Ontario Clean Water Agency
Agence Ontarienne Des Eaux

March 31, 2021

Mark Smith, Water Compliance Supervisor
Ministry of the Environment and Climate Change
3rd floor, 101 17th Street East
Owen Sound, Ontario
N4K 0A5

RE: 2020 Annual Performance Report, Requirement for Wiarton Sewage Lagoon System under the following Environmental Compliance Approval ECA 6045-ARDJS7

Dear Mr. Smith,

The Ontario Clean Water Agency entered into an agreement with the Town of South Bruce Peninsula to operate and maintain the Wiarton Wastewater Treatment System.

Please see attached for the 2020 Annual Performance Report for the Wiarton Sewage Lagoon System which covers the reporting period of January 1, 2020 to December 31, 2020. This report was completed in accordance with the requirements set out in ECA 6045-ARDJS7.

Should you require further clarification of information regarding this report, please feel free to contact me.

Sincerely,

Leo-Paul Frigault
Senior Operations Manager
Ontario Clean Water Agency
Grey Bruce Hub

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

WIARTON
WASTEWATER TREATMENT PLANT

ANNUAL PERFORMANCE REPORT

For the period of
JANUARY 1, 2020 TO DECEMBER 31, 2020

Prepared by the Ontario Clean Water Agency
For The Corporation of the Town of South Bruce Peninsula

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1. System Description

The Wiarton Wastewater Treatment System began operating in its present configuration in 2016. The facility includes a three (3)-cell Moving Bed Bioreactor System (MBBR), a three (3)-cell (6ha.) waste stabilization lagoon system that is aerated and operated in series configuration, a Dynasand Filtration System and a UV disinfection System.

The collection system serves the former Town of Wiarton. All raw sewage, including waste from the Wiarton Water Filtration Plant sewage pump station is collected at Sewage Pump Station no. 1 (SPS no.1) located at the intersection of George and Taylor Street. SPS no.1 is equipped with two (2) 60 hp 1775 rpm sewage pumps located in a dry well each with a rated capacity of 103.0 L/s at a TDH of 29.0 m (one duty, one standby) and a combined rated capacity of 130 L/s at a TDH of 39.0 m. The dry well is equipped with a forcemain air relief and vacuum relief valve. The sewage is then pumped to Sewage Pump Station no.2 (SPS no.2) located at the intersection of Taylor and Elm Street. SPS no.2 is equipped with three (3) 90 hp sewage pumps located in a wet well each with a rated capacity of 116 L/s at a TDH of 30.5 m (one (1) duty, two (2) standby), and two pumps in parallel having a rated capacity of 164.81 L/sec at a TDH of 36.68m (two (2) duty, one (1) standby) From there, the raw sewage is pumped to a three (3)-cell MBBR System and then flows to a three (3)-cell waste stabilization lagoon system which provides effluent polishing. Coagulant is injected at the MBBR effluent to provide precipitation of phosphorous in the lagoons. The discharge from lagoon cell #3 is continuous.

The Septage Receiving Station has controlled access and a magnetic flow meter to record volumes of septage being received. The Septage Receiving Station discharges to the MBBR.

Sodium Hypochlorite solution dosing is performed (before filtration and UV disinfection) for seasonal chlorination of lagoon effluent for control of algae growth between May and September of each year.

Disinfection that utilizes the UV disinfection system is only required from May 15 to September 15 but is currently being operated year round.

The plant discharge utilizes the pipe located on Mary Street to Isaac Street (original) as well as the original abandoned force main on Taylor Street. Both pipes intersect at the discharge pipe located at George and Tyson Streets.

An overview of the Wiarton Wastewater Treatment System can be found in Table 1 and a summary of the monitoring program can be found in Table 2.

Table 1. Wiarton Wastewater Treatment System Overview

Facility Name	Wiarton Wastewater Treatment Plant
Facility Type	MBBR 3-cell, Aerated Lagoon3-cell, Sand Filtration, UV disinfection with pumping stations (3)
Plant Classification	II
Works Number	20002681
Rated Capacity	4,400 m^3/day
Number of Households	1,100
Receiving Water	Colpoy's Bay (Georgian Bay)
Environmental Compliance Approval	ECA 6045-ARDJS7
Certificate of Approval	3-0709-82-006 (Air)

Table 2. Monitoring Program for Wiarton WWTP

Source	Parameter	Frequency	Method
Influent	Flow (m^3)	Daily	Flow Meter
	BOD_5, TSS, TP, TKN	Monthly	External Analysis
Effluent	Flow (m^3)	Daily	Flow Meter
	$CBOD_5$, TSS, Total Ammonia Nitrogen (TAN), Total Phosphorus	Bi-Weekly	External Analysis
	E. Coli	Bi-Weekly	External Analysis
	pH, Temperature	Bi-Weekly	In-House & External Analysis
	Temperature	Bi-Weekly	In-House & External Analysis
Septage	Flow (m^3)	Daily	Flow Meter
	BOD5, Total Suspended Solids, Total Phosphorous, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen (TAN), Chemical Oxygen Demand Organics: Acetone, Benzene, Ethylbenzene, Isopropyl alcohol, Methyl alcohol, Methylene Chloride, Methyl ethyl, ketone, Toluene, Xylene	Monthly	External Analysis
	Metals: Aluminum, Arsenic, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Tin, Zinc	Quarterly	External Analysis
MBBR	DO, pH, Temperature, Ammonia	Daily	Online analyzers
	BOD, TSS, Alkalinity, Total Phosphorous*	Bi-Weekly	External Analysis

*Not required by ECA 6045-ARDJS7

2. Monitoring Data

ECA 6045-ARDJS7, Section 11.4 requires

(a). a summary and interpretation of all Influent and Imported Sewage monitoring data, including sewage characteristics, flow rates and a comparison to the values used in the design of the Works;

(b). a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;

2.1 Sampling Frequency

Both raw sewage and effluent are sampled on a regular basis. The sampling types and frequencies are summarized in Table 3, 4 and 5. The sampling frequencies either meet or exceed the requirements set out in ECA 6045-ARDJS7.

Table 3. Raw Sewage Monitoring – Sampling Frequencies as Required

Parameter	Sample Type	Frequency
BOD_5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorous	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly

Table 4. Effluent Sampling Monitoring – Sampling Frequencies as Required

Parameters	Sample Type	Frequency
$CBOD_5$	8-hr Composite	Bi-weekly
Total Suspended Solids	8-hr Composite	Bi-weekly
Total Phosphorous	8-hr Composite	Bi-weekly
Total Ammonia Nitrogen (TAN)	8-hr Composite	Bi-weekly
E. Coli	Grab	Bi-weekly
pH	Grab	Bi-weekly
Temperature	Grab	Bi-weekly

Table 5. Imported Sewage Monitoring – Sampling Frequencies as Required by Schedule D of ECA 6045-ARDJS7

Parameters	Sample Type	Frequency
BOD_5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Phosphorous	Grab	Monthly
Total Kjeldahl Nitrogen	Grab	Monthly
Total Ammonia Nitrogen (TAN)	Grab	Monthly
Chemical Oxygen Demand	Grab	Monthly
Organics: Acetone, Benzene, Ethylbenzene, Isopropyl alcohol, Methyl alcohol, Methylene Chloride, Methyl ethyl, ketone, Toluene, Xylene	Grab	Monthly
Metals: Aluminum, Arsenic, Barium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Tin, Zinc	Grab	Quarterly

2.2 Effluent Limits

The effluent limits that are to be met as per ECA 6045-ARDJS7 for the Wiarton Sewage Treatment Lagoon are found in Table 6.

Table 6. Effluent Limits as per ECA 6045-ARDJS7.

Effluent Parameter	Monthly Average Concentration (mg/L) *	Monthly Average Waste Loading (kg/day)
$CBOD_5$	15	66
Total Suspended Solids	15	66
Total Phosphorous as P	0.3	1.32
Total Ammonia Nitrogen (May 1 to October 31)	3	13.2
Total Ammonia Nitrogen (November 1 to April 30)	6	26.4
pH	Maintained between 6.0 to 9.5, inclusive, at all times	
E. Coli	Not to exceed 200 cfu/100 mL geometric mean density from May 15 to September 15	

**Under ECA 6045-ARDJS7 "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged per the days deemed to be represented by each sample*

2.3 Comparison of Data to Limits/Design Values

Analytical and monitoring data for the Wiarton Wastewater Treatment System is housed in OCWAs data management system MAXIMO. Annual and monthly averages for flows, CBOD, BOD_5, Suspended Solids, Total Phosphorous as P, Nitrogen-series and E.coli can be found in Appendix A. Comparisons of analytical data from effluent samples to the effluent limits show the following removal efficiencies:

Table 7. 2020 Effluent Annual Average Concentrations and Removal Efficiencies

Parameter	Annual Average Concentration	Removal Efficiency
$CBOD_5$	2.5	n/a
Total Suspended Solids	5.9	98.1%
Total Phosphorous	0.04	95.1%

The following is a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Table 8.

Table 8. Comparison of Wiarton Wastewater Treatment System Monitoring Data to Effluent Limits, 2020

2020	$CBOD_5$				Total Suspended Solids				Total Phosphorous				Total Ammonia Nitrogen (TAN)				E. Coli	
	Monthly Average (mg/L)	**Within Limits** (15 mg/L)	**Monthly Average Loading** (kg/d)	**Within Limits** (66 kg/day)	**Monthly Average** (mg/L)	**Within Limits** (15 mg/L)	**Monthly Average Loading** (kg/d)	**Within Limits** (66 kg/day)	**Monthly Average** (mg/L)	**Within Limits** (0.3 mg/L)	**Monthly Average Loading** (kg/d)	**Within Limits** (1.32 kg/day)	**Monthly Average** (mg/L)	**Within Limits** (Nov 1 to Apr 1 - 6.0 mg/L & May 1 to Oct 31 – 3.0 mg/L)	**Monthly Average Loading** (kg/d)	**Within Limits** (Nov 1 to Apr 1 - 13.2 kg/day & May 1 to Oct 31 – 26.4 kg/day)	**Mean Geometric Density** (cfu/100 mL)	**Within Limits** (200 cfu/100 mL)
January	3.0	Y	5.1	Y	8.2	Y	13.9	Y	0.03	Y	0.06	Y	0.10	Y	0.17	Y	2.00	n/a
February	3.8	Y	5.3	Y	11.0	Y	15.4	Y	0.04	Y	0.07	Y	0.10	Y	0.17	Y	2.00	n/a
March	2.2	Y	5.4	Y	6.8	Y	16.8	Y	0.04	Y	0.07	Y	0.19	Y	0.32	Y	2.00	n/a
April	2.9	Y	3.7	Y	4.3	Y	5.5	Y	0.04	Y	0.05	Y	0.10	Y	0.13	Y	2.00	n/a
May	2.3	Y	2.4	Y	5.5	Y	5.9	Y	0.03	Y	0.03	Y	0.07	Y	0.08	Y	2.00	Y
June	2.9	Y	2.9	Y	5.2	Y	5.2	Y	0.04	Y	0.04	Y	1.09	Y	1.09	Y	2.00	Y
July	2.2	Y	1.1	Y	3.3	Y	1.7	Y	0.04	Y	0.02	Y	0.45	Y	0.23	Y	2.00	Y
August	2.0	Y	2.5	Y	4.0	Y	5.0	Y	0.04	Y	0.05	Y	0.15	Y	0.19	Y	2.00	Y
September	2.0	Y	4.0	Y	2.6	Y	5.3	Y	0.03	Y	0.06	Y	0.21	Y	0.42	Y	2.00	Y
October	2.0	Y	3.6	Y	2.2	Y	3.8	Y	0.04	Y	0.07	Y	0.10	Y	0.18	Y	2.00	n/a
November	2.0	Y	2.3	Y	3.2	Y	3.7	Y	0.04	Y	0.04	Y	0.23	Y	0.27	Y	1.59	n/a
December	2.0	Y	5.0	Y	7.3	Y	18.0	Y	0.04	Y	0.11	Y	0.63	Y	1.57	Y	2.00	n/a

**"Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged per the days deemed to be represented by each sample*

During the reporting period there was no reportable instance where the sewage lagoon system exceeded the effluent limits set out in the ECA.

Another measure of effluent quality is pH, as per ECA 6045-ARDJS7 the effluent pH is to remain within the range of 6.0 and 9.5 at all times. In 2020, the effluent was within the effluent limits and ranged from 6.57 to 8.55 with an annual average of 7.40. A monthly summary of pH can be found in Table 9

Table 9. Monthly Summary of pH for the Wiarton Wastewater Treatment System, 2020

	Average	Minimum	Maximum
January	7.22	6.97	7.57
February	6.78	6.57	7.32
March	7.90	7.52	8.55
April	7.85	7.54	8.34
May	7.87	7.39	8.13
June	7.09	6.63	7.64
July	6.79	6.67	6.91
August	6.92	6.62	7.14
September	7.14	7.01	7.25
October	7.36	6.83	7.64
November	7.71	7.45	7.99
December	7.76	7.59	7.97

2.4 Effluent Objectives

The effluent objectives as per ECA 6045-ARDJS7 for the Wiarton Wastewater Treatment Lagoon are found in Table 10.

Table 10. Effluent Objectives as per ECA 6045-ARDJS7.

Effluent Parameter	Monthly Average Concentration (mg/L) *	Monthly Average Waste Loading (kg/day)
$CBOD_5$	10	n/a
Total Suspended Solids	10	n/a
Total Phosphorous as P	0.15	n/a
Total Ammonia Nitrogen (May 1 to October 31)	3	n/a
Total Ammonia Nitrogen (November 1 to April 30)	6	n/a

**Under ECA 6045-ARDJS7 "Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged for the days deemed to be represented by each sample*

2.5 Comparison of Data to Effluent Objectives

ECA 6045-ARDJS7, Section 11.4 requires:

b) a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;)

g) a summary of efforts made to achieve the design objectives;

The Owner shall make an assessment of the issues and recommendations for pro-active actions if any is required under the following situations and include in the annual report to the Water Supervisor:

- *a. when any of the design objectives is not achieved more than 50% of the time in a year;*

During the reporting period, the $CBOD_5$ monthly averages remained within the effluent objective of 10 mg/L 100% of the time producing an annual average of 2.44 mg/L and an annual average loading of 3.62 kg/d. During the 2015 reporting periods while operating without the MBBR, the Lagoon system produced an average $CBOD_5$

of 7.39 mg/L and an average loading of 13.30 kg/d. The addition of the MBBR process has helped decrease the annual average concentration by 67% and the average loading of $CBOD_5$ by 73%.

During the reporting period, the Total Suspended Solids monthly averages remained within the effluent objective of 10 mg/L, 92% of the time, producing an annual average of 5.30 mg/L and an annual average loading of 8.36 kg/d. During the 2015 reporting periods while operating without the MBBR, the Lagoon system produced an average Total Suspended Solids result of 11.89 mg/L and an average loading of 17.50 kg/d.
The MBBR process helped eliminating approximately 55% of the annual average concentration and approximately 52% of the average loading of Total Suspended Solids.

