet ECA sampling requirements were submitted to SGS Canada Inc. – Lakefield laboratory for analysis, with the exception of pH and temperature. 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. The pH and temperature parameters were analyzed in the field at the time of sample collection by certified operations, to ensure accuracy and precision of the results obtained.

Calibrations

(e) Flow meter calibrations were conducted on June 18, 2024. The reports are attached as **Appendix VI: Calibration Reports.**

Best Efforts to Achieve Design Objectives of Condition 6

(f) OCWA uses a number of efforts to achieve Effluent Objectives. Effluent quality assurance and control measures include in-house sampling and testing for operational parameters such as pH, temperature, TSS and phosphorus. In-house testing provides real time results which are then uses to enhance process and operational performance. OCWA also collects raw sewage and effluent samples as per the ECA and review these results on a regular basis to ensure compliance with the ECA objectives and limits.

Table 5 provides a summary of the ECA effluent objectives, specified in Condition 6(1), in comparison to the actual effluent results obtained during the reporting period.

Table 5. Effluent Objectives and Results 2024

Effluent Parameter	ECA – Effluent Objective Concentration	Actual Annual Average Concentration in Effluent	Compliant Y/N
$CBOD_5$	10.0 mg/L	6.38	Y
Total Suspended Solids	10.0 mg/L	11.60	N
Total Phosphorus	0.8 mg/L	0.29	Y

Effluent Parameter	ECA – Effluent Objective Concentration	Actual Annual Average Concentration in Effluent	Compliant Y/N
pH	6.5 – 9.0	7.58	Y

The effluent objectives for $CBOD_5$, Total Suspended Solids, Total Phosphorus and pH in the effluent are recommended not to exceed: 10.0 mg/L, 10.0 mg/L, 0.8 mg/L and range of pH between 6.5 – 9.0, respectively. The annual average effluent objective concentrations for $CBOD_5$, Total Phosphorus and pH were met during the 2024 reporting period.

OCWA has developed comprehensive manuals detailing operations, maintenance, instrumentation and emergency procedures. To ensure facilities are operated in compliance with applicable legal requirements, facility staff have access to a network of operational compliance and support experts at the Hub, Regional and Corporate level.

Appendix VII contains a summary of the coagulant used in 2024.

Sludge

(g) Attached as **Appendix VIII: Biosolids Summary** that contains the volume of sludge generated for the reporting period which was 207.95 m^3. The anticipated volume for the next reporting period is not expected to be appreciably different from this reporting period. Sludge is hauled to the Lindsay Water Pollution Control Plant. No change is expected from the current sludge handling methods.

Complaints

(h) There were zero (0) community complaints received regarding the King's Bay Environmental Centre Sewage Works during the reporting period.

By-pass, Spill or Abnormal Discharge Events

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

Bypasses

There were not any bypasses at the King's Bay Environmental Centre Sewage Works during 2024.

Spills

There were not any spills at the King's Bay Environmental Centre Sewage Works during 2024.

Overflows

There were not any overflows at the King's Bay Environmental Centre Sewage Works in 2024.

Abnormal Discharge Events

There were not any abnormal discharge events at the King's Bay Environmental Centre Sewage Works in 2024.

Refer to **Appendix IX: 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

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

Schedule B, Section 3 Modifications

(k) A summary of all modifications completed as a result of Schedule B, Section 3 are included in **Appendix V: Maintenance Summary**.

Additional Request by Water Supervisor

(l) The Water Supervisor has not requested any additional information be included in this report.

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 King's Bay Environmental Centre Sewage Collection System consists of works for the collection and transmission of sewage, consisting of approximately 1.5 km of sanitary sewer piping that discharges into the King's Bay Environmental Centre.

There are no required monitoring data requirements for the King's Bay Environmental Centre Sewage Collection System.

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

There were no operating problems encountered in 2024 for the King's Bay Environmental Centre Sewage Collection System.

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 King's Bay Environmental Centre Sewage Works, including the collection system, during 2024.

There were no additional repairs or maintenance carried out on any of the linear infrastructure in 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 King's Bay Environmental Centre Sewage Collection System and steps taken to address the complaints for 2024 are included in Section (h) for 2024.

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 King's Bay Environmental Centre 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 King's Bay Environmental Centre Sewage Collection system did not experience any collection system Overflows or Spills in 2024.

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.

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.

In addition, 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.

The King's Bay wastewater collection system infrastructure is relatively new and does not experience excessive infiltration and inflow which could contribute to potential overflows. No deficiencies were identified in 2024.

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

The King's Bay Environmental Centre 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.

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix I:

Performance Assessment Report

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

From 1/1/2024 to 12/31/2024 11:59:59 PM

5318 KING'S BAY WASTEWATER TREATMENT FACILITY 110003665

	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	1,331.26	1,139.80	1,203.48	1,611.64	1,666.51	1,386.59	1,350.10	1,242.77	1,192.98	1,250.89	1,238.54	1,325.83	15,940.40			0.00
Raw Flow: Avg - Raw m³/d	42.94	39.30	38.82	53.72	53.76	46.22	43.55	40.09	39.77	40.35	41.28	42.77		43.55		170.00
Raw Flow: Max - Raw m³/d	53.27	53.88	53.12	75.45	70.42	53.97	48.88	47.43	50.37	48.95	48.60	52.02			75.45	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 - Final Eff m³/d	1,294.97	1,114.96	1,127.52	1,538.17	1,606.69	1,312.78	1,275.96	1,214.03	1,105.30	1,154.17	1,254.56	1,340.60	15,339.71			0.00
Eff. Flow: Avg - Final Eff m³/d	41.77	38.45	36.37	51.27	51.83	43.76	41.16	39.16	36.84	37.23	41.82	43.25		41.91		170.00
Eff. Flow: Max - Final Eff m³/d	54.12	52.80	45.97	70.55	67.65	51.37	47.32	46.94	44.13	46.76	49.28	52.61			70.55	0.00
Eff Flow: Count - Final 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
Carbonaceous Biochemical Oxygen Demand: CBOD																
Eff: Avg cBOD5 - Final Eff mg/L	6.00	4.50	4.75	5.00	5.00	5.75	11.20	6.25	6.50	6.00	8.75	6.20		6.38	11.20	15.00
Eff: # of samples of cBOD5 - Final Eff	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: cBOD5 - Final Eff kg/d	0.251	0.173	0.173	0.256	0.259	0.252	0.461	0.245	0.239	0.223	0.366	0.268		0.27	0.46	
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw mg/L	271.00	383.00	472.00	1,360.00	1,540.00	123.00	314.00	693.00	344.00	792.00	147.00	132.00		547.58	1,540.00	0.00
Raw: # of samples of BOD5 - Raw	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
Eff: Avg BOD5 - Final Eff mg/L	10.60	5.00	9.00	7.80	7.50	13.00	19.80	12.50	11.50	11.60	12.75	10.00		11.02	19.80	
Loading: BOD5 - Final Eff kg/d	0.443	0.192	0.327	0.400	0.389	0.569	0.815	0.490	0.424	0.432	0.533	0.432		0.46	0.81	
Percent Removal: BOD5 - Raw %	96.09	98.69	98.09	99.43	99.51	89.43	93.69	98.20	96.66	98.54	91.33	92.42		96.01	99.51	0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw mg/L	246.00	165.00	231.00	18,000.00	2,050.00	158.00	267.00	529.00	831.00	1,200.00	112.00	12,000.00		2,982.42	18,000.00	0.00
Raw: # of samples of TSS - Raw	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
Eff: Avg TSS - Final Eff mg/L	10.20	6.50	6.50	7.80	7.25	13.25	20.20	13.75	14.50	16.00	11.75	10.00		11.60	20.20	15.00
Eff: # of samples of TSS - Final Eff	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: TSS - Final Eff kg/d	0.426	0.250	0.236	0.400	0.376	0.580	0.831	0.538	0.534	0.596	0.491	0.432		0.49	0.83	
Percent Removal: TSS - Raw %	95.85	96.06	97.19	99.96	99.65	91.61	92.43	97.40	98.26	98.67	89.51	99.92		96.37	99.96	0.00

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

From 1/1/2024 to 12/31/2024 11:59:59 PM

Total Phosphorus: TP

Raw: Avg TP - Raw mg/L	6.50	9.83	13.90	53.30	58.30	30.20	36.80	21.50	118.00	11.60	32.80	6.28		33.25	118.00	0.00
Raw: # of samples of TP - Raw	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
Eff: Avg TP - Final Eff mg/L	0.46	0.18	0.17	0.22	0.24	0.22	0.35	0.25	0.29	0.33	0.33	0.44		0.29	0.46	1.00
Eff: # of samples of TP - Final Eff	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	52.00			0.00
Loading: TP - Final Eff kg/d	0.019	0.007	0.006	0.011	0.012	0.010	0.014	0.010	0.011	0.012	0.014	0.019		0.01	0.02	
Percent Removal: TP - Raw %	92.98	98.19	98.76	99.59	99.59	99.27	99.06	98.86	99.75	97.14	99.00	93.03		97.94	99.75	0.00

Nitrogen Series

Raw: Avg TKN - Raw mg/L	64.00	46.50	60.40	213.00	146.00	55.70	81.10	105.00	85.00	92.00	66.50	64.00		89.93	213.00	0.00
Raw: # of samples of TKN - Raw	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
Eff: Avg TAN - Final Eff mg/L	0.12	0.23	0.25	0.26	0.13	0.15	0.22	0.38	0.28	0.44	0.15	0.20		0.23	0.44	8.00
Eff: # of samples of TAN - Final Eff	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	4.00	5.00	4.00	5.00	53.00			0.00
Loading: TAN - Final Eff kg/d	0.005	0.009	0.009	0.013	0.006	0.007	0.009	0.015	0.010	0.016	0.006	0.009		0.01	0.02	

Disinfection

Eff: GMD E. Coli - Final Eff cfu/100mL	33,000.00	53,000.00	34,000.00	12,800.00	20,000.00	21,000.00	18,000.00	3,000.00	6,100.00	11,000.00	83,000.00	134,000.00				
Eff: # of samples of E. Coli - Final Eff	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

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix II:

Groundwater Monitoring

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

Facility Name: KING'S BAY WASTEWATER TREATMENT FACILITY
Receiver: Subsurface

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Monitoring Well 1	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Total		Avg		Max		Min
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L											
Count	1.00	0.00	1.00		2.00						
Lab Count	1.00		1.00		2.00						
Lab Month.Max	4.00		5.00						5.00		
Lab Month.Mean	4.00		5.00			<	4.50				
Lab Month.Min	4.00		5.00							<	4.00
Conductivity - µS/cm											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	961.00		846.00						961.00		
Lab Month.Mean	961.00		846.00				903.50				
Lab Month.Min	961.00		846.00								846.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	0.03		0.03					<	0.03		
Lab Month.Mean	0.03		0.03			<	0.03				
Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	3.98		3.86						3.98		
Lab Month.Mean	3.98		3.86				3.92				
Lab Month.Min	3.98		3.86								3.86
Nitrite as N: NO2-N - mg/L											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	0.03		0.03					<	0.03		

	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	3.98		3.86						3.98		
	Lab Month.Mean	3.98		3.86				3.92				
	Lab Month.Min	3.98		3.86								3.86
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.67		7.64						7.67		
	Lab Month.Mean	7.67		7.64				7.66				
	Lab Month.Min	7.67		7.64								7.64
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.01		0.01						0.01		
	Lab Month.Mean	0.01		0.01				0.01				
	Lab Month.Min	0.01		0.01								0.01
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	170.00		593.00						593.00		
	Lab Month.Mean	170.00		593.00				381.50				
	Lab Month.Min	170.00		593.00								170.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	5.40	5.13	5.55	5.86					5.86		
	IH Month.Mean	5.40	5.13	5.55	5.86			5.49				

	IH Month.Min	5.40	5.13	5.55	5.86							5.13
Monitoring Well 2		**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**		**Avg**		**Max**		**Min**
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.00		4.00					<	4.00		
	Lab Month.Mean	4.00		4.00			<	4.00				
	Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	2070.00		1800.00						2070.00		
	Lab Month.Mean	2070.00		1800.00				1935.00				
	Lab Month.Min	2070.00		1800.00								1800.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	15.20		13.50						15.20		
	Lab Month.Mean	15.20		13.50				14.35				
	Lab Month.Min	15.20		13.50								13.50
Nitrite as N: NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		

	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	15.20		13.50						15.20		
	Lab Month.Mean	15.20		13.50				14.35				
	Lab Month.Min	15.20		13.50								13.50
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.75		7.69						7.75		
	Lab Month.Mean	7.75		7.69				7.72				
	Lab Month.Min	7.75		7.69								7.69
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.00		0.00					<	0.00		
	Lab Month.Mean	0.00		0.00			<	0.00				
	Lab Month.Min	0.00		0.00							<	0.00
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	67.00		57.00						67.00		
	Lab Month.Mean	67.00		57.00				62.00				
	Lab Month.Min	67.00		57.00								57.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	6.58	6.27	6.68	6.98					6.98		
	IH Month.Mean	6.58	6.27	6.68	6.98			6.63				

	IH Month.Min	6.58	6.27	6.68	6.98							6.27
Monitoring Well 3		**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**		**Avg**		**Max**		**Min**
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.00		4.00						4.00		
	Lab Month.Mean	4.00		4.00			<	4.00				
	Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	2180.00		2180.00						2180.00		
	Lab Month.Mean	2180.00		2180.00				2180.00				
	Lab Month.Min	2180.00		2180.00								2180.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	16.40		17.10						17.10		
	Lab Month.Mean	16.40		17.10				16.75				
	Lab Month.Min	16.40		17.10								16.40
Nitrite as N: NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.30					<	0.30		

	Lab Month.Mean	0.03		0.30			<	0.17				
	Lab Month.Min	0.03		0.30							<	0.03
Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	16.40		17.10						17.10		
	Lab Month.Mean	16.40		17.10				16.75				
	Lab Month.Min	16.40		17.10								16.40
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.76		7.85						7.85		
	Lab Month.Mean	7.76		7.85				7.81				
	Lab Month.Min	7.76		7.85								7.76
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.01		0.02						0.02		
	Lab Month.Mean	0.01		0.02				0.01				
	Lab Month.Min	0.01		0.02								0.01
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	226.00		610.00						610.00		
	Lab Month.Mean	226.00		610.00				418.00				
	Lab Month.Min	226.00		610.00								226.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	7.13	6.70	7.30	7.26					7.30		
	IH Month.Mean	7.13	6.70	7.30	7.26			7.10				

	IH Month.Min	7.13	6.70	7.30	7.26							6.70
Monitoring Well 4		**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**		**Avg**		**Max**		**Min**
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.00		4.00					<	4.00		
	Lab Month.Mean	4.00		4.00			<	4.00				
	Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	723.00		648.00						723.00		
	Lab Month.Mean	723.00		648.00				685.50				
	Lab Month.Min	723.00		648.00								648.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.21		3.74						4.21		
	Lab Month.Mean	4.21		3.74				3.98				
	Lab Month.Min	4.21		3.74								3.74
Nitrite as N: NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				

	Lab Month.Min	0.03		0.03							<	0.03
Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.21		3.74						4.21		
	Lab Month.Mean	4.21		3.74				3.98				
	Lab Month.Min	4.21		3.74								3.74
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.72		7.82						7.82		
	Lab Month.Mean	7.72		7.82				7.77				
	Lab Month.Min	7.72		7.82								7.72
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.00		0.00					<	0.00		
	Lab Month.Mean	0.00		0.00			<	0.00				
	Lab Month.Min	0.00		0.00							<	0.00
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	40.00		128.00						128.00		
	Lab Month.Mean	40.00		128.00				84.00				
	Lab Month.Min	40.00		128.00								40.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	7.48	7.10	7.58	8.93					8.93		
	IH Month.Mean	7.48	7.10	7.58	8.93			7.77				
	IH Month.Min	7.48	7.10	7.58	8.93							7.10

Monitoring Well 5	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Total		Avg		Max		Min
Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L											
Count	1.00	0.00	1.00		2.00						
Lab Count	1.00		1.00		2.00						
Lab Month.Max	4.00		4.00					<	4.00		
Lab Month.Mean	4.00		4.00			<	4.00				
Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	1600.00		1150.00						1600.00		
Lab Month.Mean	1600.00		1150.00				1375.00				
Lab Month.Min	1600.00		1150.00								1150.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	0.03		0.03					<	0.03		
Lab Month.Mean	0.03		0.03			<	0.03				
Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	4.48		3.88						4.48		
Lab Month.Mean	4.48		3.88				4.18				
Lab Month.Min	4.48		3.88								3.88
Nitrite as N: NO2-N - mg/L											
Lab Count	1.00		1.00		2.00						
Lab Month.Max	0.03		0.03					<	0.03		
Lab Month.Mean	0.03		0.03			<	0.03				
Lab Month.Min	0.03		0.03							<	0.03

Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.48		3.88						4.48		
	Lab Month.Mean	4.48		3.88				4.18				
	Lab Month.Min	4.48		3.88								3.88
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.80		7.74						7.80		
	Lab Month.Mean	7.80		7.74				7.77				
	Lab Month.Min	7.80		7.74								7.74
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.00		0.00						0.00		
	Lab Month.Mean	0.00		0.00				0.00				
	Lab Month.Min	0.00		0.00								0.00
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	71.00		43.00						71.00		
	Lab Month.Mean	71.00		43.00				57.00				
	Lab Month.Min	71.00		43.00								43.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	7.91	7.53	7.98	8.38					8.38		
	IH Month.Mean	7.91	7.53	7.98	8.38			7.95				
	IH Month.Min	7.91	7.53	7.98	8.38							7.53
Monitoring Well 6		**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**		**Avg**		**Max**		**Min**

Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.00		4.00					<	4.00		
	Lab Month.Mean	4.00		4.00			<	4.00				
	Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	2160.00		1810.00						2160.00		
	Lab Month.Mean	2160.00		1810.00				1985.00				
	Lab Month.Min	2160.00		1810.00								1810.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	16.00		14.90						16.00		
	Lab Month.Mean	16.00		14.90				15.45				
	Lab Month.Min	16.00		14.90								14.90
Nitrite as N: NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03						0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03

Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	16.00		14.90						16.00		
	Lab Month.Mean	16.00		14.90				15.45				
	Lab Month.Min	16.00		14.90								14.90
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.70		7.77						7.77		
	Lab Month.Mean	7.70		7.77				7.74				
	Lab Month.Min	7.70		7.77								7.70
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.00		0.01						0.01		
	Lab Month.Mean	0.00		0.01			<	0.01				
	Lab Month.Min	0.00		0.01							<	0.00
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	91.00		350.00						350.00		
	Lab Month.Mean	91.00		350.00				220.50				
	Lab Month.Min	91.00		350.00								91.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	4.90	4.96	5.59	5.26					5.59		
	IH Month.Mean	4.90	4.96	5.59	5.26			5.18				
	IH Month.Min	4.90	4.96	5.59	5.26							4.90
Monitoring Well 7		**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**		**Avg**		**Max**		**Min**

Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.00		4.00					<	4.00		
	Lab Month.Mean	4.00		4.00			<	4.00				
	Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	2020.00		1990.00						2020.00		
	Lab Month.Mean	2020.00		1990.00				2005.00				
	Lab Month.Min	2020.00		1990.00								1990.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	10.70		17.90						17.90		
	Lab Month.Mean	10.70		17.90				14.30				
	Lab Month.Min	10.70		17.90								10.70
Nitrite as N: NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03

Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	10.70		17.90						17.90		
	Lab Month.Mean	10.70		17.90				14.30				
	Lab Month.Min	10.70		17.90								10.70
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.68		7.73						7.73		
	Lab Month.Mean	7.68		7.73				7.71				
	Lab Month.Min	7.68		7.73								7.68
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.00		0.00					<	0.00		
	Lab Month.Mean	0.00		0.00			<	0.00				
	Lab Month.Min	0.00		0.00							<	0.00
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	704.00		471.00						704.00		
	Lab Month.Mean	704.00		471.00				587.50				
	Lab Month.Min	704.00		471.00								471.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	4.52	4.56	5.20	5.21					5.21		
	IH Month.Mean	4.52	4.56	5.20	5.21			4.87				
	IH Month.Min	4.52	4.56	5.20	5.21							4.52
Monitoring Well 8		**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**		**Avg**		**Max**		**Min**

