



2022 Annual Performance & Summary Report Birr Drinking Water System

Date: February 7, 2023

Alternative Formats: If you require this document in an alternative format please contact the Municipality of Middlesex Centre at 519-666-0190 or customerservice@middlesexcentre.on.ca

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Introduction

The Municipality of Middlesex Centre is preparing a report summarizing system operation and water quality for every municipal drinking water system annually. The reports detail the latest water quality testing results, water quantity statistics and any adverse conditions that may have occurred for the previous year. They are available for review by the end of February on the Municipality of Middlesex Centre website at www.middlesexcentre.on.ca/services/residents/water or by contacting the Public Works & Engineering Department.

All efforts have been made to ensure the information presented in this report is accurate. If you have any questions or comments concerning the report please contact the Municipality of Middlesex Centre.

Table 1 – Plant Information

Drinking Water System	Birr Well Supply System
Drinking Water System Number	220005492
Drinking Water System Owner & Contact Information	Municipality of Middlesex Centre Small Municipal Residential System 10227 Ilderton Road, RR #2 Ilderton, Ontario N0M 2A0
Reporting Period	January 1, 2022 to December 31, 2022

Section A – System Description

The Birr Drinking Water System, owned and operated by the Municipality of Middlesex Centre, is a ground water supply system serving the Village of Birr that presently services 18 lots on Gwendolyn St with an estimated population of 53 residents. This system consists of one (1) drilled well, rated at 88m³/day operating under the *Permit to Take Water* # 3415-A3JHTY. Raw well water is pumped into a concrete reservoir. The raw water is disinfected using a 6% sodium hypochlorite disinfection system, consisting of one storage tank and two chemical metering pumps (one duty and one standby) with a feed line discharging into the underground reservoir. Two submersible high lift pumps, then pump the water through a 150mm water main to the distribution system. The system operates under Municipal Drinking Water License Number 052-104 and Drinking Water Works Permit Number 052-204.

MECP licensed water drinking water operators maintain the system and its operations, and collect regulated samples. In the event of failure of critical operational requirements automated alarms are relayed through a third-party system to operators for prompt response.

Section B – Significant Modifications & Replacements

Modifications & Replacements		
Reservoir float weights replaced	May 7	\$500.00
UPS unit and outlets added	Aug 2	\$4,471.00
Generator governor switch repaired	Aug 11	\$197.75
Sodium hypochlorite dosing tank replaced	Dec 9	\$300.00

Section C – Microbiological Testing

(I) E. coli & Total Coliform

Bacteriological tests for E. coli and total coliforms are collected from the raw water at the facility monthly and treated water from the distribution system weekly. Extra samples are taken after major repairs or maintenance work. Any E. coli or total coliform results above 0 cfu/100 mL in the treated distribution water must be reported to the Ministry of the Environment, Conservation and Parks (MECP) and Medical Officer of Health (MOH). Resamples and any other required actions are taken as quickly as possible. The results from the 2022 sampling program are shown on the table below. There were no adverse test results in this reporting period as shown in Table 2.

Table 2 – E. Coli & Total Coliform Samples

	Number of Samples	Range of E.coli Results Min – Max	Range of Total Coliform Results Min – Max
Raw	12	0 - 0	0 - 0
Distribution	26	0 - 0	0 - 0

(II) Heterotrophic Plate Count (HPC)

HPC analyses are required from the distribution water on a bi-weekly basis. HPC should be less than 500 colonies per 1 mL. Results over 500 colonies per 1 mL may indicate a change in water quality but it is not considered an indicator of unsafe water. The 2022 results are shown in Table 3 below.

Table 3 – Heterotrophic Plate Count (HPC) Samples

Parameters	Number of Samples	Range of HPC Results Min-Max
Distribution	26	<10 - 10

Section D – Chemical Testing

The Safe Drinking Water Act requires periodic testing of the water for chemical parameters. The sampling frequency varies for different types and sizes of water systems. If the concentration of a parameter is above half of the Maximum Allowable Concentration (MAC) under the Ontario Drinking Water Quality Standards, an increased testing frequency of once every three months is required by the Regulation. Where concerns regarding a parameter exist, the MECP can also require additional sampling be undertaken.

Nitrate and nitrite

Nitrate and nitrite samples are required every 3 months in normal operation. Results of testing can be seen in Table 4.

Table 4 – Quarterly Nitrate & Nitrite

Parameter & Sample Date	Result (mg/l)	MAC (mg/l)	Exceedance
Nitrate			
1st Quarter	0.018	10	No
2nd Quarter	0.014	10	No
3rd Quarter	0.011	10	No
4th Quarter	0.011	10	No
Nitrite			
1st Quarter	<0.003 MDL	1	No
2nd Quarter	<0.003 MDL	1	No
3rd Quarter	<0.003 MDL	1	No
4th Quarter	<0.003 MDL	1	No

*MDL = Minimum Detection Limit

Trihalomethanes (THM) and total Haloacetic Acids (HAA)

THM and HAA are by-products of the disinfection process. Sampling for these parameters, within the distribution system, is required every 3 months. The results are calculated as an annual running average, which is summarized in Table 5. There were no exceedances in the last four quarters.

Table 5 – Quarterly Trihalomethane & Haloacetic Acid

Parameter & Sample Date	Result (mg/l)	Annual Rolling Average (mg/l)	MAC (mg/l)	Exceedance
Trihalomethane				
1st Quarter	49.0	57.50	100	No
2nd Quarter	52.0	54.75	100	No

Parameter & Sample Date	Result (mg/l)	Annual Rolling Average (mg/l)	MAC (mg/l)	Exceedance
3rd Quarter	39.0	48.00	100	No
4th Quarter	52.0	48.00	100	No
Haloacetic Acid (HAA)				
1st Quarter	31.8	43.10	80	No
2nd Quarter	37.5	38.33	80	No
3rd Quarter	29.7	27.48	80	No
4th Quarter	23.4	26.00	80	No

Sodium and Fluoride

Samples are analyzed every five (5) years as required. Sodium levels greater than 20 mg/L are to be reported to the MECP and MLHU. Regulated actions are as directed by the medical officer of health. Table 6 shows the results of testing that was completed in this 5-year cycle.

Sodium levels in 2022 were above 20 mg/L and notices were delivered to consumers as provided and directed by the MLHU. Report can be found in Appendix B.

Fluoride can occur in the natural environment with levels ranging from 1.5 to 2.4 mg/L. Levels greater than 1.5 are to be reported.

Table 6 – Sodium & Fluoride

Parameter	Sample Date	Result Value (mg/L)	MAC (mg/L)
Sodium	January 17, 2022	40.9	20
Sodium	February 1, 2022	47.6	20
Fluoride	January 17, 2022	1.28	1.5

Lead Testing Program

Lead sampling occurs twice a year in winter and summer months. As per Schedule D of the Birr Municipal Drinking Water Licence (MDWL) # 052-104, Issue 8 sampling requirement is reduced to 1 distribution sample during each period. This reduction remains in effect until the end of the winter sample period in 2027.

Samples that are found to contain lead greater than the Maximum Acceptable Concentration (MAC) of 10 micrograms per liter (µg/l) are required to be reported to the MLHU and MECP.

Distribution alkalinity is an aesthetic objective / Operational Guideline with a range between 30 mg/l to 500 mg/l.

Table 7 summarizes the sampling period results for 2022. There were no exceedances.

Table 7 – Lead Sampling

Parameter	Result Value	MAC	Exceedance
Winter Sample (Dec. 15 – April 15)			
Lead (µg/l)	0.14	10	No
Distribution Alkalinity (mg/l)	211	*30 - 500	-
Distribution pH	7.84	-	-
Summer Sample (June 15 – Oct. 15)			
Lead (µg/l)	0.10	10	No
Distribution Alkalinity	203	*30 - 500	-
Distribution pH	7.80	-	-

Ontario Regulation 170/03, Schedules 23 & 24

Sampling for Inorganic and Organic parameters is required every 5 years for secure groundwater wells. Previous sampling occurred in 2017 and results of the present year's sampling is similar. Table 8 summarizes the results. No exceedances were reported.