During the reporting period, the Total Phosphorus monthly averages remained within the system objective of 0.15 mg/L, 100% of the time, producing an annual average of 0.04 mg/L and an annual average loading of 0.05 kg/day. During the 2015 reporting periods while operating without the MBBR, the Lagoon system produced an average Total Phosphorus result of 0.31 mg/L and an average loading of 0.36 kg/day. The MBBR process helped eliminating approximately 87% of the annual average concentration and approximately 86% of the average loading of Total Phosphorus.

During the reporting period, the Total Ammonia Nitrogen monthly averages remained within the system objectives of 3 mg/L and 6 mg/L, 100% of the time, producing an annual average of 0.29 mg/L and an average loading of 0.40 kg/day. During the 2015 reporting period while operating without the MBBR, the Lagoon system produced an annual average Total Ammonia Nitrogen result of 4.20 mg/L and an average of 6.56 kg/day. The MBBR process helped eliminating approximately 93% of the annual average concentration and approximately 94% of the average loading of Total Ammonia Nitrogen.

All of the design objectives in the ECA were achieved more than 90% of the time during the reporting period.

Refer to Table 11 for detailed laboratory analysis results in comparison to the effluent objectives.

Table 11. Comparison of Wiarton Wastewater Treatment System Monitoring Data to Effluent Objectives, 2020

2020	CBOD$_5$		Total Suspended Solids		Total Phosphorous		Total Ammonia Nitrogen (TAN)	
	Monthly Average (mg/L)	**Within Objective** (10 mg/L)	**Monthly Average** (mg/L)	**Within Objective** (10 mg/L)	**Monthly Average** (mg/L)	**Within Objective** (0.15 mg/L)	**Monthly Average** (mg/L)	**Within Objective** (Nov 1 to Apr 1 - 6.0 mg/L & May 1 to Oct 31 – 3.0 mg/L)
January	3.0	Y	8.2	Y	0.03	Y	0.10	Y
February	3.8	Y	11.0	**N**	0.04	Y	0.10	Y
March	2.2	Y	6.8	Y	0.04	Y	0.19	Y
April	2.9	Y	4.3	Y	0.04	Y	0.10	Y
May	2.3	Y	5.5	Y	0.03	Y	0.07	Y
June	2.9	Y	5.2	Y	0.04	Y	1.09	Y
July	2.2	Y	3.3	Y	0.04	Y	0.45	Y
August	2.0	Y	4.0	Y	0.04	Y	0.15	Y
September	2.0	Y	2.6	Y	0.03	Y	0.21	Y
October	2.0	Y	2.2	Y	0.04	Y	0.10	Y
November	2.0	Y	3.2	Y	0.04	Y	0.23	Y
December	2.0	Y	7.3	Y	0.04	Y	0.63	Y

**"Monthly Average Effluent Concentration" means the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, weighted by the quantity of the Final Effluent discharged per the days deemed to be represented by each sample*

2.6 Effluent Monitoring

The total effluent flow in 2020 was 556,314 m^3 with an annual average daily flow of 1,520 m^3/day. Total effluent flows in 2020 have decreased in comparison to 2019.

2.7 Influent Monitoring

ECA 6045-ARDJS7, Section 11.4. a) a summary and interpretation of all Influent and Imported Sewage monitoring data, including sewage characteristics, flow rates and a comparison to the values used in the design of the Works;

Table 12: Influent Characteristics

Parameter	Minimum	Average	Maximum
BOD5 (mg/L)	44	108.5	170
TSS (mg/L)	75	157.8	978
TKN (mg/L)	10.1	19.9	31.4
Total Phosphorous	0.85	2.07	3.4

In 2020, approximately 1,642 m^3 of septage was received by the Wiarton Wastewater Treatment System. This is lower than 2019 (2,339 m^3) and 2018 (2,326 m^3) volumes. ECA 6045-ARDJS7 requires monthly septage samples to be tested for BOD_5, Total Suspended Solids, Total Phosphorous, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen (TAN), Chemical Oxygen Demand, Organics and Metals (Quarterly). Biochemical Oxygen Demand (BOD_5), Total Phosphorus and Chemical Oxygen Demand are fairly stable; Total Suspended Solids, Total Kjeldahl Nitrogen (TKN) and Total Ammonia seem to vary significantly between samples. Refer to Appendix F for Septage Laboratory Results.

Table 13: Septage Receiving Characteristics

Parameter	Minimum	Maximum
Biochemical Oxygen Demand (BOD5) [mg/L]	693	10,800
Total Suspended Solids [mg/L]	151	11,200
Chemical Oxygen Demand [mg/L]	1600	34,000
Ammonia+Ammonium (N) [mg/L]	0.1	2460
Total Kjeldahl Nitrogen [as N mg/L]	24.4	3280
Phosphorus (total) [mg/L]	3.9	510
Isopropyl Alcohol [µg/L]	<5000	8600
Methyl alcohol [µg/L]	<5000	6400
Acetone [µg/L]	<1200	5040
Benzene [µg/L]	<0.5	<20
Ethylbenzene [µg/L]	<20	<20
Methylene Chloride [ug/L]	<20	<20
Methyl ethyl ketone [µg/L]	<800	<800
Toluene [µg/L]	<20	355
Xylene (total) [µg/L]	<20	<20
o-xylene [µg/L]	<20	<20
m/p-xylene [µg/L]	<20	<20
Aluminum (mg/L)	0.28	124
Arsenic (mg/L)	<0.002	0.088
Barium (mg/L)	0.04	1.92
Cadmium (mg/L)	0.000	0.023
Calcium (mg/L)	87.1	663
Chromium (mg/L)	0.001	0.225
Cobalt (mg/L)	0.000	0.019

Copper (mg/L)	0.107	5.84
Iron (mg/L)	4.03	101
Lead (mg/L)	0.005	0.239
Magnesium (mg/L)	23.3	95.7
Manganese (mg/L)	0.252	1.820
Mercury (mg/L)	0.000	0.001
Nickel (mg/L)	0.008	0.219
Potassium (mg/L)	24.5	77.1
Selenium (mg/L)	0.001	0.088
Silver (µg/L)	<0.05	19.2
Zinc (mg/L)	0.25	26.00

2.8 Additional Monitoring Parameters

The following parameters do not have effluent limits or objectives but are monitored on a regular basis (see Section 2.1 for sampling frequency) as required by ECA 6045-ARDJS7.

2.8.1 Flows

The Owner shall make an assessment of the issues and recommendations for pro-active actions if any is required under the following situations and include in the annual report to the Water Supervisor:

- *b. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity.*

The total influent flow in 2020 was 640,216 m^3 with an annual average daily flow of 1,726 m^3/day, which is 39.2% of the recommended rated capacity of 4,400 m^3/day. Total influent flows in 2020 have decreased in comparison to 2019. The daily influent flow remained within the recommended rated capacity 97.2% (i.e. 355 out of 365 days) of the time during 2020.

A summary of the average and maximum daily flows (not including the Septage Receiving and MBBR Bypasses) on a monthly basis can be found in Table 14. It should be noted that a maximum or average day flow for the month does not indicate that the rated capacity was exceeded for every day of the entire month. Daily flows which exceeded the recommended rated capacity were typically due to high precipitation. For more detailed information regarding flows, refer to Appendix A.

Table 14. Average Daily Raw Sewage Flows by Month for 2020

2020	**Maximum Daily Raw Sewage Flow** (m^3/d)	**Average Daily Raw Sewage Flow** (m^3/d)	**Annual Average** (m^3/d)	**Within Limits of Rated Capacity** *(4,400 m^3/d)*
January	3,753	1,968	1,726	Yes
February	1,952	1,432		
March	6,949	2,630		
April	2,144	1,571		
May	1,834	1,374		
June	2,546	1,249		
July	1,590	1,184		
August	5,819	1,744		
September	3,500	1,663		
October	2,838	1,904		
November	2,720	1,746		
December	5,512	2,293		

2.8.2 TKN

A parameter which is monitored on a regular basis but does not have effluent limits or objectives is TKN. The annual average TKN has decreased since 2015 (i.e. 1.01 mg/L in 2019, 0.83 mg/L in 2018, 1.16 mg/L in 2017, 3.46 mg/L in 2016, and 4.75 mg/L in 2015).

Table 15. Monitoring Parameters for Wiarton Wastewater Treatment System, 2019

Parameters	Average	Minimum	Maximum
Total Kjeldahl Nitrogen (N mg/L)	0.99	0.50	4.00

2.9 Success & Adequacy of the System

Based upon a review of the analytical and monitoring data in comparison to the effluent limits and objectives it can be concluded that the Wiarton Wastewater Treatment System is performing adequately and successfully. The system shows a high removal efficiency and was within effluent limits. Regular monitoring and necessary process changes will continue to be made to best optimize the system and enable the system to be within the effluent objectives for a greater period of time.

3. Operating Challenges & Corrective Actions

ECA 6045-ARDJS7, Section 11.4. c) a summary of all operating issues encountered and corrective actions taken;(ECA 6045-ARDJS7)

Intermittent power bumps which causes the treated sewage to bypass UV disinfection remain an operational challenge for 2020. All required bypass reporting was completed and Operations staff were able to maintain good overall performance of the sewage lagoon system. See Section 10 for more information and Appendix E for Bypass Reports.

4. Major Maintenance & Emergency Repairs

ECA 6045-ARDJS7, Section 11.4. d) requires a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;

- Replaced louver actuators
- Replaced lamp #9 module 1 and connector on Lamp #8 module 2 at Filter Building
- Replace UV bulb, sleeve, wiper rings and connector on Module 2 Lamp 5
- Replaced plug on alum transfer pump at filter building
- Lagoon Cell #3 Effluent Screen repaired
- Pump #3 pulled and inspected for blockage and condition
- Replaced lamp 3 module 1 on filter building UV system

5. Effluent Quality Assurance/Control Measures

ECA 6045-ARDJS7, Section 11.4. e) requires a summary of any effluent quality assurance or control measures undertaken;

All laboratory raw sewage and effluent samples (Section 3.1) are analyzed by SGS Canada Inc., which is an ISO 17025 accredited laboratory. Calibrations and preventative maintenance are performed on facility equipment and monitoring equipment, see Section 6 for more details. In addition to sample analysis, preventative maintenance is scheduled for key equipment in the sewage lagoon system and pumping stations on at least a monthly basis. Maintenance activities were scheduled within the work management system MAXIMO.

OCWA as the Operating Authority (on behalf of the Owner) has made best efforts to control the effluent quality in a manner that it remains within the Effluent Objectives in the ECA. The measures taken to support these efforts include:

- Continuous monitoring equipment
- Regular plant inspections/checks
- Laboratory (3rd party) analysis of influent, effluent and septage receiving samples
- Data review
- Process optimization and adjustments (as required)
- Scheduled/preventative maintenance
- Repairs (as necessary)

6. Calibration & Maintenance

ECA 6045-ARDJS7, Section 11.4.f. requires a summary of the calibration and maintenance carried out on all Influent, Imported Sewage and Final Effluent monitoring equipment;

All in-house monitoring equipment was calibrated as per manufacturer's recommendations. Monitoring and metering equipment was also calibrated by a third party and is done so on an annual basis. In addition to sample analysis, preventative maintenance is scheduled for all equipment at the sewage lagoon system and pumping stations on at least a monthly basis. Maintenance activities were scheduled within the work management system MAXIMO, upon completion, Operators charge there time to the work order and close it off.

On July 30, 2020, Indus Controls performed an annual third party instrument verification of the influent, final effluent, Septage Receiving and sewage pumping station #1 and #2 flowmeters. All flow meters passed the annual verification all with percent errors of less than 5%. All records for calibrations/ verifications can be found in Appendix B.

On June 8, 2020, HACH performed an annual third party instrument verification of the DO probes, and pH analyzers. All instrumentation passed the annual verification. All records for calibrations/verifications can be found in Appendix B.

7. Sludge Generation and Handling

ECA 6045-ARDJS7, Section 11.4.h) requires a tabulation of the volume of sludge generated, 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;

Since the facility is a sewage lagoon system, accumulated sludge is stored in the lagoon cells. No sludge was disposed of in 2020 and no sludge is expected to be removed in 2021.

8. Septage Receiving Works

In 2020, approximately 1,642 m^3 of septage was received by the Wiarton Wastewater Treatment System. The septage was received from various sources including:

- Owen Sound Septic Services
- Grey Bruce Septic Services
- Bluewater Sanitation
- D&S Portables

The total monthly volume of septage received can be found in Table 16.

Table 16. Total Volume of Septage Received in 2020

Month	Total Volume of Septage Received (m^3)
January	252.1
February	157.4
March	205.9
April	77.3
May	69.9
June	104.4
July	93.6
August	72.9
September	111.5
October	161.5
November	102.8
December	232.8

9. Community Complaints

ECA 6045-ARDJS7, Section 11.4.i) a summary of any complaints received and any steps taken to address the complaints;

During 2020, six (6) community complaints for the Wiarton Wastewater Treatment System were received regarding sewer lateral services blockages. A detailed summary of the community complaints and the steps taken to address the complaints can be found in Appendix C.

10. By-passes, Spills, Overflows and Abnormal Discharge Events

ECA 6045-ARDJS7, Section 11.4.j) requires a summary of all Bypasses, Overflows, spills within the meaning of Part X of EPA and abnormal discharge events, and other abnormal operating conditions;

There were zero (0) overflows and zero (0) spills in 2020 at the Wiarton Wastewater Treatment System.
During the reporting period, four (4) bypasses of final effluent (total volume of 208.61 m^3) being discharged without receiving all of the required treatment were reported. All required information was recorded and the appropriate notifications were made to the Spills Action Centre, Ministry of Environment, Conservation and Parks (MECP), Ministry of Health and Long Term Care, the Town of South Bruce Peninsula and Environment Canada. Refer to Table 18 for a summary and Appendix D for detailed bypass reports.

ECA 6045-ARDJS7 requires that Quarterly bypass/overflow reports are to be submitted to the Water Supervisor. All 2020 quarterly reports were submitted to the Water Supervisor by the deadlines specified in the ECA and have been included in Appendix D.

Table 17. Bypass Events

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(m^3)					
2020/01/15	12:57	13:07	00:10	10.00	UV disinfection	Yes	Power failure causing UV system failure	Filter treated effluent released to effluent outfall	n/a
2020/03/19	17:30	18:10	00:40	92.67	UV disinfection	Yes	Power failure causing UV system failure	Filter treated effluent released to effluent outfall	n/a
2020/05/03	11:00	11:45	00:45	65.60	UV disinfection	Yes	Power failure causing UV system failure	Filter treated effluent released to effluent outfall	n/a
2020/05/20	05:40	06:25	00:45	40.34	UV disinfection	Yes	Power failure causing UV system failure	Filter treated effluent released to effluent outfall	n/a

11. Notice of Modifications

ECA 6045-ARDJS7, Section 11.4. k.) a copy of all Notice of Modifications to Sewage Works submitted to the Water Supervisor under paragraph 1.d. of Condition 10, with a summary report on status of implementation of all modification.

No Notices of Modifications were submitted to the Water Supervisor during the reporting period.