Carbonaceous Biochemical Oxygen Demand: CBOD5 - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.00		4.00					<	4.00		
	Lab Month.Mean	4.00		4.00			<	4.00				
	Lab Month.Min	4.00		4.00							<	4.00
Conductivity - µS/cm												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	918.00		1340.00						1340.00		
	Lab Month.Mean	918.00		1340.00				1129.00				
	Lab Month.Min	918.00		1340.00								918.00
Dissolved Reactive Phosphorus (Orthophosphate) - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03
Nitrate + Nitrite as N: NO3-N + NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.14		6.97						6.97		
	Lab Month.Mean	4.14		6.97				5.56				
	Lab Month.Min	4.14		6.97								4.14
Nitrite as N: NO2-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.03		0.03					<	0.03		
	Lab Month.Mean	0.03		0.03			<	0.03				
	Lab Month.Min	0.03		0.03							<	0.03

Nitrate as N: NO3-N - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	4.14		6.97						6.97		
	Lab Month.Mean	4.14		6.97				5.56				
	Lab Month.Min	4.14		6.97								4.14
pH - ---												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	7.44		7.44						7.44		
	Lab Month.Mean	7.44		7.44				7.44				
	Lab Month.Min	7.44		7.44								7.44
Total Phosphorus: TP - mg/L												
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	0.00		0.00					<	0.00		
	Lab Month.Mean	0.00		0.00			<	0.00				
	Lab Month.Min	0.00		0.00							<	0.00
Total Suspended Solids: TSS - mg/L												
	Count	1.00	0.00	1.00		2.00						
	Lab Count	1.00		1.00		2.00						
	Lab Month.Max	812.00		1640.00						1640.00		
	Lab Month.Mean	812.00		1640.00				1226.00				
	Lab Month.Min	812.00		1640.00								812.00
Well Level - m												
	IH Edited Count	1.00	1.00	1.00	1.00	4.00						
	IH Month.Max	4.26	4.33	4.95	4.96					4.96		
	IH Month.Mean	4.26	4.33	4.95	4.96			4.63				
	IH Month.Min	4.26	4.33	4.95	4.96							4.26

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix III:

pH & Temperature Summary

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

Facility Org Number: 5318
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 200

Works: 110003665
Facility Classification: Class 2 Wastewater Treatment
Total Design Capacity: 170 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Final Eff	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Total	Avg	Max	Min
pH - ---																
IH Edited Count	14.00	12.00	13.00	14.00	15.00	14.00	15.00	13.00	12.00	15.00	13.00	14.00	164.00			
IH Month.Max	7.57	7.57	7.73	7.76	7.94	7.72	7.71	7.75	7.87	7.88	7.90	7.92			7.94	
IH Month.Mean	7.41	7.46	7.56	7.54	7.64	7.56	7.55	7.57	7.60	7.73	7.73	7.58		7.58		
IH Month.Min	7.10	7.34	7.36	7.31	7.43	7.38	7.43	7.41	7.15	7.43	7.22	7.27				7.10
Temperature - °C																
IH Edited Count	14.00	12.00	13.00	14.00	15.00	14.00	15.00	13.00	12.00	15.00	13.00	14.00	164.00			
IH Month.Max	16.70	18.00	17.50	15.90	18.70	20.90	23.20	22.50	22.80	20.40	18.80	14.60			23.20	
IH Month.Mean	14.44	14.83	13.40	14.56	16.63	18.60	20.81	20.78	20.98	18.70	16.20	13.04		16.92		
IH Month.Min	11.70	12.20	11.40	12.20	15.30	15.00	19.50	18.90	19.40	16.80	15.10	10.30				10.30

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix IV:

Groundwater Monitoring Wells - Levels

Customized Monthly Report

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

Facility Org Number: 5318
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 200

Works: 110003665
Facility Classification: Class 2 Wastewater Treatment
Total Design Capacity: 170 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Monitoring Well 1	**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	5.40	5.13	5.55	5.86			5.86	
IH Month.Mean	5.40	5.13	5.55	5.86		5.49		
IH Month.Min	5.40	5.13	5.55	5.86				5.13
Monitoring Well 2	**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	6.58	6.27	6.68	6.98			6.98	
IH Month.Mean	6.58	6.27	6.68	6.98		6.63		
IH Month.Min	6.58	6.27	6.68	6.98				6.27
Monitoring Well 3	**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	7.13	6.70	7.30	7.26			7.30	
IH Month.Mean	7.13	6.70	7.30	7.26		7.10		
IH Month.Min	7.13	6.70	7.30	7.26				6.70
Monitoring Well 4	**Mar 2024**	**Jun 2024**	**Sep 2024**	**Dec 2024**	**Total**	**Avg**	**Max**	**Min**
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	7.48	7.10	7.58	8.93			8.93	
IH Month.Mean	7.48	7.10	7.58	8.93		7.77		
IH Month.Min	7.48	7.10	7.58	8.93				7.10

Monitoring Well 5	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Total	Avg	Max	Min
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	7.91	7.53	7.98	8.38			8.38	
IH Month.Mean	7.91	7.53	7.98	8.38		7.95		
IH Month.Min	7.91	7.53	7.98	8.38				7.53

Monitoring Well 6	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Total	Avg	Max	Min
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	4.90	4.96	5.59	5.26			5.59	
IH Month.Mean	4.90	4.96	5.59	5.26		5.18		
IH Month.Min	4.90	4.96	5.59	5.26				4.90

Monitoring Well 7	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Total	Avg	Max	Min
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	4.52	4.56	5.20	5.21			5.21	
IH Month.Mean	4.52	4.56	5.20	5.21		4.87		
IH Month.Min	4.52	4.56	5.20	5.21				4.52

Monitoring Well 8	Mar 2024	Jun 2024	Sep 2024	Dec 2024	Total	Avg	Max	Min
Well Level - m								
IH Edited Count	1.00	1.00	1.00	1.00	4.00			
IH Month.Max	4.26	4.33	4.95	4.96			4.96	
IH Month.Mean	4.26	4.33	4.95	4.96		4.63		
IH Month.Min	4.26	4.33	4.95	4.96				4.26

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix V:

Maintenance Summary

Workorder Summary Report

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

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

Location: 5318*

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
3710986		5318, Kings Bay WWT	PM	Inspection	Daily Operational Activities (1y) - 5318 - KTS	COMP	1/1/24 08:27 AM	1/2/25 09:55 AM
3713315	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	1/9/24 09:45 AM	1/9/24 10:00 AM
3713974		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	1/11/24 08:30 AM	1/11/24 09:00 AM
3734068		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	1/9/24 09:45 AM	1/9/24 10:00 AM
3738221		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	1/3/24 07:00 AM	1/3/24 08:00 AM
3739749		5318, Kings Bay WWT	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5318 - KTS	CLOSE	1/9/24 09:30 AM	1/9/24 09:45 AM
3769440	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	2/13/24 01:00 PM	2/13/24 02:00 PM
3784515		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	2/13/24 01:00 PM	2/13/24 02:00 PM
3787015		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	2/13/24 07:00 AM	2/14/24 10:00 AM
3811138		5318, Kings Bay WWT	PM	Inspection	Tank Wetwell Level Equipment Inspection (6m) - 5318- KTS	CLOSE	3/12/24 11:30 AM	3/14/24 12:01 PM

3811140		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	CLOSE	3/16/24 12:00 AM	4/23/24 11:19 AM
3811427	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	3/12/24 11:45 AM	3/12/24 12:00 PM
3811430	TANK PROCESS WETWELL EFFLUENT	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (1y) - 5318 Effulent- KTS	CLOSE	5/30/24 08:00 AM	5/30/24 12:00 PM
3828092		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	3/12/24 11:45 AM	3/12/24 12:00 PM
3830532		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	3/5/24 07:00 AM	3/7/24 12:48 PM
3856332	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	4/9/24 11:30 AM	4/9/24 12:00 PM
3857107		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	4/18/24 07:38 AM	4/18/24 08:06 AM
3875579		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	4/9/24 11:30 AM	4/9/24 12:00 PM
3877703		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Gear Drive RBC #1 Inspection/Service (1y) - 5318 - KTS	CLOSE	6/13/24 01:34 PM	8/14/24 10:26 AM
3877709		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Gear Drive RBC #2 Inspection/Service (1y) - 5318 - KTS	CLOSE	4/18/24 07:38 AM	4/25/24 02:17 PM
3878847		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	4/9/24 11:05 AM	4/9/24 11:05 AM
3880852		5318, Kings Bay WWT	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5318 - KTS	CLOSE	4/12/24 10:08 AM	4/12/24 10:30 AM
3908535		5318, Kings Bay WWT	PM	Inspection	Lifting Devices & Fall Arrest Inspection by Contractor (1y) - 5318 - KTS	CLOSE	7/10/24 10:04 AM	7/10/24 10:04 AM
3908677	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	5/14/24 11:15 AM	5/14/24 11:30 AM
3908680	TANK PROCESS WETWELL INFLUENT	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5318 Influent- KTS	CLOSE	5/30/24 08:00 AM	5/30/24 12:00 PM

3926910		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	5/14/24 11:15 AM	5/14/24 11:30 AM
3929504		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	4/7/24 09:00 AM	4/7/24 12:00 PM
3956860		5318, Kings Bay WWT	PM	Calibration	Online Process Equipment Calibration Service by Contractor (1y) - 5318 - KTS	CLOSE	6/18/24 02:24 PM	6/18/24 02:24 PM
3956865		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	CLOSE	6/13/24 12:42 PM	7/16/24 10:52 AM
3957121	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	6/13/24 08:15 AM	6/13/24 08:30 AM
3976240		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	6/13/24 08:15 AM	6/13/24 08:30 AM
3979106		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	6/3/24 12:00 PM	6/3/24 12:30 PM
3980591		5318, Kings Bay Effluent PS	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (1y) - 5318 - KTS	COMP	12/19/24 11:05 AM	12/19/24 11:05 AM
4006976	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	7/8/24 07:40 AM	7/8/24 08:30 AM
4007396		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	7/3/24 08:10 AM	7/3/24 08:40 AM
4023679		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	7/4/24 12:00 AM	7/5/24 01:02 PM
4026635		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	7/3/24 01:00 PM	7/3/24 02:00 PM
4028067		5318, Kings Bay WWT	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5318 - KTS	CLOSE	7/12/24 09:40 AM	7/12/24 10:00 AM
4056064	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	8/14/24 10:15 AM	8/14/24 10:29 AM
4071742		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	8/14/24 10:15 AM	8/14/24 10:30 AM

