



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Zurich Sewage Treatment Plant
Annual Performance Report
2022
Municipality of Bluewater
WW#110001444

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Section 1: Overview

The Zurich Sewage Treatment Plant (STP) is a Class 1 Wastewater Treatment facility and the collection system is a Class 1.

The Zurich STP operates under Environmental Compliance Approval (ECA) # 4039-877J9R issued July 21, 2010. The works has the following components:

Main Lift Station

- 2 submersible sewage pumps in the wet well;
- 1 standby diesel generator with a capacity of 70 kW.

Waste Stabilization Pond

- Four cells;
- Aeration equipment in Cell 1 and Cell 2 air supplied by three positive displacement blowers capable of providing 168.5 L/s of air;
- one 400 mm diameter pipe to drain facultative lagoon Cell 3 and discharge to the filter pumping station through MH1;
- one 400 mm diameter pipe to drain facultative lagoon Cell 4 and discharge to the filter pumping station through MH1;
- sewage transfer structures from Cell 1 to Cell 2, 3 and 4; from Cell 2 to Cell 3; from Cell 3 to Cell 4 and from Cell 1 to Cell 4.

Effluent Filtration System

- Two intermittent sand filters for alternate dosing, each having a minimum total surface area of 900 m² comprised of approximately 1,060 mm of filter media, including an under drain system comprised of 150 mm diameter perforated collection laterals spaced at 4.5 to 5.0 m and bedded in gravel layer, continuously discharging the final effluent;
- One filter pump station equipped with two submersible pumps (one duty and one standby) each with a rated capacity of 64.4 L/s to the filter at 12.5 m TDH and discharging effluent to filters through separate 200 mm diameter discharge headers;
- One valve and effluent metering chamber; and
- One 450 mm diameter gravity sewer to convey the effluent of the filters to Zurich drain, from where it flows to Lake Huron approximately 10 km downstream of the lagoons.

Phosphorus Removal System

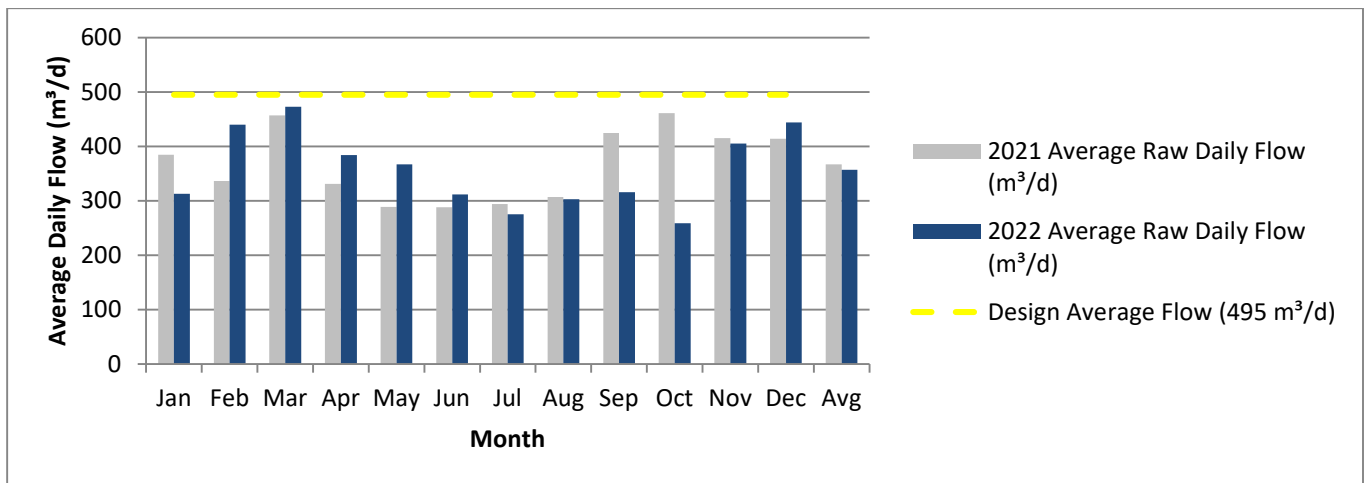
- A phosphorus removal system for the continuous addition of chemicals, consisting of one chemical storage tank and two feed pumps (one duty and one standby) each capable of supplying minimum and maximum alum dosages of 1.35 L/hr. and 36.77 L/hr.

Section 2: Monitoring Results

Raw Sewage Monitoring

The 2022 average daily flow of raw sewage was 357.03 m³/ day. The Zurich STP is at 72.13 % of the rated capacity of 495 m³/ day. The average daily flow is down 2.7% from the 2021 average daily flows, refer to Chart 1.

Chart 1: Zurich Lagoons Average Daily Raw Sewage flows in 2022 compared to 2021 flows.



There were 35 days in total where the average daily flow exceeded the rated capacity of the STP. The facility rated capacity was exceeded in the months February (7 days), March (14 days), May (3 days), September (2 days), November (6 days) and December (3 days) of 2022. Compliance is an annual average; daily exceedances are not a reportable event.

The maximum daily raw sewage flow for 2022 was 1,394.4 m³/day; this is 282 % of the rated capacity. The maximum daily flow of 1,394.4 m³/ day occurred in February 2022; the high flows were related to wet weather conditions. The 2022 maximum daily raw sewage flow of 1,394.4 m³/ day is 54.7 % of the peak daily raw sewage flow rated capacity of 2,549 m³/ day.

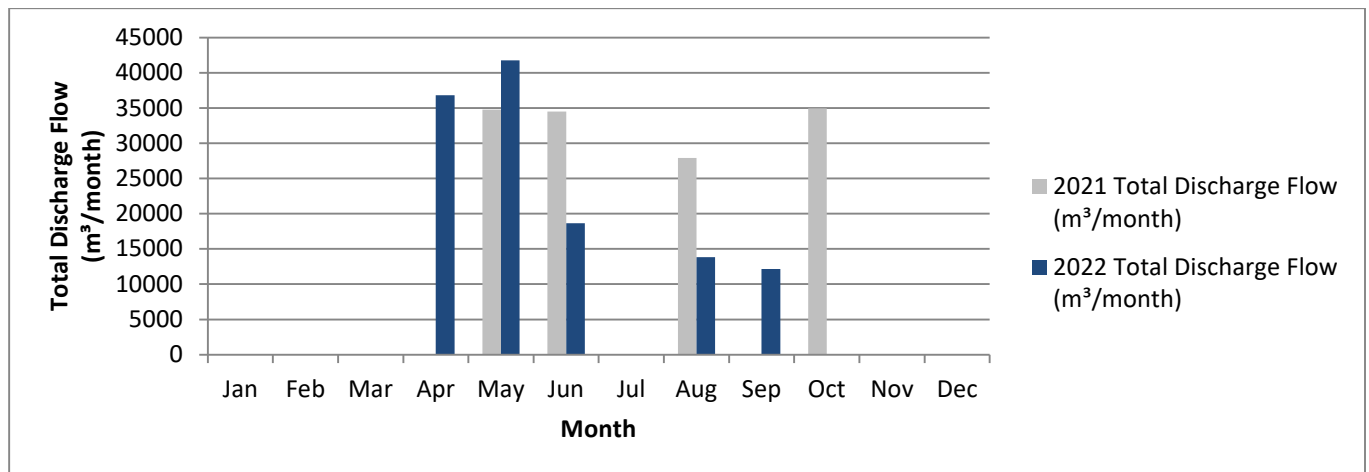
Raw samples are obtained on a monthly basis and tested for BOD₅, total suspended solids, total phosphorus and Total Kjeldahl Nitrogen. All samples were obtained as required, refer to Appendix A for monitoring results.