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix A

Performance Assessment Report

Ontario Clean Water Agency
Performance Assessment Report Wastewater/Lagoon

Report extracted 03/29/2021 07:42

From: **01/01/2020 to 31/12/2020**

Facility: **[5620] WIARTON WASTEWATER TREATMENT LAGOON**

Works: **[110000819]**

	01/2020	02/2020	03/2020	04/2020	05/2020	06/2020	07/2020	08/2020	09/2020	10/2020	11/2020	12/2020	<--Total-->	<--Avg.-->	<--Max.-->	<--Criteria-->
Flows:																
Raw Flow: Total - Raw Sewage (m^3)	61006.89	41520.58	81514.85	48703.32	42602.04	38707.03	38835.06	53725.78	49662.03	58851.25	54008.11	71079.41	640216.35			
Raw Flow: Avg - Raw Sewage (m^3/d)	1967.96	1431.74	2629.51	1571.07	1374.26	1248.61	1176.82	1733.09	1655.40	1898.43	1742.20	2292.88		1726.83		4400.0
Raw Flow: Max - Raw Sewage (m^3/d)	3752.65	1951.61	6948.84	2143.50	1834.39	2545.77	1587.76	5816.86	3482.27	2821.61	2702.47	5512.37			6948.84	
Eff. Flow: Total - Effluent (m^3)	52463.00	42314.00	77197.00	38531.00	33078.00	30012.00	15838.00	38773.00	60520.00	55027.00	34808.00	77753.00	556314.00			
Eff. Flow: Avg - Effluent (m^3/d)	1692.35	1459.10	2490.23	1284.37	1067.03	1000.40	510.90	1250.74	2017.33	1775.06	1160.27	2508.16		1518.00		
Eff. Flow: Max - Effluent (m^3/d)	3766.00	3217.00	3683.00	2067.00	1600.00	1882.00	1422.00	1780.00	3833.00	2876.00	1759.00	4684.00			4684.00	
Carbonaceous Biochemical Oxygen Demand: CBOD:																
Eff: Avg cBOD5 - Effluent (mg/L)	< 3.667	3.000	< 2.333	< 2.750	< 2.250	3.500	< 2.000	< 2.000	< 2.000	< 2.000	< 2.000	< 2.000		< 2.458	3.667	20.0
Eff: # of samples of cBOD5 - Effluent (mg/L)	3	2	3	4	4	2	2	2	3	2	3	2	32			
Loading: cBOD5 - Effluent (kg/d)	< 6.205	4.377	< 5.811	< 3.532	< 2.401	3.501	< 1.022	< 2.501	< 4.035	< 3.550	< 2.321	< 5.016		< 3.689	6.205	
Biochemical Oxygen Demand: BOD5:																
Raw: Avg BOD5 - Raw Sewage (mg/L)	84.000	86.000	108.000	108.000	114.000	109.000	158.500	74.500	102.000	88.500	148.000	101.000		106.792	158.500	
Raw: # of samples of BOD5 - Raw Sewage (mg/L)	1	1	2	3	2	2	2	2	3	2	2	2	24			
Total Suspended Solids: TSS:																
Raw: Avg TSS - Raw Sewage (mg/L)	115.000	106.000	117.000	121.000	116.000	148.000	160.500	133.500	387.000	95.000	144.500	106.500		145.833	387.000	
Raw: # of samples of TSS - Raw Sewage (mg/L)	1	1	2	3	2	2	2	2	3	2	2	2	24			
Eff: Avg TSS - Effluent (mg/L)	11.000	11.000	6.667	5.000	< 5.250	6.500	3.000	4.000	2.333	3.000	3.000	< 10.000		< 5.896	11.000	24.0
Eff: # of samples of TSS - Effluent (mg/L)	3	3	3	4	4	2	2	2	3	2	3	2	33			
Loading: TSS - Effluent (kg/d)	18.616	16.050	16.602	6.422	< 5.602	6.503	1.533	5.003	4.707	5.325	3.481	< 25.082		< 9.577	25.082	
Percent Removal: TSS - Raw Sewage (mg/L)	90.435	89.623	94.302	95.868	95.474	95.608	98.131	97.004	99.397	96.842	97.924	90.610			99.397	
Total Phosphorus: TP:																
Raw: Avg TP - Raw Sewage (mg/L)	2.060	2.190	1.565	1.853	2.265	1.985	3.245	1.955	2.080	2.035	2.320	1.415		2.081	3.245	
Raw: # of samples of TP - Raw Sewage (mg/L)	1	1	2	3	2	2	2	2	3	2	2	2	24			
Eff: Avg TP - Effluent (mg/L)	< 0.030	0.045	0.037	< 0.035	< 0.033	0.050	< 0.035	0.035	< 0.033	0.035	< 0.040	< 0.040		< 0.037	0.050	0.5
Eff: # of samples of TP - Effluent (mg/L)	3	2	3	4	4	2	2	2	3	2	3	2	32			
Loading: TP - Effluent (kg/d)	< 0.051	0.066	0.091	< 0.045	< 0.035	0.050	< 0.018	0.044	< 0.067	0.062	< 0.046	< 0.100		< 0.056	0.100	
Percent Removal: TP - Raw Sewage (mg/L)	98.544	97.945	97.657	98.112	98.565	97.481	98.921	98.210	98.397	98.280	98.276	97.173			98.921	
Nitrogen Series:																
Raw: Avg TKN - Raw Sewage (mg/L)	27.600	22.400	16.050	18.467	21.950	19.600	30.250	18.250	14.967	21.750	23.750	12.000		20.586	30.250	
Raw: # of samples of TKN - Raw Sewage (mg/L)	1	1	2	3	2	2	2	2	3	2	2	2	24			
Eff: Avg TAN - Effluent (mg/L)	< 0.100	< 0.100	< 0.167	< 0.100	< 0.100	1.900	0.250	0.100	< 0.167	< 0.100	< 0.300	0.600		< 0.332	1.900	3.0 - 8.0
Eff: # of samples of TAN - Effluent (mg/L)	3	2	3	4	4	2	2	2	3	2	3	2	32			
Loading: TAN - Effluent (kg/d)	< 0.169	< 0.146	< 0.415	< 0.128	< 0.107	1.901	0.128	0.125	< 0.336	< 0.178	< 0.348	1.505		< 0.457	1.901	
Eff: Avg NO3-N - Effluent (mg/L)	4.797	4.480	4.417	2.428	0.693	0.105	0.570	0.695	0.523	0.840	1.700	4.215		2.122	4.797	
Eff: # of samples of NO3-N - Effluent (mg/L)	3	2	3	4	4	2	2	2	3	2	3	2	32			
Eff: Avg NO2-N - Effluent (mg/L)	< 0.030	0.040	0.060	< 0.030	< 0.030	0.195	0.385	< 0.030	< 0.030	< 0.030	< 0.040	0.130		< 0.086	0.385	
Eff: # of samples of NO2-N - Effluent (mg/L)	3	2	3	4	4	2	2	2	3	2	3	2	32			
Disinfection:																
Eff: GMD E. Coli - Effluent (cfu/100mL)	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.587	2.000		1.966	2.000	

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix B

Calibration Reports

Hach ServicePlus™

FIELD SERVICE REPORT / RAPPORT DE SERVICE DE TERRAIN

Account Number / No. de Compte: 40302465
Customer / Client: ONTARIO CLEAN WATER AGENCY
Phone / Téléphone: 519-372-4807
Location: ONTARIO CLEAN WATER AGENCY, 897 BAYVIEW ST, WIARTON, Ontario, N0H 2T0, CA

Contact Name / Nom du Contact: LEO-PAUL FRIGAULT
Fax:
Email Address / Adresse: lfrigault@ocwa.com
Technician / Technicien: Stephen Bilton

Work Order Number / Numéro de Commande: WO-00736723- Visit - 1 of 1
Purchase Order / Bon de Commande: Y5844
Date of Service / Date de service: 6/8/2020

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
LPV417.99.00002	1720E LR TURBIDITY SENSOR, HACH	040200000688	Filter 1 Turbidity

Notes

As found, the condition of the analyzer was good, the sample reading was 0.018 NTU, and the initial calibration gain was 0.70. The turbidimeter head and sensor were cleaned and inspected. The lamp was replaced, the electronics were zeroed, and a calibration using 20 NTU StablCal (lot a9057 exp feb21) was performed. The resulting calibration gain value was 0.62 and was within instrument specifications. The calibration performance was verified using a 1 NTU StablCal (lot a0093 exp apr22) standard. The instrument read 0.917 NTU during the post-calibration verification with 1 NTU StablCal standard and was within verification specifications. After PM service was completed, the as left reading of the analyzer was 0.034 NTU. The analyzer has been restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
LPV417.99.00002	1720E LR TURBIDITY SENSOR, HACH	040200000706	154151 Raw Water Turbidity

Notes

As found, the condition of the analyzer was good, the sample reading was 0.180 NTU, and the initial calibration gain was 0.68. The turbidimeter head and sensor were cleaned and inspected. The lamp was replaced, the electronics were zeroed, and a calibration using 20 NTU StablCal (lot a9057 exp feb21) was performed. The resulting calibration gain value was 0.61 and was within instrument specifications. The calibration performance was verified using a 1 NTU StablCal (lot a0093 exp apr22) standard. The instrument read 1.002 NTU during the post-calibration verification with 1 NTU StablCal standard and was within verification specifications. After PM service was completed, the as left reading of the analyzer was 0.839 NTU. The analyzer has been restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
LPV417.99.00002	1720E LR TURBIDITY SENSOR, HACH	041000004817	Finished Water Turbidity

Notes

As found, the condition of the analyzer was good, the sample reading was 0.022 NTU, and the initial calibration gain was 0.68. The turbidimeter head and sensor were cleaned and inspected. The lamp was replaced, the electronics were zeroed, and a calibration using 20 NTU StablCal (lot a9057 exp feb21) was performed. The resulting calibration gain value was 0.63 and was within instrument specifications. The calibration performance was verified using a 1 NTU StablCal (lot a0093 exp apr22) standard. The instrument read 0.873 NTU during the post-calibration verification with 1 NTU StablCal standard and was within verification specifications. After PM service was completed, the as left reading of the analyzer was 0.022 NTU. The analyzer has been restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
LPV417.99.00002	1720E LR TURBIDITY SENSOR, HACH	040100000409	Filter 2 Turbidity

Notes

As found, the condition of the analyzer was good, the sample reading was 0.020 NTU, and the initial calibration gain was 0.63. The turbidimeter head and sensor were cleaned and inspected. The lamp was replaced, the electronics were zeroed, and a calibration using 20 NTU StablCal (lot a9057 exp feb21) was performed. The resulting calibration gain value was 0.65 and was within instrument specifications. The calibration performance was verified using a 1 NTU StablCal (lot a0093 exp apr22) standard. The instrument read 0.878 NTU during the post-calibration verification with 1 NTU StablCal standard and was within verification specifications. After PM service was completed, the as left reading of the analyzer was 0.033 NTU. The analyzer has been restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
4700000	oo 2100N LAB TURB, EPA 1821	05070C020466	211066

Notes

As found, the condition of the analyzer was good, the firmware version was 2.1, and the empty cell reading was 0.013. The instrument was inspected, the exterior and the optics chamber were cleaned, the lamp and small lens were replaced, and the instrument was calibrated using StablCal standards (lot a9219 exp oct20). The instrument was verified with DI water (0.054), 20 NTU (20.1) and 1000 NTU (1001) Stablcal standards. After PM service was completed, the as left empty cell reading of the analyzer was 0.011. The instrument has been restored to normal operation, and performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
4650000	oo 2100P PORTABLE TURBIDIMETER	021100028695	211065

Notes

As found, the condition of the turbidimeter was good, the firmware version was 1.3, and the empty cell reading was 0.02. The turbidimeter was inspected, the exterior and the optics chamber were cleaned, the lamp and batteries were replaced, and the turbidimeter was calibrated using StablCal standards (lot A9287 exp dec20) . The turbidimeter was verified with DI water (0.13), and 10 NTU (9.67) Stablcal standard. After PM service was completed, the as left empty cell reading of the turbidimeter was 0.01. The turbidimeter has been restored to regular operation, and performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
LXV440.53.10002	AISE SC W RFID (USA)	1653164	Ait-207/tit-206

Notes

as found: not reading, multiple errors, sensor had failed. cleaned, inspected probe, tested with test cartridge to confirm probe operation,.. passed, replaced sensor cartridge (LZY694), returned to process, as left readings: 0.1 mg/l nh4-n, 6.5 mg/l K, unit performing as expected.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
5440000	CL17 FINAL ASSEMBLY W/KITS	031000008358	Raw Water Total chlorine

Notes

As found, the condition of the CL17 was good, the firmware version was 1.4, and the instrument reading was 0.74 mg/L. A new maintenance kit was installed, and the colorimeter was cleaned and inspected. Tubing, fittings, and the stir magnet were replaced. Instrument accuracy was verified utilizing a certified Hach DR900. The results of a verification grab sample were within 5% of the instrument reading. Following preventative maintenance service completion, the as-left analyzer reading was 0.77 mg/L. The instrument was restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
5440000	CL17 FINAL ASSEMBLY W/KITS	030800007905	Finished Water Clearwell Free

Notes

As found, the condition of the CL17 was good, the firmware version was 1.4, and the instrument reading was 1.29 mg/L. A new maintenance kit was installed, and the colorimeter was cleaned and inspected. Tubing, fittings, and the stir magnet were replaced. Instrument accuracy was verified utilizing a certified Hach DR900. The results of a verification grab sample were within 5% of the instrument reading. Following preventative maintenance service completion, the as-left analyzer reading was 1.23 mg/L. The instrument was restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
DPD1R1	Digital pH Sensor,Ryton, Convertible	1603440861	Ait-205

Notes

As found, the condition of the probe was operational, showing calibration due, and the sample reading was 7.42 ph. The probe was cleaned, inspected, the salt bridge was replaced, and the probe was refilled with standard cell solution. Following PM service, the probe was calibrated. The calibration slope after PM was -54.7 mV/pH. The measurement performance of the probe following service and calibration was verified using certified pH standards. Their values were: 4.01 - 4.01, 7 - 7.06, 10 - 10.01 After PM service, calibration, and verification were completed, the as left reading of the probe was 7.69 ph. The probe has been restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
DPD1P1	Digital pH Sensor, PEEK, Convertible	000907430223	Raw Water ph

Notes

As found, the condition of the probe was operational, showing calibration due, and the sample reading was 7.83 ph. The probe was cleaned, inspected, the salt bridge was replaced, and the probe was refilled with standard cell solution. Following PM service, the probe was calibrated. The calibration slope after PM was -54.1 mV/pH. The measurement performance of the probe following service and calibration was verified using certified pH standards. Their values were: 4.01 - 4.01, 7 - 7.04, 10 - 10.01 After PM service, calibration, and verification were completed, the as left reading of the probe was 7.74 ph. The probe has been restored to normal operation, and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
5940060	oo DR/2400 PORTABLE, NO POWER	020800000418	

Notes

as found the condition of the meter was good, I cleaned optic cup area, tested operation and verified wavelength accuracy using DR Check secondary standards Lot A9042 feb21. Verification results were as follows: 420nm: Std1 0.650 (0.635 ±0.050), Std2 1.308 (1.266 ±0.100), Std3 1.882 (1.826 ±0.150); 520nm: Std1 0.645 (0.638 ±0.050), Std2 1.292 (1.245 ±0.100), Std3 1.866 (1.803 ±0.150); 560nm: Std1 0.641 (0.639 ±0.050), Std2 1.282 (1.248 ±0.100), Std3 1.854 (1.796 ±0.150); 610nm: Std1 0.604 (0.607 ±0.050), Std2 1.210 (1.188 ±0.100), Std3 1.753 (1.724 ±0.150). Unit is performing within specifications

