ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

March 30, 2022

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

RE: 2021 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 2021 Annual Performance Report for the Wiarton Sewage Lagoon System which covers the reporting period of January 1, 2021 to December 31, 2021. 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, 2021 TO DECEMBER 31, 2021

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

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Appendices

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.

Discharge from the lagoon filter building is directed to Colpoy Bay through a 300 mm discharge pipe on Mary Street and Isaac Street (original). A 200mm backup effluent discharge pipe is located 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	8-1028-99-006 (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 stored in OCWA's WISKI7 data management system. 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. 2021 Effluent Annual Average Concentrations and Removal Efficiencies

Parameter	Annual Average Concentration	Removal Efficiency
$CBOD_5$	2.3	n/a
Total Suspended Solids	4.7	96.6%
Total Phosphorous	0.05	97.8%

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, 2021

2021	$CBOD_5$				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	2.0	Y	2.9	Y	5.3	Y	7.7	Y	0.03	Y	0.04	Y	0.35	Y	0.52	Y	<2.0	Y
February	2.4	Y	2.3	Y	8.7	Y	8.2	Y	0.04	Y	0.06	Y	0.10	Y	0.15	Y	<2.0	Y
March	3.6	Y	5.8	Y	4.9	Y	7.9	Y	0.03	Y	0.04	Y	0.09	Y	0.14	Y	<2.0	Y
April	2.5	Y	4.2	Y	4.2	Y	9.5	Y	0.04	Y	0.06	Y	0.10	Y	0.16	Y	<2.0	Y
May	3.4	Y	3.2	Y	4.2	Y	3.9	Y	0.04	Y	0.04	Y	0.19	Y	0.18	Y	1.41	Y
June	2.0	Y	0.8	Y	3.7	Y	1.6	Y	0.06	Y	0.03	Y	0.44	Y	0.19	Y	<2.0	Y
July	2.0	Y	1.8	Y	4.9	Y	4.4	Y	0.04	Y	0.03	Y	0.12	Y	0.11	Y	<2.0	Y
August	2.0	Y	2.1	Y	3.9	Y	4.0	Y	0.03	Y	0.03	Y	0.23	Y	0.24	Y	<2.0	Y
September	2.0	Y	1.6	Y	3.3	Y	2.7	Y	0.04	Y	0.03	Y	0.10	Y	0.08	Y	<2.0	Y
October	2.0	Y	2.3	Y	2.7	Y	3.2	Y	0.03	Y	0.03	Y	0.13	Y	0.15	Y	<2.0	Y
November	2.0	Y	3.6	Y	2.9	Y	5.2	Y	0.03	Y	0.05	Y	0.15	Y	0.27	Y	<2.0	Y
December	2.0	Y	4.0	Y	5.5	Y	11.0	Y	0.03	Y	0.06	Y	0.12	Y	0.25	Y	<2.0	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*

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 2021, the effluent was within the effluent limits and ranged from 7.39 to 8.80 with an annual average of 7.88. A monthly summary of pH can be found in Table 9.

Table 9. Monthly Summary of pH for the Wiarton Wastewater Treatment System, 2021

	Average	Minimum	Maximum
January	7.51	7.42	7.60
February	7.64	7.54	7.73
March	7.68	7.41	7.87
April	7.93	7.93	7.93
May	7.63	7.46	7.77
June	8.03	7.48	8.56
July	7.63	7.49	7.76
August	7.57	7.39	7.78
September	7.75	7.68	7.84
October	8.01	7.91	8.23
November	8.28	8.10	8.44
December	8.62	8.41	8.80

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 2.32 mg/L and an annual average loading of 2.90 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 69% and the average loading of $CBOD_5$ by 78%.
During the reporting period, the Total Suspended Solids monthly averages remained within the effluent objective of 10 mg/L, 100% of the time, producing an annual average of 4.68 mg/L and an annual average loading of 5.53 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 61% of the annual average concentration and approximately 68% 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 0.05 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 84% 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 0.17 mg/L and an average loading of 0.19 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 96% of the annual average concentration and approximately 97% of the average loading of Total Ammonia Nitrogen.

All of the design objectives in the ECA were achieved 100% 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, 2021

2021	$CBOD_5$		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****
January	2.0	Y	5.3	Y	0.03	Y	0.35	Y
February	2.4	Y	8.7	Y	0.04	Y	0.10	Y
March	3.7	Y	5.2	Y	0.03	Y	0.10	Y
April	2.5	Y	4.2	Y	0.04	Y	0.10	Y
May	3.4	Y	4.2	Y	0.04	Y	0.19	Y
June	2.0	Y	3.7	Y	0.06	Y	0.44	Y
July	2.0	Y	4.9	Y	0.04	Y	0.12	Y
August	2.0	Y	3.9	Y	0.03	Y	0.23	Y
September	2.0	Y	3.3	Y	0.04	Y	0.10	Y
October	2.0	Y	2.7	Y	0.03	Y	0.13	Y
November	2.0	Y	2.9	Y	0.03	Y	0.15	Y
December	2.0	Y	5.5	Y	0.03	Y	0.12	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*
***TAN Objectives are: Nov 1 to Apr 1 - 6.0 mg/L & May 1 to Oct 31 – 3.0 mg/L*

2.6 Effluent Monitoring

The total effluent flow in 2021 was 448,909 m^3 with an annual average daily flow of 1,230 m^3/day. Total effluent flows in 2021 have decreased in comparison to 2020 (556,314 m^3 and 1,520 m^3/day).

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)	12	110.3	199
TSS (mg/L)	49	138.6	510
TKN (mg/L)	1.1	18.4	32.1
Total Phosphorous	0.35	2.36	4.74

In 2021, approximately 2,110 m^3 of septage was received by the Wiarton Wastewater Treatment System. This is higher than 2020 (1,642 m^3) but lower than 2019 (2,339 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 E for Septage Laboratory Results.

Table 13: Septage Receiving Characteristics

Parameter	Minimum	Maximum
Biochemical Oxygen Demand (BOD5) [mg/L]	50	2,200
Total Suspended Solids [mg/L]	87	476
Chemical Oxygen Demand [mg/L]	103	2,920
Ammonia+Ammonium (N) [mg/L]	2.5	120
Total Kjeldahl Nitrogen [as N mg/L]	35.8	173
Phosphorus (total) [mg/L]	3.6	16.9
Isopropyl Alcohol [µg/L]	<5000	<5000
Methyl alcohol [µg/L]	<5000	<5000
Acetone [µg/L]	30	<1200
Benzene [µg/L]	<0.5	<20
Ethylbenzene [µg/L]	<0.5	<20
Methylene Chloride [ug/L]	<0.5	<20
Methyl ethyl ketone [µg/L]	<20	<800
Toluene [µg/L]	18.3	228
Xylene (total) [µg/L]	<0.5	<20
o-xylene [µg/L]	<0.5	<20
m/p-xylene [µg/L]	<0.5	<20
Aluminum (mg/L)	0.24	1.56
Arsenic (mg/L)	0.001	0.002
Barium (mg/L)	0.04	0.57
Cadmium (mg/L)	0.000	0.001
Calcium (mg/L)	83.2	146
Chromium (mg/L)	0.0014	0.0028
Cobalt (mg/L)	0.000	0.001
Copper (mg/L)	0.060	0.327
Iron (mg/L)	4.62	10
Lead (mg/L)	0.001	0.009
Magnesium (mg/L)	25.0	37.3
Manganese (mg/L)	0.118	0.490

Mercury (mg/L)	0.0000	0.0002
Nickel (mg/L)	0.004	0.010
Potassium (mg/L)	32.3	61.8
Selenium (mg/L)	0.001	0.001
Silver (mg/L)	<0.00005	0.00019
Zinc (mg/L)	0.09	0.57

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 2021 was 569,090 m^3 with an annual average daily flow of 1,490 m^3/day, which is 33.9% of the recommended rated capacity of 4,400 m^3/day. Total influent flows in 2021 have decreased in comparison to 2020 (640,216 m^3 and 1,726 m^3/day). The daily influent flow remained within the recommended rated capacity 99.2% (i.e. 362 out of 365 days) of the time during 2021.

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 2021

2021	**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	2,126	1,631	1,490	Yes
February	2,468	1,179		
March	6,409	2,297		
April	3,836	1,606		
May	1,664	1,210		
June	1,246	920		
July	2,436	1,330		
August	1,523	1,117		
September	2,202	1,041		
October	2,718	1,349		
November	4,911	2,060		
December	6,205	2,097		

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. 0.99 mg/L in 2020, 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, 2021

Parameters	**Average**	**Minimum**	**Maximum**
Total Kjeldahl Nitrogen (N mg/L)	0.78	0.50	1.50

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)

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 D 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;

- Automatic lubricators for the MBBR mechanical screen
- Parts for UV Disinfection System
- DO sensor caps for MBBR
- Replacement portable gas detectors

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.

On June 8, 2021, 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 with percent errors of less than 5%. All records for calibrations/ verifications can be found in Appendix B. On May 4, 2021, 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 2021 and no sludge is expected to be removed in 2022.