Effluent Monitoring Results

The lagoon was discharged in 2022 during the months of April, May, June, August, and September.

The lagoon was discharged into the Zurich Drain approximately 10 kilometers upstream of Lake Huron. The total volume discharged into the Zurich Drain for the 2022 reporting period was 123,240 m³. The 2022 average daily discharge flow was 1,196.5 m³ with a maximum daily discharge flow of 1,665.8 m³; the maximum daily discharge flow value was recorded in September 2022, see chart 2. The total volume discharged is down 6.8% from 2021 effluent discharged.

Chart 2: Zurich Lagoons Discharge Final Effluent Flows in 2022 compared to 2021 flows.



The effluent is sampled weekly during lagoon discharge. The Zurich Sewage Lagoons provided effective wastewater treatment in 2022; all effluent concentration limits specified by the MECP in Environmental Compliance Approval # 4039-877J9R were met (refer to Table 1).

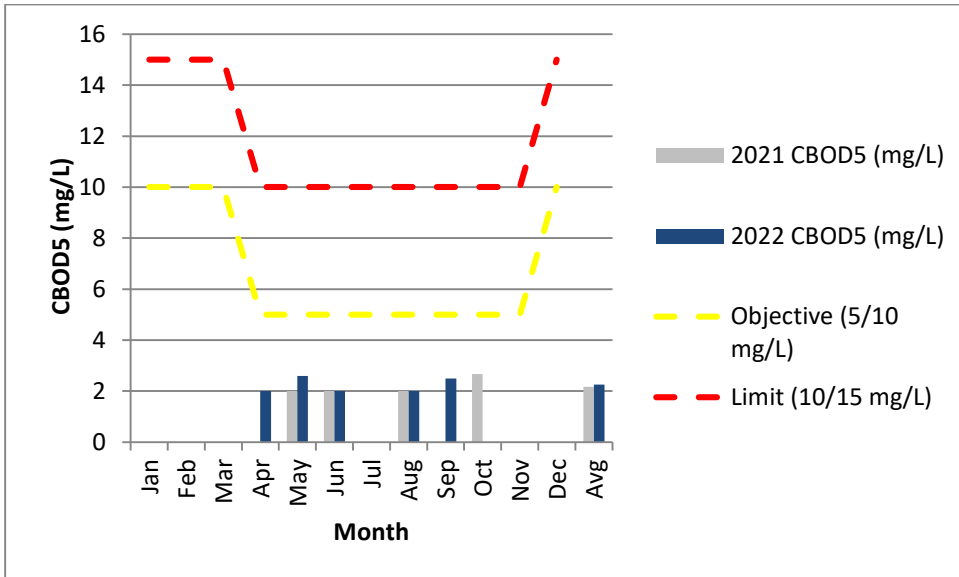
Table 1: Effluent monitoring results compared to the limits specified in the ECA.

Effluent Parameter	Concentration Limits	2022 Average Monthly Concentration Ranges	Number of Exceedances
CBOD5 (mg/L)	10 mg/L (*15mg/L)	2 - 3 mg/L	0
Total Suspended Solids (mg/L)	10 mg/L(*15mg/L)	2 - 4 mg/L	0
Total Phosphorus (mg/L)	0.5 mg/L(*1.0mg/L)	0.0 - 0.0 mg/L	0
Total Ammonia (mg/L)	3.0 mg/L(*5.0mg/L)	0.1 – 3.0 mg/L	0
E. Coli (per 100 ml)	100 cfu/ 100 mL	1 - 9 cfu/100 mL	0
pH	maintained between 6.0 – 9.5, inclusive, at all times.	6.9 - 7.6	0

*values are for discharge during December 15 – April 15

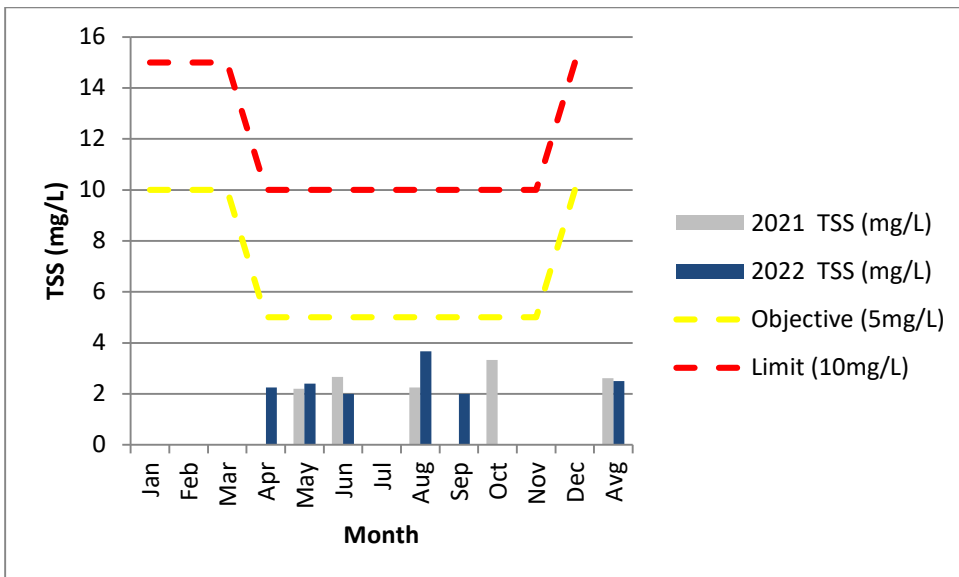
Zurich Lagoons average monthly effluent carbonaceous Biochemical Oxygen Demand (CBOD5) results for 2022 met the ECA identified limit and design objective values, refer to Chart 3.

Chart 3: Effluent CBOD5 Results for 2022 compared with 2021.