4074055		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	8/1/24 12:00 PM	8/1/24 12:30 PM
4100208		5318, Kings Bay WWT	PM	Inspection	Tank Wetwell Level Equipment Inspection (6m) - 5318- KTS	CLOSE	9/18/24 08:10 AM	9/18/24 08:30 AM
4100210		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	CLOSE	9/18/24 07:00 AM	10/13/24 01:39 PM
4100652	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	9/18/24 08:30 AM	9/18/24 09:00 AM
4118922		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	9/18/24 08:30 AM	9/18/24 09:00 AM
4121772		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	9/4/24 10:20 AM	9/4/24 01:15 PM
4145038		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	CLOSE	9/18/24 07:00 AM	10/13/24 01:35 PM
4151300	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	10/8/24 07:30 AM	10/8/24 07:50 AM
4167368		5318, Kings Bay WWT	PM	Inspection	UPS Insp/Service (1y) - 5318 - KTS	COMP	12/19/24 01:21 PM	12/19/24 01:21 PM
4168687		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	10/8/24 07:30 AM	10/8/24 07:50 AM
4172176		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	10/1/24 02:36 PM	10/1/24 02:36 PM
4173552		5318, Kings Bay WWT	OPER	HEALTH AND SAFETY	Corporate Facility Workplace H & S Inspection (3m) - 5318 - KTS	CLOSE	10/11/24 08:33 AM	10/11/24 08:48 AM
4201168	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	CLOSE	11/13/24 06:20 AM	11/13/24 06:35 AM
4201171	TANK PROCESS WETWELL INFLUENT	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Wetwell Cleaning/Inspection (6m) - 5318 Influent- KTS	COMP	12/11/24 08:00 AM	12/11/24 09:30 AM
4215596		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	CLOSE	11/13/24 06:35 AM	11/13/24 06:50 AM
4218263		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	11/5/24 11:21 AM	11/5/24 11:21 AM

4243017		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #1 Insp/Service (3m) - 5318 - KTS	COMP	12/11/24 11:00 AM	2/12/25 12:49 PM
4243154	TANK STORAGE ALUM BULK	5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank Alum Inspection (1m) - 5318 - KTS	COMP	12/11/24 11:20 AM	12/11/24 11:20 AM
4243451		5318, Kings Bay WWT, Process	PM	Refurbish/ Replace/Repair	Tank RBC #2 Insp/Service (3m) - 5318 - KTS	COMP	12/11/24 11:00 AM	1/13/25 09:35 AM
4257774		5318, Kings Bay WWT	PM	Inspection	Chemical Feed System Insp (1m) - 5318 - KTS	COMP	12/11/24 11:20 AM	12/11/24 11:30 AM
4260059		5318, Kings Bay WWT	OPER	Compliance	Operator PDM Entry & Review (1m) - 5318 - KTS	CLOSE	12/5/24 11:04 AM	12/5/24 11:04 AM

Workorder Summary Report

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

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

Location: 5318*

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
3759317	TANK PROCESS WETWELL EFFLUENT	5318, Kings Bay WWT, Process	CALL	Inspection	5318, Kings Bay WWT, High/Low Effluent Level, Alarm	CLOSE	1/2/24 07:12 PM	1/2/24 08:30 PM
3759320	TANK PROCESS WETWELL EFFLUENT	5318, Kings Bay WWT, Process	CALL	Inspection	5318, Kings Bay WWT, High/Low Effluent Level, Alarm	CLOSE	1/3/24 01:20 AM	1/3/24 03:30 AM
3762160		5318, Kings Bay Effluent PS	CALL	Inspection	5318, Kings Bay Effluent PS, Effluent HI/LO Flow, Reset	CLOSE	1/13/24 12:05 AM	1/13/24 02:48 AM
3851021	PUMP SUBMERSIBLE 03 EFFLUENT KINGS BAY [6.5 HP]	5318, Kings Bay Effluent PS, Process	CALL	Inspection	5318, Kings Bay Effluent PS, Pump Submersible 03 Fault, Alarm	CLOSE	3/24/24 07:00 PM	3/24/24 09:30 PM
3899845		5318, Kings Bay Effluent PS, Facility, Power Distribution	CALL	Inspection	5318, Kings Bay Effluent PS, Power Outage, Alarm	CLOSE	4/4/24 01:30 AM	4/4/24 02:00 AM
3899846		5318, Kings Bay Effluent PS, Facility, Power Distribution	CALL	Inspection	5318, Kings Bay Effluent PS, Power Distribution, Pump 1 2 3, Alarm	CLOSE	4/4/24 02:50 AM	4/4/24 04:00 AM
3900016		5318, Kings Bay WWT, Facility	CALL	Inspection	5318, Kings Bay WWT, No Test Page, Alarm	CLOSE	4/5/24 04:22 AM	4/5/24 06:22 AM

Workorder Summary Report

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

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

Location: 5318*

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
1587154		5318, Kings Bay WWT, Process	CAP	Refurbish/ Replace/ Repair	DEFERRED 5318, Kings Bay WWT, Source New RBC Covers	CLOSE	1/27/25 02:25 PM	1/27/25 02:25 PM
3291900	PANEL CONTROL RBC	5318, Kings Bay WWT, Facility, Power Distribution	CAP	Refurbish/ Replace/ Repair	DEFERRED, 5318, Kings Bay WWT, RBC Control Panel, Replace	CLOSE	9/6/24 10:43 AM	9/6/24 10:43 AM
3758950		5318, Kings Bay WWT, Facility	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, RBC Chain OIL, Both RBC	CLOSE	12/1/23 09:11 AM	12/21/23 09:11 AM
3759331	METER LEVEL EFFLUENT RBC 01	5318, Kings Bay WWT, Process, Process Control & Monitoring	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Effluent High/Low Level Miltronics Reading False Level Periodically	CLOSE	1/3/24 09:09 AM	2/5/24 07:18 AM
3759851	PUMP DIAPHRAGM 01 ALUM	5318, Kings Bay WWT, Process	CAP	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Alum Pump Diaphragm 01, Upgrade	CLOSE	7/15/24 07:40 AM	7/15/24 07:40 AM
3802143		5318, Kings Bay Influent PS	CAP	Refurbish/ Replace/ Repair	5318, Kings Bay Influent PS, 2023 Influent and Effluent Pump, Replacement (2024)	COMP	2/1/24 01:20 PM	12/11/24 02:00 PM
3804894	TANK PROCESS WETWELL INFLUENT	5318, Kings Bay WWT, Process	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Wetwell Influent Float High Level, Fail Investigate	CLOSE	2/13/24 01:11 PM	7/24/24 12:59 PM

3999161	PANEL CONTROL EFFLUENT	5318, Kings Bay WWT, Facility, Power Distribution	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Effluent Float Mode Sequence Voltage Drop on Generator, Program Replacement	CLOSE	6/13/24 10:13 AM	7/24/24 01:10 PM
4093813	MOTOR GEAR DRIVE 01 RBC	5318, Kings Bay WWT, Process	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, RBC 1 Chain Adjustment	CLOSE	8/14/24 10:00 AM	8/19/24 08:45 AM
4194028	PUMP SUBMERSIBLE SLP1 RETURN RBC 01	5318, Kings Bay WWT, Process	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, RBC 1 Sludge/Return Pump Bracket Broken, Repair	CLOSE	10/11/24 08:56 AM	10/11/24 10:20 AM
4196051	PUMP DIAPHRAGM AFP 02 ALUM	5318, Kings Bay WWT, Process	CORR	Compliance	5318, Kings Bay WWT, RBC 2 Alum Not Getting To RBC, Repair	CLOSE	10/24/24 08:30 AM	10/25/24 10:44 AM
4196055		5318, Kings Bay Influent PS, Process, Process Control & Monitoring	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWT, Influent Composite Sampler Failure, Repair	CLOSE	10/24/24 08:30 AM	10/24/24 12:40 PM
4235674	UPS BATTERY BANK	5318, Kings Bay WWT, Facility, Power Generation, Backup Power	CORR	Refurbish/ Replace/ Repair	5318, Kings Bay WWTP, UPS Not Holding During Power Transfers	CLOSE	11/7/24 12:00 AM	11/19/24 03:28 PM

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix VI:

Calibration Report

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

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

OCWA Kawartha

2023 Calibrations Kings Bay WTP & WWTP

CALIBRATION REPORT

Report No.:	OCWA K 2024 PIT
Date:	18-Jun-24

SITE:	Kings Bay WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	Treated pressure		
INSTR. TAG:	PIT	**TECHNICIAN:**	Mitch Manley
MANUFACTURER:	Moore		
MODEL:		**JOB REFERENCE:**	OCWA K 2024
SERIAL No.:			
OCWA CODE No.:	Kawartha Lakes W/WW 0000426541		

Input	**(Test)**	**Output**	**(Signal)**	**(Process)**
Type:	PSI	**Type or EGU:**	mA	PSI
Min:	0.00	**Min:**	4.00	0.00
Max:	100.00	**Max:**	20.00	100.00

			Before Calibration		**After Calibration**	
Test PSI			**PSI**	**Error**	**PSI**	**Error**
0			-0.10		-0.10	
50			50.20	0.40%	50.20	0.40%
100			100.60	0.60%	100.60	0.60%

Calibration Equipment			
Type:	Pressure Calibrator	DMM	
Manufacturer:	Crystal	Fluke	
2019 Calibrations N	XP2i 300 PSI	Model 87	
Serial No.:	153455	13440128	
Last Cal. Date:	Nov. 3, 2023	Feb. 16, 2024	

Comments:

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

CERTIFIED BY:

CALIBRATION REPORT

Report No.:	OCWA K 2024 AIT-TURB
Date:	18-Jun-24

SITE:	KING'S BAY WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	Turbudity	**TECHNICIAN:**	Mitch Manley
INSTR. TAG:	AIT-TURB	**JOB REFERENCE:**	OCWA K 2024
MANUFACTURER:	Hach		
MODEL:	SC100 / 1720E		
SERIAL No.:	090600326041 / 09060C0453		
OCWA CODE:	0000295631 / 0000192455		

Input	**(Test)**	**Output**	**(Signal)**	**(Process)**
Type:	NTU	**Type or EGU:**	mA	NTU
Min:	0.00	**Min:**	4.00	0.00
Max:	2.00	**Max:**	20.00	2.00

			Before Calibration		**After Calibration**	
		User Prepared	Formazine			
		20 NTU	20 NTU			
				Gain		Gain
			18.88	1.17	20.00	1.25