8. Septage Receiving Works

In 2021, approximately 2,110 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

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

Table 16. Total Volume of Septage Received in 2021

Month	Total Volume of Septage Received (m^3)
January	194.79
February	193.29
March	253.93
April	119.42
May	119.28
June	122.12
July	191.72
August	214.81
September	163.73
October	176.34
November	141.73
December	218.82

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 2021, one (1) community complaint for the Wiarton Wastewater Treatment System was received regarding a sewer lateral service blockage. A detailed summary of the community complaint and the steps taken to address the complaint 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 2021 at the Wiarton Wastewater Treatment System.
During the reporting period, two (2) bypasses of final effluent (total volume of 995.63 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 2021 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)					
2021/06/26	16:15	16:45	30:00	12.63	UV disinfection	Yes	Power failure causing UV system failure	Filter treated effluent released to effluent outfall	n/a
2021/08/05	08:00	08:00	24:00	983	Filter and UV disinfection	Yes	Influent valve open too wide	Partially treated lagoon effluent	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
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Appendix A

Performance Assessment Report

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Performance Assessment Report

From 1/1/2021 to 12/31/2021

5620 WIARTON WASTEWATER TREATMENT LAGOON 110000819

	1 / 2021	2/ 2021	3/ 2021	4/ 2021	5/ 2021	6/ 2021	7/ 2021	8/ 2021	9/ 2021	10/ 2021	11/ 2021	12/ 2021	<--Total-->	<--Avg-->	<--Max-->	<-Criteria->
Flows																
Raw Flow: Total - Raw Sewage m³/d	55,469.95	34,176.37	73,486.86	49,775.07	37,521.71	27,577.66	46,567.42	39,100.81	31,236.46	43,153.38	61,817.33	69,207.37	569,090.39			0.00
Raw Flow: Avg - Raw Sewage m³/d	1,631.47	1,178.50	2,296.46	1,605.65	1,210.38	919.26	1,330.50	1,117.17	1,041.22	1,348.54	2,060.58	2,097.19		1,486.41		
Raw Flow: Max - Raw Sewage m³/d	2,126.24	2,467.78	6,409.42	3,835.92	1,664.20	1,246.13	2,436.07	1,523.25	2,202.28	2,717.86	4,910.83	6,204.86			6,409.42	0.00
Eff. Flow: Total - Effluent m³/d	45,612.00	26,279.00	50,246.00	49,425.00	29,029.00	12,641.00	27,872.00	31,821.00	24,277.00	36,137.00	53,496.00	62,074.00	448,909.00			0.00
Eff. Flow: Avg - Effluent m³/d	1,471.35	938.54	1,620.84	1,647.50	936.42	421.37	899.10	1,026.48	809.23	1,165.71	1,783.20	2,002.39		1,226.84		
Eff. Flow: Max - Effluent m³/d	2,080.00	1,100.00	4,478.00	3,720.00	1,342.00	645.00	1,885.00	2,894.00	1,839.00	2,132.00	3,066.00	2,968.00			4,478.00	0.00
Carbonaceous Biochemical Oxygen Demand: CBOD																
Eff: Avg cBOD5 - Effluent mg/L	< 2.00	< 2.50	3.00	4.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	2.00		< 2.29	< 4.00	20.00
Eff: # of samples of cBOD5 - Effluent	2.00	4.00	4.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	31.00			0.00
Loading: cBOD5 - Effluent kg/d	< 2.943	< 2.346	4.863	6.590	< 1.873	< 0.843	< 1.798	< 2.053	< 1.618	< 2.331	< 3.566	4.005		< 2.90	< 6.59	0.000
Biochemical Oxygen Demand: BOD5																
Raw: Avg BOD5 - Raw Sewage mg/L	77.00	166.50	98.33	142.50	140.00	< 59.50	135.50	148.00	91.00	< 88.00	< 35.00	158.00		< 111.61	< 166.50	0.00
Raw: # of samples of BOD5 - Raw Sewage	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	26.00			0.00
Total Suspended Solids: TSS																
Raw: Avg TSS - Raw Sewage mg/L	105.00	176.50	92.00	312.50	193.50	102.50	106.00	113.00	135.33	140.00	81.50	130.50		140.69	312.50	0.00
Raw: # of samples of TSS - Raw Sewage	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	26.00			0.00
Eff: Avg TSS - Effluent mg/L	< 2.00	9.00	5.25	6.50	3.00	3.67	5.00	3.67	3.00	3.00	< 3.50	5.50		< 4.42	< 9.00	24.00
Eff: # of samples of TSS - Effluent	2.00	4.00	4.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	31.00			0.00
Loading: TSS - Effluent kg/d	< 2.943	8.447	8.509	10.709	2.809	1.545	4.495	3.764	2.428	3.497	< 6.241	11.013		< 5.53	< 11.01	0.000
Percent Removal: TSS - Raw Sewage %	98.10	94.90	94.29	97.92	98.45	96.42	95.28	96.76	97.78	97.86	95.71	95.79			98.45	0.00
Total Phosphorus: TP																
Raw: Avg TP - Raw Sewage mg/L	2.09	3.45	2.12	3.39	3.82	1.55	1.75	2.62	2.12	2.02	1.09	2.55		2.38	3.82	0.00
Raw: # of samples of TP - Raw Sewage	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	26.00			0.00
Eff: Avg TP - Effluent mg/L	0.03	0.05	< 0.03	< 0.04	0.05	0.14	0.04	< 0.04	0.04	< 0.03	< 0.03	< 0.03		< 0.05	< 0.14	0.50
Eff: # of samples of TP - Effluent	2.00	4.00	4.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	31.00			0.00
Loading: TP - Effluent kg/d	0.044	0.045	< 0.049	< 0.066	0.047	0.059	0.036	< 0.038	0.030	< 0.035	< 0.053	< 0.060		< 0.05	< 0.07	0.000
Percent Removal: TP - Raw Sewage %	98.56	98.62	98.59	98.82	98.69	90.97	97.71	98.60	98.27	98.51	97.24	98.82			98.82	0.00
Nitrogen Series																

Raw: Avg TKN - Raw Sewage mg/L	20.75	26.25	17.37	25.00	24.70	12.90	15.80	25.15	17.50	11.30	8.70	16.85		18.52	26.25	0.00
Raw: # of samples of TKN - Raw Sewage	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	26.00			0.00
Eff: Avg TAN - Effluent mg/L	0.30	< 0.10	< 0.10	< 0.10	0.25	< 0.33	< 0.10	< 0.23	< 0.10	< 0.20	< 0.15	< 0.10		< 0.17	< 0.33	8.00
Eff: # of samples of TAN - Effluent	2.00	4.00	4.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	31.00			0.00
Loading: TAN - Effluent kg/d	0.441	< 0.094	< 0.162	< 0.165	0.234	< 0.140	< 0.090	< 0.240	< 0.081	< 0.233	< 0.267	< 0.200		< 0.20	< 0.44	0.000
Eff: Avg NO3-N - Effluent mg/L	5.61	5.91	5.36	0.85	0.54	0.39	0.49	0.35	0.90	1.39	3.41	4.67		2.49	5.91	0.00
Eff: # of samples of NO3-N - Effluent	2.00	4.00	4.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	31.00			0.00
Eff: Avg NO2-N - Effluent mg/L	0.10	0.05	0.04	< 0.03	< 0.13	< 0.04	< 0.03	0.04	< 0.03	< 0.03	< 0.06	< 0.04		< 0.05	< 0.13	0.00
Eff: # of samples of NO2-N - Effluent	2.00	4.00	4.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	31.00			0.00
Disinfection																
Eff: GMD E. Coli - Effluent cfu/100mL	2.00	2.00	2.00	2.00	1.41	2.00	2.00	2.00	2.00	2.00	2.00	2.00		1.95		

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Appendix B
Calibration Reports

INDUS CONTROL

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

VERIFICATION REPORT - **KHRONE** ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name:	OCWA- Grey Bruce Hub	Site/Plant Address:	Taylor Street, Wiarton,ON
Plant Name:	Wiarton -PS1		

Device Information	
Make:	Khrone
Model:	IFC10D
Order Code:	NA
Serial No.:	A9911651
Tag:	NA
Job Location:	PS#1
Asset ID:	165372

Service Information	
Date:	June 8, 2021
Report No:	CO1241-2106-20
Job No:	CO1241-2106

Sensor Details	
Line size:	8 Inch
GKL:	4.505
Mounting:	Remote

Flow Details	
Unit:	LPS
Flow Range:	0-200
Current Output:	4-20 mA
4 mA Set Point	0
20 mA Set Point	200

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	6800937	6800941
FLOW (L/S)	-0.4	-0.25

Maintenance Checklist			Remarks
Visual Inspection:	☑ OK	☐ NOT OK	
Electrical Inspection:	☑ OK	☐ NOT OK	
Sensor Installation:	☑ OK	☐ NOT OK	
Transmitter Installation:	☑ OK	☐ NOT OK	

Instrument Test Information and Results

Set-Point as Per Calibration KIT	Calculated Flow (L/S)	Calculated O/P (mA)	UUT Display (L/S)	UUT Measured Output (mA)	Deviation (L/S)
0	0.00	4.00	0.00	3.99	0.00
A	10.78	4.86	11.52	4.86	-0.74
B	21.57	5.73	21.65	5.71	-0.08
C	43.14	7.45	42.99	7.43	0.15
D	107.84	12.63	106.89	12.69	0.95

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	N/A
Manufacturer:	Khrone	Fluke	N/A
Model No:	GS8B	179	N/A

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Measurement Works within Specification.