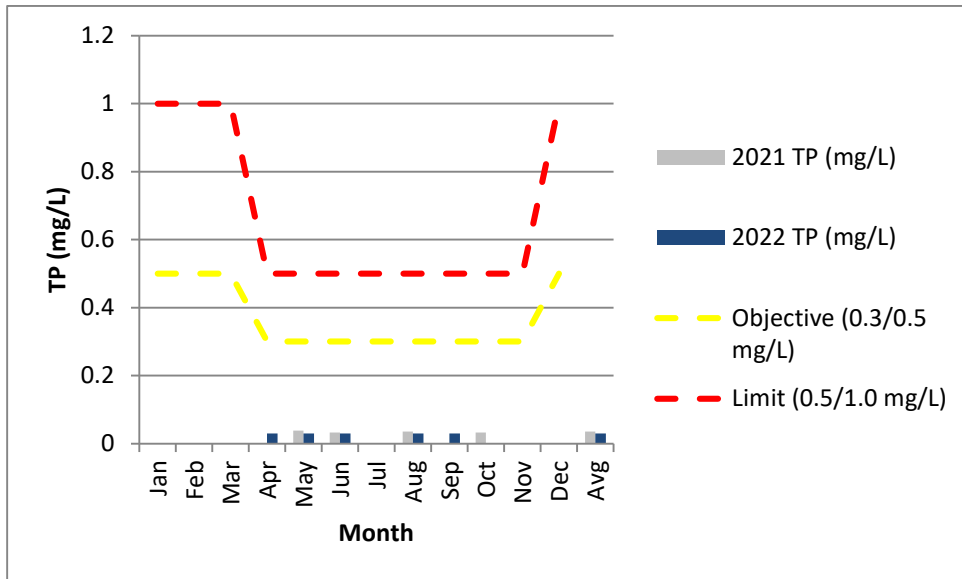
Zurich Lagoons average monthly effluent Total Suspended Solids (TSS) results for 2022 met ECA identified limit and design objective values, refer to Chart 4.

Chart 4. Effluent TSS results for 2022 compared with 2021.



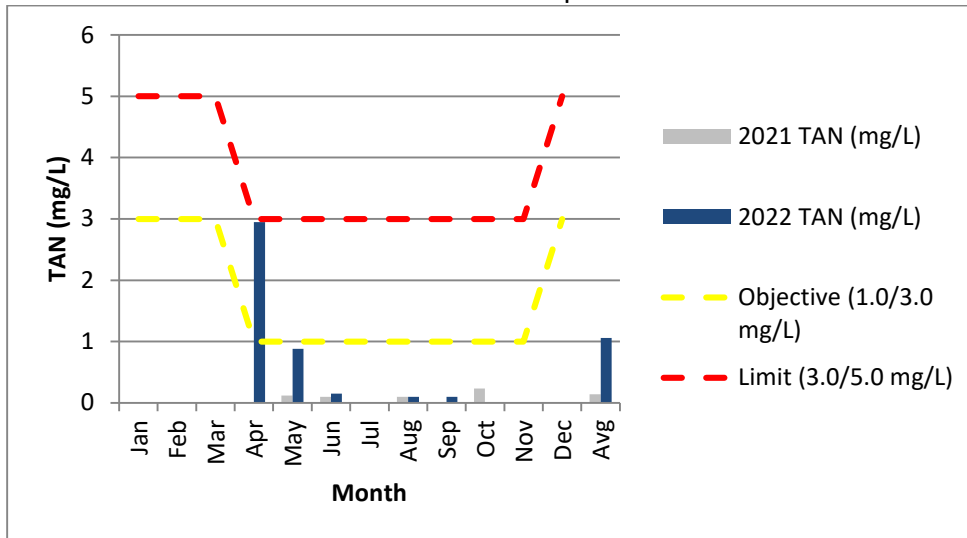
Zurich Lagoons average monthly effluent Total Phosphorus (TP) results for 2022 met ECA identified limit and objective values, refer to Chart 5.

Chart 5. Effluent TP results for 2022 compared to 2021.



Zurich STP average monthly effluent Total Ammonia Nitrogen (TAN) results for 2022 met ECA identified limit; objective value was not met for the month of April (2.05 mg/L) for discharge period December 15-April 15, refer to Chart 6. Refer to Section 7 for discussion on the objective exceedance.

Chart 6. Effluent TAN results for 2022 compared to 2021.



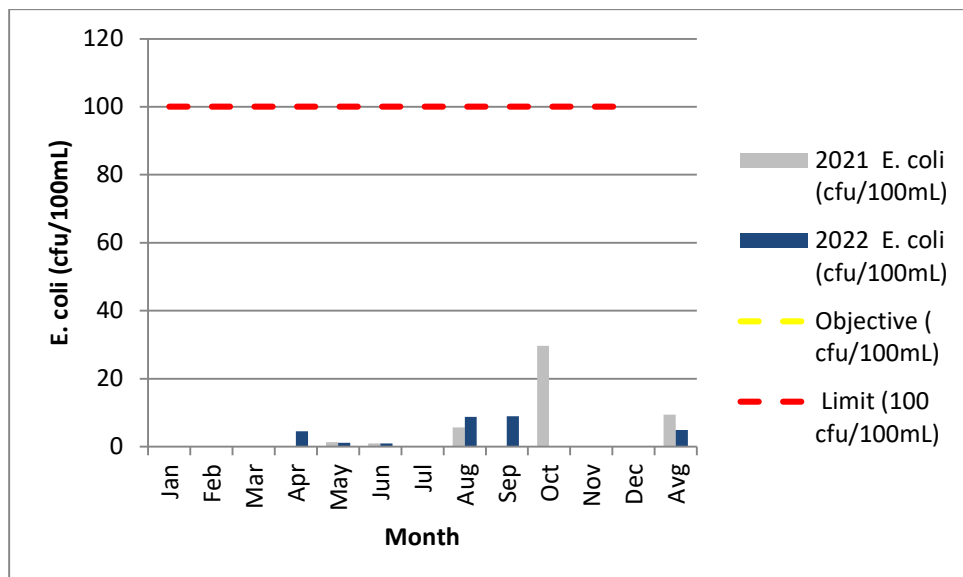
Final effluent pH and temperature (Temp.) were analyzed for each Total Ammonia Nitrogen (TAN) sample collection in order to calculate the unionized ammonia concentration. All results met the Provincial Water Quality Objective of 0.02mg/L, refer to Table 2.

Table 2. Effluent Temperature, TAN, pH and Unionized Ammonia Concentrations.

Date	Temp. °C	TAN mg/L	pH	Unionized Ammonia mg/L	Meets Ontario Provincial Water Quality Objective 0.02 mg/L
2022-04-05	6.8	3.8	7.10	0.007	Yes
2022-04-11	10.9	3.9	7.34	0.017	Yes
2022-04-19	7.6	2.4	7.19	0.006	Yes
2022-04-26	12.1	1.7	6.94	0.003	Yes
2022-05-02	12.8	1.6	7.04	0.004	Yes
2022-05-09	14.3	1.7	7.24	0.008	Yes
2022-05-16	18.5	0.6	7.33	0.005	Yes
2022-05-24	16.1	0.2	7.12	0.001	Yes
2022-05-30	23.6	0.3	7.13	0.002	Yes
2022-06-06	20.0	0.1	7.38	0.001	Yes
2022-06-13	22.3	0.2	7.28	0.002	Yes
2022-08-09	23.4	0.1	7.11	0.001	Yes
2022-08-17	24.3	0.1	7.41	0.001	Yes
2022-08-22	24.0	0.1	7.34	0.001	Yes
2022-09-22	19.2	0.1	6.99	0.001	Yes
2022-09-26	15.0	0.1	7.63	0.001	Yes