Table 8 – Schedule 23 & 24

Parameter	Sample Date	Treated Water Value	Exceedance
Antimony [ug/L]	17-Jan-22	0.6 <MDL	No
Arsenic [ug/L]	17-Jan-22	0.2 <MDL	No
Barium [ug/L]	17-Jan-22	479	No
Boron [ug/L]	17-Jan-22	216	No
Cadmium [ug/L]	17-Jan-22	0.018	No

Parameter	Sample Date	Treated Water Value	Exceedance
Chromium [ug/L]	17-Jan-22	0.1	No
Mercury [ug/L]	17-Jan-22	0.01 <MDL	No
Selenium [ug/L]	17-Jan-22	0.04 <MDL	No
Uranium [ug/L]	17-Jan-22	0.011	No
Benzene [ug/L]	17-Jan-22	0.32 <MDL	No
Carbon tetrachloride [ug/L]	17-Jan-22	0.17 <MDL	No
1,2-Dichlorobenzene [ug/L]	17-Jan-22	0.41 <MDL	No
1,4-Dichlorobenzene [ug/L]	17-Jan-22	0.36 <MDL	No
1,1-Dichloroethylene (vinylidene chloride) [ug/L]	17-Jan-22	0.33 <MDL	No
1,2-Dichloroethane [ug/L]	17-Jan-22	0.35 <MDL	No
Dichloromethane [ug/L]	17-Jan-22	0.35 <MDL	No
Monochlorobenzene [ug/L]	17-Jan-22	0.3 <MDL	No
Tetrachloroethylene (perchloroethylene) [ug/L]	17-Jan-22	0.35 <MDL	No
Trichloroethylene [ug/L]	17-Jan-22	0.44 <MDL	No
Vinyl Chloride [ug/L]	17-Jan-22	0.17 <MDL	No
Diquat [ug/L]	17-Jan-22	1 <MDL	No
Paraquat [ug/L]	17-Jan-22	1 <MDL	No
Glyphosate [ug/L]	17-Jan-22	1 <MDL	No
Polychlorinated Biphenyls (PCBs) - Total [ug/L]	17-Jan-22	0.04 <MDL	No
Benzo(a)pyrene [ug/L]	17-Jan-22	0.004 <MDL	No
Alachlor [ug/L]	17-Jan-22	0.02 <MDL	No

Parameter	Sample Date	Treated Water Value	Exceedance
Atrazine + N-dealkylated metabolites [ug/L]	17-Jan-22	0.01 <MDL	No
Atrazine [ug/L]	17-Jan-22	0.01 <MDL	No
Desethyl atrazine [ug/L]	17-Jan-22	0.01 <MDL	No
Azinphos-methyl [ug/L]	17-Jan-22	0.05 <MDL	No
Carbaryl [ug/L]	17-Jan-22	0.05 <MDL	No
Carbofuran [ug/L]	17-Jan-22	0.01 <MDL	No
Chlorpyrifos [ug/L]	17-Jan-22	0.02 <MDL	No
Diazinon [ug/L]	17-Jan-22	0.02 <MDL	No
Dimethoate [ug/L]	17-Jan-22	0.06 <MDL	No
Diuron [ug/L]	17-Jan-22	0.03 <MDL	No
Malathion [ug/L]	17-Jan-22	0.02 <MDL	No
Metolachlor [ug/L]	17-Jan-22	0.01 <MDL	No
Metribuzin [ug/L]	17-Jan-22	0.02 <MDL	No
Phorate [ug/L]	17-Jan-22	0.01 <MDL	No
Prometryne [ug/L]	17-Jan-22	0.03 <MDL	No
Simazine [ug/L]	17-Jan-22	0.01 <MDL	No
Terbufos [ug/L]	17-Jan-22	0.01 <MDL	No
Triallate [ug/L]	17-Jan-22	0.01 <MDL	No
Trifluralin [ug/L]	17-Jan-22	0.02 <MDL	No
2,4-dichlorophenoxyacetic acid (2,4-D) [ug/L]	17-Jan-22	0.19 <MDL	No
Bromoxynil [ug/L]	17-Jan-22	0.33 <MDL	No

Parameter	Sample Date	Treated Water Value	Exceedance
Dicamba [ug/L]	17-Jan-22	0.20 <MDL	No
Diclofop-methyl [ug/L]	17-Jan-22	0.40 <MDL	No
MCPA [mg/L]	17-Jan-22	0.00012 <MDL	No
Picloram [ug/L]	17-Jan-22	1 <MDL	No
2,4-dichlorophenol [ug/L]	17-Jan-22	0.15 <MDL	No
2,4,6-trichlorophenol [ug/L]	17-Jan-22	0.25 <MDL	No
2,3,4,6-tetrachlorophenol [ug/L]	17-Jan-22	0.20 <MDL	No
Pentachlorophenol [ug/L]	17-Jan-22	0.15 <MDL	No

* MDL – Minimum Detection Limit

Section E – Operational Monitoring

(I) Chlorine Residual

Free chlorine levels of the treated water are monitored continuously at the discharge point of the Water Treatment Facility. Residual chlorine, providing disinfection within the distribution system is monitored twice weekly at a minimum. A target of 0.20 mg/L has been established as a minimum target. A free chlorine level lower than 0.05 mg/L must be reported and corrective action taken. There was one reportable incident in 2022. A description of that incident can be found in Appendix B. A summary of the chlorine residual readings is provided in Table 9.

Table 9 – Chlorine Residuals

Parameter	Number of Tests or Monitoring Frequency	Range of Results (Min – Max)
Chlorine residual in distribution (mg/l)	110	0.06 – 1.56
Chlorine residual after treatment (mg/L)	Continuous	0.04 – 4.45

(II) Turbidity

Turbidity of treated water is continuously monitored at the treatment facility, as a change in turbidity can indicate an operational problem. Turbidity of the raw well water is checked monthly. This parameter is measured in nephelometric turbidity units (NTU) and under Regulation 170/03 turbidity in groundwater is not reportable however, turbidity should be < 1 NTU at the treatment plant and < 5 NTU in the distribution system. A summary of the monitoring results for 2022 is provided in the table below.

Table 10 – Turbidity

Parameter	Number of Tests or Monitoring Frequency	Range of Results (Min – Max)
Turbidity after treatment (NTU)	Continuous	0.12 – 2.75

Section F – Water Quantity

Continuous monitoring of flowrates from supply wells into the treatment system and from the facility into the distribution system is required by Regulation 170/03. The Municipal Drinking Water License and Permit to Take Water issued by the MECP regulate the amount of water that can be utilized over a given time period, as shown in Table 11. A summary of the 2022 flows are provided in Table 12.

Table 11 – Rated Capacity

Flow summary	
Permit to Take Water Limits	88.376 m ³ /d
	82 L/min

Graph 1 – Monthly Flows (m³/day)

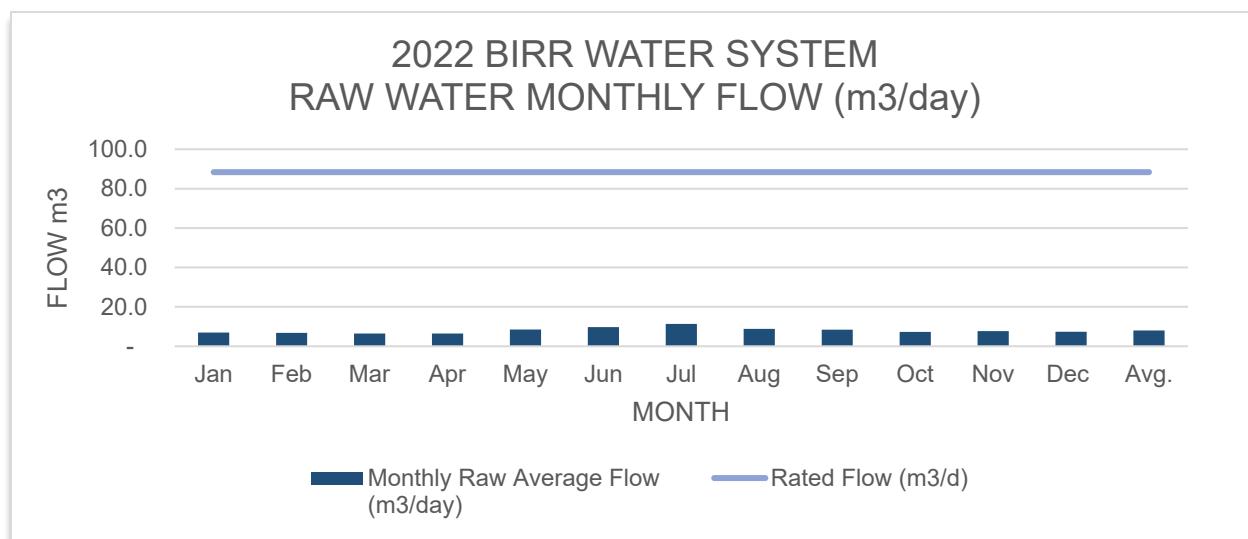


Table 12 – Monthly Raw Water Flows (m³/day)