Service Technician :	Pavan Patel	Stamp/Signature	
Printed Date:	June 8, 2021		

End of Report

Version: 19-12

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

VERIFICATION REPORT - **KHRONE**
ELECTRO-MAGNETIC FLOW MEASUREMENT

Customer Name:	OCWA- Grey Bruce Hub	Site/Plant Address:	Taylor Street, Wiarton,ON
Plant Name:	Wiarton -PS2		

Device Information		Service Information	
Make:	Khrone	Date:	June 8, 2021
Model:	IFC10D	Report No:	CO1241-2106-21
Order Code:	NA	Job No:	CO1241-2106
Serial No.:	A9817181		
Tag:	NA		
Job Location:	PS#2		
Asset ID:	165385		

Sensor Details		Flow Details	
Line size:	10 Inch	Unit:	L/SEC
GKL:	4.544	Flow Range:	0-250
Mounting:	Remote	Current Output:	4-20 mA
		4 mA Set Point	0
		20 mA Set Point	250

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	1612845	1612871
FLOW (L/S)	-0.43	110.61

Maintenance Checklist			Remarks
Visual Inspection:	☑ OK	☐ NOT OK	
Electrical Inspection:	☑ OK	☐ NOT OK	
Sensor Installation:	☑ OK	☐ NOT OK	
Transmitter Installation:	☑ OK	☐ NOT OK	

Instrument Test Information and Results

Set-Point as Per Calibration KIT	Calculated Flow (L/S)	Calculated O/P (mA)	UUT Display (L/S)	UUT Measured Output (mA)	Deviation (L/S)
0	0.00	4.00	0.00	4.00	0.00
A	17.00	5.09	16.92	5.09	0.08
B	33.99	6.18	33.95	6.17	0.04
C	67.99	8.35	67.56	8.31	0.43
D	169.97	14.88	169.06	14.65	0.91

Information of Tools used for Verification of the Instruments

Details	Tool/Kit 1	Tool/Kit 2	Tool/Kit 3
Device Description:	Calibrator	Electrical Multimeter	N/A
Manufacturer:	Khrone	Fluke	N/A
Model No:	GS8B	179	N/A

* Refer Calibration Tools Certificates submittal for more Information

Verification Test Result:	☑ Passed	☐ Fail	☐ Not Verified

Overall Remarks:	Measurement Works within Specification.

Service Technician :	Pavan Patel	Stamp/Signature	
Printed Date:	June 8, 2021		

End of Report

Version: 19-12

Verification report

Endress+Hauser
People for Process Automation

Verification report flowmeter

Plant operator	Induscontrol
Device information	
Location Wiarton 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 1854d06h44m42s	**Date/time** 08.06.21 10:05
Verification ID 6	
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

Date	Inspectors signature	Operator's signature
08.06.21		

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1E9919000
Verification detailed results Verification ID 6

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**

Verification report

Endress+Hauser
People for Process Automation

Verification report flowmeter

Plant operator	Induscontrol
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 1853d22h54m26s	**Date/time** 08.06.21 09:52
Verification ID 8	
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

08.06.21

Date	Inspectors signature	Operator's signature

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1E9819000
Verification detailed results Verification ID 8

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**

Verification report

Endress+Hauser
People for Process Automation

Verification report flowmeter

Plant operator	Induscontrol
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 1854d16h07m43s	**Date/time** 08.06.21 10:17
Verification ID 6	
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

Date	Inspectors signature	Operator's signature
08.06.21		

Endress+Hauser
People for Process Automation

Verification report flowmeter

Serial number: KC1EF119000
Verification detailed results Verification ID 6

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:	524 Taylor St,
Plant Name:	STP		Wiarton, ON

Device Information		Service Information	
Make:	Milltronics	Date:	June 8, 2021
Model:	Multiranger Plus	Report No:	CO1241-2106-25
Order Code:	N/A	Job No:	CO1241-2106
Serial No.:	050W023466		
Tag:	NA		
Job Location:	Final Effluent Discharge	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

Inst. Reading	AS FOUND	AS LEFT
TOTALIZER (m3)	1712	1713
FLOW (m3/h)	24.65	24.65

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	4.00	0.00
25	147.98	8.00	147.59	7.99	-0.39
50	295.95	12.00	294.00	12.00	-1.95
75	443.93	16.00	441.00	15.96	-2.93
100	591.90	20.00	589.71	19.99	-2.19

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. Measurement works as per specification.

Service Technician :	Pavan Patel	Stamp/Signature	
Printed Date:	June 8, 2021		

End of Report

Version: 19-12

Hach ServicePlus™

FIELD SERVICE REPORT / RAPPORT DE SERVICE DE TERRAIN

Account Number / No. de Compte: 40302465
Customer / Client: ONTARIO CLEAN WATER AGENCY
Phone / Téléphone: 519-534-1610
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-01131547 - Visit -

Purchase Order / Bon de Commande: 5844/5620
Date of Service / Date de service: 5/4/2021

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 reading: 0.184 ntu, gain 0.53, cleaned, inspected, replaced lamp and cable, confirmed lamp voltage, zeroed electronics, calibrated with Hach formazin standard at 20 ntu (Lot A1071 exp mar23), new gain 0.62, verified with Hach formazin standard at 1 ntu (Lot A1025 exp jan23), reads 1.037, as left reading: 0.336 ntu, unit is performing to specifications

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 reading: 0.018 ntu, gain 0.62, cleaned, inspected, replaced lamp and cable, confirmed lamp voltage, zeroed electronics, calibrated with Hach formazin standard at 20 ntu (Lot A1071 exp mar23), new gain 0.64, verified with Hach formazin standard at 1 ntu (Lot A1025 exp jan23), reads 0.986, as left reading: 0.034 ntu, unit is performing to 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 reading: 0.018 ntu, gain 0.55, cleaned, inspected, replaced lamp and cable, confirmed lamp voltage, zeroed electronics, calibrated with Hach formazin standard at 20 ntu (Lot A1071 exp mar23), new gain 0.55, verified with Hach formazin standard at 1 ntu (Lot A1025 exp jan23), reads 0.979, as left reading: 0.034 ntu, unit is performing to 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: condition good, cleaned, inspected internally, replaced lamp and calibrated with Hach formazin standards (Lot A0297 exp dec21), as left standards read: <0.1: 0.045, 20: 20.1, 200: 201, 1000: 1015, 4000: 3995, empty cell: 0.014, unit is performing 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 turbidimeter was inspected, the exterior and the optics chamber were cleaned, the batteries were replaced, and the turbidimeter was calibrated using StablCal standards (lot A0057 exp May21). The turbidimeter was verified with DI water (0.16), 20 NTU (20.1) and 800 NTU (804) Stablcal standards. After PM service was completed, the as left empty cell reading of the turbidimeter was 0.01. The turbidimeter 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
5440000	oo 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 1.33 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 DR900 The results of a verification grab sample were within 5% of the instrument reading. After PM service was completed, the firmware version was 1.4 and the as left reading of the analyzer was 1.33 mg/L. 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
5440000	oo 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 0.54 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 DR900 The results of a verification grab sample were within 5% of the instrument reading. After PM service was completed, the firmware version was 1.4 and the as left reading of the analyzer was 0.54 mg/L. 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
DPD1P1	Digital pH Sensor, PEEK, Convertible	000907430223	Raw Water ph

Notes

As found, the condition of the probe was good, and the sample reading was 7.18. 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 using certified pH buffer standards. The calibration slope after PM was -54.0 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 - 7.00, 10 - 10.01. After PM service, calibration, and verification were completed the as left reading of the probe was 7.40. 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 A1067 Mar23. Verification results were as follows: 420nm: Std1 0.639 (0.627 ±0.050), Std2 1.236 (1.219 ±0.100), Std3 1.809(1.795 ±0.150); 520nm: Std1 0.657 (0.651 ±0.050), Std2 1.288 (1.260 ±0.100), Std3 1.897 (1.870 ±0.150); 560nm: Std1 0.657 (0.646 ±0.050), Std2 1.268 (1.259 ±0.100), Std3 1.868 (1.852 ±0.150); 610nm: Std1 0.615 (0.607 ±0.050), Std2 1.187 (1.177 ±0.100), Std3 1.740 (1.730 ±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, cleaned, inspected, replaced VIS lamp, performed service inspection procedure and calibrations, verified calibration with Hach test filter set# 4366 exp 28feb2022, unit is performing to factory specifications. Certification results were as follows: 11/2: 0.311 +/- 3%(read 0.311), 5/2: 0.621 +/- 3% (read 0.622), 9/1: 1.468 +/- 3% (read 1.471), 450/3 >2.8 (read 3.041), 20/2 807.0 +/- 2nm (read 807.3), passed on all tests