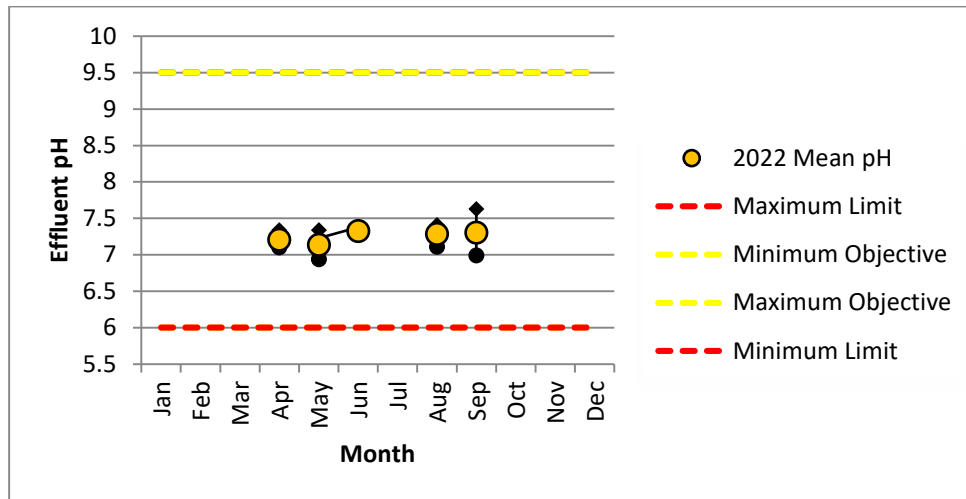
Zurich STP effluent E. coli Geometric Mean Density (GMD) results for 2022 met ECA identified limit and objective value of 100 cfu/100 mL, refer to Chart 7.

Chart 7. Effluent E. coli results for 2022 compared to 2021.



Zurich STP final effluent pH results for 2022. Daily pH results met ECA identified limit and objective values, refer to Chart 8.

Chart 8. Effluent pH Results for 2022.



Refer to Appendix A for the flow and sampling summary.

Section 3: Operating Problems and Corrective Actions

Grease build up in wet wells is managed by hiring a contractor to remove the grease build up from the wet wells and clean check valves on multiple occasions.

Operational staff closely monitored vegetative growth on the effluent sand filter beds; the filter beds were mowed and rototilled on numerous occasions to curtail growth.

Pumps were pulled and cleaned or repaired as needed.

Alum lines were replaced as needed.

Multiple power outages occurred due to weather conditions in the area; the process was effectively managed throughout all power outage events.

There was a forcemain break at the lagoon sewage pumping station on March 13, 2022. The break was discovered by a nearby resident that notified the municipality. OCWA responded to the site and found that raw sewage was spilling onto the ground around the pumping station and was entering the Zurich drain. The responding operator shut off the pumps and called a vacuum truck on site to stop the spill of raw sewage. The Spills Action Centre and Huron Perth Public Health were notified of the issue; samples

were collected and the required repairs completed. It is estimated that 88.8 m³ of raw sewage was spilled during the 18.5hr event.

Section 4: Summary of Maintenance

Regular-scheduled monthly preventative maintenance has been assigned and is monitored using OCWA's Work Management System program (Maximo), refer to Appendix C for a work order summary.

Additional unscheduled maintenance is completed as needed. Additional maintenance completed during 2022 included:

- Installed new air filters on blowers #1, 2, 3
- Flushed alum lines; replaced alum pump tubing;
- Completed filter bed maintenance as needed;
- Replaced lagoon sump pump;
- Repaired sewage force main break;
- Completed sewage line repairs as needed;
- Completed UPS maintenance; repaired and replaced batteries as applicable;
- Pulled, cleaned and repaired pumps as needed;
- Electrician completed MCC panel, Blower and VFD inspections;
- Upgrade facility to fibre optics;

Section 5: Summary of Effluent Quality Assurance

The effluent parameters are analyzed by SGS Lakefield which is an accredited laboratory in Ontario. Annually a facility sampling schedule calendar is prepared and reviewed with operational staff; the sampling schedule calendar identifies sample collection dates to meet regulatory requirements of the Environmental Compliance Approval. The lab results are reviewed by the operators as they are received to ensure compliance.

The system is monitored on an on-going basis to ensure proper operations. System checks include recording well levels, pump hours, testing of alarms and running the generators to ensure all systems are operating effectively.

Section 6: Summary of Calibrations

In 2022 the facility flow meter calibrations were completed by Pierce Services and Solutions Inc, refer to Appendix B for calibration records. Instrumentation for pH monitoring is calibrated by the operator prior to use.

Section 7: Summary of Effluent Objectives

The Zurich STP provided effective wastewater treatment in 2022. Effluent concentration objectives specified by the MECP in Environmental Compliance Approval # 4039-877J9R were met for CBOD, Total Suspended Solids, Total Phosphorus and pH. The Total Ammonia Nitrogen (TAN) objective was not met

in April (2.65mg/L) for the objective period of April 16 to December 14. This was due to spring start up of the system where the filters need seasoning to build up the biological layer to effectively remove TAN from the effluent. Once the filter beds were seasoned the monthly effluent results were below the objectives.

Regular scheduled filter maintenance, alum dosage adjustments, discharging rate adjustments and effluent monitoring are completed by operational staff to strive and meet Environmental Compliance Approval design objectives.

Effluent Parameter	Concentration Objective	2022 Average Monthly Concentration Ranges	Number of Exceedances
CBOD5 (mg/L)	5 mg/L (*10mg/L)	2 - 3 mg/L	0
Total Suspended Solids (mg/L)	5 mg/L(*10mg/L)	2 – 4 mg/L	0
Total Phosphorus (mg/L)	0.3 mg/L(*0.8mg/L)	0.0 - 0.0 mg/L	0
Total Ammonia (mg/L)	1.0 mg/L (*3.0mg/L)	0.1 – 3.0 mg/L	1
pH	maintained between 6.0 – 9.5, inclusive at all times	6.9 - 7.6	0

*values are for discharge during December 15 – April 15

Section 8: Summary of Complaints

No complaints were received in 2022.

Section 9: Summary of By-pass, Spill or Abnormal Discharge Events

One spill event was identified in 2022, refer to Section 3 for further details. A total of 88.8m³ of raw sewage was spilled when the forcemain broke which was estimated to be for 18.5 hours.

There were no bypass or abnormal discharge events identified in 2022.

Section 10: Other Information the District Manager Required

No applicable information identified in 2022.