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
DR2700-01	oo db DR2700 SPECTROPHOTOMETER	1297470	

Notes

as found: reads standards within tolerances, version 1.11, cleaned, inspected, replaced VIS lamp, performed service inspection procedure and calibrations, verified calibration with Hach test filter set# 3472 exp 30jun2020, unit is performing to factory specifications. Certification results were as follows: 11/2: 0.321 +/- 3%(read 0.322), 5/2: 0.595 +/- 3% (read 0.596), 9/1: 1.422 +/- 3% (read 1.429), 450/3 >2.8 (read 3.031), 20/2 807.0 +/- 2nm (read 807.0), passed on all tests

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
HQ40D	vv HQ40d MULTI PORTABLE METER	070700010812	211068

Notes

As found, the condition of the meter was good. The meter was cleaned, inspected, and the batteries were replaced. Communication with probes and data storage in the meter was verified. The LDO cap was replaced and calibrated in air (slope 96.4%), as left reading 8.31 mg/l in air. The pH probe was calibrated and verified using pH buffer standards. The calibration results were: pH 4 - 4.01, pH 7 - 7.00, pH 10 - 10.01, and the slope was - 56.51. The measurement performance of the probe following service and calibration was verified using certified pH standards. The verification values were: 4.01 - 3.92, 7 - 6.83, 10 - 10.03 After PM service was completed, both the meter and the probe were restored to normal operation, and their performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
NONHACHINSTR	FIELD SERVICE USE ONLY-NonHach Serialized Instr	7107857	DEPOLOX 5 Finished Water

Notes

W&T Depolox chlorine analyzer: inspected, verified calibration with Hach DR900 standard within 5%

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
9020000	ASSY, PROBE, LDO MODEL 2, HACH	160630000021	Ait-203

Notes

As found, the condition of the probe was operational with replace cap message and the sample reading was 8.00 ppm O2. The probe was cleaned, inspected, and the sensor cap and gasket were replaced. A new sensor code was entered into the sc controller and was verified to be correct. An air calibration of the sensor was performed. After PM service was completed, the as left reading of the probe was 8.32 ppm O2 in air and the gain factor was 0.83. The probe has been restored to normal operation and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
9020000	ASSY, PROBE, LDO MODEL 2, HACH	160630000026	Ait-204

Notes

As found, the condition of the probe was operational with replace cap message and the sample reading was 11.54 ppm O2. The probe was cleaned, inspected, and the sensor cap and gasket were replaced. A new sensor code was entered into the sc controller and was verified to be correct. An air calibration of the sensor was performed. After PM service was completed, the as left reading of the probe was 8.06 ppm O2 in air and the gain factor was 0.99. The probe has been restored to normal operation and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
9020000	ASSY, PROBE, LDO MODEL 2, HACH	160630000028	Ait-202

Notes

As found, the condition of the probe was operational with replace cap message and the sample reading was 4.59 ppm O2. The probe was cleaned, inspected, and the sensor cap and gasket were replaced. A new sensor code was entered into the sc controller and was verified to be correct. An air calibration of the sensor was performed. After PM service was completed, the as left reading of the probe was 8.59 ppm O2 in air and the gain factor was 0.87. The probe has been restored to normal operation and its performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
5953000	rr POCKET COLORIMETER II, CHLORINE	09080E131923	154142

Notes

As found, the condition of the meter was good. The exterior, sample compartment, and optics were cleaned. The meter was inspected, including the interference filter, sample cup, and sample cell retaining springs. The batteries were replaced, and the battery terminals were inspected. The operation was tested, the factory default calibration was restored, and wavelength accuracy was verified using PCII SpecCheck Secondary Standard. (Parameter of PCII) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.22 (0.24 +/- 0.09) Std2: 0.91 (0.93 +/-0.10) , Std3: 1.64 (1.71 +/- 0.14). After service was completed, the meter was restored to normal operation, and performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
4677000	oo POCKET COLOR. CHLORINE REPL.INST	OCWA-XXXX839	

Notes

As found, the condition of the meter was good. The exterior, sample compartment, and optics were cleaned. The meter was inspected, including the interference filter, sample cup, and sample cell retaining springs. The batteries were replaced, and the battery terminals were inspected. The operation was tested, the factory default calibration was restored, and wavelength accuracy was verified using PCII SpecCheck Secondary Standard. (Parameter of PCII) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.21 (0.22 +/- 0.09) Std2: 0.87 (0.86 +/-0.10) , Std3: 1.58 (1.58 +/- 0.14). After service was completed, the meter was restored to normal operation, and performance and condition were within specifications

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
4677000	oo POCKET COLOR. CHLORINE REPL.INST	OCWA-XXX35484	WIARTON WTP

Notes

As found, the condition of the meter was good. The exterior, sample compartment, and optics were cleaned. The meter was inspected, including the interference filter, sample cup, and sample cell retaining springs. The batteries were replaced, and the battery terminals were inspected. The operation was tested, the factory default calibration was restored, and wavelength accuracy was verified using PCII SpecCheck Secondary Standard. (Parameter of PCII) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.21 (0.22 +/- 0.09) Std2: 0.84 (0.86 +/-0.10) , Std3: 1.53 (1.58 +/- 0.14). After service was completed, the meter was restored to normal operation, and performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
5870000	rr oo POCKET CLRMTR II CHLORINE SYSTEM	17030E324555	

Notes

As found, the condition of the meter was good. The exterior, sample compartment, and optics were cleaned. The meter was inspected, including the interference filter, sample cup, and sample cell retaining springs. The batteries were replaced, and the battery terminals were inspected. The operation was tested, the factory default calibration was restored, and wavelength accuracy was verified using PCII SpecCheck Secondary Standard. (Parameter of PCII) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.24 (0.24 +/- 0.09) Std2: 0.91 (0.93 +/-0.10) , Std3: 1.64 (1.71 +/- 0.14). After service was completed, the meter was restored to normal operation, and performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag
5870000	rr oo POCKET CLRMTR II CHLORINE SYSTEM	16070E305678	

Notes

As found, the condition of the meter was good. The exterior, sample compartment, and optics were cleaned. The meter was inspected, including the interference filter, sample cup, and sample cell retaining springs. The batteries were replaced, and the battery terminals were inspected. The operation was tested, the factory default calibration was restored, and wavelength accuracy was verified using PCII SpecCheck Secondary Standard. (Parameter of PCII) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.22 (0.24 +/- 0.09) Std2: 0.89 (0.93 +/-0.10) , Std3: 1.61 (1.71 +/- 0.14). After service was completed, the meter was restored to normal operation, and performance and condition were within specifications.

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag

Notes

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag

Notes

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag

Notes

Product / Produit	Product / Produit Description	Serial Number / No. de Série	Asset Tag

Notes

Endress+Hauser
People for Process Automation

Verification report flowmeter

Plant operator	WWTP
Device information	
Location WWTP	**Device tag** FIT-104
Module name Promag L	**Nominal diameter** DN300 / 12"
Device name Promag 400	**Order code** 5L4C3H-2RW5/0
Serial number KC1E9919000	**Firmware version** 01.05.05
Calibration	
Calibration factor 1.3133	**Zero point** -4

Verification information	
Operating time 1541d10h24m14s	**Date/time** 30.07.20 12:50
Verification ID 5	
Verification results	
Overall result	☑ **Passed**
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:
For devices with the Heartbeat Verification enabled software option
For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

30.07.2020		
Date	Inspectors signature	Operator's signature

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1E9919000
Verification detailed results Verification ID 5

Sensor	☑	**Passed**
Coil current shot time	☑	Passed
Coil hold voltage	☑	Passed
Coil current	☑	Passed
Sensor electronic module	☑	**Passed**
Reference voltage	☑	Passed
Linearity of electrode measuring circuit	☑	Passed
Offset of electrode measuring circuit	☑	Passed
I/O module	☑	**Passed**

Endress+Hauser
People for Process Automation

Verification report flowmeter

Plant operator	Wiarton WWTP
Device information	
Location Wiarton WWTP	**Device tag** FIT-105
Module name Promag L	**Nominal diameter** DN200 / 8"
Device name Promag 400	**Order code** 5L4C2H-3K91/0
Serial number KC1E9819000	**Firmware version** 01.05.05
Calibration	
Calibration factor 1.0880	**Zero point** 0

Verification information	
Operating time 1541d02h41m30s	**Date/time** 30.07.20 12:43
Verification ID 5	
Verification results	
Overall result	☑ **Passed**
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:
For devices with the Heartbeat Verification enabled software option
For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

20.07.2020		
Date	Inspectors signature	Operator's signature

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1E9819000
Verification detailed results Verification ID 5

Sensor	☑	**Passed**
Coil current shot time	☑	Passed
Coil hold voltage	☑	Passed
Coil current	☑	Passed
Sensor electronic module	☑	**Passed**
Reference voltage	☑	Passed
Linearity of electrode measuring circuit	☑	Passed
Offset of electrode measuring circuit	☑	Passed
I/O module	☑	**Passed**

Endress+Hauser
People for Process Automation

Verification report flowmeter

Plant operator	Wiarton WWTP
Device information	
Location Wiarton WWTP	**Device tag** FIT-301
Module name Promag L	**Nominal diameter** DN100 / 4"
Device name Promag 400	**Order code** 5L4C1H-40D6/0
Serial number KC1EF119000	**Firmware version** 01.05.05
Calibration	
Calibration factor 1.3799	**Zero point** -4

Verification information	
Operating time 1541d19h19m32s	**Date/time** 30.07.20 12:33
Verification ID 5	
Verification results	
Overall result	☑ **Passed**
Detailed results	See next page

Overall result: Result of the complete device functionality test via Heartbeat Technology

Notes

Validity of the verification report is only given:
For devices with the Heartbeat Verification enabled software option
For verifications, carried out by the Endress+Hauser Service, or an authorized Endress+Hauser service provider

30.07.2020		
Date	Inspectors signature	Operator's signature

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1EF119000
Verification detailed results Verification ID 5

Sensor	☑	**Passed**
Coil current shot time	☑	Passed
Coil hold voltage	☑	Passed
Coil current	☑	Passed
Sensor electronic module	☑	**Passed**
Reference voltage	☑	Passed
Linearity of electrode measuring circuit	☑	Passed
Offset of electrode measuring circuit	☑	Passed
I/O module	☑	**Passed**

INDUS CONTROL

151 Superior Blvd, Unit #13
Mississauga, ON, L5T 2L1.
www.Indus-Control.com

VERIFICATION REPORT- PARSHALL FLUME
OPEN CHANNEL FLOW MEASUREMENT

Customer Name:	OCWA-Grey Bruce Hub	Site/Plant Address:	59 Park St, Ripley
Plant Name:	STP		Ontrario N0G 2R0

Device Information	
Make:	Milltronics
Model:	Multiranger Plus
Order Code:	N/A
Serial No.:	050W023466
Tag:	NA
Job Location:	Final Effluent Discharge

Service Information	
Date:	July 30, 2020
Report No:	CO1115-2007-25
Job No:	CO1115-2007

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	7803786.8	7803843
FLOW (m3/h)	2100	2000

Flow Details	
Unit:	m3/h
Flow Range:	0-591.9 m3/h
Current Output:	4-20 mA
4 mA Set Point	0 m3/h
20 mA Set Point	591.9 m3/h

Maintenance Checklist			Remarks
Visual Inspection:	☑ OK	☐ NOT OK	
Electrical Inspection:	☑ OK	☐ NOT OK	

Programming Parameter of Instrument

Parameter	Discription	Value	Parameter	Discription	Value
F0	Access Code	2.71828	P40	Parshall Flume	1.00
P1	Dimension Unit (cm)	2.000	P41	flow rate (per hr)	3.00
P2	Mode	5	P42	OCM exponent	1.50
P3	Empty Distance	50.38 cm	P43	Flume dimension	0
P4	Span	20 cm	P45	Maximum head	20 cm
P5	near blanking	30	P46	Maximum flow rate	591.9 m3/hr

Instrument Test Information and Results

Input (%)	Calculated Flow(m3/h)	Calculated Input (mA)	Flow on Panel Meter Display (m3/h)	UUT Measured Output (mA)	Deviation (m3/h)
0	0.00	4.00	0.00	3.99	0.00
25	147.98	8.00	147.59	7.99	0.00
50	295.95	12.00	295.47	11.98	0.00
75	443.93	16.00	443.91	15.96	0.00
100	591.90	20.00	591.25	20.00	0.01

Information of Tools used for Verification of the Instruments

Device Description:	Manufacturer	Model	Serial No:
Electrical Multimeter	Fluke	179	As per Provided

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Program parameters verified

Service Technician :	Sagar patel	Stamp/Signature	
Printed Date:	July 30, 2020		

End of Report

Version: 19-12

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix D

Community Complaints

Ontario Clean Water Agency
Community Complaints

Facility ID: 5620

Facility Name: Wiarton Wastewater Collection System

Address:

City: Wiarton

Name of Complainant:

Address: 685 Frank Street, Wiarton

Phone Number:

NOTE: If there were multiple complaints, provide the name of the person who filed the initial complaint and note the number and details in the "Description" field below

Date of Complaint: January 17, 2020

Time of Complaint: 14:00

Nature of Complaint

- ☐ Noise
- ☐ Visual
- ☐ Odour
- ☐ Water Supply Taste/ Colour
- ☐ Service Problem
- ☐ Sludge Related
- ☐ Water Pressure/ No Water
- ☐ Basement Flooding
- ☐ Other: . Sewer lateral backup /2nd sewer lateral

Description: sewer lateral block- up at 685 Frank Street,, Wiarton. Inspect 2nd sewer lateral to property line @ 4'2" depth. Unable to locate cleanout.

Action taken in response:
Cleared sewer lateral blockage with mechanical auger and inspected with sewer camera. Sewer lateral was blocked with wipes.

Was the source of the problem identified?: [x] **Yes** [ ] **No**

Was the source an OCWA facility/activity?: [ ] **Yes** [x] **No**

If "Yes", please describe:

If any remedial action is required, complete an action plan form.

Investigating Operator: **Dave Noble**

Ontario Clean Water Agency
Community Complaints

Facility ID: 5620

Facility Name: Wiarton Wastewater Collection System

Address:

City: Wiarton

Name of Complainant:

Address: 430 Brown Street, Wiarton

Phone Number:

NOTE: If there were multiple complaints, provide the name of the person who filed the initial complaint and note the number and details in the "Description" field below

Date of Complaint: February 17, 2020

Time of Complaint: 10:15 AM

Nature of Complaint

- [ ] Noise
- [ ] Visual
- [ ] Odour
- [ ] Water Supply Taste/ Colour
- [ ] Service Problem
- [ ] Sludge Related
- [ ] Water Pressure/ No Water
- [ ] Basement Flooding
- [ ] Other: . Sewer lateral backup

Responded to 430 Brown Street sewer lateral blockage call

Action taken in response:
Video inspected lateral from inside house to collection main. Cleared soft blockage. Exposed clean-out on front lawn under shrubs and video recorded from clean out to collection main. At least 2 sections show standing water due to elevation loss (dip) 430 Brown. Lateral flowing again

Was the source of the problem identified?: [x] **Yes** [ ] **No**

Was the source an OCWA facility/activity?: [ ] **Yes** [x] **No**

If "Yes", please describe:

If any remedial action is required, complete an action plan form.