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: as found reading: 1.15 mg/l, verified calibration within 5% with Hach DR900 standard

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: 0.23 (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-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 PC) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.19 (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
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 PC) Lot A9288 oct21. Verification of secondary standards results as follows: Std1: 0.21 (0.22 +/- 0.09) Std2: 0.88 (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
5870000	rr oo POCKET CLRMTR II CHLORINE SYSTEM	031000003585	

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: 0.92 (0.93 +/-0.10) , Std3: 1.65 (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
LXV445.99.10112	db ee TU5300sc TURB,EPA	2012678	Wiarton WTP Finished Water

Notes

As found, the condition of the analyzer was good, the firmware version was 1.39(current) and sample reading was 0.012 NTU. The sample cell, cell compartment, and the analytical unit were inspected and cleaned. A calibration using 20 NTU StablCal (Vaa961 Lot a0024 exp Jul21) was performed. The new gain value is 1.049 and is within specifications. After service was completed, the TU5300 sample reading was. 0.014 NTU. The analyzer has been restored to normal operation, and the performance and condition are 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

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

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

Notes

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Appendix C

Community Complaints

Ontario Clean Water Agency
Community Complaints

Facility ID:	5620
Facility Name:	Wiarton Wastewater Treatment Lagoon
Address:	441048 Elm St
City:	Wiarton
Province:	Ontario
Postal Code:	NOH 2T0
Name of Person who filed Complaint:	Homeowner
Address:	430 Brown St
Phone	

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:	01/02/2021
Time of Complaint:	12:00:00 PM

Nature of Complaint

- ☐ Noise
- ☐ Visual
- ☐ Odour
- ☐ Water Supply Taste/Colour
- ☒ Service Problem
- ☐ Sludge Related
- ☐ Water Pressure/No Water
- ☐ Basement Flooding

Other: _____

Description:

Called for a blocked sewer lateral. There is a fairly large dip in the lateral around the curb area.

Action taken in response:

The operator was able to clear the blockage as it was a soft blockage and it was scheduled to be repaired this spring. The repair took place in June 2021.

Was the source of the problem identified?: ● Yes ○ No

Was the source an OCWA facility/activity?: ○ Yes ● No If "Yes", describe:

If any remedial action is required, complete action plan form

Updated By: Karla Young 03/16/2022 02:35:48 PM

Investigating Operator: Benjamin Madill

Comments:

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Appendix D

Effluent By-Pass Reports

From:	Karla Young
To:	"Graham, Robert G. (MECP)"; Smith, Mark (MECP)
Cc:	Leo-Paul Frigault; Michelle Neal; Karen Lorente; Melissa Cortes
Subject:	2021 Q1 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	May-12-21 1:41:00 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)"; "Smith, Mark (MECP)"
Cc:	Leo-Paul Frigault; Michelle Neal; Karen Lorente; Melissa Cortes; Mike Mortimer
Subject:	2021 Q2 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	August-09-21 2:57:00 PM
Attachments:	Report CA15871-JUN21.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 bypass event.

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)					
2021/06/26	16:15	16:45	30:00	12.63	UV disinfection	Yes	Power failure causing UV system 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

Ontario Clean Water Agency
Environmental Incident Report

Facility ID: 5620

EIncidentReport

Facility Name: Wiarton Wastewater Treatment Lagoon

Address: 441048 Elm St.

City: Wiarton

Province: Ontario

Postal Code: NOH 2TO

Date of Occurrence: 06/26/2021

Time of Occurrence: 04:15:00 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?: 12625 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 bump 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?: 30 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 and shut off effluent flow.

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?

17:30 - was reported to Stephanie McGill at Spills Action Centre on June 26, 2021 and was issued reference #1-N6YES.

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

If "Yes", which office/location and who was the contact?: 12:30PM - was reported to Bob Graham on June 28, 2021.

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

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

17:30PM - was reported to Stephanie McGill at Spills Action Centre on June 26, 2021 and was issued reference #1-N6YES.

Was it reported to Municipality?: ● Yes ○ No

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

17:50PM - 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 07/06/2021 07:15:44 AM

Comments:

Bypass Incident #1-N6YES
June 26, 2021
-UV system failure due to power bump-30 minute bypass of 12.625 cubic meters of filtered lagoon effluent
-reset UV sytem and shut down flow
-took samples
June 26, 2021 notifications:
17:15 OCWA Manager of Operations Leo-Paul Frigault informed
17:30 Operator notified SAC-talked to Stephanie McGill and issued reference number #1-N6YES
17:50 voicemail left with Town of South Bruce Peninsula
17:53 OCWA PCT Karla Young informed
17:55 Gillian Jordan at Grey Bruce Health Unit
June 28, 2021 12:30 OCWA PCT emailed Bob Graham MECP Water Inspector to inform him of bypass
July 5, 2021 14:22 Received final lab analysis on samples collected - results below the limits set out in the ECA #6045-ARDJS7

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

Waterworks/Project # 110000819	C of C LIMS No: JUN 15871
Facility Name Wiarton WWTP Org. # 5620	Laboratory Section Date Rec'd: JUN 29 2021 KW Time Rec'd: ____ Initials ____ Sample condition upon receipt ____
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 8 X 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'd 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						Cl Residual (mg/L)			Paramaters												Comments	Upload to MOE	Upload to OCWA
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected JNL JUN 26 2021	# of Bottles	Free	Total	Combined (mg/L)			Total Suspended Solids	Total Phosphorous	E.Coli	$CBOD_5$	TKN	Total Ammonia Nitrogen	Nitrite	Nitrate	Nitrite + Nitrate				
Eff	Eff	-	Effluent (Grab)	16:30	1								X								pH = 7.88 Temperature (C) = 21.2	Yes [X] No [ ]	Yes [X] No [ ]
Eff	Eff	-	Effluent (Composite)	16:30	2						X	X		X	X	X	X	X	X			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 Mack	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, Bio - 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

RTN PU G026592632B1 9:45 ~K

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-July-2021

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. : 29 June 2021
LR Report: **CA15871-JUN21**

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: Client Limits May to Oct	7: Client Objectives May to Oct	9: Eff Eff-Effluent Grab	10: Eff Eff-Effluent Comp
Sample Date & Time							26-Jun-21 16:30	26-Jun-21 16:30
Temperature Upon Receipt [°C]	---	---	---	---	---	---	8.0	8.0
Field pH [no unit]	---	---	---	---	6.0-9.5	---	7.88	---
Field Temperature [celcius]	---	---	---	---	---	---	21.2	---
Carbonaceous Biochemical Oxygen Demand [(CBOD5) mg/L]	29-Jun-21	16:29	05-Jul-21	13:41	15.0	10.0	---	2
Total Suspended Solids [mg/L]	02-Jul-21	07:32	02-Jul-21	17:48	15.0	10.0	---	2
Phosphorus (total) [mg/L]	30-Jun-21	19:08	02-Jul-21	15:01	0.3	0.15	---	0.26
Total Kjeldahl Nitrogen [as N mg/L]	30-Jun-21	21:57	05-Jul-21	07:59	---	---	---	1.5
Ammonia+Ammonium (N) [as N mg/L]	30-Jun-21	18:00	02-Jul-21	13:05	3.0	3.0	---	0.7
Nitrite (as N) [mg/L]	30-Jun-21	21:46	02-Jul-21	16:07	---	---	---	0.05
Nitrate (as N) [mg/L]	30-Jun-21	21:46	02-Jul-21	16:07	---	---	---	0.36
Nitrate + Nitrite (as N) [mg/L]	30-Jun-21	21:46	02-Jul-21	16:07	---	---	---	0.41
E. Coli [cfu/100mL]	29-Jun-21	18:25	02-Jul-21	12:05	200 (May 15-Sep15)	---	<2 UAL	---

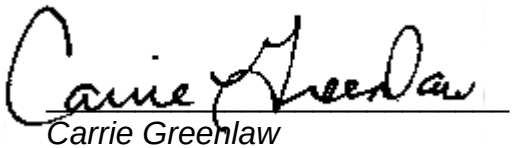
*E.Coli was received/processed after the recommended holding time of 48 hours.
UAL - Unreliable: Sample Age Exceeds Normal Limit

OnLine LIMS

00025252693

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 : **CA15871-JUN21**



Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

00025252693

From:	Karla Young
To:	"Graham, Robert G. (MECP)"; "Smith, Mark (MECP)"
Cc:	Leo-Paul Frigault; Michelle Neal; Mike Mortimer; Melissa Cortes
Subject:	2021 Q3 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	November-05-21 10:34:00 AM
Attachments:	Report CA13316-AUG21.pdf Report CA12261-AUG21.pdf

Good Morning,

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 bypass event.