Appendix A: Flow and Monitoring Results

5876 ZURICH WASTEWATER TREATMENT LAGOON 110001444

	1/ 2022	2/ 2022	3/ 2022	4/ 2022	5/ 2022	6/ 2022	7/ 2022	8/ 2022	9/ 2022	10/ 2022	11/ 2022	12/ 2022	<--Total-->	<--Avg-->	<--Max-->	<-Criteria-->
Flows																
Raw Flow: Total - Raw Sewage m³/d	9,702.70	12,325.20	14,655.80	11,533.30	11,385.80	9,363.60	8,536.40	9,390.70	9,476.50	8,026.50	12,157.60	13,763.00	130,317.10			0.00
Raw Flow: Avg - Raw Sewage m³/d	312.99	440.19	472.77	384.44	367.28	312.12	275.37	302.93	315.88	258.92	405.25	443.97		357.03		
Raw Flow: Max - Raw Sewage m³/d	358.20	1,394.40	796.90	465.70	628.00	442.60	304.30	453.70	640.10	360.00	611.80	1,256.80			1,394.40	0.00
Raw Flow: Count - Raw Sewage m³/d	31.00	28.00	31.00	30.00	31.00	30.00	31.00	31.00	30.00	31.00	30.00	31.00	365.00			0.00
Eff. Flow: Total - Effluent m³/d	0.00	0.00	0.00	36,819.00	41,771.70	18,654.40	0.00	13,835.20	12,159.70	0.00	0.00	0.00	123,240.00			0.00
Eff. Flow: Avg - Effluent m³/d	0.00	0.00	0.00	1,363.67	1,347.47	1,243.63	0.00	728.17	1,105.43	0.00	0.00	0.00		1,196.50		
Eff. Flow: Max - Effluent m³/d	0.00	0.00	0.00	1,429.90	1,377.50	1,316.00	0.00	880.20	1,665.80	0.00	0.00	0.00			1,665.80	0.00
Eff Flow: Count - Effluent m³/d	0.00	0.00	0.00	27.00	31.00	15.00	0.00	19.00	11.00	0.00	0.00	0.00	103.00			0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Eff: Avg cBOD5 - Effluent mg/L	0.00	0.00	0.00	< 2.00	< 2.60	< 2.00	< 0.00	< 2.00	< 2.50	0.00	0.00	0.00		< 2.25	< 2.60	15.00
Eff: # of samples of cBOD5 - Effluent	0.00	0.00	0.00	4.00	5.00	2.00	0.00	3.00	2.00	0.00	0.00	0.00	16.00			0.00
Loading: cBOD5 - Effluent kg/d	0.000	0.000	0.000	< 2.727	< 3.503	< 2.487	< 0.000	< 1.456	< 2.764	0.000	0.000	0.000		< 2.59	< 3.50	0.000
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage mg/L	250.00	242.00	127.00	205.00	229.00	206.00	297.00	237.00	136.00	128.00	88.00	119.00		188.67	297.00	0.00
Raw: # of samples of BOD5 - Raw Sewage	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
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	288.00	277.00	302.00	241.00	211.00	290.00	277.00	379.00	470.00	260.00	409.00	370.00		314.50	470.00	0.00
Raw: # of samples of TSS - Raw Sewage	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 - Effluent mg/L	0.00	0.00	0.00	< 2.25	< 2.40	< 2.00	0.00	3.67	< 2.00	0.00	0.00	0.00		< 2.50	< 3.67	15.00
Eff: # of samples of TSS - Effluent	0.00	0.00	0.00	4.00	5.00	2.00	0.00	3.00	2.00	0.00	0.00	0.00	16.00			0.00
Loading: TSS - Effluent kg/d	0.000	0.000	0.000	< 3.068	< 3.234	< 2.487	0.000	2.670	< 2.211	0.000	0.000	0.000		< 2.73	< 3.23	0.000
Percent Removal: TSS - Raw Sewage %	0.00	0.00	0.00	99.07	98.86	99.31	0.00	99.03	99.57	0.00	0.00	0.00			99.57	0.00
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage mg/L	1.08	3.99	2.12	2.49	2.87	3.26	4.20	4.04	5.00	2.29	4.80	2.74		3.24	5.00	0.00
Raw: # of samples of TP - Raw Sewage	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 - Effluent mg/L	0.00	0.00	0.00	< 0.03	< 0.03	< 0.03	0.00	< 0.03	< 0.03	0.00	0.00	0.00		< 0.03	< 0.03	

Eff: # of samples of TP - Effluent	0.00	0.00	0.00	4.00	5.00	2.00	0.00	3.00	2.00	0.00	0.00	0.00	16.00			0.00
Loading: TP - Effluent kg/d	0.000	0.000	0.000	< 0.041	< 0.040	< 0.037	0.000	< 0.024	< 0.033	0.000	0.000	0.000		< 0.04	< 0.04	0.000
Percent Removal: TP - Raw Sewage %	0.00	0.00	0.00	98.80	98.95	99.08	0.00	99.17	99.40	0.00	0.00	0.00			99.40	0.00

Nitrogen Series

Raw: Avg TKN - Raw Sewage mg/L	48.70	30.60	18.10	26.70	31.80	41.90	46.20	37.50	41.40	43.60	45.70	24.90		36.43	48.70	0.00
Raw: # of samples of TKN - Raw Sewage	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 - Effluent mg/L	0.00	0.00	0.00	2.95	0.88	< 0.15	0.00	< 0.10	< 0.10	0.00	0.00	0.00		1.06	2.95	
Eff: # of samples of TAN - Effluent	0.00	0.00	0.00	4.00	5.00	2.00	0.00	3.00	2.00	0.00	0.00	0.00	16.00			0.00
Loading: TAN - Effluent kg/d	0.000	0.000	0.000	4.023	1.186	< 0.187	0.000	< 0.073	< 0.111	0.000	0.000	0.000		1.12	4.02	0.000

Disinfection

Eff: GMD E. Coli - Effluent cfu/100mL	0.00	0.00	0.00	4.53	1.15	1.00	0.00	8.83	8.94	0.00	0.00	0.00				
Eff: # of samples of E. Coli - Effluent	0.00	0.00	0.00	4.00	5.00	2.00	0.00	3.00	2.00	0.00	0.00	0.00	16.00			0.00

Appendix B: Calibration Report



**Pierce Services
& Solutions Inc.**

PO Box 26027
Guelph, ON N1E 6W1

Phone: 519.820.4853
Fax: 519.824.9402

Flowmeter Report

Verification: <input checked="" type="checkbox"/>	Calibration: <input type="checkbox"/>
Client: <u>OCWA Bluewater</u>	Location: <u>Zurich Lift Station SPS</u>
Description: <u>Mag Meter</u>	Date: <u>04-Apr-22</u>
Manufacturer: <u>ABB</u>	Checked By: <u>Greg Pierce</u>
Model: <u>Magmaster</u>	Serial No.: <u>9726</u>
Inventory No.: <u>249226</u>	

Velocity	Input	As Found	As Left	Pass/Fail
0 m/s	0.00 l/s	0.00 l/s	0.00 l/s	Pass
2.033 m/s	15.95 l/s	15.95 l/s	15.95 l/s	Pass
6.36 m/s	50.00 l/s	50.00 l/s	50.00 l/s	Pass

Confirmed Run Mode: Returned to service:

Service Comments:

Flowmeter Information

Flow Unit: l/s
 Meter Size: 100 mm
 Pipe Material: Cast Steel
 Liner Material: PU
 Range: 0-50 l/s
 Tag Number: FIT 201



Comments:
Verification of original calibration

Signature:

 Greg Pierce, CCST



Pierce Services
& Solutions Inc.