Calibration Equipment			
Type:	Verification Module	Formazine	
Manufacturer:	HACH	Hach	
Model:	ICE PIC	4000 NTU	
Serial No.:		Lot A3102	
Last Cal. Date:		Exp Apr. 2025	

Comments: Zeroed Electronics, Ice Pic Pass, Incresaed flow slightly

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

CERTIFIED BY:

CALIBRATION REPORT

Report No.:	OCWA K 2024 AIT-CL2
Date:	18-Jun-24

SITE:	KING'S BAY WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	Treated Chlorine	**TECHNICIAN:**	Mitch Manley
INSTR. TAG:	AIT-CL2	**JOB REFERENCE:**	OCWA K 2024
MANUFACTURER:	Prominent s/n 2010142498		
MODEL:	Dulcometer D1CAW1C10001G000E		
PROBE:	Typ CLE 3.1		
OCWA CODE:	0000192861		

Input	**(Test)**	**Output**	**(Signal)**	**(Process)**
Type:	Chlorine	**Type or EGU:**	mA	mg/L
Min:	0.00	**Min:**	4.00	0.00
Max:	5.00	**Max:**	20.00	5.00

			Before Calibration		**After Calibration**	
			Flow (l/h)	25	Flow (l/h)	25
	Cl2	1.81	Cl2	1.75	Cl2	1.81
			Zero	Slope	Zero	Slope
			4.00mA	0.92 mA/ppm	4.00mA	0.90 mA/ppm

Calibration Equipment			
Type:	pH Buffers	DPD Tester	
Manufacturer:	7 & 10	Hach	
Model:	HACH	Pocket Colorimeter II	
Serial No.:		13040E220668	
Last Cal. Date:		Apr. 2023	

Comments: pH in Manual 7.37 pH

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

CERTIFIED BY:

CALIBRATION REPORT

Report No.:	OCWA K 2024 FIT-Well 4
Date:	18-Jun-24

SITE:	KING'S BAY WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	RAW WATER FLOW		
INSTR. TAG:	FIT-Well 4	**TECHNICIAN:**	Mitch Manley
MANUFACTURER:	ABB		
MODEL:	Mag Master	**JOB REFERENCE:**	OCWA K 2024
SERIAL No.:	V/36023/4/2		
OCWA No.:	0000114620		

Input	**(Test)**	**Output**	**(Signal)**	**(Process)**
Type:	ABB Simulator	**Type or EGU:**	E&H	Liter/Sec
Min:	0.00	**Min:**	0.00	0.00
Max:	3.8764	**Max:**	3.00	3.00
DN (mm):	25			
Velocity Range:	6.111536		6.4	
Constant:	0.0007854			
Sensor Factor 1:	1.57662			

			Before Calibration		**After Calibration**	
Input (m/s nominal)	**Input %**	**Calc. O/P**	**Output**	**%Error**	**Output**	**%Error**
0.00	0.00%	0.00	0.00	0.00%	0.00	0.00%
0.10	2.58%	0.08	0.08	0.00%	0.08	0.00%
0.20	5.16%	0.15	0.15	0.00%	0.15	0.00%
0.50	12.90%	0.39	0.39	0.00%	0.39	0.00%
1.00	25.80%	0.77	0.78	1.30%	0.78	1.30%
2.00	51.59%	1.55	1.55	0.00%	1.55	0.00%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 16, 2024	Apr. 23, 2024	

Comments:
Snsr Fact 1> 1.57662
Snsr Fact 2>-7
Snsr Fact 3> 5
Snsr Fact 4> 1.00000

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

CERTIFIED BY:

CALIBRATION REPORT

Report No.:	OCWA K 2024 FIT-Well 2
Date:	18-Jun-24

SITE:	KING'S BAY WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	RAW WATER FLOW		
INSTR. TAG:	FIT-Well 2	**TECHNICIAN:**	Mitch Manley
MANUFACTURER:	ABB		
MODEL:	Mag Master	**JOB REFERENCE:**	OCWA K 2024
SERIAL No.:	V/36023/5/1		
OCWA No.:	0000114621		

Input	**(Test)**		**Output**	**(Signal)**	**(Process)**
Type:	ABB Simulator		**Type or EGU:**	E&H	Liter/Sec
Min:	0.00		**Min:**	0.00	0.00
Max:	3.8764		**Max:**	3.00	3.00
DN (mm):	25				
Velocity Range:	6.111536				
Constant:	0.0007854				
Sensor Factor 1:	1.57660	1.57			

			Before Calibration		**After Calibration**	
Input (m/s nominal)	**Input %**	**Calc. O/P**	**Output**	**%Error**	**Output**	**%Error**
0.00	0.00%	0.000	0.00	0.00%	0.00	0.00%
0.10	2.58%	0.077	0.08	3.90%	0.08	3.90%
0.20	5.16%	0.155	0.16	3.23%	0.16	3.23%
0.50	12.90%	0.387	0.39	0.78%	0.39	0.78%
1.00	25.80%	0.774	0.77	-0.52%	0.77	-0.52%
2.00	51.59%	1.548	1.54	-0.52%	1.54	-0.52%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 16, 2024	Apr. 23, 2024	

Comments:

Snsr Fact 1> 1.57159
Snsr Fact 3> 5
Snsr Fact 4> 1.00000

Plug Loose

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

CERTIFIED BY:

CALIBRATION REPORT

Report No.:	OCWA K 2024 FIT-Well 3
Date:	18-Jun-24

SITE:	KING'S BAY WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	RAW WATER FLOW		
INSTR. TAG:	FIT-Well 3	**TECHNICIAN:**	Mitch Manley
MANUFACTURER:	ABB		
MODEL:	Mag Master	**JOB REFERENCE:**	OCWA K 2024
SERIAL No.:	V/36023/5/3		
OCWA No.:	0000114622		

Input	**(Test)**	**Output**	**(Signal)**	**(Process)**
Type:	ABB Simulator	**Type or EGU:**	E&H	Liter/Sec
Min:	0.00	**Min:**	0.00	0.00
Max:	3.7936	**Max:**	3.00	3.00
DN (mm):	25			
Velocity Range:	6.111536		6.6	
Constant:	0.0007854			
Sensor Factor 1:	1.611			

			Before Calibration		**After Calibration**	
Input (m/s nominal)	**Input %**	**Calc. O/P**	**Output**	**%Error**	**Output**	**%Error**
0.00	0.00%	0.000	0.00	0.00%	0.00	0.00%
0.10	2.64%	0.079	0.08	1.16%	0.08	1.16%
0.20	5.27%	0.158	0.16	1.16%	0.16	1.16%
0.50	13.18%	0.395	0.40	1.16%	0.40	1.16%
1.00	26.36%	0.791	0.79	-0.10%	0.79	-0.10%
2.00	52.72%	1.582	1.58	-0.10%	1.58	-0.10%

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 16, 2024	Apr. 23, 2024	

Comments:

Snsr Fact 1> 1.61100
Snsr Fact 2>-3
Snsr Fact 4> 1.00000

Unit doesn't power up correctly, it reboots a few times.

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

CERTIFIED BY:

CALIBRATION REPORT

Report No.: OCWA K 2024 QIR-1

Date: 18-Jun-24

SITE:	Kings Bay WTP
PROCESS AREA:	E&H Videographic chart recorder
INSTR. TAG:	QIR-1
MANUFACTURER:	E&H
MODEL:	RSG40 (Well Head / Main Plant)
SERIAL No.:	F6005E04267 / J8008C04267
OCWA CODE:	0000204963 / '0000277524

SERVICE DATE:	June 18, 2024
TECHNICIAN:	Mitch Manley
JOB REFERENCE:	OCWA K 2024

Input	**(Test)**
Type:	mA
Min:	4.00
Max:	20.00

Output	**(Signal)**	**(Process)**
Type or EGU:	mA	
Min:	4.00	
Max:	20.00	

			Before Calibration		**After Calibration**	
			Display		**Display**	
Cl2 Finished	mg/l	0.00				
	0-5	1.81	1.81		1.81	
Turb Finished	NTU	0.00	0.00		0.00	
	0-2	2.000	2.01		2.01	
Raw Flow	l/s	0.00	0.00		0.00	
	0-8	8.00	8.00		8.00	
Treated Flow	l/s	0.00	0.00		0.00	
	0-10	20mA	****		****	
WWTP Pump 1	mA	Tested	OK		OK	
WWTP Pump 2	mA	Tested	OK		OK	
WWTP Pump 3	mA	Tested	OK		OK	
WWTP Pump 4	mA	Tested	OK		OK	

Calibration Equipment			
Type:	DMM	Simulator	
Manufacturer:	Fluke	ABB	
Model:	Model 87	MagMaster	
Serial No.:	13440128	3K220000120586	
Last Cal. Date:	Feb. 16, 2024	Apr. 23, 2024	

Comments: **** mA works from flowmeter, but maxed out at 7.6, suspect something faulty in the current loop.

CALIBRATION REPORT

Report No.: OCWA K 2024 CW 1 Level

Date: 18-Jun-24

SITE:	Kings Bay WTP
PROCESS AREA:	Clearwell 1 Water Level
INSTR. TAG:	CW 1 Level
MANUFACTURER:	Milltronics
MODEL:	Hydroranger Plus
SERIAL No.:	
OCWA. #:	0000114565

SERVICE DATE:	June 18, 2024
TECHNICIAN:	Mitch Manley
JOB REFERENCE:	OCWA K 2024

Input	**(Test)**	**(Error)**	**Output**	**(Signal)**	**(Process)**
Distance:	Instrument	Calculated	**Type or EGU:**	mA	meters
2.79	2.780	-0.24%	**Min:**	4.00	0.00
			Max:	20.00	4.10

Main Parameters	
P001	level
P002	liquid
P003	slow
P004	XPS 10
P005	meters
P006	Empty 5.35m
P007	span 4.10m
Confidence	12
Full Parameter list available if required	

No echo profile available for this unit.