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)					
2021/08/05	08:00	08:00	24:00	983	Filter and UV disinfection	Yes	Influent valve open too wide	Partially treated lagoon effluent	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
Environmental Incident Report

Facility ID: 5620 EIncidentReport

Facility Name: Wiarton Wastewater Treatment Lagoon

Address: 441048 Elm St

City: Wiarton

Province: Ontario

Postal Code: NOH 2TO

Date of Occurrence: 08/05/2021

Time of Occurrence: 08:00:00 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: _____

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

If a liquid, approximately what quantity was released?: 983000 Litres

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

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

What was the source of release?:

The influent valve to the filter building was open to wide and caused high flows into the filter building with only one filter online. This caused partially treated sewage to overflow in the bypass channel.

Where did the release go?:

It went into the bypass channel which flows into the effluent channel and into Colpoy's Bay.

If it entered a watercourse: ● Yes ○ No

If it went off site: ● Yes ○ No

Duration of the release?: 24 hours

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?

The influent valve was throttled back to the proper flow to accomodate the filter capacity.

What actions have been taken to remediate the incident?

Samples were taken according to the ECA. As the high flow alarm did not go off the mechanism was examined and found to not be in the proper position. The mechanism was put back into the proper position and the operator will discuss whether a new option for replacement is needed with the Senior Operations Manager.

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

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

Shannon Simpkins at SAC was notified at 11:26 AM on August 6, 2021.

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

If "Yes", which office/location and who was the contact?: Matt Shannon at Owen Sound District Office was notified at 11:41 AM on August 6, 2021.

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

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

Shannon Simpkins at SAC was notified at 11:26 AM on August 6, 2021.

Was it reported to Municipality?: ● Yes ○ No

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

Chris Cornfield at The Town of South Bruce Peninsula was notified at 11:48 on August 6, 2021.

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 08/18/2021 08:07:49 AM

Comments:

Bypass Incident #1-12JBXG
August 6, 2021
-The influent valve to the filter building was open too wide and caused an overflow into the bypass channel.
-Approximately 983 m3 of partially treated effluent went into the bypass channel over 24 hours
-The influent valve was throttled back to the appropriate flow for the filter capacity
-samples were taken according to ECA #6045-ARDJS7
August 6, 2021 notifications:
11:26 PCT called SAC-talked to Shannon Simpkins-was to call back with reference number
11:38 PCT called GBHU and left voicemail
11:41 PCT called Matt Shannon at MECP to inform of situation
11:48 PCT called Chris Cornfield at Town of South Bruce Peninsula to inform of situation
12:29 PCT received call from Megan Bruce at GBHU and informed of situation
12:41 PCT received call from Shannon Simpkins at SAC and relayed more information and received reference number #1-12JBXG
August 9, 2021
-The results from the grab sample were received.
August 18, 2021
-The results from the composite sample were received.
-All results were below the limits set out in the ECA #6045-ARDJS7

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

Waterworks/Project # 110000819	C of C LIMS No: Aug 13316
Facility Name Wiarton WWTP	Laboratory Section
Org. # 5620	Date Rec'd: AUG 0 7 2021 Time Rec'd: ___ Sample condition upon receipt Initials [illegible]
Quote #	
Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 16 °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'd 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						Cl Residual (mg/L)			Paramaters													Comments		
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected	# of Bottles	Free	Total	Combined (mg/L)			Total Suspended Solids	Total Phosphorous	E.Coli	$CBOD_5$	TKN	Total Ammonia Nitrogen	Nitrite	Nitrate	Nitrite + Nitrate			Upload to MOE	Upload to OCWA
Eff	Eff	-	Effluent (Grab)	2021/08/06 08 45	1								X				1-E				pH = 7.48 Temperature (C) = 22.3°	Yes [X] No [ ]	Yes [X] No [ ]
~~Eff~~	~~Eff~~	~~-~~	~~Effluent (Composite)~~		~~2~~						X	X		X	X	X	X	X	X			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 [ ]
																						Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	Dan Caesar	Sampler Signature:	Dan Caesar

* 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

walked down @ 12:00 pm

607718266929 Rm 11:00 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

09-August-2021

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. : 07 August 2021
LR Report: **CA13316-AUG21**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field pH no unit	Field Temperature celcius	E. Coli cfu/100mL
1: Analysis Start Date		---	---	---	07-Aug-21
2: Analysis Start Time		---	---	---	14:22
3: Analysis Completed Date		---	---	---	09-Aug-21
4: Analysis Completed Time		---	---	---	11:10
5: Client Limits May to Oct		---	6.0-9.5	---	200 (May 15-Sep15)
9: Eff Eff-Effluent (Grab)	06-Aug-21 08:45	16.0	7.48	22.3	< 2

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002594892

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

Waterworks/Project # 110000819	C of C LIMS No: AUG 12261
Facility Name Wiarton WWTP Org. # 5620	Laboratory Section Date Rec'd: AUG 10 2021 CS Sample condition upon receipt Time Rec'd: ____ Initials ____
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 20,19 °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'd 24-48 h [X] (Not a rush as per CG m) [ ] 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	# of Bottles	Cl Residual Free	Cl Residual Total	Cl Residual Combined (mg/L)			Total Suspended Solids	Total Phosphorous	E.Coli	$CBOD_5$	TKN	Total Ammonia Nitrogen	Nitrite	Nitrate	Nitrite + Nitrate		Comments	Upload to MOE	Upload to OCWA
~~Eff~~	~~Eff~~	~~-~~	~~Effluent (Grab)~~	2021/08/06	1								X								pH = ____ Temperature (C) = ____	Yes [X] No [ ]	Yes [X] No [ ]
Eff	Eff	-	Effluent (Composite)	17:00	2						X	X		X	X	X	X	X	X			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: DAN CAESAR   Sampler Signature: Dan Caesar

* 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

60769010374 R+n 10:00 m

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

18-August-2021

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. : 10 August 2021
LR Report: **CA12261-AUG21**

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: Client Limits May to Oct	7: Client Objectives May to Oct	9: Eff Eff-Effluent (Composite)
Sample Date & Time							06-Aug-21 17:00
Temperature Upon Receipt [°C]	---	---	---	---	---	---	19.5
Carbonaceous Biochemical Oxygen Demand [(CBOD5) mg/L]	11-Aug-21	17:58	16-Aug-21	15:29	15.0	10.0	< 2
Total Suspended Solids [mg/L]	13-Aug-21	10:12	16-Aug-21	16:15	15.0	10.0	3
Phosphorus (total) [mg/L]	11-Aug-21	15:17	12-Aug-21	18:04	0.3	0.15	< 0.03
Total Kjeldahl Nitrogen [as N mg/L]	13-Aug-21	07:10	16-Aug-21	13:50	---	---	1.3
Ammonia+Ammonium (N) [as N mg/L]	10-Aug-21	21:50	11-Aug-21	14:42	3.0	3.0	0.3
Nitrite (as N) [mg/L]	11-Aug-21	23:10	17-Aug-21	15:25	---	---	0.03
Nitrate (as N) [mg/L]	11-Aug-21	23:10	17-Aug-21	15:25	---	---	0.34
Nitrate + Nitrite (as N) [mg/L]	11-Aug-21	23:10	17-Aug-21	15:25	---	---	0.37

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002606548

From:	Karla Young
To:	"Graham, Robert G. (MECP)"; "Smith, Mark (MECP)"
Cc:	Leo-Paul Frigault; Michelle Neal; Camille Leung; Mike Mortimer; Melissa Cortes
Subject:	2021 Q4 - Bypass/Overflow Event Summary - Wiarton WWTP (110000819) - Town of South Bruce Peninsula
Date:	February-14-22 1:13:00 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 E

Septage Laboratory Results

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: JAN 13167
Facility Name Wiarton WWTP Org. # 5620	Laboratory Section Date Rec'd: JAN 07 2021 Time Rec'd: ____ Initials NM Sample condition upon receipt Temperature Upon Receipt 5.6°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:	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 ✓ 2021/01/06	# 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	11:10	7	X	X	X	X* Dup	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:	DAN CAESAR	Sampler Signature:	Dan Caesar

* 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

930 RN

Pg 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 Org. # 5620	Laboratory Section Date Rec'd: ____ Time Rec'd: ____ Initials ____ Sample condition upon receipt ____
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 5.6/6 °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	2021/01/06 11:10	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:	Dan Caesar	Sampler Signature:	Dan Caesar

* 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

930 CH

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-January-2021

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. : 07 January 2021
LR Report: **CA13167-JAN21**