519.820.4853 Fax 519.824.9402

Instrument Verification Sheet

Client Name: Ontario Clean Water Agency

Date: April 4, 2022

Equipment Description: Level Sensor

Assigned Number: Wet Well Level

Area Located: Zurich Pumping Station

Inventory Number: 249058

Instrument Data

Manufacturer: Milltronics

Model Number: MultiRanger Plus

Type: Ultrasonic

Serial Number: N/A

Range: 0 - 2.050 m

Accuracy: +/- 5%

Method Of Calibration: Standard Measurement

Application: Waste Water

Calibration Data

Input %	Input	As Found	As Left	% Error
	11.72 mA	0.99 m	0.99 m	
	15.99 mA	1.59 m	1.59 m	

Confirmed Run Mode:

Placed back in service:

Comments:



Checked By: Greg Pierce CCST

Signature: _____

Appendix C: Work Order Summary

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2591337	0000249057	PANEL ALARM/ DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	1/1/22 12:00 AM	1/18/22 03:42 PM	1/18/22 03:42 PM	generator running - • generator running alarm • all normal
2591937	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	1/1/22 12:00 AM	1/18/22 03:36 PM	1/18/22 03:36 PM	monthly test - • run generator • monthly test • recorded data • all normal
2591956	0000249076	PANEL ALARM/ DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	1/1/22 12:00 AM	1/21/22 03:47 PM	1/21/22 03:47 PM	monthly test - • set off alum room flood alarm • monthly test • al normal
2591961	0000249107	PANEL ALARM/ DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	1/1/22 12:00 AM	1/17/22 03:55 PM	1/17/22 03:55 PM	alarm test - • set off high level alarm • for monthly test • all normal

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2612480			5876, Zurich WWTL & CS	PM	Refurbish/ Replace/Repair	3	YEARS	MCC Zurich Lagoon Insp/Service (1y/3y) 5876	CLOSE	1/1/22 12:00 AM	9/20/22 11:40 AM	9/20/22 11:40 AM	MCC Zurich Lagoon Insp/Service (1y/3y) 5876 -

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													<ul style="list-style-type: none"> 1) Isolated the unit, opened cabinet doors and visually inspected the MCC components. 2) Checked for loose connections and signs of overheating. 3) Manually operated all circuit breakers. 4) Inspected main contacts on all motor controllers. 5) Manually operated motor controllers to check for excessive binding. 6) Cleaned the cabinet with a soft brush, vacuum and lint free cloth. 7) Checked indicator lights. 8) Checked all fuses. 9) Inspected air filters

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													10) Checked cabinet door interlock

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2612483			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	3	YEARS	MCC Zurich PS Insp/Service (1y/3y) 5876	CLOSE	1/1/22 12:00 AM	9/20/22 11:43 AM	9/20/22 11:43 AM	MCC Zurich PS Insp/Service (1y/3y) 5876 - <ul style="list-style-type: none"> • 1) Isolated the unit, opened cabinet doors and visually inspected the MCC components. 2) Checked for loose connections and signs of overheating. 3) Manually operated all circuit breakers. 4) Inspected main contacts on all motor controllers. 5) Manually operated motor controllers to check for excessive binding. 6) Cleaned the cabinet with a soft brush, vacuum and lint free cloth. 7) Checked indicator lights. 8) Checked all fuses. 9) Inspected air filters

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
													10) Checked cabinet door interlock
2644719	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	2/1/22 12:00 AM	2/3/22 12:43 PM	2/3/22 12:43 PM	Tested Power Failure alarm - -
2645308	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	2/1/22 12:00 AM	2/3/22 12:45 PM	2/3/22 12:45 PM	Tested Generator - • All normal
2645327	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	2/1/22 12:00 AM	2/3/22 12:46 PM	2/3/22 12:46 PM	Tested blower failure alarm - • all normal
2645332	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	2/1/22 12:00 AM	2/16/22 03:47 PM	2/16/22 03:47 PM	monthly test - • tested high level alarm • monthly test • all normal
2687039	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	3/1/22 12:00 AM	3/11/22 08:22 AM	3/11/22 08:22 AM	Alarm Dialer Zurich Lift Testing (1m) 5876 - started generator at sps called on call phone all normal
2687564	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	3/1/22 12:00 AM	3/11/22 08:26 AM	3/11/22 08:26 AM	Engine Diesel Zurich WW Insp/Test (1m) 5876 - Ran Zurich SPS generator all normal
2687583	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	3/1/22 12:00 AM	3/11/22 08:24 AM	3/11/22 08:24 AM	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876 - Tripped alum float at zurich lagoon called on call operator all normal
2687588	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	3/1/22 12:00 AM	3/21/22 04:32 PM	3/21/22 04:32 PM	monthly test - • set off high level alarm • monthly test • all normal

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2687775			5876, Zurich WWTL & CS	PM	Health and Safety	1	YEARS	OG15 Facility OHSA Inspection (1y) 5876	CLOSE	3/1/22 12:00 AM	7/26/22 10:28 AM	7/26/22 10:28 AM	OG15 Facility OHSA Inspection (1y) 5876 - -Completed February 2022 by operational staff -Inspection details uploaded onto OCWA shared drive
2706853			5876, Zurich WWTL & CS	PM	Inspection	1	YEARS	Blower VFD Inspection/ Freq Increase (1y) 5876	CLOSE	3/1/22 12:00 AM	9/15/22 10:39 AM	9/15/22 10:39 AM	Completed by operator -
2733713	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	4/1/22 12:00 AM	5/14/22 11:30 AM	5/14/22 11:30 AM	Completed by Operator -
2734316	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	4/1/22 12:00 AM	4/25/22 07:13 AM	4/25/22 07:13 AM	Engine Diesel Zurich WW Insp/Test (1m) 5876 - Running generator for monthly test all normal.
2734335	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	4/1/22 12:00 AM	5/14/22 11:37 AM	5/14/22 11:37 AM	tested zurich lagoon alarm - tested monthly alarm
2734340	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	4/1/22 12:00 AM	4/12/22 03:41 PM	4/12/22 03:41 PM	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876 - Tested Knell Monthly alarm called on call operator okay
2782772	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	5/1/22 12:00 AM	6/6/22 11:54 AM	6/6/22 11:54 AM	Alarm Dialer Zurich Lift Testing (1m) 5876 - tested alarm dialer for monthly test all normal
2783314	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	5/1/22 12:00 AM	6/6/22 11:58 AM	6/6/22 11:58 AM	Engine Diesel Zurich WW Insp/Test (1m) 5876 - ran zurich sps generator all normal
2783333	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	5/1/22 12:00 AM	5/9/22 03:36 PM	5/9/22 03:36 PM	monthly test - • set off alum room flood alarm • for monthly test
2783338	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	5/1/22 12:00 AM	5/9/22 03:31 PM	5/9/22 03:31 PM	Alarm test - Completed Monthly alarm test high level on call operator received okay