Investigating Operator: **Dave Noble**

Ontario Clean Water Agency
Community Complaints

Facility ID: 5620

Facility Name: Wiarton Waste Water Collection

Address: 897 Bayview Street

City: Wiarton

Name of Complainant: Jordan

Address: 430 Brown Street

Phone Number: 519-378-6102

NOTE: If there were multiple complaints, provide the name of the person who filed the initial complaint and note the number and details in the "Description" field below

Date of Complaint: February 26th 2020

Time of Complaint: 0700

Nature of Complaint

- [ ] Noise
- [ ] Visual
- [ ] Odour
- [ ] Other:
- [ ] Water Supply Taste/ Colour
- [■] Service Problem
- [ ] Sludge Related
- [ ] Water Pressure/ No Water
- [x] Basement Flooding

Description:

Sanitary Lateral Blockage, backing up in floor drain in basement.

Action taken in response:

Camera lateral, push flat snake, auger with power auger, camera after completed. Service has a dip in the lateral where PVC connects to what appears to be No Corrode. Lateral has flow through now, will camera at the end of the week to verify flow.

Was the source of the problem identified?: [ ] Yes [ ] No

Was the source an OCWA facility/activity?: [■] Yes [■] No

If "Yes", please describe:

Municipal Sewer Collection System

If any remedial action is required, complete an action plan form.

Investigating Operator: Benjamin Madill

Comments:

Ontario Clean Water Agency
Community Complaints

Facility ID: 5620

Facility Name: Wiarton Wastewater Collection System

Address:

City: Wiarton

Name of Complainant: Trudy McCarthy

Address: 355 Mary Street, Wiarton

Phone Number:

NOTE: If there were multiple complaints, provide the name of the person who filed the initial complaint and note the number and details in the "Description" field below

Date of Complaint: October 16, 2020

Time of Complaint: 14:13

Nature of Complaint

- [ ] Noise
- [ ] Water Supply Taste/ Colour
- [ ] Water Pressure/ No Water
- [ ] Visual
- [ ] Service Problem
- [ ] Basement Flooding
- [ ] Odour
- [ ] Sludge Related
- [ ] Other: . Sewer lateral backup

Description: sewer backing up at 355 Mary Street, Wiarton

Action taken in response:
Please see notes below

Was the source of the problem identified?: [x] **Yes** [ ] **No**

Was the source an OCWA facility/activity?: [ ] **Yes** [x] **No**

If "Yes", please describe:
Please see notes below

If any remedial action is required, complete an action plan form.

Investigating Operator: **Dan Caesar**

14:13-Call from TSBP 519.534.1610 who informs of sewer possibly backing up at 355 Mary Street, Wiarton

14:17-Confirm location on Wiarton Sanitary Sewer Collection System Map and find locate drawings on 355 Mary Street Property.

14:18-Dispatch Dan Caesar to investigate. Asked that he check sewer manhole on intersection of Claude and Mary to confirm flow and then check 355 Mary Street Property sewer clean out

14:23-Call Paul Bridge from Bridge Construction to ask if sewer lateral location was changed during construction project.

14:28-Call Evan Hellyer from Bridge Construction and he confirmed that sewer clean out location should remain the same at 355 Mary Street.

Ontario Clean Water Agency
Community Complaints

14:33-Call Trudy McCarthy 226 568 2024 to confirm the complaint relayed from the Town regarding sewer backing up to the property situated at 355 Mary Street. I informed that OCWA staff were dispatched to 355 Mary Street to investigate. Trudy said that she was not present at the house at this time. I told her that I would call to confirm our findings.

14:40-Call Dan Caesar to confirm that location of sewer cleanout should be the same as shown on the locate sheet. He said that clean out was already located and opened and that he could see water at the top of the cleanout. He confirmed that he would attempt to push in the manual sewer auger.

15:13-Call Dan Caesar for update. He confirms that they were able to re-establish flow as water has now gone down in the clean-out.

16:30-Dan confirms that a soft blockage was completely pushed through the lateral following a few application of the manual sewer auger. Lateral was flushed with water and video inspected. No evidence of pipe offset or dip in the lateral found.

16:35 call Trudy McCarthy to inform that the sewer lateral is now free of blockage. Confirmed that no offset or dip in the pipe was found. She said that her husband told her that there was a lot of toilet paper rolls causing the blockage. I told her that we refer to those as soft blockages. I asked if they use flushable wipes and she said yes since recently. I asked that they not flush “any flushable wipes” down the toilet . I told her that in my opinion, no flushable wipes should be flushed down toilets.

Ontario Clean Water Agency
Community Complaints

Facility ID: 5620

Facility Name: Wiarton Wastewater Collection System

Address:

City: Wiarton

Name of Complainant: Trudy McCarthy

Address: 355 Mary Street, Wiarton

Phone Number:

NOTE: If there were multiple complaints, provide the name of the person who filed the initial complaint and note the number and details in the "Description" field below

Date of Complaint: November 24, 2020

Time of Complaint: 22:30

Nature of Complaint

- [ ] Noise
- [ ] Visual
- [ ] Odour
- [ ] Water Supply Taste/ Colour
- [ ] Service Problem
- [ ] Sludge Related
- [ ] Water Pressure/ No Water
- [ ] Basement Flooding
- [ ] Other: . Sewer lateral backup

Description: sewer backing up at 355 Mary Street, Wiarton

Action taken in response:
Cleared sewer lateral blockage with mechanical auger and inspected with sewer camera. Sewer lateral was blocked with wipes.

Was the source of the problem identified?: [x] **Yes** [ ] **No**

Was the source an OCWA facility/activity?: [ ] **Yes** [x] **No**

If "Yes", please describe:

If any remedial action is required, complete an action plan form.

Investigating Operator: **Ben Madill and Billy Shearer**

Ontario Clean Water Agency
Community Complaints

Facility ID: 5620

Facility Name: Wiarton Wastewater Collection System

Address:

City: Wiarton

Name of Complainant: George

Address: 561 Gould, Wiarton

Phone Number: 519 379 9226

NOTE: If there were multiple complaints, provide the name of the person who filed the initial complaint and note the number and details in the "Description" field below

Date of Complaint: December 7, 2020

Time of Complaint: 11:33

Nature of Complaint

- [ ] Noise
- [ ] Visual
- [ ] Odour
- [ ] Water Supply Taste/ Colour
- [ ] Service Problem
- [ ] Sludge Related
- [ ] Water Pressure/ No Water
- [ ] Basement Flooding
- [ ] Other: . Sewer lateral backup

11:33 AM - I called George 519 379 9226 from 561 Gould and he explained that the plumbing from the right side of the building was blocked and that the plumbing from the left side of the building was flowing with gargling noise. He mentioned that he pushed a cable approx. 25 feet from a clean out inside the house. I asked if he called a plumber and he said that he would need permission from the building owner.

13:14 PM - I called George 519 379 9226 from 561 Gould and he explained that he was unable to reach the building owner.

Action taken in response:

13:30 PM – We pushed the Town's sewer camera through a sewer clean out situated in a crawl space at 561 Gould Street. Blockage was located approximately 12 feet from the front wall of the house. I mentioned that they had to call a plumber as the blockage was located on the private side of the property.

Was the source of the problem identified?: [x] **Yes** [ ] **No**

Was the source an OCWA facility/activity?: [ ] **Yes** [x] **No**

If "Yes", please describe:

If any remedial action is required, complete an action plan form.

Investigating Operator: **Dan Caesar / Leo-Paul Frigault**

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix E

Effluent By-Pass Reports

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5620

EIncidentReport

Facility Name: Wiarton Wastewater Treatment Lagoon

Address: c/o Southampton WPCP

City: Southampton

Province: Ontario

Postal Code: NOH 2LO

Date of Occurrence: 01/15/2020

Time of Occurrence: 12:57:00 PM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☒ Water ☐ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: _____

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 10000 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately what quantity was released?: _____ Kg

What was the source of release?:

Power outage caused UV failure. Filtered lagoon effluent was released without UV treatment.

Where did the release go?:

Through the regular outfall to Colpoy's Bay.

If it entered a watercourse: ● Yes ○ No

If it went off site: ● Yes ○ No

Duration of the release?: 10 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Effluent discharge was shut down, UV system was restarted and alarms were acknowledged. Samples were collected according to the ECA.

What actions have been taken to remediate the incident?

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

14:24 - Reported to Blake at Spills Action Centre on January 15, 2020 was issued reference number #5263-BKUQNU

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?: 14:35 - Shayne Finlay at MOE Owen Sound was notified on January 15, 2020.

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

14:24 - Reported to Blake at Spills Action Centre on January 15, 2020 was issued reference number #5263-BKUQNU

Was it reported to Municipality?: ● Yes ○ No

If "Yes", at what time was it reported to Municipality?:

14:45 - Lara Widdifield at Town of South Bruce Peninsula on January 15, 2020

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Karla Young 05/11/2020 03:35:47 PM

Comments:

Bypass Incident 5263-BKUQNU
January 15, 2020
-UV system failure at 12:57PM, 10 minutes bypass of ~10000 Litres
-shut down effluent, reset UV system, alarms acknowledged, once UV system was stabilized the effluent discharge was re-opened
-14:15 Leo-Paul Frigault OCWA Senior Operations Manager Grey Bruce Hub was notified
-14:24 SAC contacted talked to Blake issued reference number #5263-BKUQNU
-14:35 Shayne Finlay at Owen Sound MECP was notified
14:37-left voicemail at MOH Owen Sound Office
-14:41 Lara Widdifield Public Works Manager at Town of South Bruce Peninsula was notified
-15:32-Jos Moerman Grey Bruce Health Unit returned call-no further actions required
-Adverse Report faxed out January 15, 2020:
16:53-Town of South Bruce Peninsula
16:54-SAC Office
16:56-Owen Sound MECP Office
16:57-Owen Sound MOH Office
16:58-Enviroment Canada
-16:48 email informing of the Environmental Incident was sent out to MECP, MOH, Town of South Bruce Peninsula, Environment Canada, OCWA
-January 17, 2020 Grab Sample Analysis received from SGS Lab
-January 23, 2020 Composite Sample Analysis received from SGS Lab

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5620

EIncidentReport

Facility Name: Wiarton Wastewater Treatment Lagoon

Address: c/o Southampton WPCP

City: Southampton

Province: Ontario

Postal Code: NOH 2LO

Date of Occurrence: 03/20/2020

Time of Occurrence: 12:11:19 PM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☒ Water ☐ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☐ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: UV Treatment Bypass

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 92670 Litres

If a gas, approximately what quantity was released?: _____

If a solid, approximately what quantity was released?: _____ Kg

What was the source of release?:

Bypass of secondary effluent due to power loss.

Where did the release go?:

Colpoy's Bay

If it entered a watercourse: ● Yes ○ No

If it went off site: ○ Yes ● No

Duration of the release?: 40 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Incident # 8336-BMUVTP - Due to a power bump at the facility, the UV disinfection unit was offline for approximately 40 minutes. This caused a bypass of the UV treatment. Power was reset immediately.

What actions have been taken to remediate the incident?

Operator responded to the alarm and immediately sampled per ECA requirements. Situation was closely monitored by the responding Operator.

Reporting
- Operator (Billy Shearer) reported incident to SAC @ 1910hrs verbally to EO Renee Belanger
- Operator (Billy Shearer) reported incident to MECP @ 1920hrs via voicemail
- Operator (Billy Shearer) reported incident to MOH @ 1922hrs, verbally to MOH Inspector Barbara Z
- Operator (Billy Shearer) reported incident to Public Works Manager @ 1927hrs via voicemail
- Operator (Billy Shearer) reported incident to MOH @ 1937hrs, verbally to MOH Inspector Lynda Bumstead

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

1920hrs to MECP voicemail, 1922hrs to Barbara Z, (Owen Sound MOH)

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?:

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

1910hrs to Renee Belanger

Was it reported to Municipality?: ● Yes ○ No

If "Yes", at what time was it reported to Municipality?:

1927hrs to Municipal Office voicemail

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: David Jorge 03/22/2020 05:41:59 PM

Comments:

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5620

EIncidentReport

Facility Name: Wiarton Wastewater Treatment Lagoon

Address: c/o Southampton WPCP

City: Southampton

Province: Ontario

Postal Code: NOH 2LO

Date of Occurrence: 05/03/2020

Time of Occurrence: 11:00:00 PM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☒ Water ☐ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: bypass of UV disinfection

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 65600 Litres

If a gas, approximately what quantity was released?:

If a solid, approximately what quantity was released?: Kg

What was the source of release?:

Power outage caused UV failure. Filtered lagoon effluent was released without UV treatment.

Where did the release go?:

Through the regular outfall to Colpoy's Bay

If it entered a watercourse: ● Yes ○ No

If it went off site: ● Yes ○ No

Duration of the release?: 45 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Reset the UV system. Took samples according to ECA.

What actions have been taken to remediate the incident?

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

00:35 - Reported to Aaron Richards at Spills Action Centre on May 4, 2020 issued reference number #3484-BPA7FE

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?: Owen Sound Regional Office-left voicemail at 00:45 on May 4, 2020

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

00:35 - Reported to Aaron Richards at Spills Action Centre on May 4, 2020 issued reference number #3484-BPA7FE

Was it reported to Municipality?: ● Yes ○ No

If "Yes", at what time was it reported to Municipality?:

8:05 Lara Widdifield at Town of South Bruce Peninsula on May 4, 2020

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Karla Young 05/05/2020 12:17:36 PM

Comments:

Bypass Incident #3484-BPA7FE
May 3, 2020
-UV system failure 45 minute bypass of 65600 Litres
-reset UV system, working normally after that
-took samples-May 3, 2020 11:45 Grab sample taken, May 4, 2020 17:00 Composite Sample taken
May 4, 2020: 00:35 SAC centre notified-talked to Aaron Richards issued incident #3484-BPA7FE
00:45-left voicemail at MECP Owen Sound Regional Office
00:48-left voicemail at MOH Owen Sound Office
Adverse Report sent out May 4, 2020:
7:48-Town of South Bruce Peninsula
7:52-Spills Action Centre
8:02 MOH Owen Sound Office
8:03 MECP Owen Sound Office
8:05-notified Lara Widdifield at Town of South Bruce Peninsula
8:06-notified Leo-Paul Frigault, OCWA Senior Operations Manager, Grey-Bruce Hub
8:08-notified Karla Young, OCWA Process Compliance Technician, Grey-Bruce Hub
May 5, 2020
11:29-Karla Young PCT talked to Bob Graham MECP and informed him of the bypass
-advised to follow the ECA requirements for a bypass and he will review the report from SAC and ensure we followed procedure and will call if any other questions
May 12, 2020-Received final lab analysis on samples collected - results below the objectives and limits set out in the ECA #6045-ARDJS7

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5620

EIncidentReport

Facility Name: Wiarton Wastewater Treatment Lagoon

Address: c/o Southampton WPCP

City: Southampton

Province: Ontario

Postal Code: NOH 2LO

Date of Occurrence: 05/20/2020

Time of Occurrence: 05:40:00 AM

Nature of the Incident

● Level 1 Contingency ○ Level 2 Contingency ○ Level 3 Contingency *Click here To Show the Definitions*

Incident affected: ☐ Air ☒ Water ☐ Land ☐ Nothing

What was discharged or emitted?