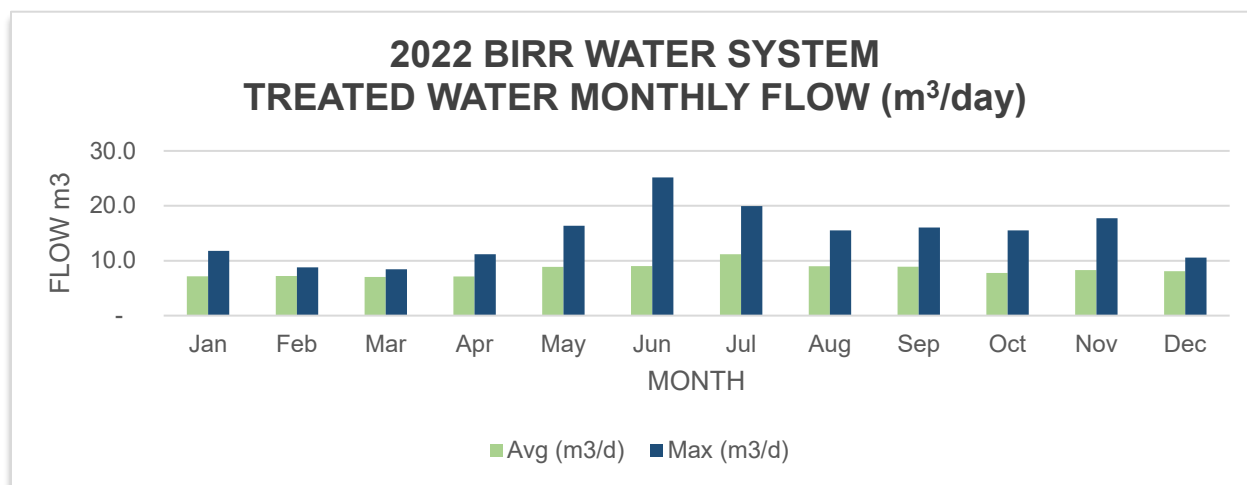
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
Flow Limit	m ³ /d	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
Raw Average	m ³ /d	6.9	6.8	6.5	6.5	8.5	9.7	11.4	8.9	8.4	7.3	7.7	7.3	8.0
Raw Max	m ³ /d	12.4	9.8	10.1	12.2	14.6	40.7	19.5	15.7	14.8	14.8	18.4	11.8	16.2

Note – Reservoir cleaning on June 20 resulted in a significantly higher than average for June max flow .

Table 13 – Treated Water Monthly Flow Summary

	Flow Summary
2022 Average Daily Treated Water Flow	8 m ³ /d
2022 Maximum Daily Treated Water Flow	26 m ³ /d
2022 Average Monthly Treated Water Flow	253 m ³
2022 Total Annual Treated Water Supplied	3,036 m ³

Graph 2 – Monthly Treated Flows (m³/day)



(I) Rated capacity assessment

The table below illustrates the water supplied to the distribution system and the capacity of the system.

System Capability Assessment				
Comparison of Treated Water Rates: Birr Well Supply System				
Month	Total Flow (m³)	Monthly Raw Average Flow (m³/day)	Max Raw Flow (m³/day)	Monthly Avg Raw Flow / Rated Capacity (%)
January	215	6.93	12.40	8%
February	190	6.80	9.75	8%
March	202	6.50	10.07	7%
April	195	6.50	12.17	7%
May	264	8.50	14.63	10%
June	292	9.73	40.68	11%
July	352	11.36	19.50	13%
August	275	8.85	15.68	10%
September	252	8.39	13.45	9%
October	226	7.29	14.81	8%
November	231	7.68	18.43	9%
December	228	7.34	11.75	8%
Average Flow	243	7.99	16.1	9%
Maximum Flow	352	11.36	40.7	13%
Rated Capacity	88.4 (m³/day)			

Section G – Non-Compliance Findings & Adverse Results

Non-compliance issues are typically identified by either the Operating Authority or the MECP Drinking Water Inspectors. All non-compliance issues are investigated, corrective actions taken and documented using the Municipalities Drinking Water Quality Management System (DWQMS) procedures.

(I) Non-Compliance Findings

The MECP conducted an announced routine inspection of the Birr Drinking Water System on May 3, 2022. There was one non-compliance finding.

The inspector found that on September 8, 2022 an underwater inspection conducted on the reservoir using a remote operating vehicle had not complied with Schedule B of the Drinking Water Works Permit, which requires that disinfection procedures found in the American Water Works (AWWA) are followed.

All parts were disinfected as required, and continuous analyzers were collecting water samples for both chlorine residual and turbidity in one minute intervals of the water in the piping immediately after the reservoir. However a post inspection verification microbiological sample was not collected and tested for total coliform.

Required actions for the non-compliance is for the owner to ensure that verification water samples are collected and tested for total coliform in accordance with AWWA standards.

(II) Summary or Reporting Test Results and Other Problems (Schedule 16)

AWQI # 157675 - Sodium exceedance event

Five year sodium samples collected on January 17 were found to have sodium greater than 20 mg/L. The MLHU and MECP were contacted and a second set of samples were collected as required. The second set of samples also had sodium greater than 20 mg/L. The municipality delivered an informational handout, provided by the MLHU, to all consumers attached to the water system of the results and posted the same to the municipality's web site as instructed.

AWQI # 160588 – Low chlorine event

A low chlorine of 0.04 mg/L was recorded at the plant on November 6 during a period of no distribution flow. MECP and MLHU were informed upon discovery. An alarm call out occurred and dosing was increased at that time. Two sets of samples were taken and the system was flushed; all samples taken were returned normal. After further investigation it was discovered that a dosing pump had not been working properly; it was repaired upon discovery.

Appendix A

Analytical Data



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Mun of Middlesex Centre (Birr)

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Phone: 519-666-0190 ext 255
Fax:519-666-0271

Works #: 220005492

11-January-2022

Date Rec. : 04 January 2022
LR Report: CA30013-JAN22

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: MAC	8: MDL	9: 1A0E6 DW Blowoff	10: 35E35 TW Water Treatment Facility
Sample Date & Time							03-Jan-22 11:50	03-Jan-22 12:12
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	8.3	8.3
Field Free Chlorine [mg/L]	---	---	---	---	---	---	0.87	---
Nitrite (as N) [mg/L]	05-Jan-22	17:55	10-Jan-22	13:27	1.0	0.003	---	0.003 <MDL
Nitrate (as N) [mg/L]	05-Jan-22	17:55	10-Jan-22	13:27	10	0.006	---	0.018
Nitrate + Nitrite (as N) [mg/L]	05-Jan-22	17:55	10-Jan-22	13:27	---	0.006	---	0.018
Trihalomethanes (total) [ug/L]	06-Jan-22	17:05	10-Jan-22	13:42	100 (RAA)	0.37	49	---
Bromodichloromethane [ug/L]	06-Jan-22	17:05	10-Jan-22	13:42	--	0.26	6.0	---
Bromoform [ug/L]	06-Jan-22	17:05	10-Jan-22	13:42	--	0.34	0.34 <MDL	---
Chloroform [ug/L]	06-Jan-22	17:05	10-Jan-22	13:42	--	0.29	42	---
Dibromochloromethane [ug/L]	06-Jan-22	17:05	10-Jan-22	13:42	--	0.37	0.74	---
Total Haloacetic Acids (HAA5) [ug/L]	06-Jan-22	08:04	10-Jan-22	13:36	80 (RAA)	5.3	40.4	---
Chloroacetic Acid [ug/L]	06-Jan-22	08:04	10-Jan-22	13:36	---	4.7	4.7 <MDL	---
Bromoacetic Acid [ug/L]	06-Jan-22	08:04	10-Jan-22	13:36	---	2.9	2.9 <MDL	---
Dichloroacetic Acid [ug/L]	06-Jan-22	08:04	10-Jan-22	13:36	---	2.6	15.4	---
Dibromoacetic Acid [ug/L]	06-Jan-22	08:04	10-Jan-22	13:36	---	2.0	2.0 <MDL	---
Trichloroacetic Acid [ug/L]	06-Jan-22	08:04	10-Jan-22	13:36	---	5.3	25.1	---

Online LIMS

0002767785



SGS Canada Inc.