Calibration Equipment			
Type:	DMM	Laser	Tape Measure
Manufacturer:	Fluke	Hilti	Stanley
Model:	Model 87	PD30	5m/25ft
Serial No.:	13440128		
Last Cal. Date:	Feb. 16, 2024		

Comments: Clearwells were equalized, Cells matched Cell 1 2.78 Cell 2 2.79

Measured 3.04

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

CERTIFIED BY:

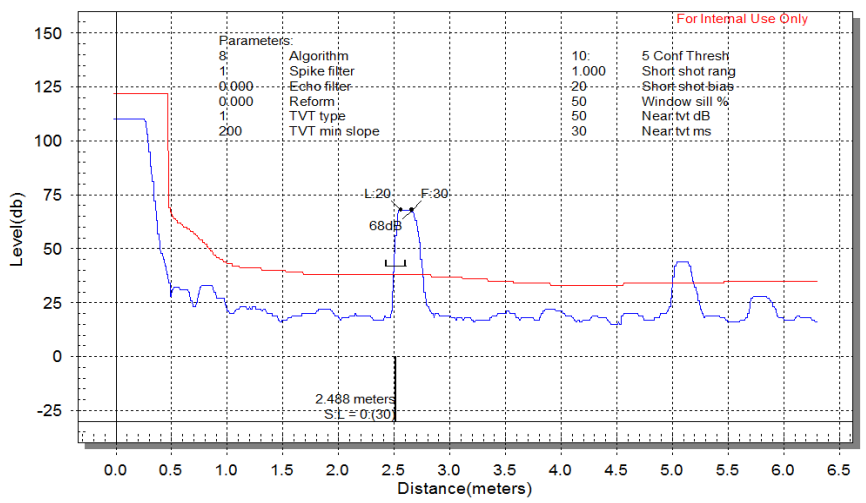
CALIBRATION REPORT

Report No.:	OCWA K 2024	CW 2 Level LIT 402	
Date:	18-Jun-24		

SITE:	Kings Bay WTP	**SERVICE DATE:**	June 18, 2024
PROCESS AREA:	Clearwell 2 Water Level		
INSTR. TAG:	CW 2 Level LIT 402	**TECHNICIAN:**	Mitch Manley
MANUFACTURER:	Milltronics		
MODEL:	MR200 HMI	**JOB REFERENCE:**	OCWA K 2024
SERIAL No.:	PBD-S1110007		
OCWA. #:	0000346119		

Input	**(Test)**	**(Error)**	**Output**	**(Signal)**	**(Process)**
Distance:	Instrument	Calculated	**Type or EGU:**	mA	meters
3.20	2.930	-6.59%	**Min:**	4.00	0.00
			Max:	20.00	4.10

Main Parameters	
P001	level
P002	liquid
P003	Medium
P004	XPS 5
P005	meters
P006	Empty 5.27m
P007	span 4.10m
Confidence	
Full Parameter list available if required	



Calibration Equipment			
Type:	DMM	Laser	Tape Measure
Manufacturer:	Fluke	Hilti	Stanley
Model:	Model 87	PD30	5m/25ft
Serial No.:	13440128		
Last Cal. Date:	Feb. 16, 2024		

Comments: Clearwells were equalized, Cells matched Cell 1 2.78 Cell 2 2.79

Measured 3.04

AS FOUND: **AS LEFT:** PASS

CERTIFIED BY:

VeriMaster - Flow Meter Verification Report

Customer Information	
Customer	OCWA
Verification Download	Tue, Jun 18, 2024

Meter Information	
Meter Owner	Kings Bay WTP
Meter Type	WaterMaster
Sensor Size	DN40
Pipe Status	Fluid Present
Sensor Type	Fullbore
Sensor Serial No	3K620000228958
Transmitter Serial No	3K620000228958
Tag	
Location	RAW

Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/ -1% of its original factory calibration

Summary of Results	
Coil Group	Passed
Electrode Group	Passed
Sensor Group	Passed
Transmitter Signal	Passed
Transmitter Driver	Passed
Output Group	Passed
Configuration	Passed

Verification History	
OIML Accuracy Alarms	0

Totaliser Information	
Forward	104887.00 m3
Reverse	0.00 m3
Net	104887.00 m3

Sensor Information	
Q3	11.11 l/s
Calibration Accuracy	Retrofit
Sensor Calibration Factors	67.3%; 6.90 mm/s; 11
Date of Manufacture	29 Apr 2017
Run Hours	1226days 19hrs 288mins

Sensor Data	
Coil Current	179.9 mA
Coil Inductance	134.7 mH
Coil Inductance Shift	0.1%
Coil / Loop Resistance	26.0 ohm

Transmitter Information	
Application Version	V01.07.00 03/02/17
MSP Version	01.00.00
Date of Manufacture	29 Apr 2017
Run Hours	2455days 20hrs -7936mins

Transmitter Data	
Tx Gain - Adjustment	0.0%

VeriMaster Information	
Version	01.00.03
Limit Version	01.00.01

Current Output	
4mA Value	Pass : 4.000 mA ; 0.00%
12mA Value	Pass : 11.988 mA ; 0.10%
20mA Value	Pass : 20.000 mA ; 0.00%

Pulse Output	
Output 1: 1200.0Hz	Not tested
Output 1: 600.0Hz	Not tested
Output 2: 1200.0Hz	Not tested
Output 2: 600.0Hz	Not tested

Installation Comments / Equipment used:

Raw Flow Pass

Configuration Settings	
Mains Frequency	60 Hz
Qmax	8.00 l/s
Pulses/Unit	120.000000
Pulses Limit Frequency	1200.0 Hz
Sensor User Span/Zero	100.0%; 0.00 mm/s
User Flow Cutoff/Hysterisis	3.00%; 20%
Meter Mode	Forward Flow

Date Tue, Jun 18, 2024 Operator Signature Print

ABB Instrumentation World Flow Technology

ABB Limited
Oldends Lane, Stonehouse
Gloucestershire, GL10 3TA UK
Tel: +44(0) 1453 826661
Fax: +44(0) 1453 821121
instrumentation@gb.abb.com

ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 6394
instrumentation@gb.abb.com

ABB Australia Pty Ltd.
Bapaune Rd
Moorebank, NSW 2170
Tel: +61-2-982 1-0111
Fax: +61-2-9821-0950

ABB Automation GmbH
Dransfelder Str.2
37079 Gottingen, GERMANY
Tel: +49 (0) 551 905212
Fax: +1 (215) 674 6394

SIEMENS MAGFLO® Verification Certificate

Customer:

Name	OCWA Kawartha
Address	Kings Bay WTP
Phone	
Email	

MAGFLO® Identification:

TAG No./Name	0
Sensor Code No.	7ME658
Sensor Serial No.	527103U305
Transmitter Code No.	7ME69101AA101AA0
Transmitter Serial No.	IXF72111785
Location	Treated Flow

Results:

Verification file name or No.		File #1 Treated Flow
Transmitter		Passed
Sensor	Insulation	Passed
	Magnetic Circuit	Passed

Velocity	Current Output			Frequency Output		
Theoretical	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.802mA	0.28%	0.500kHz	0.501kHz	0.14%
1.0m/s	5.600mA	5.601mA	0.06%	1.000kHz	1.000kHz	0.03%
3.0m/s	8.800mA	8.798mA	-0.04%	3.000kHz	3.000kHz	-0.01%
	Current Output 4-20mA			Frequency Output 0-10kHz		

Transmitter Settings:

Basic	Qmax.	10.0000 l/s
	Flow Direction	Positive
	Low flow Cut-off	1.50%
	Empty Pipe	OFF
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	0.99999953 US G/p
	Pulse width	0.066 sec.
	Pulse polarity	Positiv
Totalizer 1 value before test		158497.9375 m³
Totalizer 1 value after test		158497.953125 m³
Totalizer 2 value before test		8.76229 m³
Totalizer 2 value after test		8.76418304 m³
Operating time in days		3232

Sensor Details:

Size	DN 40 1 1/2 IN
Cal. Factor	1.1038487
Correction Factor	1.0
Excitation Freq.	15.0Hz

Verificator Details (083F5061)

Serial No.	000115N060
Device No.	90529
Software Version	1.40
PC-Software Version	5.01
Cal. date	2023.11.03
ReCal. date	2024.11.03

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.

2024.06.18 M Manley

VeriMaster - Flow Meter Verification Report

Customer Information	
Customer	OCWA
Verification Download	Tue, Jun 18, 2024

Meter Information	
Meter Owner	Kings Bay WW
Meter Type	WaterMaster
Sensor Size	DN100
Pipe Status	Fluid Present
Sensor Type	Fullbore
Sensor Serial No	3K620000164062
Transmitter Serial No	3K620000168464
Tag	ABB Warminster
Location	?

Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/ -1% of its original factory calibration

Summary of Results	
Coil Group	Passed
Electrode Group	Passed
Sensor Group	Passed
Transmitter Signal	Passed
Transmitter Driver	Passed
Output Group	Passed
Configuration	Passed

Verification History	
OIML Accuracy Alarms	0

Totaliser Information	
Forward	36033.82 m3
Reverse	1317.18 m3
Net	34716.64 m3

Sensor Information	
Q3	69.44 l/s
Calibration Accuracy	OIML Class 2
Sensor Calibration Factors	88.1%; 0.00 mm/s; 11
Date of Manufacture	20 May 2014
Run Hours	3464days 17hrs 15mins

Sensor Data	
Coil Current	179.9 mA
Coil Inductance	205.2 mH
Coil Inductance Shift	-0.1%
Coil / Loop Resistance	39.1 ohm

Transmitter Information	
Application Version	V01.05.00 12/07/12
MSP Version	00.00.04
Date of Manufacture	20 May 2014
Run Hours	4517days 21hrs 14mins

Transmitter Data	
Tx Gain - Adjustment	0.3%

VeriMaster Information	
Version	01.00.03
Limit Version	01.00.01

Current Output	
4mA Value	Pass : 4.000 mA ; 0.00%
12mA Value	Pass : 11.980 mA ; 0.17%
20mA Value	Pass : 20.000 mA ; 0.00%

Pulse Output	
Output 1: 1200.0Hz	Not tested
Output 1: 600.0Hz	Not tested
Output 2: 1200.0Hz	Not tested
Output 2: 600.0Hz	Not tested

Installation Comments / Equipment used:

P1 Pass

Configuration Settings	
Mains Frequency	60 Hz
Qmax	10.00 l/s
Pulses/Unit	120.000000
Pulses Limit Frequency	1200.0 Hz
Sensor User Span/Zero	100.0%; 0.00 mm/s
User Flow Cutoff/Hysterisis	3.00%; 20%
Meter Mode	Normal operation

Date Tue, Jun 18, 2024 Operator Signature Print

ABB Instrumentation World Flow Technology

ABB Limited
Oldends Lane, Stonehouse
Gloucestershire, GL10 3TA UK
Tel: +44(0) 1453 826661
Fax: +44(0) 1453 821121
instrumentation@gb.abb.com

ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 6394
instrumentation@gb.abb.com

ABB Australia Pty Ltd.
Bapaune Rd
Moorebank, NSW 2170
Tel: +61-2-982 1-0111
Fax: +61-2-9821-0950

ABB Automation GmbH
Dransfelder Str.2
37079 Gottingen, GERMANY
Tel: +49 (0) 551 905212
Fax: +1 (215) 674 6394

VeriMaster - Flow Meter Verification Report

Customer Information	
Customer	OCWA
Verification Download	Tue, Jun 18, 2024

Meter Information	
Meter Owner	Kings Bay WW
Meter Type	WaterMaster
Sensor Size	DN100
Pipe Status	Fluid Present
Sensor Type	Fullbore
Sensor Serial No	3K620000168465
Transmitter Serial No	3K620000168466
Tag	?
Location	?

Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/ -1% of its original factory calibration

Summary of Results	
Coil Group	Passed
Electrode Group	Passed
Sensor Group	Passed
Transmitter Signal	Passed
Transmitter Driver	Passed
Output Group	Passed
Configuration	Passed

Verification History	
OIML Accuracy Alarms	0

Totaliser Information	
Forward	43913.85 m3
Reverse	1584.65 m3
Net	42329.21 m3

Sensor Information	
Q3	69.44 l/s
Calibration Accuracy	OIML Class 2
Sensor Calibration Factors	87.0%; 0.00 mm/s; 11
Date of Manufacture	17 May 2014
Run Hours	3464days 16hrs 20mins

Sensor Data	
Coil Current	179.9 mA
Coil Inductance	218.3 mH
Coil Inductance Shift	-0.4%
Coil / Loop Resistance	38.3 ohm

Transmitter Information	
Application Version	V01.05.00 12/07/12
MSP Version	00.00.04
Date of Manufacture	17 May 2014
Run Hours	4946days 23hrs 58mins

Transmitter Data	
Tx Gain - Adjustment	0.3%

VeriMaster Information	
Version	01.00.03
Limit Version	01.00.01

Current Output	
4mA Value	Pass : 4.000 mA ; 0.00%
12mA Value	Pass : 11.980 mA ; 0.17%
20mA Value	Pass : 20.020 mA ; -0.10%

Pulse Output	
Output 1: 1200.0Hz	Not tested
Output 1: 600.0Hz	Not tested
Output 2: 1200.0Hz	Not tested
Output 2: 600.0Hz	Not tested

Installation Comments / Equipment used:

P2 Pass

Configuration Settings	
Mains Frequency	60 Hz
Qmax	10.00 l/s
Pulses/Unit	120.000000
Pulses Limit Frequency	1200.0 Hz
Sensor User Span/Zero	100.0%; 0.00 mm/s
User Flow Cutoff/Hysterisis	3.00%; 20%
Meter Mode	Normal operation

Date Tue, Jun 18, 2024 Operator Signature Print

ABB Instrumentation World Flow Technology

ABB Limited
Oldends Lane, Stonehouse
Gloucestershire, GL10 3TA UK
Tel: +44(0) 1453 826661
Fax: +44(0) 1453 821121
instrumentation@gb.abb.com

ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 6394
instrumentation@gb.abb.com

ABB Australia Pty Ltd.
Bapaune Rd
Moorebank, NSW 2170
Tel: +61-2-982 1-0111
Fax: +61-2-9821-0950

ABB Automation GmbH
Dransfelder Str.2
37079 Gottingen, GERMANY
Tel: +49 (0) 551 905212
Fax: +1 (215) 674 6394

VeriMaster - Flow Meter Verification Report

Customer Information	
Customer	OCWA
Verification Download	Tue, Jun 18, 2024

Meter Information	
Meter Owner	Kings Bay WW
Meter Type	WaterMaster
Sensor Size	DN100
Pipe Status	Fluid Present
Sensor Type	Fullbore
Sensor Serial No	3K620000168466
Transmitter Serial No	3K620000164062
Tag	ABB Warminster
Location	?

Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/ -1% of its original factory calibration

Summary of Results	
Coil Group	Passed
Electrode Group	Passed
Sensor Group	Passed
Transmitter Signal	Passed
Transmitter Driver	Passed
Output Group	Passed
Configuration	Passed

Verification History	
OIML Accuracy Alarms	0

Totaliser Information	
Forward	41349.64 m3
Reverse	73.91 m3
Net	41275.74 m3

Sensor Information	
Q3	69.44 l/s
Calibration Accuracy	OIML Class 2
Sensor Calibration Factors	85.4%; 0.00 mm/s; 11
Date of Manufacture	11 Apr 2014
Run Hours	3464days 16hrs 15mins

Sensor Data	
Coil Current	179.9 mA
Coil Inductance	219.6 mH
Coil Inductance Shift	0.8%
Coil / Loop Resistance	38.9 ohm

Transmitter Information	
Application Version	V01.05.00 12/07/12
MSP Version	00.00.04
Date of Manufacture	11 Apr 2014
Run Hours	4497days 18hrs 26mins

Transmitter Data	
Tx Gain - Adjustment	0.3%

VeriMaster Information	
Version	01.00.03
Limit Version	01.00.01

Current Output	
4mA Value	Pass : 4.000 mA ; 0.00%
12mA Value	Pass : 11.980 mA ; 0.17%
20mA Value	Pass : 20.000 mA ; 0.00%

Pulse Output	
Output 1: 1200.0Hz	Not tested
Output 1: 600.0Hz	Not tested
Output 2: 1200.0Hz	Not tested
Output 2: 600.0Hz	Not tested

Installation Comments / Equipment used:

Pump 3

Configuration Settings	
Mains Frequency	60 Hz
Qmax	10.00 l/s
Pulses/Unit	120.000000
Pulses Limit Frequency	1200.0 Hz
Sensor User Span/Zero	100.0%; 0.00 mm/s
User Flow Cutoff/Hysterisis	3.00%; 20%
Meter Mode	Normal operation

Date Tue, Jun 18, 2024 Operator Signature Print

ABB Instrumentation World Flow Technology

ABB Limited
Oldends Lane, Stonehouse
Gloucestershire, GL10 3TA UK
Tel: +44(0) 1453 826661
Fax: +44(0) 1453 821121
instrumentation@gb.abb.com

ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 6394
instrumentation@gb.abb.com

ABB Australia Pty Ltd.
Bapaune Rd
Moorebank, NSW 2170
Tel: +61-2-982 1-0111
Fax: +61-2-9821-0950

ABB Automation GmbH
Dransfelder Str.2
37079 Gottingen, GERMANY
Tel: +49 (0) 551 905212
Fax: +1 (215) 674 6394

SIEMENS MAGFLO® Verification Certificate

Customer:

Name: OCWA Kawartha
Address: Kings Bay WWTP
Phone:
Email:

MAGFLO® Identification:

TAG No./Name: 0
Sensor Code No.: 7ME658
Sensor Serial No.: 041001U493
Transmitter Code No.: 7ME691
Transmitter Serial No.: 231030U463
Location: RBC #2

Results:

Verification file name or No. File #3 RBC #2 Flow
Transmitter Passed
Sensor Insulation Passed
Magnetic Circuit Passed

Velocity	Current Output			Frequency Output		
Theoretical	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.807mA	0.84%	0.500kHz	0.500kHz	0.09%
1.0m/s	5.600mA	5.607mA	0.42%	1.000kHz	1.001kHz	0.05%
3.0m/s	8.800mA	8.807mA	0.15%	3.000kHz	3.001kHz	0.04%

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

Transmitter Settings:

Basic	Qmax.	10.0000 l/s
	Flow Direction	Positive
	Low flow Cut-off	9.50%
	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	0.99999953 US G/p
	Pulse width	0.066 sec.
	Pulse polarity	Positiv
Totalizer 1 value before test		94976.5390625 m³
Totalizer 1 value after test		94976.5546875 m³
Totalizer 2 value before test		2815.03344727 m³
Totalizer 2 value after test		2815.03442383 m³
Operating time in days		3824

Sensor Details:

Size: DN 80 3 IN
Cal. Factor: 4.97646475
Correction Factor: 1.0
Excitation Freq.: 7.5Hz

Verificator Details (083F5061)

Serial No.: 000115N060
Device No.: 90529
Software Version: 1.40
PC-Software Version: 5.01
Cal. date: 2023.11.03
ReCal. date: 2024.11.03

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.

2024.07.18 M Manley

SIEMENS MAGFLO® Verification Certificate

Customer:

Name	OCWA Kawartha
Address	Kings Bay WWTP
Phone	
Email	

MAGFLO® Identification:

TAG No./Name	0
Sensor Code No.	7ME658
Sensor Serial No.	041101U493
Transmitter Code No.	7ME691
Transmitter Serial No.	229730U463
Location	RBC #1

Results:

Verification file name or No.		File #2 RBC#1 Flow
Transmitter		Passed
Sensor	Insulation	Passed
	Magnetic Circuit	Passed

Velocity	Current Output			Frequency Output		
Theoretical	Theoretical	Actual	Deviation	Theoretical	Actual	Deviation
0.5m/s	4.800mA	4.798mA	-0.22%	0.500kHz	0.499kHz	-0.24%
1.0m/s	5.600mA	5.600mA	-0.01%	1.000kHz	1.000kHz	0.02%
3.0m/s	8.800mA	8.801mA	0.01%	3.000kHz	3.002kHz	0.07%
	Current Output 4-20mA			Frequency Output 0-10kHz		

Transmitter Settings:

Basic	Qmax.	10.0000 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	0.99999953 US G/p
	Pulse width	0.066 sec.
	Pulse polarity	Positiv
Totalizer 1 value before test		96126.109375 m³
Totalizer 1 value after test		96126.1328125 m³
Totalizer 2 value before test		1006.95300293 m³
Totalizer 2 value after test		1006.95300293 m³
Operating time in days		3824

Sensor Details:

Size	DN 80 3 IN
Cal. Factor	5.12170267
Correction Factor	1.0
Excitation Freq.	7.5Hz

Verificator Details (083F5061)

Serial No.	000115N060
Device No.	90529
Software Version	1.40
PC-Software Version	5.01
Cal. date	2023.11.03
ReCal. date	2024.11.03

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.