☐ Chlorine
☐ Sodium Hypochlorite
☐ Calcium Chloride
☐ Aluminum Compounds (Specify in Other)
☐ Arsenic
☐ Fluoride
☐ Oil/Diesel/Gas
☒ Untreated or partly treated sewage
☐ Odours
☐ Water
☐ Iron Coagulants

Other: bypass of UV disinfection

If this was a discharge, spill or emission...

If a liquid, approximately what quantity was released?: 40340 Litres

If a gas, approximately what quantity was released?:

If a solid, approximately what quantity was released?: Kg

What was the source of release?:

Power outage caused UV failure. Filtered lagoon effluent was released without UV treatment.

Where did the release go?:

Through the regular outfall to Colpoy's Bay

If it entered a watercourse: ● Yes ○ No

If it went off site: ● Yes ○ No

Duration of the release?: 45 minutes

Is the release now stopped?: ● Yes ○ No

Was there any damage? (i.e. property and/or environmental): ○ Yes ● No ○ N/A

If "Yes", describe below and fill out "Insurance Claim" report

Action(s) Taken

What actions were taken to control the incident?

Reset the UV system. Took samples according to ECA.

What actions have been taken to remediate the incident?

Was this a reportable spill or discharge?: ● Yes ○ No

If "Yes", at what time was it first reported to the MOE?

06:53 - was reported to Aaron Richards at Spills Action Centre on May 20, 2020 and was issued reference number #4876-BPSESM

Was it reported to the MOE district office?: ● Yes ○ No

If "Yes", which office/location and who was the contact?: 07:00 - Owen Sound Office; 09:05 PCT left voicemail with local water inspector Bob Graham

Was it reported to MOE SAC?: ● Yes ○ No

If "Yes", at what time was it reported to MOE SAC?:

06:53 - was reported to Aaron Richards at Spills Action Centre on May 20, 2020 and was issued reference number #4876-BPSESM

Was it reported to Municipality?: ● Yes ○ No

If "Yes", at what time was it reported to Municipality?:

07:17 - left voicemail with Town of South Bruce Peninsula

External Assistance/Involvement

Was corporate or area office assistance requested?: ○ Yes ● No

If "Yes", was it received?: ○ Yes ○ No

Was external emergency assistance requested?: ○ Yes ● No

If "Yes", from who?: ☐ Fire Department ☐ Equipment Suppliers ☐ Canutec
☐ Ambulance or Hospital ☐ MOE ☐ Coast Guard
☐ Police ☐ Municipality

Other: _____

Was there any media involvment?: ○ Yes ● No

If "Yes", who?: _____

Was the public affected?: ○ Yes ● No

If "Yes", how?: _____

Updated By: Karla Young 06/01/2020 12:06:14 PM

Comments:

Bypass Incident #4876-BPSESM
May 20, 2020
-UV system failure due to power bump-45 minute bypass of 40340 Litres of filtered lagoon effluent
-reset UV sytem, working normally after that
-took samples-May 20, 2020-grab sample taken and Composite sampler started
May 20, 2020 notifications:
06:53 SAC notified-talked to Aaron Richards and issued reference number #4876-BPSESM
07:00 Owen Sound MECP
07:00 OCWA Manager of Operations Leo-Paul Frigault informed
07:06 Lynda at Grey Bruce Health Unit
07:17 voicemail left with Town of South Bruce Peninsula
07:50 OCWA PCT Karla Young informed
May 20, 2020 Adverse Report faxed out:
07:37 Town of South Bruce Peninsula
07:38 Grey Bruce Health Unit
07:39 Owen Sound MOE
07:40 Spills Action Centre
May 20, 2020 9:05 OCWA PCT left voicemail with Bob Graham MECP Water Inspector to inform him of bypass and ask about any recommendations
10:18 OCWA PCT received email from Bob Graham MECP advising of the ECA sampling requirements and advised that we update our reporting form to reflect the ECA requirements
10:19 OCWA PCT forwarded Bob Graham's email to operations staff advising of the ECA sampling requirements
May 21, 2020 Adverse Report form revised, as per MECP recommendation, to include all parameters required to be sampled in the ECA
June 1, 2020-Received final lab analysis on samples collected - results below the objectives and limits set out in the ECA #6045-ARDJS7

From: Karla Young
To: "Mark.Smith@ontario.ca"; "Graham, Robert G. (MECP)"
Cc: Leo-Paul Frigault; Karen Lorente; Camille Leung; Michelle Neal
Subject: 2020 Q1 - Bypass/Overflow Event Summary - Wiarton WWTP (#110000819) - Town of South Bruce Peninsula
Date: May-06-20 2:55:00 PM

Good Afternoon,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

Bypass Events

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(M^3)					
2020/01/15	12:57	13:07	00:10	10	UV disinfection	Yes	Power Failure causing UV Failure	Filter treated effluent released to effluent outfall	n/a
2020/03/19	17:30	18:10	00:40	92.67	UV disinfection	Yes	Power Failure causing UV Failure	Filter treated effluent released to effluent outfall	n/a

Overflow Events

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;

- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,
Karla

Karla Young
Process Compliance Technician
Grey-Bruce/Bruce Hubs
Georgian Highlands Region
Ontario Clean Water Agency
kyoung@ocwa.com
(519) 374 - 5782

From: Karla Young
To: "Mark.Smith@ontario.ca"; "Graham, Robert G. (MECP)"
Cc: Leo-Paul Frigault; Michelle Neal; Karen Lorente
Subject: 2020 Q2 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date: August-06-20 2:54:00 PM
Attachments: Report CA13126-MAY20(2).pdf
Report CA13747-MAY20.pdf
Report CA14798-MAY20.pdf
Report CA13747-MAY20.pdf

Good Afternoon,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant. Attached are the laboratory results from the two bypass events.

Bypass Events

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(M^3)					
2020/05/04	11:00	11:45	00:45	65.6	UV disinfection	Yes	Power Failure causing UV Failure	Filter treated effluent released to effluent outfall	n/a
2020/05/20	05:40	06:25	00:45	40.34	UV disinfection	Yes	Power Failure causing UV Failure	Filter treated effluent released to effluent outfall	n/a

Overflow Events

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;

- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,

Karla

Karla Young
Process & Compliance Technician
Grey-Bruce/Bruce Hubs
Georgian Highlands Region
Ontario Clean Water Agency
kyoung@ocwa.com
(519) 374 - 5782

From: Karla Young
To: "Graham, Robert G. (MECP)"; "Mark.Smith@ontario.ca"
Cc: Leo-Paul Frigault; Michelle Neal; Karen Lorente; Melissa Cortes
Subject: 2020 Q3 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date: November-13-20 2:21:00 PM

Good Afternoon,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

Bypass Events

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(M^3)					
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Overflow Events

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,

Karla

Karla Young
Process & Compliance Technician
Grey-Bruce/Bruce Hubs
Georgian Highlands Region
Ontario Clean Water Agency
kyoung@ocwa.com
(519) 374 - 5782

From: Karla Young
To: "Graham, Robert G. (MECP)"; "Mark.Smith@ontario.ca"
Cc: Leo-Paul Frigault; Michelle Neal; Karen Lorente; Melissa Cortes
Subject: 2020 Q4 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date: February-12-21 1:23:00 PM

Good Afternoon,

Under ECA 6045-ARDJS7, a quarterly summary report shall be submitted for Bypass Event(s) and Overflows that occur at the Wiarton Wastewater Treatment Plant.

Bypass Events

The ECA requires the submission of a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Bypass;
- the location of the Bypass and the treatment process(es) bypassed;
- the reason(s) for the Bypass;
- the date and time of the end of the Bypass;
- the measured or estimated volume of Bypass;
- Samples collected;
- Assessment of the impact of the Event(s) on Final Effluent, plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Treatment Process Bypassed	Samples Collected	Reason for Bypass	Impact of Event	Mitigation
	Start	End	HH:MM	(M^3)					
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Overflow Events

The ECA requires the submission of a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15.

The summary reports shall contain, at a minimum:

- the date and time of the beginning of the Overflow;
- the location of the Overflow and the receiver and disinfection status of the Overflow;
- the reason(s) for the Overflow;
- the date and time of the end of the Overflow;
- the measured or estimated volume of Overflow;
- the mitigation measures taken;
- Samples collected;
- Assessment of the impact of the Event(s) on plant operation and the receiver;
- Planned mitigation strategies, as appropriate.

Date	Time		Duration	Volume	Receiver	Disinfection Status of Overflow	Samples Collected	Reason for Overflow	Impact of Event	Mitigation: Taken and Planned
	Start	End	HH:MM	(M^3)						
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Thanks,

Karla

Karla Young
Process & Compliance Technician
Grey-Bruce/Bruce Hubs
Georgian Highlands Region
Ontario Clean Water Agency
kyoung@ocwa.com
(519) 374 - 5782

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Appendix F

Septage Laboratory Results

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project # 110000819		C of C LIMS No: SAN12464 NK	
Facility Name Wiarton WWTP		Laboratory Section	Sample condition upon receipt
Org. # 5620		Date Rec'd: JAN 21 2020	Time Rec'd: Initials
Quote #		Temperature Upon Receipt 4x3 °C	
Attached Parameter List [ ] No [ ] Yes			

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																				Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc			
Sept	Sept	-	Septage - Holding Tank	JAN. 17 2020 @ 11:00	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for	Yes [X] No [ ]	Yes [X] No [ ]
		-																									Yes [ ] No [ ]	Yes [ ] No [ ]
		-																									Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAVE NOBLE	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

606728 206248
10:00 R/n C1

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

24-January-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Megan Edney

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 21 January 2020
LR Report: **CA12464-JAN20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					17-Jan-20 11:00
Temperature Upon Receipt [°C]	---	---	---	---	4.0
Mercury (total) [mg/L]	22-Jan-20	15:54	23-Jan-20	09:52	0.00001
Aluminum (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	5.63
Arsenic (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.0074
Barium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.261
Cadmium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.00602
Calcium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	250
Chromium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.0224
Cobalt (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.00573
Copper (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	4.80
Iron (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	44.3
Lead (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.107
Magnesium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	39.4
Manganese (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.869
Nickel (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.0728
Potassium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	24.5
Selenium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.00856
Silver (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.00276
Sodium (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	61.1
Tin (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	0.0108
Zinc (total) [mg/L]	22-Jan-20	12:00	23-Jan-20	14:33	17.2

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819

Project : PO#017018
LR Report : **CA12464-JAN20**

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002020906

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project #	110000819	C of C LIMS No:	JAN12498
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt: N/S
Org. #	5620	Date Rec'd: JAN 21 2020	Time Rec'd: ____ Initials ____
Quote #			
Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt 4x3 °C	

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify: ____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept		Septage - Holding Tank	JAN. 17 2020 @ 11:00 ✓	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAVE NOBLE	Sampler Signature:	Dave Noble

* Station Acronym: Cell - Cell Contents, Cis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bis - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Flotation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSin - Pump Sin, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Ter - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

CA 10:00

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

27-January-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Megan Edney

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 21 January 2020
LR Report: **CA12498-JAN20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					17-Jan-20 11:00
Temperature Upon Receipt [°C]	---	---	---	---	4.0
Biochemical Oxygen Demand (BOD5) [mg/L]	21-Jan-20	14:59	27-Jan-20	12:58	5820
Total Suspended Solids [mg/L]	21-Jan-20	09:58	23-Jan-20	15:11	8110
Chemical Oxygen Demand [mg/L]	22-Jan-20	10:43	27-Jan-20	12:58	14800
Ammonia+Ammonium (N) [as N mg/L]	21-Jan-20	20:18	22-Jan-20	13:43	61.4
Total Kjeldahl Nitrogen [as N mg/L]	21-Jan-20	12:55	22-Jan-20	13:48	300
Phosphorus (total) [mg/L]	21-Jan-20	12:55	23-Jan-20	13:26	39.2
Isopropyl Alcohol [mg/L]	27-Jan-20	10:35	27-Jan-20	15:18	< 5
Methyl alcohol [mg/L]	27-Jan-20	10:35	27-Jan-20	15:18	< 5
Acetone [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 1200
Benzene [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20
Ethylbenzene [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20
Dichloromethane [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20
Methylene Chloride [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20
Methyl ethyl ketone [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 800
Toluene [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	355
Xylene (total) [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20
o-xylene [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20
m/p-xylene [ug/L]	24-Jan-20	15:51	27-Jan-20	11:59	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002023427

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project #	110000819	C of C LIMS No:	FEB 12437
Facility Name	Wiarton WWTP	Laboratory Section Date Rec'd:	FEB 1 3 2020
Org. #	5620	Time Rec'd:	Sample condition upon receipt Initials NM
Quote # Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	8K3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	ocwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	10:00 FEB.12,2020	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAVE NOBLE	Sampler Signature:	Dave Noble

* Station Acronym: Cell - Cell Contents, Cis - Disinfection, Down - Downstream, Eff - Final Effluent, PrEy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bis - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Flotation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSln - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Ter - Tertiary Treatment, Alla - Actillo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

P. 6065716782
RCVD 9:30 KB

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

21-February-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Megan Edney

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 13 February 2020
LR Report: **CA12437-FEB20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					12-Feb-20 10:00
Temperature Upon Receipt [°C]	---	---	---	---	8.0
Biochemical Oxygen Demand (BOD5) [mg/L]	13-Feb-20	17:03	18-Feb-20	13:38	996
Total Suspended Solids [mg/L]	14-Feb-20	09:03	19-Feb-20	15:59	1180
Chemical Oxygen Demand [mg/L]	14-Feb-20	09:50	18-Feb-20	15:35	1600
Ammonia+Ammonium (N) [as N mg/L]	13-Feb-20	16:34	18-Feb-20	16:18	50.8
Total Kjeldahl Nitrogen [as N mg/L]	14-Feb-20	06:30	19-Feb-20	13:20	96.3
Phosphorus (total) [mg/L]	14-Feb-20	06:30	18-Feb-20	14:42	12.8
Isopropyl Alcohol [mg/L]	18-Feb-20	09:41	19-Feb-20	15:59	< 5
Methyl alcohol [mg/L]	18-Feb-20	09:41	19-Feb-20	15:59	< 5
Acetone [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 1200
Benzene [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20
Ethylbenzene [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20
Dichloromethane [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20
Methyl ethyl ketone [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 800
Toluene [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20
Xylene (total) [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20
o-xylene [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20
m/p-xylene [ug/L]	14-Feb-20	14:48	18-Feb-20	14:22	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002044118

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project #	110000819	C of C LIMS No:	Mar 1380
Facility Name	Wiarton WWTP	Laboratory Section Date Rec'd:	MAR 25 2020
Org. #	5620	Time Rec'd:	Sample condition upon receipt: Initials AP
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	10.3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h ☐ | X | 5-7d ☐ | 7-10d ☐ | Other Specify:

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	aowesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym*	Station Number (Short Name)		Sample Location Name	Date & Time Collected MAR 24 2020	# of Bottles	BOD5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	10:30	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes X No ☐	Yes X No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	Ben Madill	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsiq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSln - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

p# 6068145 L4448

RTN 10:00 AM

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

07-April-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Megan Edney

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 25 March 2020
LR Report: **CA13801-MAR20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					24-Mar-20 10:30
Temperature Upon Receipt [°C]	---	---	---	---	10.0
Biochemical Oxygen Demand (BOD5) [mg/L]	25-Mar-20	20:13	30-Mar-20	18:57	1730
Total Suspended Solids [mg/L]	26-Mar-20	16:07	27-Mar-20	14:08	280
Chemical Oxygen Demand [mg/L]	26-Mar-20	08:05	30-Mar-20	18:57	2350
Ammonia+Ammonium (N) [as N mg/L]	26-Mar-20	18:06	30-Mar-20	18:39	9.5
Total Kjeldahl Nitrogen [as N mg/L]	27-Mar-20	15:30	31-Mar-20	16:54	24.4
Phosphorus (total) [mg/L]	27-Mar-20	15:30	01-Apr-20	15:20	7.5
Isopropyl Alcohol [mg/L]	03-Apr-20	14:51	07-Apr-20	14:34	< 5
Methyl alcohol [mg/L]	03-Apr-20	14:51	07-Apr-20	14:34	< 5
Acetone [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 1200
Benzene [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 20
Ethylbenzene [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 20
Dichloromethane [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 20
Methyl ethyl ketone [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 800
Toluene [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	37.6
Xylene (total) [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 20
o-xylene [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 20
m/p-xylene [ug/L]	30-Mar-20	10:55	31-Mar-20	13:45	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002085274

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project #	110000819	C of C LIMS No:	
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd:	Time Rec'd: Initials
Quote # / Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	7x3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5762	519-374-5762	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																				Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected APR 0 6 2020	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc			
Sept	Sept	-	Septage - Holding Tank.	11:15	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for	Yes [X] No [ ]	Yes [X] No [ ]
		-																									Yes [ ] No [ ]	Yes [ ] No [ ]
		-																									Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Ben Madill	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSin - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

606814527655 Rtn
@ 9:30

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project #	**110000819**	**C of C LIMS No:**	qp 14147
Facility Name	**Wiarton WWTP**	**Laboratory Section**	Sample condition upon receipt
Org. #	**5620**	Date Rec'd: 4/7/20	Time Rec'd: ___ Initials
Quote #		Temperature Upon Receipt	7x3 °C
Attached Parameter List	☐ No ☐ Yes		

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h ☐ ☒ 5-7d ☐ 7-10d ☐ Other Specify:_____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	04/06/20 11:15 CA per kobby	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:		Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Affo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

20-April-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Megan Edney

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 07 April 2020
LR Report: **CA14147-APR20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					06-Apr-20 11:15
Temperature Upon Receipt [°C]	---	---	---	---	7.0
Biochemical Oxygen Demand (BOD5) [mg/L]	13-Apr-20	20:46	20-Apr-20	13:29	1500
Total Suspended Solids [mg/L]	09-Apr-20	08:25	13-Apr-20	13:04	161
Chemical Oxygen Demand [mg/L]	14-Apr-20	15:48	15-Apr-20	08:14	2950
Ammonia+Ammonium (N) [as N mg/L]	07-Apr-20	18:20	16-Apr-20	16:48	< 0.1
Total Kjeldahl Nitrogen [as N mg/L]	08-Apr-20	15:07	13-Apr-20	10:26	28.2
Isopropyl Alcohol [mg/L]	15-Apr-20	12:40	17-Apr-20	12:11	< 5
Methyl alcohol [mg/L]	15-Apr-20	12:40	17-Apr-20	12:11	< 5
Acetone [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 1200
Benzene [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
Ethylbenzene [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
Dichloromethane [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
Methyl ethyl ketone [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 800
Toluene [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
Xylene (total) [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
o-xylene [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
m/p-xylene [ug/L]	16-Apr-20	17:11	20-Apr-20	14:04	< 20
Aluminum (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.281
Arsenic (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.0009
Barium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.0431
Cadmium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.000064
Calcium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	87.1
Chromium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.00136
Cobalt (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.000268
Copper (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.107
Iron (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	4.03
Lead (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.00470
Magnesium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	23.3
Manganese (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:40	0.252
Mercury (total) [ug/L]	07-Apr-20	19:40	09-Apr-20	07:04	< 0.01
Nickel (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	0.0128

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819

Project : PO#017018
LR Report : **CA14147-APR20**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Potassium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	27.7
Phosphorus (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	5.56
Selenium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	0.00049
Silver (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	< 0.00005
Sodium (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	241
Tin (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	0.00082
Zinc (total) [mg/L]	08-Apr-20	15:20	09-Apr-20	12:39	1.02

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002096385

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project # 110000819	C of C LIMS No: MAH 13351
Facility Name Wiarton WWTP Org. # 5620	Laboratory Section Date Rec'd: MAY 11 2020 Time Rec'd: ____ Initials NM Sample condition upon receipt
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 7,7,8 °C
Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	

Requested Turnaround Time: App. Req' 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify: _____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	ocwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected MAY 0 8 2020	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	11:00	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Ben Madih	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Epd - Biosolids primary digestion, Ssd - Biosolids sec. digestion, Eps - Biosolids pri super, Ess - Biosolids sec super, Ssiq - Biosolids sludge quality, Ssoq - Biosolids soil quality, DAF - Dissolved Air Flotation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSin - Pump Sin, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

Purolator 606863681239

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

21-May-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 11 May 2020
LR Report: **CA13351-MAY20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					08-May-20 11:00
Temperature Upon Receipt [°C]	---	---	---	---	7.0
Biochemical Oxygen Demand (BOD5) [mg/L]	11-May-20	21:46	19-May-20	07:31	2420
Total Suspended Solids [mg/L]	11-May-20	15:06	12-May-20	10:17	290
Chemical Oxygen Demand [mg/L]	13-May-20	09:48	19-May-20	07:31	2980
Ammonia+Ammonium (N) [as N mg/L]	12-May-20	17:00	15-May-20	13:20	0.3
Total Kjeldahl Nitrogen [as N mg/L]	12-May-20	15:18	15-May-20	13:32	46.7
Phosphorus (total) [mg/L]	12-May-20	15:18	13-May-20	17:12	6.0
Isopropyl Alcohol [mg/L]	12-May-20	10:31	21-May-20	14:02	< 5
Methyl alcohol [mg/L]	12-May-20	10:31	21-May-20	14:02	< 5
Acetone [ug/L]	15-May-20	06:55	20-May-20	17:03	< 1200
Benzene [ug/L]	15-May-20	06:55	20-May-20	17:03	< 20
Ethylbenzene [ug/L]	15-May-20	06:55	20-May-20	17:03	< 20
Dichloromethane [ug/L]	15-May-20	06:55	20-May-20	17:03	< 20
Methyl ethyl ketone [ug/L]	15-May-20	06:55	20-May-20	17:03	< 800
Toluene [ug/L]	15-May-20	06:55	20-May-20	17:03	36.0
Xylene (total) [ug/L]	15-May-20	06:55	20-May-20	17:03	< 20
o-xylene [ug/L]	15-May-20	06:55	20-May-20	17:03	< 20
m/p-xylene [ug/L]	15-May-20	06:55	20-May-20	17:03	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002123540

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project # 110000819	C of C LIMS No: JUN 13558
Facility Name: Wiarton WWTP	Laboratory Section — Date Rec'd: JUN 2 3 2020 KU — Time Rec'd: ____ — Sample condition upon receipt ____ — Initials ____
Org. # 5620	Temperature Upon Receipt 20x3 °C
Quote # / Attached Parameter List: [ ] No [ ] Yes	

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify: ____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	aowesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene	Comments	Upload to MOE	Upload to OCWA
Sept	Sept		Septage - Holding Tank	JUN 1 9 2020 11:50	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name: Ben Madili — Sampler Signature: [signature]

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Epd - Biosolids primary digestion, Esd - Biosolids sec. digestion, Eps - Biosolids pri super, Ess - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

Revision #1 — Revised: 2017.12.01

OM RTN 10:00
P: 606 910 324 031

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

03-July-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 23 June 2020
LR Report: **CA13558-JUN20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					19-Jun-20 11:50
Temperature Upon Receipt [°C]	---	---	---	---	20.0
Biochemical Oxygen Demand (BOD5) [mg/L]	24-Jun-20	16:55	29-Jun-20	15:58	1030
Total Suspended Solids [mg/L]	24-Jun-20	07:47	25-Jun-20	12:08	313
Chemical Oxygen Demand [mg/L]	24-Jun-20	11:45	29-Jun-20	15:58	3250
Ammonia+Ammonium (N) [as N mg/L]	23-Jun-20	17:39	24-Jun-20	15:08	50.8
Total Kjeldahl Nitrogen [as N mg/L]	24-Jun-20	14:23	26-Jun-20	11:01	52.0
Phosphorus (total) [mg/L]	24-Jun-20	14:23	26-Jun-20	11:00	10.3
Isopropyl Alcohol [mg/L]	02-Jul-20	10:27	03-Jul-20	14:21	< 5
Methyl alcohol [mg/L]	02-Jul-20	10:27	03-Jul-20	14:21	< 5
Acetone [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 1200
Benzene [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 20
Ethylbenzene [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 20
Dichloromethane [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 20
Methyl ethyl ketone [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 800
Toluene [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	22.2
Xylene (total) [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 20
o-xylene [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 20
m/p-xylene [ug/L]	26-Jun-20	14:45	30-Jun-20	13:38	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002170935

Page 1 of 2

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project # 110000819		C of C LIMS No: JJ113395	
Facility Name Wiarton WWTP Org. # 5620		Laboratory Section Date Rec'd: JUL 21 2020	Sample condition upon receipt Time Rec'd: ____ Initials OM
Quote # Attached Parameter List ☐ No ☐ Yes		Temperature Upon Receipt °C	
Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment			

Requested Turnaround Time: App. Req' 24-48 h ☐ | X 5-7d ☐ | 7-10d ☐ | Other Specify:_____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlew@sgs.com

Sample						Parameters																	Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected JUL 20 2020	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	1140 ↓ Bottles say 10:40	7	X	X	X dig	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes X No	Yes X No
										NK														Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	Ben Medd	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Cls - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Spd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Eps - Biosolids pri super, Bss - Biosolids sec super, Bsiq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Flotation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSln - Pump Stn, Sept - Septage, Lchl - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

RT# 666886537517 10

Page 2 of 2.

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project # 110000819	C of C LIMS No:
Facility Name Wiarton WWTP	Laboratory Section — Sample condition upon receipt: ____
Org. # 5620	Date Rec'd: ____ Time Rec'd: ____ Initials: ____
Quote #	
Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 14X3 - °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] | [X] 5-7d [ ] | 7-10d [ ] | Other Specify: ____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	gowesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																			Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc			
Sept	Sept	-	Septage - Holding Tank	JUL 2 0 2020 1140	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for	Yes [X] No [ ]	Yes [X] No [ ]
		-		Bottles say 10-40 NK																							Yes [ ] No [ ]	Yes [ ] No [ ]
		-																									Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]
																											Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Ben Madill	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Ups - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

1:00 NK

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

05-August-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 21 July 2020
LR Report: **CA13395-JUL20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					20-Jul-20 11:40
Temperature Upon Receipt [°C]	---	---	---	---	14.0
Biochemical Oxygen Demand (BOD5) [mg/L]	27-Jul-20	15:54	04-Aug-20	10:42	2530
Total Suspended Solids [mg/L]	21-Jul-20	20:22	22-Jul-20	15:51	1010
Chemical Oxygen Demand [mg/L]	22-Jul-20	08:30	31-Jul-20	13:39	3100
Ammonia+Ammonium (N) [as N mg/L]	21-Jul-20	18:39	22-Jul-20	15:47	93.2
Total Kjeldahl Nitrogen [as N mg/L]	22-Jul-20	07:29	24-Jul-20	11:56	154
Isopropyl Alcohol [mg/L]	30-Jul-20	16:13	05-Aug-20	09:55	< 5
Methyl alcohol [mg/L]	30-Jul-20	16:13	05-Aug-20	09:55	< 5
Acetone [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 1200
Benzene [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
Ethylbenzene [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
Dichloromethane [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
Methyl ethyl ketone [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 800
Toluene [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
Xylene (total) [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
o-xylene [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
m/p-xylene [ug/L]	21-Jul-20	16:42	23-Jul-20	12:11	< 20
Phosphorus (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	15.9
Aluminum (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.41
Arsenic (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	< 0.002
Barium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.0742
Cadmium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.000160
Calcium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	132
Chromium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.0019
Cobalt (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.000690
Copper (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.284
Iron (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	9.41
Lead (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.0053
Magnesium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	43.6
Manganese (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.255
Mercury (total) [ug/L]	22-Jul-20	16:56	23-Jul-20	13:42	0.01

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819

Project : PO#017018
LR Report : **CA13395-JUL20**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Nickel (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.008
Potassium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	77.1
Selenium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.0013
Silver (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.0006
Sodium (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	391
Tin (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.0020
Zinc (total) [mg/L]	23-Jul-20	13:10	29-Jul-20	10:53	0.25

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002207838

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project # 110000819	C of C LIMS No: AUG 12405
Facility Name Wiarton WWTP Org. # 5620	Laboratory Section Date Rec'd: AUG 15 2020 Time Rec'd: ____ Initials ____ Sample condition upon receipt ____
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 18×3 °C
Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment	

Requested Turnaround Time: App. Req' 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify: ____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	ocwaslihighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
				AUG. 13, 2020																				
Sept	Sept	-	Septage - Holding Tank	13:00	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	D. NOBLE	Sampler Signature:	D. Noble.