P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - K0L 2H0
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220005492

LR Report : CA30013-JAN22

MAC - Maximum Acceptable Concentration
MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code
Bromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Bromodichloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromoform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Chloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Chloroform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dibromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Dibromochloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Nitrate (as N)	Nitrate by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrate + Nitrite (as N)	Total Nitrate/Nitrite by Ion Chromatograph	ME-CA-[ENV]IC-LAK-AN-001
Nitrite (as N)	Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Total Haloacetic Acids (HAA5)	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trihalomethanes (total)	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

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07-January-2022

Mun of Middlesex Centre (Birr)

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Date Rec. : 04 January 2022
LR Report: CA20031-JAN22

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Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	04-Jan-22	04-Jan-22
2: Analysis Start Time		---	16:45	16:45
3: Analysis Completed Date		---	06-Jan-22	06-Jan-22
4: Analysis Completed Time		---	15:08	15:08
5: MAC		---	0	0
6: 35E33 RW 35E33 Well #2	03-Jan-22 12:06	8.3	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



Cristal Schuster
 Project Specialist-London,
 Environment, Health & Safety

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14-January-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 11 January 2022
LR Report: CA30206-JAN22

10227 Ilderton Rd.
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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Bicarbonate mg/L as CaCO3	Carbonate mg/L as CaCO3	Total Suspended Solids mg/L	Sulphide ug/L	Iron ug/L	Manganese ug/L
1: Analysis Start Date		---	---	12-Jan-22	12-Jan-22	12-Jan-22	12-Jan-22	13-Jan-22	13-Jan-22
2: Analysis Start Time		---	---	15:27	15:27	13:32	13:26	12:06	12:06
3: Analysis Completed Date		---	---	13-Jan-22	13-Jan-22	13-Jan-22	13-Jan-22	13-Jan-22	13-Jan-22
4: Analysis Completed Time		---	---	14:40	14:40	11:50	10:29	15:25	15:25
5: AO/OG		---	---	---	---	---	50	300	50
6: MDL		---	---	2	2	2	6	0	0.00
7: RW 35E33 Well #2	10-Jan-22 12:07	-2.0	4.0	205	2 <MDL	3	6 <MDL	446	8.42

AO/OG - Aesthetic Objective / Operational Guideline
MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code
Bicarbonate	Bicarbonate by Titration	ME-CA-[ENV]EWL-LAK-AN-006
Carbonate	Carbonate by Titration	ME-CA-[ENV]EWL-LAK-AN-006
Iron	Iron by ICP-MS drinking water	ME-CA-[ENV]SPE-LAK-AN-006
Manganese	Manganese by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
Sulphide	Sulphide by Skalar	ME-CA-[ENV]SFA-LAK-AN-008
Total Suspended Solids	Total Suspended Solids	ME-CA-[ENV]EWL-LAK-AN-004

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Project Specialist Assistant,
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13-January-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 11 January 2022
 LR Report: CA20357-JAN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	11-Jan-22	11-Jan-22	11-Jan-22
2: Analysis Start Time		---	---	13:35	13:35	12:10
3: Analysis Completed Date		---	---	13-Jan-22	13-Jan-22	13-Jan-22
4: Analysis Completed Time		---	---	11:43	11:43	11:43
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	10-Jan-22 12:19	-2.0	0.86	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

Angela Stott, B.Sc.
 Branch Manager-London
 Environment, Health & Safety



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Mun of Middlesex Centre (Birr)

Attn : Brian Watson

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N0M 2A0, Canada

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Works #: 220005492

28-January-2022

Date Rec. : 18 January 2022
LR Report: CA30332-JAN22

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: MAC	6: Half MAC	7: AO/OG	8: MDL	9: TW 35E35 Water Treatment Facility
Sample Date & Time									17-Jan-22 11:30
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	---	---	7.3
Temperature Upon Receipt [°C]	---	---	---	---	---	---	---	---	6.0
Field Free Chlorine [mg/L]	---	---	---	---	---	---	---	---	1.04
Fluoride [mg/L]	20-Jan-22	12:32	21-Jan-22	08:24	1.5	---	---	0.06	1.28
Antimony [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	6	3	---	0.6	0.6 <MDL
Arsenic [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	10	5	---	0.2	0.2 <MDL
Barium [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	1000	500	---	0.02	479
Boron [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	5000	2500	---	2	216
Cadmium [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	5	2.5	---	0.003	0.018
Chromium [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	50	25	---	0.08	0.10
Mercury [ug/L]	20-Jan-22	12:50	21-Jan-22	14:33	1	0.5	---	0.01	0.01 <MDL
Sodium [mg/L]	21-Jan-22	12:26	24-Jan-22	10:07	20	---	200	0.01	40.9 MAC
Selenium [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	50	25	---	0.04	0.04 <MDL
Uranium [ug/L]	21-Jan-22	12:26	24-Jan-22	10:07	20	10	---	0.002	0.011
Benzene [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	1	0.5	---	0.32	0.32 <MDL
Carbon tetrachloride [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	2	1	---	0.17	0.17 <MDL
1,2-Dichlorobenzene [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	200	100	3	0.41	0.41 <MDL
1,4-Dichlorobenzene [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	5	2.5	1	0.36	0.36 <MDL
1,1-Dichloroethylene (vinylidene chloride) [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	14	7	---	0.33	0.33 <MDL
1,2-Dichloroethane [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	5	2.5	---	0.35	0.35 <MDL
Dichloromethane [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	50	25	---	0.35	0.35 <MDL