2024.07.18 M Manley

VeriMaster - Flow Meter Verification Report

Customer Information	
Customer	OCWA
Verification Download	Tue, Jun 18, 2024

Meter Information	
Meter Owner	Kings Bay WW
Meter Type	WaterMaster
Sensor Size	DN100
Pipe Status	Fluid Present
Sensor Type	Fullbore
Sensor Serial No	3K620000168464
Transmitter Serial No	3K620000168465
Tag	ABB Warminster
Location	?

Overall Status: Pass

The flowmeter has passed its internal continuous verification and automatic self calibration. It is working within +/ -1% of its original factory calibration

Summary of Results	
Coil Group	Passed
Electrode Group	Passed
Sensor Group	Passed
Transmitter Signal	Passed
Transmitter Driver	Passed
Output Group	Passed
Configuration	Passed

Verification History	
OIML Accuracy Alarms	0

Totaliser Information	
Forward	29137.64 m3
Reverse	741.71 m3
Net	28395.94 m3

Sensor Information	
Q3	69.44 l/s
Calibration Accuracy	OIML Class 2
Sensor Calibration Factors	86.0%; -3.00 mm/s; 11
Date of Manufacture	16 May 2014
Run Hours	3464days 14hrs 20mins

Sensor Data	
Coil Current	180.0 mA
Coil Inductance	218.5 mH
Coil Inductance Shift	-0.0%
Coil / Loop Resistance	38.6 ohm

Transmitter Information	
Application Version	V01.05.00 12/07/12
MSP Version	00.00.04
Date of Manufacture	16 May 2014
Run Hours	4763days 2hrs 24mins

Transmitter Data	
Tx Gain - Adjustment	0.0%

VeriMaster Information	
Version	01.00.03
Limit Version	01.00.01

Current Output	
4mA Value	Pass : 4.000 mA ; 0.00%
12mA Value	Pass : 11.980 mA ; 0.17%
20mA Value	Pass : 19.996 mA ; 0.02%

Pulse Output	
Output 1: 100.0Hz	Not tested
Output 1: 50.0Hz	Not tested
Output 2: 250Hz	Not available for testing
Output 2: 125Hz	Not available for testing

Installation Comments / Equipment used:

Pump 4

Configuration Settings	
Mains Frequency	60 Hz
Qmax	10.00 l/s
Pulses/Unit	120.000000
Pulses Limit Frequency	100.0 Hz
Sensor User Span/Zero	100.0%; 0.00 mm/s
User Flow Cutoff/Hysterisis	1.00%; 20%
Meter Mode	Normal operation

Date Tue, Jun 18, 2024 Operator Signature Print

ABB Instrumentation World Flow Technology

ABB Limited
Oldends Lane, Stonehouse
Gloucestershire, GL10 3TA UK
Tel: +44(0) 1453 826661
Fax: +44(0) 1453 821121
instrumentation@gb.abb.com

ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 6394
instrumentation@gb.abb.com

ABB Australia Pty Ltd.
Bapaune Rd
Moorebank, NSW 2170
Tel: +61-2-982 1-0111
Fax: +61-2-9821-0950

ABB Automation GmbH
Dransfelder Str.2
37079 Gottingen, GERMANY
Tel: +49 (0) 551 905212
Fax: +1 (215) 674 6394

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix VII:

Coagulant Used

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

Facility Org Number: 5318
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 200

Works: 110003665
Facility Classification: Class 2 Wastewater Treatment
Total Design Capacity: 170 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Chem	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Total
Coagulant Used - kg													
IH Month.Total	222.84	233.86	236.22	218.75	213.88	200.91	252.25	141.42	114.12	240.93	119.00	114.07	2308.24

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix VIII:

Biosolids Summary

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

Facility Org Number: 5318
Facility Owner: Municipality: City of Kawartha Lakes
Service Population: 200

Works: 110003665
Facility Classification: Class 2 Wastewater Treatment
Total Design Capacity: 170 m3/day

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Bslq	Mar 2024	Apr 2024	Jun 2024	Jul 2024	Sep 2024	Oct 2024	Total	Avg	Max	Min
Hauled Vol. - m³										
IH Edited Count	1.00	1.00	1.00	1.00	1.00	1.00	6.00			
IH Month.Max	35.35	32.62	36.25	34.60	34.70	34.43			36.25	
IH Month.Mean	35.35	32.62	36.25	34.60	34.70	34.43		34.66		
IH Month.Min	35.35	32.62	36.25	34.60	34.70	34.43				32.62
IH Month.Total	35.35	32.62	36.25	34.60	34.70	34.43	207.95			

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix IX:

Bypass/Overflow

Quarterly Reports

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Kawartha Trent Regional Hub Tel: 705-738-9734
P.O. Box 279, Fax: 705-738-9737
Bobcaygeon, ON K0M 1A0 www.ocwa.com

May 13, 2024

Brittney Wielgos
Water Compliance Supervisor (A)
Peterborough District Office
Ministry of the Environment, Conservation and Parks
300 Water Street, 2nd Floor, South Tower
Peterborough, ON
K9J 8M5

Dear Ms. Wielgos:

Re: King's Bay WPCP 2024 Q1 Bypass and Plant Overflow Event Report

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

(a) the date of the Event(s);
(b) the measured or estimated volume of the Event(s);
(c) the duration of the Event(s);
(d) the location of the Event(s);
(e) the reason for the Event(s); and
(f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the first quarter of 2024 (January, February, and March).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.
Process & Compliance Technician
Ontario Clean Water Agency
Kawartha Trent Regional Hub – South Cluster
(705) 731-7507

CC: Wesley Henneberry, OCWA – Senior Operations Manager
Julie Mulligan, OCWA − SPC Manager (A)
Lynette Nicholson, OCWA – General Manager
Karen Lorente, OCWA – Regional Hub Manager
Amber Hayter, City of Kawartha Lakes – Manager
Michelle Flaherty, City of Kawartha Lakes − Contract Coordinator
David Bradley, MECP – Peterborough District Office – Manager

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Kawartha Trent Regional Hub Tel: 705-738-9734
P.O. Box 279, Fax: 705-738-9737
Bobcaygeon, ON K0M 1A0 www.ocwa.com

August 8, 2024

Brittney Wielgos
Water Compliance Supervisor (A)
Peterborough District Office
Ministry of the Environment, Conservation and Parks
300 Water Street, 2nd Floor, South Tower
Peterborough, ON
K9J 8M5

Dear Ms. Wielgos:

Re: King's Bay WPCP 2024 Q2 Bypass and Plant Overflow Event Report

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

(a) the date of the Event(s);
(b) the measured or estimated volume of the Event(s);
(c) the duration of the Event(s);
(d) the location of the Event(s);
(e) the reason for the Event(s); and
(f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the second quarter of 2024 (April, May and June).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.
Process & Compliance Technician
Ontario Clean Water Agency
Kawartha Trent Regional Hub – South Cluster
(705) 731-7507

CC: Julie Mulligan, OCWA − SPC Manager (A)
Lynette Nicholson, OCWA – General Manager
Karen Lorente, OCWA – Regional Hub Manager
Amber Hayter, City of Kawartha Lakes – Manager
Michelle Flaherty, City of Kawartha Lakes − Contract Coordinator
David Bradley, MECP – Peterborough District Office – Manager

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Kawartha Trent Regional Hub Tel: 705-738-9734
P.O. Box 279, Fax: 705-738-9737
Bobcaygeon, ON K0M 1A0 www.ocwa.com

November 12, 2024

Brad Jackson
Water Compliance Supervisor (A)
Peterborough District Office
Ministry of the Environment, Conservation and Parks
300 Water Street, 2nd Floor, South Tower
Peterborough, ON
K9J 8M5

Dear Mr. Jackson:

Re: King's Bay WPCP 2024 Q3 Bypass and Plant Overflow Event Report

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

(a) the date of the Event(s);
(b) the measured or estimated volume of the Event(s);
(c) the duration of the Event(s);
(d) the location of the Event(s);
(e) the reason for the Event(s); and
(f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the third quarter of 2024 (July, August and September).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.
Process & Compliance Technician
Ontario Clean Water Agency
Kawartha Trent Regional Hub – South Cluster
(705) 731-7507

CC: Chad Edgerton, OCWA – Senior Operations Manager
Allison McCann, OCWA − SPC Manager
Lynette Nicholson, OCWA – General Manager
Karen Lorente, OCWA – Regional Hub Manager
Amber Hayter, City of Kawartha Lakes – Manager
Michelle Flaherty, City of Kawartha Lakes − Contract Coordinator
David Bradley, MECP – Peterborough District Office – Manager

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Kawartha Trent Regional Hub Tel: 705-738-9734
P.O. Box 279, Fax: 705-738-9737
Bobcaygeon, ON K0M 1A0 www.ocwa.com

February 10, 2025

Brad Jackson
Water Compliance Supervisor (A)
Peterborough District Office
Ministry of the Environment, Conservation and Parks
300 Water Street, 2nd Floor, South Tower
Peterborough, ON
K9J 8M5

Dear Mr. Jackson:

Re: King's Bay WPCP 2024 Q4 Bypass and Plant Overflow Event Report

Amended Environmental Compliance Approval #7037-A77JLP Section 5(3) issued February 16, 2016, for the King's Bay Environmental Centre requires a quarterly report be submitted to the Ministry's local office, no later than February 14, May 15, August 14, and November 15 each year. This report must contain the following information on any Bypass or Plant Overflow Events that occurred during the preceding quarter:

(a) the date of the Event(s);
(b) the measured or estimated volume of the Event(s);
(c) the duration of the Event(s);
(d) the location of the Event(s);
(e) the reason for the Event(s); and
(f) the level of treatment the Bypass(es) and/or Plant Overflow(s) received and disinfection status of same.

There were no incidents of a bypass or plant overflow at the King's Bay Environmental Centre during the fourth quarter of 2024 (October, November and December).

Please contact me if you have any questions or comments.

Best regards,

Cindy Coffin, A.Sc.T.
Process & Compliance Technician
Ontario Clean Water Agency
Kawartha Trent Regional Hub – South Cluster
(705) 731-7507

CC:
Allison McCann, OCWA − SPC Manager
Lynette Nicholson, OCWA – General Manager
Karen Lorente, OCWA – Regional Hub Manager
Amber Hayter, City of Kawartha Lakes – Manager
Michelle Flaherty, City of Kawartha Lakes − Contract Coordinator
David Bradley, MECP – Peterborough District Office – Manager