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Spd - Biosolids primary digestion, Ssd - Biosolids sec. digestion, Eps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSln - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Ter - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

Revision #1

Revised: 2017.12.01

606 941534574

RTN 11:00 KH

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

31-August-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 15 August 2020
LR Report: **CA12405-AUG20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					13-Aug-20 13:00
Temperature Upon Receipt [°C]	---	---	---	---	18.0
Total Solids [mg/L]	19-Aug-20	21:26	21-Aug-20	08:59	41200
SpecificGravity	19-Aug-20	21:26	21-Aug-20	08:59	1.0
Biochemical Oxygen Demand (BOD5) [mg/L]	18-Aug-20	16:42	24-Aug-20	14:03	10800
Total Suspended Solids [mg/L]	19-Aug-20	11:23	20-Aug-20	13:52	11200
Chemical Oxygen Demand [mg/L]	24-Aug-20	08:37	26-Aug-20	13:09	34000
Ammonia+Ammonium (N) [as N mg/L]	19-Aug-20	20:50	25-Aug-20	15:42	2460
Total Kjeldahl Nitrogen [as N mg/L]	18-Aug-20	16:03	24-Aug-20	13:50	3280
Phosphorus (Total) [mg/L]	20-Aug-20	11:00	20-Aug-20	15:12	510
Isopropyl Alcohol [mg/L]	25-Aug-20	12:32	28-Aug-20	09:12	8.6
Methyl alcohol [mg/L]	25-Aug-20	12:32	28-Aug-20	09:12	< 5
Acetone [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	5040
Benzene [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20
Ethylbenzene [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20
Dichloromethane [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20
Methyl ethyl ketone [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 800
Toluene [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20
Xylene (total) [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20
o-xylene [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20
m/p-xylene [ug/L]	25-Aug-20	16:31	28-Aug-20	13:33	< 20

Note: Total Phosphorous was analyzed on the as-received sample.
Sample Matrix - Sludge/Soil

OnLine LIMS

0002238057

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819

Project : PO#017018
LR Report : **CA12405-AUG20**

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project #	110000819	C of C LIMS No:	OCT 12037
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: OCT 0 1 2020	Time Rec'd: ___ Initials NM
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	11X3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h ☐ ☒ 5-7d ☐ 7-10d ☐ Other Specify:_____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	agwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																	Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	Sept. 29, 2020 10:00	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes ☒ No ☐	Yes ☒ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐
																								Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	DALE NOBLE	Sampler Signature:	Dale Noble

* Station Acronym: Cell - Cell Contents, Cls - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Bls - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Flotation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSln - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Ter - Tertiary Treatment, Alla - Alkillo, TsBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

PP

P# 607258741794 RTN 9:30

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

07-October-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 01 October 2020
LR Report: **CA12037-OCT20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					29-Sep-20 10:00
Temperature Upon Receipt [°C]	---	---	---	---	11.0
Biochemical Oxygen Demand (BOD5) [mg/L]	01-Oct-20	17:50	06-Oct-20	15:18	1520
Total Suspended Solids [mg/L]	02-Oct-20	07:07	06-Oct-20	10:12	480
Chemical Oxygen Demand [mg/L]	03-Oct-20	11:09	06-Oct-20	15:18	2150
Ammonia+Ammonium (N) [as N mg/L]	02-Oct-20	19:30	05-Oct-20	11:07	86.4
Total Kjeldahl Nitrogen [as N mg/L]	02-Oct-20	15:04	05-Oct-20	10:35	133
Phosphorus (total) [mg/L]	02-Oct-20	15:04	06-Oct-20	13:57	16.3
Isopropyl Alcohol [mg/L]	02-Oct-20	07:30	05-Oct-20	12:29	< 5
Methyl alcohol [mg/L]	02-Oct-20	07:30	05-Oct-20	12:29	6.4
Acetone [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 1200
Benzene [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 20
Ethylbenzene [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 20
Dichloromethane [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 20
Methyl ethyl ketone [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 800
Toluene [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	142
Xylene (total) [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 20
o-xylene [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 20
m/p-xylene [ug/L]	02-Oct-20	08:21	06-Oct-20	14:05	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002279638

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project # 110000819	C of C LIMS No: OCT 13600
Facility Name Wiarton WWTP	Laboratory Section
Org. # 5620	Date Rec'd: OCT 21 2020 Time Rec'd: ____ Initials:
Quote #	Sample condition upon receipt
Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 11, 11, 12 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify: ____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-8365
Email:	mednev2@ocwa.com	mednev2@ocwa.com	acwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																	Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
				OCT. 20, 2020																					
Sept	Sept	-	Septage - Holding Tank	11:15	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved (no headspace), 2 - 40 mL EPA vials w/ sodium bisulphate preservative (no headspace)	Yes [X] No [ ]	Yes [X] No [ ]
																								Yes [ ] No [ ]	Yes [ ] No [ ]
																								Yes [ ] No [ ]	Yes [ ] No [ ]
																								Yes [ ] No [ ]	Yes [ ] No [ ]
																								Yes [ ] No [ ]	Yes [ ] No [ ]
																								Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAVE NOBLE	Sampler Signature:	Dave Noble

* Station Acronym: Cell - Cell Contents, Cls - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bsq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Flotation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSin - Pump Sin, Sepl - Septage, Lchl - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Ter - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

607 259 690 628

1000 L GP

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

28-October-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 21 October 2020
LR Report: **CA13606-OCT20**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					20-Oct-20 11:15
Temperature Upon Receipt [°C]	---	---	---	---	11.0
Biochemical Oxygen Demand (BOD5) [mg/L]	22-Oct-20	17:29	27-Oct-20	11:04	1920
Total Suspended Solids [mg/L]	23-Oct-20	10:03	27-Oct-20	11:57	407
Chemical Oxygen Demand [mg/L]	26-Oct-20	10:34	27-Oct-20	11:17	2680
Ammonia+Ammonium (N) [as N mg/L]	21-Oct-20	21:20	25-Oct-20	11:51	52.7
Total Kjeldahl Nitrogen [as N mg/L]	22-Oct-20	06:59	27-Oct-20	15:36	98.2
Phosphorus (total) [mg/L]	22-Oct-20	06:59	26-Oct-20	13:36	9.7
Isopropyl Alcohol [mg/L]	21-Oct-20	18:32	22-Oct-20	13:13	< 5
Methyl alcohol [mg/L]	21-Oct-20	18:32	22-Oct-20	13:13	< 5
Acetone [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 1200
Benzene [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 20
Ethylbenzene [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 20
Dichloromethane [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 20
Methyl ethyl ketone [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 800
Toluene [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	80.0
Xylene (total) [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 20
o-xylene [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 20
m/p-xylene [ug/L]	26-Oct-20	15:32	27-Oct-20	14:51	< 20

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819

Project : PO#017018
LR Report : **CA13606-OCT20**

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (QUARTERLY SEPTAGE)

Waterworks/Project #	110000819	C of C LIMS No:	Oct 15699
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: OCT 30 2020	Time Rec'd: 1600 Initials CP
Quote #			
Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	14x3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: b App. 24-48 h [ ] [X] 5-7d [ ] 7-10d [ ] Other Specify:

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																			Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc			
Sept	Sept	-	Septage - Holding Tank	10/29/2020 7:00 AM	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1- 250 mL metals bottle preserved with nitric acid 1- glass bottle perserved with HCL for	Yes [X] No [ ]	Yes [X] No [ ]
		-																								Yes [ ] No [ ]	Yes [ ] No [ ]
		-																								Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]
																										Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Leo-Paul Frigault	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Actiflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

CA 10:00

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

06-November-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 30 October 2020
LR Report: **CA15699-OCT20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					29-Oct-20 07:00
Temperature Upon Receipt [°C]	---	---	---	---	14.0
Aluminum (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	124
Arsenic (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	0.088
Barium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	1.92
Cadmium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	0.0234
Calcium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	663
Chromium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	0.225
Cobalt (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	0.0192
Copper (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	5.84
Iron (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	101
Lead (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	0.239
Magnesium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	95.7
Manganese (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:31	1.82
Mercury (total) [mg/L]	03-Nov-20	08:06	03-Nov-20	15:56	0.00087
Nickel (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	0.219
Potassium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	59.8
Selenium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	0.0880
Silver (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	0.0192
Sodium (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	372
Tin (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	0.0438
Zinc (total) [mg/L]	05-Nov-20	12:43	06-Nov-20	14:32	26.0

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819

Project : PO#017018
LR Report : **CA15699-OCT20**

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Waterworks/Project # **110000819**	C of C LIMS No: ~~GA~~ WW 13503
Facility Name **Wiarton WWTP**	Laboratory Section — Sample condition upon receipt
Org. # **5620**	Date Rec'd: 11/13/20 (~~12~~ struck out) — Time Rec'd: ____ — Initials: [initialled]
Quote #	
Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 5.3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' — 24-48 h [ ] — [X] 5-7d — [ ] 7-10d — [ ] Other — Specify: ________

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected NOV 1 2 2020	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene	Comments	Upload to MOE	Upload to OCWA
Sept	Sept	-	Septage - Holding Tank	1105	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes [X] No [ ]	Yes [X] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

rec'd 2 sod thio vials + 2 amm Cl vials. Client will re-sample and send appropriate vials

processing

not sludge

Sampler Name:	Ben Medlin	Sampler Signature:	[signature]

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

1030

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

20-November-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 13 November 2020
LR Report: **CA13503-NOV20**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					12-Nov-20 11:05
Temperature Upon Receipt [°C]	---	---	---	---	5.0
Biochemical Oxygen Demand (BOD5) [mg/L]	13-Nov-20	16:58	18-Nov-20	14:59	1350
Total Suspended Solids [mg/L]	14-Nov-20	11:39	19-Nov-20	09:08	468
Chemical Oxygen Demand [mg/L]	16-Nov-20	11:25	18-Nov-20	14:59	2480
Ammonia+Ammonium (N) [as N mg/L]	16-Nov-20	17:09	18-Nov-20	13:24	80.3
Total Kjeldahl Nitrogen [as N mg/L]	16-Nov-20	08:29	18-Nov-20	13:46	143
Phosphorus (total) [mg/L]	16-Nov-20	08:29	20-Nov-20	10:41	25.2

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002327640

Waterworks/Project #	110000819	C of C LIMS No:	NOV 126844
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: NOV 24 2020	Time Rec'd: ____ Initials:
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	5x3 °C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h ☐ ☒ 5-7d ☐ 7-10d ☐ Other Specify:_____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	NOV 23 2020	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	Ben Madill	Sampler Signature:	

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bsoq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PStn - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

607 394746 400.

1600 PD
RTN.

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

10-December-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 24 November 2020
LR Report: **CA12684-NOV20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					23-Nov-20 10:15
Temperature Upon Receipt [°C]	---	---	---	---	5.0
Biochemical Oxygen Demand (BOD5) [mg/L]	24-Nov-20	16:24	30-Nov-20	11:25	2270
Total Suspended Solids [mg/L]	25-Nov-20	07:36	27-Nov-20	08:22	805
Chemical Oxygen Demand [mg/L]	25-Nov-20	10:46	26-Nov-20	16:32	4200
Ammonia+Ammonium (N) [as N mg/L]	24-Nov-20	16:28	25-Nov-20	10:31	39.5
Total Kjeldahl Nitrogen [as N mg/L]	25-Nov-20	07:25	27-Nov-20	15:24	109
Phosphorus (total) [mg/L]	25-Nov-20	07:25	30-Nov-20	14:22	16.6
Isopropyl Alcohol [mg/L]	08-Dec-20	16:11	10-Dec-20	10:20	< 5
Methyl alcohol [mg/L]	08-Dec-20	16:11	10-Dec-20	10:20	< 5
Acetone [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 1200
Benzene [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 20
Ethylbenzene [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 20
Dichloromethane [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 20
Methyl ethyl ketone [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 800
Toluene [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	85.4
Xylene (total) [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 20
o-xylene [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 20
m/p-xylene [ug/L]	25-Nov-20	12:37	27-Nov-20	16:30	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002346256

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1)

Dec 2766

Waterworks/Project #	110000819	C of C LIMS No:	
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: 17 DEC. 2020	Time Rec'd: ____ Initials
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt 5.3	°C

Identification of Regulation under which the sample(s) fall: No Requirement to Report Sample Results Under Any Regulation for Wastewater Treatment

Requested Turnaround Time: App. Req' 24-48 h ☐ X 5-7d ☐ 7-10d ☐ Other Specify:_____

	Report to: Megan Edney	Data Transfer Contact: Megan Edney	Invoice To: Ontario Clean Water Agency	Laboratory: SGS Lakefield Research Ltd
Address:	18 Caroline Street Southampton, ON N0H 2L0	18 Caroline Street Southampton, ON N0H 2L0	136 Main St. E Shelburne, ON L9V 3K5	185 Concession St. Lakefield, ON K0L 2H0
Telephone:	519-374-5782	519-374-5782	(519) 925-1938	705-652-2000
Fax:	(519) 797-3080	(519) 797-3080	(519) 925-0322	705-652-6365
Email:	medney2@ocwa.com	medney2@ocwa.com	apwesthighlands@ocwa.com	carrie.greenlaw@sgs.com

Sample						Parameters																Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected DEC 16 2020	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorous	TKN	Total Ammonia Nitrogen	Chemical Oxygen Demand	Acetone	Benzene	Ethylbenzene	Isopropyl Alcohol	Methyl Alcohol	Methylene Chloride	Methyl Ethyl Ketone	Methylene Chloride	Toluene	Xylene			
Sept	Sept	-	Septage - Holding Tank	0800	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2 - 500 mL PET bottles, 1 - 60 mL plastic w/ sulphuric acid preservative, 2 - 40 mL EPA vials unpreserved *(no headspace)*, 2 - 40 mL EPA vials w/ sodium bisulphate preservative *(no headspace)*	Yes ☒ No ☐	Yes ☒ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name: Ben Madill Sampler Signature:

* Station Acronym: Cell - Cell Contents, Dis - Disinfection, Down - Downstream, Eff - Final Effluent, PrBy - Primary Bypass, Raw - Raw Sewage, ScBy - Secondary Bypass, Up - Upstream, Well - Monitoring Well, Aer - Aeration, Brs - Biosolids-raw sludge, Bth - Biosolids thickening, Bpd - Biosolids primary digestion, Bsd - Biosolids sec. digestion, Bps - Biosolids pri super, Bss - Biosolids sec super, Bslq - Biosolids sludge quality, Bseq - Biosolids soil quality, DAF - Dissolved Air Floatation, Grit - Primary Treatment/Grit, PrEf - Primary Effluent, RAS - Return Activated Sludge, SBR - Secondary Treatment/SBRs, ScEf - Secondary Effluent, TWAS - Thickened Waste Activated Sludge, WAS - Waste Activated Sludge, IndW - Industrial Wastewater, PSin - Pump Stn, Sept - Septage, Lcht - Leachate, PrTr - Primary Treatment, ReAr - Re-aeration, Tert - Tertiary Treatment, Aflo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

RN # 607424784668 10:30

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 110000819
Project : PO#017018

29-December-2020

OCWA-Grey Bruce (Wiarton WPCP)
Attn : Karla Young

P.O. Box 760
Southampton, ON
N0H 2L0, Canada

Phone: 519-797-2561
Fax:pdf

Date Rec. : 17 December 2020
LR Report: **CA12766-DEC20**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: Sept Sept-Septage-Holding Tank
Sample Date & Time					16-Dec-20 08:00
Temperature Upon Receipt [°C]	---	---	---	---	6.0
Biochemical Oxygen Demand (BOD5) [mg/L]	17-Dec-20	17:05	22-Dec-20	10:55	693
Total Suspended Solids [mg/L]	21-Dec-20	09:22	23-Dec-20	10:17	151
Chemical Oxygen Demand [mg/L]	18-Dec-20	12:27	22-Dec-20	10:55	1900
Ammonia+Ammonium (N) [as N mg/L]	18-Dec-20	15:30	22-Dec-20	09:22	1.6
Total Kjeldahl Nitrogen [as N mg/L]	18-Dec-20	08:16	22-Dec-20	09:38	30.9
Phosphorus (total) [mg/L]	18-Dec-20	08:16	22-Dec-20	15:53	3.9
Isopropyl Alcohol [mg/L]	21-Dec-20	11:11	21-Dec-20	16:47	< 5
Methyl alcohol [mg/L]	21-Dec-20	11:11	21-Dec-20	16:47	< 5
Acetone [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 1200
Benzene [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 20
Ethylbenzene [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 20
Dichloromethane [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 20
Methyl ethyl ketone [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 800
Toluene [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	36.1
Xylene (total) [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 20
o-xylene [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 20
m/p-xylene [ug/L]	24-Dec-20	09:48	29-Dec-20	12:55	< 20

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OnLine LIMS

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