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Works #: 220005492

LR Report : CA30332-JAN22

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: TW 35E35 Water Treatment Facility
Monochlorobenzene [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	80	40	30	0.30	0.3 <MDL
Tetrachloroethylene (perchloroethylene) [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	10	5	---	0.35	0.35 <MDL
Trichloroethylene [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	5	2.5	---	0.44	0.44 <MDL
Vinyl Chloride [ug/L]	21-Jan-22	09:05	24-Jan-22	16:48	1	0.5	---	0.17	0.17 <MDL
Diquat [ug/L]	25-Jan-22	10:19	27-Jan-22	16:47	70	35	---	1	1 <MDL
Paraquat [ug/L]	25-Jan-22	10:19	27-Jan-22	16:47	10	5	---	1	1 <MDL
Glyphosate [ug/L]	27-Jan-22	13:06	28-Jan-22	10:18	280	140	---	1	1 <MDL
Polychlorinated Biphenyls (PCBs) - Total [ug/L]	22-Jan-22	09:22	24-Jan-22	16:38	3	1.5	---	0.04	0.04 <MDL
Benzo(a)pyrene [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	0.01	0.005	---	0.004	0.004 <MDL
Alachlor [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	5	2.5	---	0.02	0.02 <MDL
Atrazine + N-dealkylated metabolites [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	5	2.5	---	0.01	0.01 <MDL
Atrazine [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	---	---	---	0.01	0.01 <MDL
Desethyl atrazine [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	---	---	---	0.01	0.01 <MDL
Azinphos-methyl [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	20	10	---	0.05	0.05 <MDL
Carbaryl [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	90	45	---	0.05	0.05 <MDL
Carbofuran [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	90	45	---	0.01	0.01 <MDL
Chlorpyrifos [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	90	45	---	0.02	0.02 <MDL
Diazinon [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	20	10	---	0.02	0.02 <MDL
Dimethoate [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	20	10	---	0.06	0.06 <MDL
Diuron [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	150	75	---	0.03	0.03 <MDL
Malathion [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	190	95	---	0.02	0.02 <MDL
Metolachlor [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	50	25	---	0.01	0.01 <MDL
Metribuzin [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	80	40	---	0.02	0.02 <MDL
Phorate [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	2	1	---	0.01	0.01 <MDL
Prometryne [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	1	0.5	---	0.03	0.03 <MDL
Simazine [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	10	5	---	0.01	0.01 <MDL
Terbufos [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	1	0.5	---	0.01	0.01 <MDL
Triallate [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	230	115	---	0.01	0.01 <MDL
Trifluralin [ug/L]	22-Jan-22	06:19	26-Jan-22	16:15	45	22.5	---	0.02	0.02 <MDL
2,4-dichlorophenoxyacetic acid (2,4-D) [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	100	50	---	0.19	0.19 <MDL
Bromoxynil [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	5	2.5	---	0.33	0.33 <MDL
Dicamba [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	120	60	---	0.20	0.20 <MDL
Diclofop-methyl [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	9	4.5	---	0.40	0.40 <MDL
MCPA [mg/L]	26-Jan-22	08:15	27-Jan-22	16:01	0.1	0.05	---	0.00012	0.00012 <MDL
Picloram [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	190	95	---	1	1 <MDL
2,4-dichlorophenol [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	900	450	0.3	0.15	0.15 <MDL

OnLine LIMS

0002785441

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: TW 35E35 Water Treatment Facility
2,4,6-trichlorophenol [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	5	2.5	2	0.25	0.25 <MDL
2,3,4,6-tetrachlorophenol [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	100	50	1	0.2	0.20 <MDL
Pentachlorophenol [ug/L]	26-Jan-22	08:15	27-Jan-22	16:01	60	30	30	0.15	0.15 <MDL

MAC - Maximum Acceptable Concentration
 Half MAC - Half of the Maximum Acceptable Concentration
 AO/OG - Aesthetic Objective / Operational Guideline
 MDL - SGS Method Detection Limit

MAC - (ADVERSE) Above Maximum Acceptable Concentration
 The AWQI # assigned by the MOECP for the adverse sodium result is: 157675

Method Descriptions

Units	Description	SGS Method Code
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Antimony by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Arsenic by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Barium by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	Pest wtr - B(a)P	ME-CA-[ENV]GC-LAK-AN-005
ug/L	Boron by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	Cadmium by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018

Units	Description	SGS Method Code
ug/L	Chromium by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Diquat by Dionex	ME-CA-[ENV]IC-LAK-AN-005
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
mg/L	Fluoride by specific ion electrode	ME-CA-[ENV]EWL-LAK-AN-014
ug/L	Glyphosate by Dionex	ME-CA-[ENV]IC-LAK-AN-003
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
mg/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	Hg drinking water by CVAAS	ME-CA-[ENV]SPE-LAK-AN-004
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	Paraquat by Dionex	ME-CA-[ENV]IC-LAK-AN-005
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	PACP wtr	ME-CA-[ENV]GC-LAK-AN-003
ug/L	PCB wtr	ME-CA-[ENV]GC-LAK-AN-001
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Selenium by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
mg/L	Sodium by ICP-MS drinking water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	Pest wtr	ME-CA-[ENV]GC-LAK-AN-018
ug/L	Uranium by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004

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27-January-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 25 January 2022
LR Report: CA20936-JAN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	25-Jan-22	25-Jan-22	25-Jan-22
2: Analysis Start Time		---	---	13:00	13:00	12:10
3: Analysis Completed Date		---	---	27-Jan-22	27-Jan-22	27-Jan-22
4: Analysis Completed Time		---	---	16:04	16:04	16:04
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Blow Off	24-Jan-22 13:44	5.0	1.06	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001


Cristal Schuster
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02-February-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 25 January 2022
 LR Report: CA30462-JAN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Sodium mg/L
1: Analysis Start Date		---	---	01-Feb-22
2: Analysis Start Time		---	---	08:01
3: Analysis Completed Date		---	---	02-Feb-22
4: Analysis Completed Time		---	---	09:39
5: MAC		---	---	20
7: AO/OG		---	---	200
8: MDL		---	---	0.01
9: TW 35E35 Water Treatment Facility	24-Jan-22 13:55	5.0	3.0	47.6 MAC

MAC - Maximum Acceptable Concentration
 AO/OG - Aesthetic Objective / Operational Guideline
 MDL - SGS Method Detection Limit

MAC - (ADVERSE) Above Maximum Acceptable Concentration - Sodium exceedence previously reported January 24th, 2022 - AWQI # 157675

Method Descriptions

Parameter	Description	SGS Method Code
Sodium	Sodium by ICP-MS drinking water	ME-CA-[ENV]SPE-LAK-AN-006

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10-February-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 08 February 2022
LR Report: CA20294-FEB22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	08-Feb-22	08-Feb-22	08-Feb-22
2: Analysis Start Time		---	---	12:30	12:30	11:50
3: Analysis Completed Date		---	---	10-Feb-22	10-Feb-22	10-Feb-22
4: Analysis Completed Time		---	---	13:38	13:38	13:38
5: MAC		---	---	0	0	---
6: 35E33 RW 35E33 Well #2	07-Feb-22 11:12	3.1	---	0	0	---
7: 1A0E6 DW 1A0E6 Sample Station	07-Feb-22 10:56	3.1	1.11	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001


Cristal Schuster
 Project Specialist-London,
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25-February-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 22 February 2022
 LR Report: CA20887-FEB22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	22-Feb-22	22-Feb-22	22-Feb-22
2: Analysis Start Time		---	---	15:15	15:15	14:40
3: Analysis Completed Date		---	---	25-Feb-22	25-Feb-22	25-Feb-22
4: Analysis Completed Time		---	---	06:59	06:59	06:59
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	21-Feb-22 12:33	3.3	0.93	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001


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10-March-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 08 March 2022
 LR Report: CA20342-MAR22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	08-Mar-22	08-Mar-22	08-Mar-22
2: Analysis Start Time		---	---	13:20	13:20	12:45
3: Analysis Completed Date		---	---	10-Mar-22	10-Mar-22	10-Mar-22
4: Analysis Completed Time		---	---	14:59	14:59	14:59
5: MAC		---	---	0	0	---
6: 35E33 RW Well #2	07-Mar-22 11:19	4.4	---	0	0	---
7: 35E35 TW Water Treatment Facility	07-Mar-22 11:37	4.4	0.94	0	0	10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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22-March-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 15 March 2022
 LR Report: CA30261-MAR22

10227 Ilderton Rd.
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 N0M 2A0, Canada

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Phone: 519-666-0190 ext 255
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CERTIFICATE OF ANALYSIS


Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Field pH	Alkalinity mg/L as CaCO3	Lead ug/L
1: Analysis Start Date		---	---	---	16-Mar-22	22-Mar-22
2: Analysis Start Time		---	---	---	15:41	06:55
3: Analysis Completed Date		---	---	---	17-Mar-22	22-Mar-22
4: Analysis Completed Time		---	---	---	13:59	09:37
5: MAC		---	---	---	---	10
6: AO/OG		---	---	6.5-8.5	30-500	---
7: MDL		---	---	---	2	0.01
8: DW Sample Station - Gwendolyn Street 1st	14-Mar-22 12:39	5.7	6.0	7.84	---	0.14
9: DW Sample Station - Gwendolyn Street 2nd	14-Mar-22 12:39	5.7	6.0	7.84	211	---

MAC - Maximum Acceptable Concentration
 AO/OG - Aesthetic Objective / Operational Guideline
 MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code
Alkalinity	Alkalinity by Titration	ME-CA-[ENV]EWL-LAK-AN-006
Lead	Lead by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006