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2830212	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	6/1/22 12:00 AM	7/4/22 04:39 PM	7/4/22 04:39 PM	Alarm Dialer Zurich Lift Testing (1m) 5876 - tested zurich sps alarm all normal
2830788	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	6/1/22 12:00 AM	7/4/22 04:41 PM	7/4/22 04:41 PM	Engine Diesel Zurich WW Insp/Test (1m) 5876 - tested zurich sps generator all normal
2830807	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	6/1/22 12:00 AM	7/4/22 04:42 PM	7/4/22 04:42 PM	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876 - tested zurich lagoon alarm all normal
2830812	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	6/1/22 12:00 AM	7/4/22 04:36 PM	7/4/22 04:36 PM	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876 - tested knell cres alarm
2830985			5876, Zurich WWTL & CS	PM	Compliance	2	YEARS	Operation SOP Manual Review and Update (2y) 5876	CLOSE	6/1/22 12:00 AM	10/4/22 12:05 PM	10/4/22 12:05 PM	- the Zurich lagoons operations manual was reviewed and revised as applicable
2873139			5876, Zurich WWTL & CS, Process, Secondary Treatment	PM	Predictive Maintenance	0		Oil change on blowers 1-3 5876	CLOSE		6/24/22 08:18 AM	6/24/22 08:18 AM	Oil change on blowers 1-3 5876 - • drained oil and replaced with synthetic 220 oil • no leaks or unusual noises
2880303	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	7/1/22 12:00 AM	7/30/22 11:03 AM	7/30/22 11:03 AM	Alarm Dialer Zurich Lift Testing (1m) 5876 - tested alarm
2880819	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	7/1/22 12:00 AM	7/30/22 10:48 AM	7/30/22 10:48 AM	Engine Diesel Zurich WW Insp/Test (1m) 5876 - tested generator all normal
2880838	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	7/1/22 12:00 AM	7/30/22 10:39 AM	7/30/22 10:39 AM	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876 - tested alarm
2880843	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	7/1/22 12:00 AM	7/30/22 10:32 AM	7/30/22 10:32 AM	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876 - tested alarm

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2928119			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	1	YEARS	Fan Route Insp/Service (1y) 5876	COMP	8/1/22 12:00 AM	1/24/23 10:18 AM	1/24/23 10:18 AM	Visual Inspection Only -
2928409	0000249069	BLOWER POSITIVE DISPLACEMENT 02	5876, Zurich WWTL & CS, Process, Secondary Treatment	PM	Refurbish/Replace/Repair	1	YEARS	Blower Positive Displacement 02 Insp/Service (1y) 5876	CLOSE	8/1/22 12:00 AM	9/20/22 11:59 AM	9/20/22 11:59 AM	Blower Positive Displacement 02 Insp/Service (1y) 5876 - 1) Replaced the oil in the June 23, 2022. 2) Lubricated the bearings using EP2 grease. 3) Removed the belt guard and check the condition of the belts and sheaves. 4) Checked the belt tension. 5) Checked the alignment of driver and driven sheaves. 6) Checked all hold down bolts. 7) Cleaned the area around the unit. 8) Checked the air intake filter.
2928413	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	8/1/22 12:00 AM	9/1/22 09:02 AM	9/1/22 09:02 AM	Alarm Dialer Zurich Lift Testing (1m) 5876 - -Ran generator -All normal
2929007	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	8/1/22 12:00 AM	9/1/22 09:01 AM	9/1/22 09:01 AM	Completed monthly testing - -All normal

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2929026	0000249076	PANEL ALARM/ DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	8/1/22 12:00 AM	9/2/22 02:52 PM	9/2/22 02:52 PM	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876 --Completed by operator August 2022
2929031	0000249107	PANEL ALARM/ DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	8/1/22 12:00 AM	9/1/22 09:03 AM	9/1/22 09:03 AM	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876 --Completed by operator
2940108	0000249223	BLOWER POSITIVE DISPLACEMENT 03	5876, Zurich WWTL & CS, Process, Secondary Treatment	PM	Refurbish/ Replace/Repair	1	YEARS	Blower Positive Displacement 03 Insp/Service (1y) 5876	CLOSE	8/1/22 12:00 AM	9/20/22 12:11 PM	9/20/22 12:11 PM	Blower Positive Displacement 03 Insp/Service (1y) 5876 - 1)Replaced the oil in the June 23, 2022. 2) Lubricated the bearings using EP2 grease. 3) Removed the belt guard and check the condition of the belts and sheaves. 4) Checked the belt tension. 5) Checked the alignment of driver and driven sheaves. 6) Checked all hold down bolts. 7) Cleaned the area around the unit. 8) Checked the air intake filter.

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2940112	0000249222	BLOWER POSITIVE DISPLACEMENT 01	5876, Zurich WWTL & CS, Process, Secondary Treatment	PM	Refurbish/Replace/Repair	1	YEARS	Blower Positive Displacement 01 Insp/Service (1y) 5876	CLOSE	8/1/22 12:00 AM	9/20/22 12:13 PM	9/20/22 12:13 PM	Blower Positive Displacement 01 Insp/Service (1y) 5876 - 1) Replaced the oil in the June 23, 2022. 2) Lubricated the bearings using EP2 grease. 3) Removed the belt guard and check the condition of the belts and sheaves. 4) Checked the belt tension. 5) Checked the alignment of driver and driven sheaves. 6) Checked all hold down bolts. 7) Cleaned the area around the unit. 8) Checked the air intake filter.
2974323	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	9/1/22 12:00 AM	9/30/22 02:20 PM	9/30/22 02:20 PM	Tested Power Fail alarm -All normal
2974961	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	9/1/22 12:00 AM	9/30/22 02:26 PM	9/30/22 02:26 PM	Tested Generator - All Normal
2974980	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Refurbish/Replace/Repair	1	YEARS	Engine Diesel Zurich WW Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	9/30/22 02:26 PM	9/30/22 02:26 PM	Tested Generator - All Normal