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-Jan-21 11:10
Temperature Upon Receipt [°C]	---	---	---	---	6.0
Biochemical Oxygen Demand (BOD5) [mg/L]	07-Jan-21	18:12	12-Jan-21	14:42	2200
Total Suspended Solids [mg/L]	11-Jan-21	07:44	14-Jan-21	08:40	368
Chemical Oxygen Demand [mg/L]	11-Jan-21	12:04	12-Jan-21	14:42	2520
Ammonia+Ammonium (N) [as N mg/L]	07-Jan-21	15:01	11-Jan-21	11:54	2.5
Total Kjeldahl Nitrogen [as N mg/L]	08-Jan-21	09:05	12-Jan-21	10:27	53.6
Isopropyl Alcohol [mg/L]	18-Jan-21	10:45	20-Jan-21	15:49	< 5
Methyl alcohol [mg/L]	18-Jan-21	10:45	20-Jan-21	15:49	< 5
Acetone [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 1200
Benzene [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 20
Ethylbenzene [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 20
Dichloromethane [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 20
Methyl ethyl ketone [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 800
Toluene [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	36.4
Xylene (total) [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 20
o-xylene [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 20
m/p-xylene [ug/L]	12-Jan-21	12:30	13-Jan-21	10:51	< 20
Phosphorus (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	9.34
Aluminum (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.629
Arsenic (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.0016
Barium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.0453
Cadmium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.000162
Calcium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	123
Chromium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.00200
Cobalt (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.00120
Copper (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.166
Iron (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	10.0
Lead (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.00375
Magnesium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	27.7
Manganese (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.490
Mercury (total) [ug/L]	08-Jan-21	15:25	11-Jan-21	10:49	< 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 : **CA13167-JAN21**

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]	11-Jan-21	13:26	12-Jan-21	12:06	0.0097
Potassium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	40.6
Selenium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.00069
Silver (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	< 0.00005
Sodium (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	93.0
Tin (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.00053
Zinc (total) [mg/L]	11-Jan-21	13:26	12-Jan-21	12:06	0.464

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002382922

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 12667
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: FEB 04 2021	Time Rec'd: ___ Initials NM
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	10x3 °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 FEB 03 2021	# 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	1100	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 Medd	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

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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

16-February-2021

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. : 04 February 2021
LR Report: **CA12667-FEB21**

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					03-Feb-21 11:00
Temperature Upon Receipt [°C]	---	---	---	---	10.0
Biochemical Oxygen Demand (BOD5) [mg/L]	04-Feb-21	17:28	09-Feb-21	13:36	1280
Total Suspended Solids [mg/L]	08-Feb-21	07:56	09-Feb-21	14:32	192
Chemical Oxygen Demand [mg/L]	05-Feb-21	11:31	09-Feb-21	15:35	2020
Ammonia+Ammonium (N) [as N mg/L]	04-Feb-21	16:43	05-Feb-21	14:08	25.9
Total Kjeldahl Nitrogen [as N mg/L]	05-Feb-21	10:02	09-Feb-21	14:56	55.6
Phosphorus (total) [mg/L]	05-Feb-21	10:02	12-Feb-21	15:44	6.8
Isopropyl Alcohol [mg/L]	12-Feb-21	09:49	12-Feb-21	16:33	< 5
Methyl alcohol [mg/L]	12-Feb-21	09:49	12-Feb-21	16:33	< 5
Acetone [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 1200
Benzene [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 20
Ethylbenzene [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 20
Dichloromethane [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 20
Methyl ethyl ketone [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 800
Toluene [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	130
Xylene (total) [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 20
o-xylene [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 20
m/p-xylene [ug/L]	11-Feb-21	13:42	12-Feb-21	15:54	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002403999

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:	MAL 12142
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: MAR 0 4 2021	Time Rec'd: ____ Initials: NM
Quote #			
Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	2 X 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 ☐ | ☒ 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	2021/03/03 13:15	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:	DAN CAESAR	Sampler Signature:	Dan Caesar

* 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, Allo - Actillo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

LOOK

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

18-March-2021

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. : 04 March 2021
LR Report: **CA12142-MAR21**

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					03-Mar-21 13:15
Temperature Upon Receipt [°C]	---	---	---	---	7.0
Biochemical Oxygen Demand (BOD5) [mg/L]	04-Mar-21	17:41	09-Mar-21	13:32	50
Total Suspended Solids [mg/L]	09-Mar-21	11:40	11-Mar-21	07:57	87
Chemical Oxygen Demand [mg/L]	05-Mar-21	12:45	10-Mar-21	11:54	103
Ammonia+Ammonium (N) [as N mg/L]	08-Mar-21	20:40	09-Mar-21	10:50	27.9
Total Kjeldahl Nitrogen [as N mg/L]	08-Mar-21	10:56	12-Mar-21	13:56	35.8
Phosphorus (total) [mg/L]	08-Mar-21	10:56	11-Mar-21	14:56	3.6
Isopropyl Alcohol [mg/L]	16-Mar-21	08:05	18-Mar-21	12:17	< 5
Methyl alcohol [mg/L]	16-Mar-21	08:05	18-Mar-21	12:17	< 5
Acetone [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 30
Benzene [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 0.5
Ethylbenzene [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 0.5
Dichloromethane [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 0.5
Methyl ethyl ketone [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 20
Toluene [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	18.3
Xylene (total) [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 0.5
o-xylene [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 0.5
m/p-xylene [ug/L]	08-Mar-21	16:43	09-Mar-21	10:23	< 0.5

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002434248

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:	APR12598
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: APR 15 2021	Time Rec'd: ____ Initials PP
Quote #			
Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt 7 x 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	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	2021/04/14 11:15	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 ☐
								DUP															Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐
																							Yes ☐ No ☐	Yes ☐ No ☐

Sampler Name:	Dan Caesar	Sampler Signature:	Dan Caesar

* 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

K 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

26-April-2021

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 April 2021
LR Report: **CA12598-APR21**

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					14-Apr-21 11:15
Temperature Upon Receipt [°C]	---	---	---	---	7.0
Biochemical Oxygen Demand (BOD5) [mg/L]	15-Apr-21	18:00	20-Apr-21	11:46	1320
Total Suspended Solids [mg/L]	19-Apr-21	09:10	20-Apr-21	12:19	458
Chemical Oxygen Demand [mg/L]	16-Apr-21	11:09	20-Apr-21	11:46	2020
Ammonia+Ammonium (N) [as N mg/L]	15-Apr-21	21:00	16-Apr-21	16:23	38.9
Total Kjeldahl Nitrogen [as N mg/L]	16-Apr-21	08:14	20-Apr-21	12:29	84.2
Phosphorus (total) [mg/L]	16-Apr-21	08:14	20-Apr-21	10:48	13.2
Isopropyl Alcohol [mg/L]	21-Apr-21	12:27	23-Apr-21	17:06	< 5
Methyl alcohol [mg/L]	21-Apr-21	12:27	23-Apr-21	17:06	< 5
Acetone [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	93
Benzene [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	< 0.5
Ethylbenzene [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	< 0.5
Dichloromethane [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	< 0.5
Methyl ethyl ketone [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	78
Toluene [ug/L]	20-Apr-21	07:10	21-Apr-21	15:41	228
Xylene (total) [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	< 0.5
o-xylene [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	< 0.5
m/p-xylene [ug/L]	20-Apr-21	07:10	21-Apr-21	09:07	< 0.5

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002473248

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

Waterworks/Project #	110000819	C of C LIMS No:	APR 12582
Facility Name	Wiarton WWTP	Laboratory Section Date Rec'd:	APR 15 2021
Org. #	5620	Time Rec'd:	Sample condition upon receipt: Initials AP
Quote # / Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	7+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: 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	2021/04/14 11:30	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:	DAN CAESAR	Sampler Signature:	Dan Caesar

* 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

k 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

23-April-2021

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 April 2021
LR Report: **CA12582-APR21**

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					14-Apr-21 11:30
Temperature Upon Receipt [°C]	---	---	---	---	7.0
Aluminum (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	1.56
Arsenic (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.0014
Barium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.571
Cadmium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.000794
Calcium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	135
Chromium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.00277
Cobalt (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.00108
Copper (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.327
Iron (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	6.18
Lead (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.00909
Magnesium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	37.3
Manganese (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.269
Mercury (total) [ug/L]	16-Apr-21	14:04	19-Apr-21	07:43	0.16
Nickel (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.0092
Potassium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	32.3
Selenium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.00143
Silver (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.00019
Sodium (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	241
Tin (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.0020
Zinc (total) [mg/L]	21-Apr-21	09:44	23-Apr-21	11:48	0.568

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 : **CA12582-APR21**

Kimberley Didsbury
Project Specialist,
Environment, Health & Safety

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

Jun 13/19

Waterworks/Project # **110000819**	C of C LIMS No:
Facility Name **Wiarton WWTP**	Laboratory Section
Org. # **5620**	Date Rec'd: JUN 0 2 2021 Time Rec'd: Initials
Quote # Attached Parameter List [ ] No [ ] Yes	Sample condition upon receipt Temperature Upon Receipt 17 x 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 MAY 3 1 2021	# 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	1730	7	X	X	X Dis	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, 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, Allo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

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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

16-June-2021

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. : 02 June 2021
LR Report: **CA13119-JUN21**