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25-March-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 22 March 2022
LR Report: CA20977-MAR22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	22-Mar-22	22-Mar-22	22-Mar-22
2: Analysis Start Time		---	---	17:45	17:45	17:05
3: Analysis Completed Date		---	---	24-Mar-22	24-Mar-22	24-Mar-22
4: Analysis Completed Time		---	---	16:24	16:24	16:24
5: MAC		---	---	0	0	---
6: 1A0E6 DW Sample Station	21-Mar-22 12:00	3.8	0.89	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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11-April-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 05 April 2022
 LR Report: CA20098-APR22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	05-Apr-22	05-Apr-22	05-Apr-22
2: Analysis Start Time		---	---	16:15	16:15	15:45
3: Analysis Completed Date		---	---	08-Apr-22	08-Apr-22	08-Apr-22
4: Analysis Completed Time		---	---	10:55	10:55	10:55
5: MAC		---	---	0	0	---
6: 35E33 RW 35E33 Well #2	04-Apr-22 11:06	7.0	---	0	0	---
7: 1A0E6 DW 1A0E6 Sample Station	04-Apr-22 11:15	7.0	0.99	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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Attn : Brian Watson

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Works #: 220005492

19-April-2022

Date Rec. : 05 April 2022
LR Report: CA30044-APR22

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	8: MDL	9: 1A0E6 DW 1A0E6 Sample Station	10: 35E35 TW 35E35 Water Treatment Facility
Sample Date & Time							04-Apr-22 11:15	04-Apr-22 11:07
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	7.0	7.0
Field Free Chlorine [mg/L]	---	---	---	---	---	---	0.99	1.11
Nitrite (as N) [mg/L]	06-Apr-22	18:09	08-Apr-22	10:28	1	0.003	---	0.003 <MDL
Nitrate (as N) [mg/L]	06-Apr-22	18:09	08-Apr-22	10:28	10	0.006	---	0.014
Nitrate + Nitrite (as N) [mg/L]	06-Apr-22	18:09	08-Apr-22	10:28	---	0.006	---	0.014
Trihalomethanes (total) [ug/L]	14-Apr-22	19:57	18-Apr-22	17:22	100 (RAA)	0.37	52	---
Bromodichloromethane [ug/L]	14-Apr-22	19:57	18-Apr-22	17:22	--	0.26	5.9	---
Bromoform [ug/L]	14-Apr-22	19:57	18-Apr-22	17:22	--	0.34	0.34 <MDL	---
Chloroform [ug/L]	14-Apr-22	19:57	18-Apr-22	17:22	--	0.29	45	---
Dibromochloromethane [ug/L]	14-Apr-22	19:57	18-Apr-22	17:22	--	0.37	0.79	---
Total Haloacetic Acids (HAA5) [ug/L]	09-Apr-22	10:44	14-Apr-22	15:51	80 (RAA)	5.3	32.4	---
Chloroacetic Acid [ug/L]	09-Apr-22	10:44	14-Apr-22	15:51	---	4.7	4.7 <MDL	---
Bromoacetic Acid [ug/L]	09-Apr-22	10:44	14-Apr-22	15:51	---	2.9	2.9 <MDL	---
Dichloroacetic Acid [ug/L]	09-Apr-22	10:44	14-Apr-22	15:51	---	2.6	11.7	---
Dibromoacetic Acid [ug/L]	09-Apr-22	10:44	14-Apr-22	15:51	---	2.0	2.0 <MDL	---
Trichloroacetic Acid [ug/L]	09-Apr-22	10:44	14-Apr-22	15:51	---	5.3	20.7	---

OnLine LIMS

0002869258



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Works #: 220005492

LR Report : CA30044-APR22

MAC - Maximum Acceptable Concentration
MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code
Bromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Bromodichloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromoform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Chloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Chloroform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dibromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Dibromochloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Nitrate (as N)	Nitrate by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrate + Nitrite (as N)	Total Nitrate/Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrite (as N)	Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Total Haloacetic Acids (HAA5)	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trihalomethanes (total)	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

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21-April-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 19 April 2022
 LR Report: CA20672-APR22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	19-Apr-22	19-Apr-22	19-Apr-22
2: Analysis Start Time		---	---	13:30	13:30	12:50
3: Analysis Completed Date		---	---	21-Apr-22	21-Apr-22	21-Apr-22
4: Analysis Completed Time		---	---	11:56	11:56	11:56
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	18-Apr-22 12:14	3.7	0.88	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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05-May-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 03 May 2022
 LR Report: CA20092-MAY22

10227 Ilderton Rd., Ilderton
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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	03-May-22	03-May-22	03-May-22
2: Analysis Start Time		---	---	15:35	15:35	14:30
3: Analysis Completed Date		---	---	05-May-22	05-May-22	05-May-22
4: Analysis Completed Time		---	---	15:24	15:24	15:24
5: MAC		---	---	0	0	---
6: 35E33 RW 35E33 Well #2	02-May-22 11:13	4.9	---	0	0	---
7: 1A0E6 DW 1A0E6 Sample Station	02-May-22 11:31	4.9	1.15	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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20-May-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 17 May 2022
 LR Report: CA20808-MAY22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	17-May-22	17-May-22	17-May-22
2: Analysis Start Time		---	---	13:00	13:00	12:35
3: Analysis Completed Date		---	---	20-May-22	20-May-22	20-May-22
4: Analysis Completed Time		---	---	08:12	08:12	08:12
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	16-May-22 11:34	3.9	1.02	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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03-June-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 31 May 2022
 LR Report: CA21520-MAY22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	31-May-22	31-May-22	31-May-22
2: Analysis Start Time		---	---	14:25	14:25	13:55
3: Analysis Completed Date		---	---	03-Jun-22	03-Jun-22	03-Jun-22
4: Analysis Completed Time		---	---	10:02	10:02	10:02
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	30-May-22 11:45	8.3	0.85	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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13-June-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 07 June 2022
 LR Report: CA30089-JUN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Field pH	Alkalinity mg/L as CaCO3	Lead ug/L
1: Analysis Start Date		---	---	---	09-Jun-22	13-Jun-22
2: Analysis Start Time		---	---	---	15:00	07:00
3: Analysis Completed Date		---	---	---	10-Jun-22	13-Jun-22
4: Analysis Completed Time		---	---	---	11:58	11:41
5: MAC		---	---	---	---	10
6: AO/OG		---	---	6.5-8.5	30-500	---
7: MDL		---	---	---	2	0.01
8: DW Sample Station - Gwendolyn Street 1st	06-Jun-22 11:35	9.7	14.0	8.0	---	0.13
9: DW Sample Station - Gwendolyn Street 2nd	06-Jun-22 11:36	9.7	14.0	8.0	207	---

MAC - Maximum Acceptable Concentration
 AO/OG - Aesthetic Objective / Operational Guideline
 MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code	Reference Method Code
Alkalinity	Alkalinity by Titration	ME-CA-[ENV]EWL-LAK-AN-006	SM 2320
Lead	Lead by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006	SM 3030/EPA 200.8

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10-June-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 07 June 2022
 LR Report: CA20296-JUN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	08-Jun-22	08-Jun-22
2: Analysis Start Time		---	09:20	09:20
3: Analysis Completed Date		---	10-Jun-22	10-Jun-22
4: Analysis Completed Time		---	12:54	12:54
5: MAC		---	0	0
6: 35E33 RW Well #2	06-Jun-22 11:12	8.1	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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17-June-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 14 June 2022
 LR Report: CA20716-JUN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	15-Jun-22	15-Jun-22	15-Jun-22
2: Analysis Start Time		---	---	11:05	11:05	10:00
3: Analysis Completed Date		---	---	17-Jun-22	17-Jun-22	17-Jun-22
4: Analysis Completed Time		---	---	12:20	12:20	12:20
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	13-Jun-22 13:25	6.9	0.58	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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23-June-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 21 June 2022
 LR Report: CA21102-JUN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	---	21-Jun-22	21-Jun-22
2: Analysis Start Time		---	---	13:50	13:50
3: Analysis Completed Date		---	---	23-Jun-22	23-Jun-22
4: Analysis Completed Time		---	---	16:18	16:18
5: MAC		---	---	0	0
6: TW Birr Reservoir	20-Jun-22 13:25	8.4	0.56	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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30-June-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 28 June 2022
 LR Report: CA21498-JUN22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	28-Jun-22	28-Jun-22	28-Jun-22
2: Analysis Start Time		---	---	12:20	12:20	11:40
3: Analysis Completed Date		---	---	30-Jun-22	30-Jun-22	30-Jun-22
4: Analysis Completed Time		---	---	11:54	11:54	11:54
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	27-Jun-22 10:58	7.3	0.97	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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Mun of Middlesex Centre (Birr)