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
2975019	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	9/1/22 12:00 AM	9/30/22 02:28 PM	9/30/22 02:28 PM	Tested Alum Room Flood Alarm - All Normal
2975024	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	9/1/22 12:00 AM	9/30/22 02:28 PM	9/30/22 02:28 PM	Tested High Level Alarm - All Normal
2975029	0000249110	ENGINE GAS 01	5876, Knell Crescent Pumping Station	PM	Refurbish/Replace/Repair	1	YEARS	Engine Gas 01 Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	11/14/22 01:37 PM	11/14/22 01:37 PM	completed Nov 7 by Sommers -
2991015			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	1	YEARS	Engine Diesel Zurich SPS Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	11/14/22 02:09 PM	11/14/22 02:09 PM	completed by Sommers Nov 7 -
2991054			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	1	YEARS	Filter Sand 01 Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	9/15/22 01:49 PM	9/15/22 01:49 PM	Inspection Complete -
2991057			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	1	YEARS	Filter Sand 02 Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	9/15/22 01:49 PM	9/15/22 01:49 PM	Inspection Complete -
2991066			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	1	YEARS	Lagoon 01 Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	9/15/22 01:51 PM	9/15/22 01:51 PM	Inspection Complete -
2991069			5876, Zurich WWTL & CS	PM	Refurbish/Replace/Repair	1	YEARS	Lagoon 02 Insp/Service (1y) 5876	CLOSE	9/1/22 12:00 AM	9/15/22 01:52 PM	9/15/22 01:52 PM	Inspection Complete -
2992828			5876, Zurich WWTL & CS	PM	Inspection	1	YEARS	Drive VFD Insp/Service (1y) 6646	CLOSE	9/1/22 12:00 AM	9/20/22 12:19 PM	9/20/22 12:19 PM	Drive VFD Insp/Service (1y) - • visually and audibly inspected. cleaned heat sinks
3024737	0000249058	METER LEVEL	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Calibration	1	YEARS	Meter Level Insp/Service (1y) 5876	CLOSE	10/1/22 12:00 AM	12/13/22 12:19 PM	12/13/22 12:19 PM	Completed by Pierce Services -
3024742	0000249057	PANEL ALARM/DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:27 AM	10/20/22 10:27 AM	Tested Power Fail alarm -
3024747	0000249064	PUMP 01 FILTER	5876, Zurich WWTL & CS, Process, Secondary Treatment	PM	Refurbish/Replace/Repair	1	YEARS	Pump 01 Zurich Lagoon Filter Insp/Service (1y) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:27 AM	10/20/22 10:27 AM	Visual Inspection Only -
3024750	0000249065	PUMP 02 FILTER	5876, Zurich WWTL & CS, Process, Secondary Treatment	PM	Refurbish/Replace/Repair	1	YEARS	Pump 02 Zurich Lagoon Filter Insp/Service (1y) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:28 AM	10/20/22 10:28 AM	Visual Inspection Only -
3024753	0000249104	PUMP SUBMERSIBLE 01	5876, Knell Crescent Pumping Station	PM	Refurbish/Replace/Repair	1	YEARS	Pump Subm 01 Knell Crescent PS Insp/Service (1y) 5876	CLOSE	10/1/22 12:00 AM	10/19/22 03:23 PM	10/19/22 03:23 PM	Visual inspection only -

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM

Report End Date: Dec 31, 2022 11:59 PM

Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST

Work Order Type: PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3024762	0000249105	PUMP SUBMERSIBLE 02	5876, Knell Crescent Pumping Station	PM	Refurbish/ Replace/Repair	1	YEARS	Pump Subm 02 Knell Crescent PS Insp/Service (1y) 5876	CLOSE	10/1/22 12:00 AM	10/19/22 03:25 PM	10/19/22 03:25 PM	visual inspection only -
3024771	0000249049	PUMP SUBMERSIBLE WASTE WATER	5876, Zurich WWTL & CS, Process, Headworks	PM	Refurbish/ Replace/Repair	1	YEARS	Pump Subm Zurich PS Insp/ Service (1y) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:28 AM	10/20/22 10:28 AM	Visual Inspection Only -
3024780	0000249051	PUMP SUBMERSIBLE WASTE WATER	5876, Zurich WWTL & CS, Process, Headworks	PM	Refurbish/ Replace/Repair	1	YEARS	Pump Subm Zurich PS Insp/ Service (1y) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:29 AM	10/20/22 10:29 AM	Visual Inspection Only -
3024789	0000249083	VALVE BACKFLOW	5876, Zurich WWTL & CS, Process, Process Piping & Valves	PM	Refurbish/ Replace/Repair	1	YEARS	Valve Backflow Insp/Service (1y) 5876	CLOSE	10/1/22 12:00 AM	12/13/22 12:19 PM	12/13/22 12:19 PM	with Greg Masse -
3025547	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:43 AM	10/20/22 10:43 AM	Tested Generator -
3025566	0000249076	PANEL ALARM/ DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:44 AM	10/20/22 10:44 AM	Tested Alum Room Flood Alarm -
3025571	0000249107	PANEL ALARM/ DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	10/1/22 12:00 AM	10/20/22 10:44 AM	10/20/22 10:44 AM	Tested High Level Alarm -
3073322	0000249057	PANEL ALARM/ DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	CLOSE	11/1/22 12:00 AM	11/15/22 11:46 AM	11/15/22 11:46 AM	Tested Power Failure alarm -
3073963	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	CLOSE	11/1/22 12:00 AM	11/15/22 01:18 PM	11/15/22 01:18 PM	Tested Generator -
3073982	0000249076	PANEL ALARM/ DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	CLOSE	11/1/22 12:00 AM	11/15/22 01:18 PM	11/15/22 01:18 PM	Tested alum room flood alarm -
3073987	0000249107	PANEL ALARM/ DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	CLOSE	11/1/22 12:00 AM	11/15/22 01:19 PM	11/15/22 01:19 PM	Tested High Level alarm -
3092461			5876, Zurich WWTL & CS	PM	Inspection	1	YEARS	Blower VFD Inspection/ Freq Decrease (1y) 5876	CLOSE	11/1/22 12:00 AM	12/13/22 01:01 PM	12/13/22 01:01 PM	Task Complete -
3113593	0000249057	PANEL ALARM/ DIALER VERBATIM	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer Zurich Lift Testing (1m) 5876	COMP	12/1/22 12:00 AM	1/24/23 09:18 AM	1/24/23 09:18 AM	Completed by operator -

Workorder Summary Report

Report Start Date: Jan 1, 2022 12:00 AM
 Report End Date: Dec 31, 2022 11:59 PM
 Location: 5876,5876-SPKN,5876-WLZU,5876-WLZU-F,5876-WLZU-F-HV,5876-WLZU-F-PG,5876-WLZU-P,5876-WLZU-P-HW,5876-WLZU-P-PC,
 5876-WLZU-P-PI,5876-WLZU-P-PT,5876-WLZU-P-ST
 Work Order Type: PM
 Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
3114205	0000249054	ENGINE DIESEL GENSET	5876, Zurich WWTL & CS, Facility, Power Generation	PM	Inspection	1	MONTHS	Engine Diesel Zurich WW Insp/Test (1m) 5876	BUSCOMP	12/1/22 12:00 AM	1/24/23 09:20 AM	1/24/23 09:20 AM	Completed by operator -
3114224	0000249076	PANEL ALARM/DIALER 01	5876, Zurich WWTL & CS, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Alarm Dialer 01 Zurich LagoonTesting (1m) 5876	COMP	12/1/22 12:00 AM	1/24/23 09:22 AM	1/24/23 09:22 AM	Completed by operator -
3114229	0000249107	PANEL ALARM/DIALER 01 KNELL CRESCENT PS	5876, Knell Crescent Pumping Station	PM	Inspection	1	MONTHS	Alarm Dialer 01 Knell Cres PS Testing (1m) 5876	COMP	12/1/22 12:00 AM	1/24/23 09:28 AM	1/24/23 09:28 AM	Completed by operator -