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					31-May-21 17:30
Temperature Upon Receipt [°C]	---	---	---	---	17.0
Biochemical Oxygen Demand (BOD5) [mg/L]	03-Jun-21	18:22	08-Jun-21	12:24	2150
Total Suspended Solids [mg/L]	07-Jun-21	12:50	08-Jun-21	13:19	392
Chemical Oxygen Demand [mg/L]	09-Jun-21	10:40	09-Jun-21	20:32	2850
Ammonia+Ammonium (N) [as N mg/L]	03-Jun-21	19:11	07-Jun-21	13:40	30.0
Total Kjeldahl Nitrogen [as N mg/L]	03-Jun-21	10:52	14-Jun-21	22:20	92.9
Phosphorus (total) [mg/L]	03-Jun-21	10:52	09-Jun-21	08:54	9.3
Isopropyl Alcohol [mg/L]	10-Jun-21	11:05	11-Jun-21	13:35	< 5
Methyl alcohol [mg/L]	10-Jun-21	11:05	11-Jun-21	13:35	< 5
Acetone [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 1200
Benzene [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 20
Ethylbenzene [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 20
Dichloromethane [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 20
Methyl ethyl ketone [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 800
Toluene [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	54.4
Xylene (total) [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 20
o-xylene [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 20
m/p-xylene [ug/L]	09-Jun-21	10:07	11-Jun-21	12:41	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002529951

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:	5n12960
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt:
Org. #	5620	Date Rec'd: JUN 24 2021	Time Rec'd: ____ Initials: MS
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	12, 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	705-652-6365
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	2021/06/23 11:25	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
					only received 5 bottles ~~HH~~ ES																		Yes No	Yes No
																							Yes No	Yes No
																						limited sample for vials ner	Yes No	Yes No
																							Yes No	Yes No
																							Yes No	Yes No

Sampler Name:	DAN CAESAR	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, Bts - 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, 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

9:30 ES

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

12-July-2021

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 June 2021
LR Report: **CA12990-JUN21**

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-Jun-21 11:25
Temperature Upon Receipt [°C]	---	---	---	---	12.0
Biochemical Oxygen Demand (BOD5) [mg/L]	25-Jun-21	16:52	30-Jun-21	14:34	1660
Total Suspended Solids [mg/L]	28-Jun-21	14:21	02-Jul-21	11:24	329
Chemical Oxygen Demand [mg/L]	25-Jun-21	13:01	30-Jun-21	14:34	2520
Ammonia+Ammonium (N) [as N mg/L]	25-Jun-21	16:19	29-Jun-21	13:10	77.0
Total Kjeldahl Nitrogen [as N mg/L]	25-Jun-21	08:54	29-Jun-21	21:33	123
Phosphorus (total) [mg/L]	25-Jun-21	08:54	30-Jun-21	16:08	12.1
Isopropyl Alcohol [mg/L]	07-Jul-21	10:27	12-Jul-21	14:17	< 5
Methyl alcohol [mg/L]	07-Jul-21	10:27	12-Jul-21	14:17	< 5
Acetone [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 1200
Benzene [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 20
Ethylbenzene [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 20
Dichloromethane [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 20
Methyl ethyl ketone [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 800
Toluene [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	63.8
Xylene (total) [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 20
o-xylene [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 20
m/p-xylene [ug/L]	29-Jun-21	10:51	30-Jun-21	16:21	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002561579

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 15809
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: JUN 25 2021	Time Rec'd: ____ Initials DM
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	17, 18 °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	2021/06/23 11:25	1 2	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 ☐

preserved per bottles received. HA.

Sampler Name:	Dan Caesar	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, 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

OM RTN 10:15

P: 607 659 264 784

Waterworks/Project #	110000819	C of C LIMS No:	JUL 12340
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: JUL 0 8 2021	Time Rec'd: ____ Initials K
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	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 JUL 0 7 2021	# of Bottles	BOD_5	Total Suspended Solids	Total Phosphorus	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:	DAN CAESAR	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, 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

9:30 53

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

Waterworks/Project #	110000819	C of C LIMS No:	JUL 12340
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: JUL 0 8 2021	Time Rec'd: Initials
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: 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		
Station Acronym	Station Number (Short Name)		Sample Location Name	Date & Time Collected JUL 0 7 2021	# of Bottles	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Tin	Zinc		Upload to MOE	Upload to OCWA
Sept	Sept	-	Septage - Holding Tank	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:	DAN CAESAR	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

9:30 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

26-July-2021

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. : 08 July 2021
LR Report: **CA12340-JUL21**

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					07-Jul-21 11:00
Temperature Upon Receipt [°C]	---	---	---	---	18.0
Biochemical Oxygen Demand (BOD5) [mg/L]	08-Jul-21	17:54	13-Jul-21	12:27	468
Total Suspended Solids [mg/L]	14-Jul-21	10:59	15-Jul-21	16:27	476
Chemical Oxygen Demand [mg/L]	13-Jul-21	10:17	14-Jul-21	15:45	2800
Ammonia+Ammonium (N) [as N mg/L]	13-Jul-21	21:47	18-Jul-21	21:32	108
Total Kjeldahl Nitrogen [as N mg/L]	09-Jul-21	06:43	14-Jul-21	05:57	173
Isopropyl Alcohol [mg/L]	21-Jul-21	12:39	26-Jul-21	12:13	< 5
Methyl alcohol [mg/L]	21-Jul-21	12:39	26-Jul-21	12:13	< 5
Acetone [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	67
Benzene [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	< 0.5
Ethylbenzene [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	< 0.5
Dichloromethane [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	< 0.5
Methyl ethyl ketone [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	93
Toluene [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	30.6
Xylene (total) [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	< 0.5
o-xylene [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	< 0.5
m/p-xylene [ug/L]	13-Jul-21	14:24	15-Jul-21	11:20	< 0.5
Mercury (total) [ug/L]	09-Jul-21	14:45	12-Jul-21	16:20	0.09
Aluminum (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.277
Arsenic (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.0008
Barium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.0405
Calcium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	83.2
Cadmium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.000069
Chromium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.00148
Cobalt (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.000332
Copper (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.0655
Iron (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	4.62
Lead (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.00124
Magnesium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	25.0
Manganese (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.118
Nickel (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.0035

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 : **CA12340-JUL21**

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]	14-Jul-21	14:25	16-Jul-21	09:38	61.8
Selenium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.00113
Silver (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.00007
Sodium (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	258
Phosphorus (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	16.9
Tin (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.00093
Zinc (total) [mg/L]	14-Jul-21	14:25	16-Jul-21	09:38	0.086

Hawley Anderson, Hon.B.Sc
Project Specialist Assistant,
Environment, Health & Safety

OnLine LIMS

0002578612

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 13306
Facility Name	Wiarton WWTP	Laboratory Section Date Rec'd:	AUG 0 6 2021
Org. #	5620	Time Rec'd:	Sample condition upon receipt Initials: AM
Quote # Attached Parameter List	[ ] No [ ] Yes	Temperature Upon Receipt	20, 20, 21 °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	# 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			
				2021/08/04																				
Sept	Sept	-	Septage - Holding Tank	13:30	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:	Dan Caesar	Sampler Signature:	Dan Caesar

* 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, PStn - 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

11:00

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

17-August-2021

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. : 06 August 2021
LR Report: **CA13306-AUG21**

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					04-Aug-21 13:30
Temperature Upon Receipt [°C]	---	---	---	---	20.0
Biochemical Oxygen Demand (BOD5) [mg/L]	06-Aug-21	13:48	11-Aug-21	15:34	1320
Total Suspended Solids [mg/L]	11-Aug-21	10:13	12-Aug-21	13:18	200
Chemical Oxygen Demand [mg/L]	12-Aug-21	10:58	12-Aug-21	14:39	2220
Ammonia+Ammonium (N) [as N mg/L]	10-Aug-21	20:58	12-Aug-21	16:59	120
Total Kjeldahl Nitrogen [as N mg/L]	09-Aug-21	14:21	10-Aug-21	15:20	170
Phosphorus (total) [mg/L]	09-Aug-21	14:21	13-Aug-21	14:49	14.0
Isopropyl Alcohol [mg/L]	12-Aug-21	12:08	13-Aug-21	15:20	< 5
Methyl alcohol [mg/L]	12-Aug-21	12:08	13-Aug-21	15:20	< 5
Acetone [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	71
Benzene [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	< 0.5
Ethylbenzene [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	< 0.5
Dichloromethane [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	< 0.5
Methyl ethyl ketone [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	89
Toluene [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	31.3
Xylene (total) [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	< 0.5
o-xylene [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	< 0.5
m/p-xylene [ug/L]	13-Aug-21	08:48	17-Aug-21	13:53	< 0.5

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002606145

Ontario Clean Water Agency - Request for Laboratory Services and CHAIN OF CUSTODY - SEWAGE (MONTHLY - SEPTAGE - PAGE 1 of 1) Sep 12853

Waterworks/Project # 110000819		C of C LIMS No:	
Facility Name Wiarton WWTP		Laboratory Section	Sample condition upon receipt
Org. # 5620		Date Rec'd: SEP 2 1 2021	Time Rec'd: Initials
Quote #			
Attached Parameter List ☐ No ☐ Yes		Temperature Upon Receipt 15.7 °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	2021/09/20 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 ☒ 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:	DAN CAESAR	Sampler Signature:	Dan Caesar

* 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

6077 B009769 9715

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-October-2021

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 September 2021
LR Report: **CA12853-SEP21**