Attn : Brian Watson

10227 Ilderton Rd.
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N0M 2A0, Canada

Phone: 519-666-0190 ext 255
Fax:519-666-0271

Works #: 220005492

22-July-2022

Date Rec. : 05 July 2022
LR Report: CA30050-JUL22

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1:	2:	3:	4:	5:	8:	9:	10:
	Analysis Start Date	Analysis Start Time	Analysis Completed Date	Analysis Completed Time	MAC	MDL	1A0E6 DW 1A0E6 Sample Station	35E35 TW 35E35 Water Treatment Facility
Sample Date & Time							04-Jul-22 10:32	04-Jul-22 10:20
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	9.4	9.4
Temperature Upon Receipt [at Lakefield Lab °C]	---	---	---	---	---	---	19.0	19.0
Field Free Chlorine [mg/L]	---	---	---	---	---	---	0.90	---
Nitrite (as N) [mg/L]	07-Jul-22	11:09	08-Jul-22	10:59	1.0	0.003	---	0.003 <MDL
Nitrate (as N) [mg/L]	07-Jul-22	11:09	08-Jul-22	10:59	10	0.006	---	0.011
Nitrate + Nitrite (as N) [mg/L]	07-Jul-22	11:09	08-Jul-22	10:59	---	0.006	---	0.011
Trihalomethanes (total) [ug/L]	08-Jul-22	08:33	12-Jul-22	16:24	100 (RAA)	0.37	39	---
Bromodichloromethane [ug/L]	08-Jul-22	08:33	12-Jul-22	16:24	--	0.26	4.1	---
Bromoform [ug/L]	08-Jul-22	08:33	12-Jul-22	16:24	--	0.34	0.34 <MDL	---
Chloroform [ug/L]	08-Jul-22	08:33	12-Jul-22	16:24	--	0.29	35	---
Dibromochloromethane [ug/L]	08-Jul-22	08:33	12-Jul-22	16:24	--	0.37	0.43	---
Total Haloacetic Acids (HAA5) [ug/L]	15-Jul-22	09:02	22-Jul-22	13:12	80 (RAA)	5.3	29.3	---
Chloroacetic Acid [ug/L]	15-Jul-22	09:02	22-Jul-22	13:12	---	4.7	4.7 <MDL	---
Bromoacetic Acid [ug/L]	15-Jul-22	09:02	22-Jul-22	13:12	---	2.9	2.9 <MDL	---
Dichloroacetic Acid [ug/L]	15-Jul-22	09:02	22-Jul-22	13:12	---	2.6	15.1	---
Dibromoacetic Acid [ug/L]	15-Jul-22	09:02	22-Jul-22	13:12	---	2.0	2.0 <MDL	---
Trichloroacetic Acid [ug/L]	15-Jul-22	09:02	22-Jul-22	13:12	---	5.3	14.1	---

OnLine LIMS

0002985339



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Works #: 220005492

LR Report : CA30050-JUL22

MAC - Maximum Acceptable Concentration
MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code
Bromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Bromodichloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromoform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Chloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Chloroform	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dibromoacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Dibromochloromethane	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Nitrate (as N)	Nitrate by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrate + Nitrite (as N)	Total Nitrate/Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Nitrite (as N)	Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
Total Haloacetic Acids (HAA5)	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trichloroacetic Acid	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
Trihalomethanes (total)	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

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08-July-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 05 July 2022
 LR Report: CA20105-JUL22

10227 Ilderton Rd.
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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	05-Jul-22	05-Jul-22
2: Analysis Start Time		---	14:30	14:30
3: Analysis Completed Date		---	07-Jul-22	07-Jul-22
4: Analysis Completed Time		---	17:42	17:42
5: MAC		---	0	0
6: 35E33 RW 35E33 Well #2	04-Jul-22 10:18	9.4	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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15-July-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 12 July 2022
 LR Report: CA20537-JUL22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	12-Jul-22	12-Jul-22	12-Jul-22
2: Analysis Start Time		---	---	17:35	17:35	16:25
3: Analysis Completed Date		---	---	14-Jul-22	14-Jul-22	14-Jul-22
4: Analysis Completed Time		---	---	17:36	17:36	17:36
5: MAC		---	---	0	0	---
6: 1A0E6 DW Sample Station	11-Jul-22 11:48	7.3	0.90	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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02-August-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 26 July 2022
 LR Report: CA21359-JUL22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	27-Jul-22	27-Jul-22	27-Jul-22
2: Analysis Start Time		---	---	09:50	09:50	09:30
3: Analysis Completed Date		---	---	29-Jul-22	29-Jul-22	29-Jul-22
4: Analysis Completed Time		---	---	12:35	12:35	12:35
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	25-Jul-22 11:26	11.4	0.50	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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08-August-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 02 August 2022
 LR Report: CA20006-AUG22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	02-Aug-22	02-Aug-22
2: Analysis Start Time		---	14:10	14:10
3: Analysis Completed Date		---	04-Aug-22	04-Aug-22
4: Analysis Completed Time		---	15:12	15:12
5: MAC		---	0	0
6: 35E33 RW 35E33 Well #2	01-Aug-22 12:42	6.8	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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12-August-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 09 August 2022
 LR Report: CA20408-AUG22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	09-Aug-22	09-Aug-22	09-Aug-22
2: Analysis Start Time		---	---	12:35	12:35	12:05
3: Analysis Completed Date		---	---	12-Aug-22	12-Aug-22	12-Aug-22
4: Analysis Completed Time		---	---	08:19	08:19	08:19
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	08-Aug-22 12:23	7.4	0.61	0	0	10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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22-August-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 16 August 2022
 LR Report: CA30310-AUG22

10227 Ilderton Rd.
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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Field pH no unit	Alkalinity mg/L as CaCO3	Lead ug/L
1: Analysis Start Date		---	---	---	17-Aug-22	20-Aug-22
2: Analysis Start Time		---	---	---	15:51	11:01
3: Analysis Completed Date		---	---	---	18-Aug-22	22-Aug-22
4: Analysis Completed Time		---	---	---	11:33	10:00
5: MAC		---	---	---	---	10
6: AO/OG		---	---	6.5-8.5	30-500	---
7: MDL		---	---	---	2	0.01
8: DW Sample Station Sample Station-Gwendolyn Street 1st	15-Aug-22 11:23	7.6	13.0	7.8	---	0.10
9: DW Sample Station Sample Station-Gwendolyn Street 2nd	15-Aug-22 11:23	7.6	13.0	7.8	203	---

MAC - Maximum Acceptable Concentration
 AO/OG - Aesthetic Objective / Operational Guideline
 MDL - SGS Method Detection Limit

Method Descriptions

Units	Description	SGS Method Code
mg/L as CaCO3	Alkalinity by Titration	ME-CA-[ENV]EWL-LAK-AN-006
ug/L	Lead by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006


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29-August-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 23 August 2022
 LR Report: CA21288-AUG22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	24-Aug-22	24-Aug-22	24-Aug-22
2: Analysis Start Time		---	---	09:55	09:55	09:20
3: Analysis Completed Date		---	---	26-Aug-22	26-Aug-22	26-Aug-22
4: Analysis Completed Time		---	---	16:45	16:45	16:45
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	22-Aug-22 11:35	14.4	0.54	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Parameter	Description	SGS Method Code
E.Coli	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
Heterotrophic Plate Count (HPC)	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
Total Coliform	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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05-October-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 06 September 2022
LR Report: CA20087-SEP22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	06-Sep-22	06-Sep-22	06-Sep-22
2: Analysis Start Time		---	---	15:00	15:00	14:30
3: Analysis Completed Date		---	---	08-Sep-22	08-Sep-22	08-Sep-22
4: Analysis Completed Time		---	---	17:12	17:12	17:12
5: MAC		---	---	0	0	---
6: 35E33 RW 35E33 Well #2	05-Sep-22 11:04	6.6	---	0	0	---
7: 1A0E6 DW 1A0E6 Sample Station	05-Sep-22 11:14	6.6	0.55	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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26-September-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 20 September 2022
 LR Report: CA20912-SEP22