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-Sep-21 10:30
Temperature Upon Receipt [°C]	---	---	---	---	15.0
Biochemical Oxygen Demand (BOD5) [mg/L]	22-Sep-21	18:05	27-Sep-21	15:49	2190
Total Suspended Solids [mg/L]	22-Sep-21	09:18	28-Sep-21	12:11	306
Chemical Oxygen Demand [mg/L]	24-Sep-21	08:20	27-Sep-21	15:49	2850
Ammonia+Ammonium (N) [as N mg/L]	22-Sep-21	17:22	23-Sep-21	15:34	59.7
Total Kjeldahl Nitrogen [as N mg/L]	22-Sep-21	08:01	24-Sep-21	11:52	110
Phosphorus (total) [mg/L]	22-Sep-21	08:01	23-Sep-21	17:16	11.5
Isopropyl Alcohol [mg/L]	05-Oct-21	11:02	06-Oct-21	12:33	< 5
Methyl alcohol [mg/L]	05-Oct-21	11:02	06-Oct-21	12:33	< 5
Acetone [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 1200
Benzene [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 20
Ethylbenzene [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 20
Dichloromethane [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 20
Methyl ethyl ketone [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 800
Toluene [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	57.9
Xylene (total) [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 20
o-xylene [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 20
m/p-xylene [ug/L]	27-Sep-21	16:34	29-Sep-21	11:36	< 20

Hawley Anderson, Hon.B.Sc
Project Specialist Assistant,
Environment, Health & Safety

OnLine LIMS

00026654611

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:	OCT12775
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: OCT 19 2021	Time Rec'd: Initials EC
Quote # / Attached Parameter List	☐ No ☐ Yes	Temperature Upon Receipt	7.8, 9 °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	OCT 18 2021 1300	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, Bscq - 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, Sepl - 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

9:45 ec

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-October-2021

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. : 19 October 2021
LR Report: **CA12775-OCT21**

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					18-Oct-21 13:00
Temperature Upon Receipt [°C]	---	---	---	---	8.0
Biochemical Oxygen Demand (BOD5) [mg/L]	19-Oct-21	15:57	25-Oct-21	14:45	1620
Total Suspended Solids [mg/L]	21-Oct-21	14:12	22-Oct-21	14:24	268
Chemical Oxygen Demand [mg/L]	26-Oct-21	08:57	26-Oct-21	12:16	2920
Ammonia+Ammonium (N) [as N mg/L]	20-Oct-21	16:41	22-Oct-21	12:35	58.1
Total Kjeldahl Nitrogen [as N mg/L]	20-Oct-21	06:38	21-Oct-21	11:54	105
Phosphorus (total) [mg/L]	20-Oct-21	06:38	21-Oct-21	13:55	10.7
Isopropyl Alcohol [mg/L]	19-Oct-21	14:24	22-Oct-21	10:57	< 5
Methyl alcohol [mg/L]	19-Oct-21	14:24	22-Oct-21	10:57	< 5
Acetone [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 1200
Benzene [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 20
Ethylbenzene [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 20
Dichloromethane [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 20
Methyl ethyl ketone [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 800
Toluene [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	68.1
Xylene (total) [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 20
o-xylene [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 20
m/p-xylene [ug/L]	21-Oct-21	17:09	26-Oct-21	15:48	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

00026908

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

Waterworks/Project # 110000819	C of C LIMS No: OCT 12763
Facility Name Wiarton WWTP	Laboratory Section — Sample condition upon receipt
Org. # 5620	Date Rec'd: OCT 19 2021 Time Rec'd: ___ Initials EC
Quote # Attached Parameter List [ ] No [ ] Yes	Temperature Upon Receipt 7, 8, 9 °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:	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 OCT 18 2021	# 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	1300	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 Meredith	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

RTN 607863270064 9:45ec

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

26-October-2021

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. : 19 October 2021
LR Report: **CA12763-OCT21**

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					18-Oct-21 13:00
Temperature Upon Receipt [°C]	---	---	---	---	8.0
Aluminum (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.237
Arsenic (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.0010
Barium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.08330
Cadmium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.000092
Calcium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	146
Chromium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.00139
Cobalt (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.000434
Copper (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.0596
Iron (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	5.65
Lead (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.00111
Magnesium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	35.8
Manganese (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.218
Mercury (total) [mg/L]	21-Oct-21	07:30	25-Oct-21	10:50	< 0.00001
Nickel (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.0047
Potassium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	51.4
Selenium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.00069
Silver (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.00006
Sodium (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	308
Tin (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.00069
Zinc (total) [mg/L]	22-Oct-21	10:30	25-Oct-21	16:31	0.102

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 : **CA12763-OCT21**

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:	NOJ 12479
Facility Name	Wiarton WWTP	Laboratory Section	Sample condition upon receipt
Org. #	5620	Date Rec'd: NOV 1 1 2021	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:	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 NOV 10 2021	# 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	09.00	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:	DAN CAESAR	Sampler Signature:	Dan Caesar

* 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, Alfo - Actiflo, TeBy - Tertiary Bypass, Hold - Holding Tank, CSO - Combined Sewer Overflow, SSO - Sanitary Sewer Overflow

Revision #1

Revised: 2017.12.01

607833994207 MP
10:00 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

26-November-2021

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 November 2021
LR Report: **CA12479-NOV21**

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					10-Nov-21 09:00
Temperature Upon Receipt [°C]	---	---	---	---	5.0
Biochemical Oxygen Demand (BOD5) [mg/L]	12-Nov-21	13:34	17-Nov-21	13:03	842
Total Suspended Solids [mg/L]	15-Nov-21	19:30	16-Nov-21	16:17	227
Chemical Oxygen Demand [mg/L]	12-Nov-21	11:11	17-Nov-21	13:03	2000
Ammonia+Ammonium (N) [as N mg/L]	12-Nov-21	22:05	15-Nov-21	10:04	45.3
Total Kjeldahl Nitrogen [as N mg/L]	15-Nov-21	08:59	17-Nov-21	11:12	60.7
Phosphorus (total) [mg/L]	15-Nov-21	08:59	17-Nov-21	10:08	4.4
Isopropyl Alcohol [mg/L]	16-Nov-21	08:03	18-Nov-21	15:12	< 5
Methyl alcohol [mg/L]	16-Nov-21	08:03	18-Nov-21	15:12	< 5
Acetone [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 1200
Benzene [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 20
Ethylbenzene [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 20
Dichloromethane [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 20
Methyl ethyl ketone [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 800
Toluene [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	222
Xylene (total) [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 20
o-xylene [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 20
m/p-xylene [ug/L]	24-Nov-21	17:01	25-Nov-21	17:46	< 20

Carrie Greenlaw
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002724873

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: DEC 12730	
Facility Name Wiarton WWTP		Laboratory Section	Sample condition upon receipt
Org. # 5620		Date Rec'd: DEC 2 2 2021	Time Rec'd: ____ Initials NM
Quote # Attached Parameter List [ ] No [ ] Yes		Temperature Upon Receipt 8X3 °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 DEC 2 1 2021	# 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	11:40	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 [ ]
			Rec'd 2 pets visually different.																				Yes [ ] No [ ]	Yes [ ] No [ ]
			Comp'd prior to analysis as per CoC. NA																				Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]
																							Yes [ ] No [ ]	Yes [ ] No [ ]

Sampler Name:	DAN CAESAR	Sampler Signature:	Dan Caesar

* 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, Bscq - 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, PSta - 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

BQ 10am 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

31-December-2021

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. : 22 December 2021
LR Report: **CA12730-DEC21**

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					21-Dec-21 11:40
Temperature Upon Receipt [°C]	---	---	---	---	8.0
Biochemical Oxygen Demand (BOD5) [mg/L]	23-Dec-21	17:14	29-Dec-21	13:19	912
Total Suspended Solids [mg/L]	23-Dec-21	12:57	24-Dec-21	09:40	332
Chemical Oxygen Demand [mg/L]	23-Dec-21	09:45	29-Dec-21	13:19	1480
Ammonia+Ammonium (N) [as N mg/L]	22-Dec-21	21:31	23-Dec-21	08:47	9.0
Total Kjeldahl Nitrogen [as N mg/L]	23-Dec-21	06:51	24-Dec-21	11:00	42.0
Phosphorus (total) [mg/L]	23-Dec-21	06:51	30-Dec-21	14:39	8.0
Isopropyl Alcohol [mg/L]	29-Dec-21	12:02	30-Dec-21	13:03	< 5
Methyl alcohol [mg/L]	29-Dec-21	12:02	30-Dec-21	13:03	< 5
Acetone [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 1200
Benzene [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 20
Ethylbenzene [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 20
Dichloromethane [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 20
Methyl ethyl ketone [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 800
Toluene [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	24.7
Xylene (total) [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 20
o-xylene [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 20
m/p-xylene [ug/L]	23-Dec-21	14:16	30-Dec-21	12:38	< 20

Hawley Anderson, Hon.B.Sc
Project Specialist Assistant,
Environment, Health & Safety

OnLine LIMS

00027619