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	20-Sep-22	20-Sep-22	20-Sep-22
2: Analysis Start Time		---	---	15:00	15:00	14:35
3: Analysis Completed Date		---	---	22-Sep-22	22-Sep-22	22-Sep-22
4: Analysis Completed Time		---	---	16:53	16:53	16:53
5: MAC		---	---	0	0	---
6: 1A0E6 DW Sample Station	19-Sep-22 12:47	10.2	0.59	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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18-October-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 04 October 2022
 LR Report: CA30054-OCT22

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	8: MDL	9: 1A0E6 DW 1A0E6 Blow Off	10: 35E35 TW 35E35 Water Treatment Facility
Sample Date & Time							03-Oct-22 14:22	03-Oct-22 13:42
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	12.0	12.0
Temperature Upon Receipt [at Lakefield Lab °C]	---	---	---	---	---	---	9.0	9.0
Field Free Chlorine [mg/L]	---	---	---	---	---	---	0.47	---
Nitrite (as N) [mg/L]	06-Oct-22	11:28	18-Oct-22	09:05	1.0	0.003	---	0.003 <MDL
Nitrate (as N) [mg/L]	06-Oct-22	11:28	18-Oct-22	09:05	10	0.006	---	0.011
Nitrate + Nitrite (as N) [mg/L]	06-Oct-22	11:28	18-Oct-22	09:05	---	0.006	---	0.011
Trihalomethanes (total) [ug/L]	06-Oct-22	12:52	07-Oct-22	10:42	100 (RAA)	0.37	52	---
Bromodichloromethane [ug/L]	06-Oct-22	12:52	07-Oct-22	10:42	--	0.26	6.3	---
Bromoform [ug/L]	06-Oct-22	12:52	07-Oct-22	10:42	--	0.34	0.34 <MDL	---
Chloroform [ug/L]	06-Oct-22	12:52	07-Oct-22	10:42	--	0.29	45	---
Dibromochloromethane [ug/L]	06-Oct-22	12:52	07-Oct-22	10:42	--	0.37	0.76	---
Total Haloacetic Acids (HAA5) [ug/L]	06-Oct-22	16:01	07-Oct-22	10:14	80 (RAA)	5.3	25.9	---
Chloroacetic Acid [ug/L]	06-Oct-22	16:01	07-Oct-22	10:14	---	4.7	4.7 <MDL	---
Bromoacetic Acid [ug/L]	06-Oct-22	16:01	07-Oct-22	10:14	---	2.9	2.9 <MDL	---
Dichloroacetic Acid [ug/L]	06-Oct-22	16:01	07-Oct-22	10:14	---	2.6	10.0	---
Dibromoacetic Acid [ug/L]	06-Oct-22	16:01	07-Oct-22	10:14	---	2.0	2.0 <MDL	---
Trichloroacetic Acid [ug/L]	06-Oct-22	16:01	07-Oct-22	10:14	---	5.3	15.9	---

MAC - Maximum Acceptable Concentration
 MDL - SGS Method Detection Limit

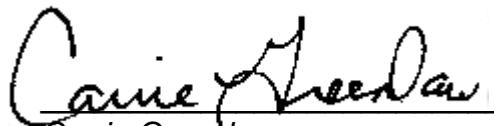
Method Descriptions

Units	Description	SGS Method Code
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
mg/L	Nitrate by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
mg/L	Total Nitrate/Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
mg/L	Nitrite by Ion Chromatography	ME-CA-[ENV]IC-LAK-AN-001
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

SGS Canada Inc.

P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - K0L 2H0
Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA30054-OCT22



Carrie Greenlaw
Carrie Greenlaw
Project Specialist,
Environment, Health & Safety



SGS Canada Inc.

657 Consortium Court
London - Ontario - N6E 2S8
Phone: 519-672-4500 FAX: 519-672-0361

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

10227 Ilderton Rd.
Ilderton, ON
N0M 2A0, Canada

Phone: 519-666-0190 ext 255
Fax:519-666-0271

Works #: 220005492

06-October-2022

Date Rec. : 04 October 2022
LR Report: CA20102-OCT22

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	04-Oct-22	04-Oct-22	04-Oct-22
2: Analysis Start Time		---	---	16:10	16:10	15:45
3: Analysis Completed Date		---	---	06-Oct-22	06-Oct-22	06-Oct-22
4: Analysis Completed Time		---	---	15:17	15:17	15:17
5: MAC		---	---	0	0	---
6: 35E33 RW 35E33 Well #2	03-Oct-22 13:40	12.0	---	0	0	---
7: 1A0E6 DW 1A0E6 Blow Off	03-Oct-22 14:22	12.0	0.47	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

Online LIMS

0003076138



SGS Canada Inc.

657 Consortium Court

London - Ontario - N6E 2S8

Phone: 519-672-4500 FAX: 519-672-0361

Works #: 220005492

LR Report : CA20102-OCT22

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Environment, Health & Safety*



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Fax:519-666-0271

Works #: 220005492

20-October-2022

Date Rec. : 18 October 2022
LR Report: CA20857-OCT22

Copy: #1

CERTIFICATE OF ANALYSIS Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	18-Oct-22	18-Oct-22	18-Oct-22
2: Analysis Start Time		---	---	16:40	16:40	15:55
3: Analysis Completed Date		---	---	20-Oct-22	20-Oct-22	20-Oct-22
4: Analysis Completed Time		---	---	16:29	16:29	16:29
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Blowoff	17-Oct-22 12:56	15.1	1.18	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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London - Ontario - N6E 2S8

Phone: 519-672-4500 FAX: 519-672-0361

Works #: 220005492

LR Report : CA20857-OCT22

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 657 Consortium Court
 London - Ontario - N6E 2S8
 Phone: 519-672-4500 FAX: 519-672-0361

03-November-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 01 November 2022
 LR Report: CA20080-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	01-Nov-22	01-Nov-22	01-Nov-22
2: Analysis Start Time		---	---	15:35	15:35	15:10
3: Analysis Completed Date		---	---	03-Nov-22	03-Nov-22	03-Nov-22
4: Analysis Completed Time		---	---	16:36	16:36	16:36
5: MAC		---	---	0	0	---
6: DW Birr Blowoff	31-Oct-22 11:24	6.5	0.98	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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 657 Consortium Court
 London - Ontario - N6E 2S8
 Phone: 519-672-4500 FAX: 519-672-0361

11-November-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 08 November 2022
LR Report: CA20369-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	08-Nov-22	08-Nov-22
2: Analysis Start Time		---	13:45	13:45
3: Analysis Completed Date		---	10-Nov-22	10-Nov-22
4: Analysis Completed Time		---	15:49	15:49
5: MAC		---	0	0
6: 35E33 RW 35E33 Well #2	07-Nov-22 09:35	9.9	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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 Branch Manager-London
 Environment, Health & Safety

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 657 Consortium Court
 London - Ontario - N6E 2S8
 Phone: 519-672-4500 FAX: 519-672-0361

11-November-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 08 November 2022
LR Report: CA20357-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Draft Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	08-Nov-22	08-Nov-22	08-Nov-22
2: Analysis Start Time		---	---	16:05	16:05	15:20
3: Analysis Completed Date		---	---	10-Nov-22	10-Nov-22	10-Nov-22
4: Analysis Completed Time		---	---	16:24	16:24	16:24
5: MAC		---	---	0	0	---
6: TW Birr Reservoir	07-Nov-22 17:35	9.9	1.47	0	0	< 10
7: DW Birr Blowoff	07-Nov-22 17:59	12.3	0.71	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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11-November-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 09 November 2022
 LR Report: CA20433-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #2

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	09-Nov-22	09-Nov-22	09-Nov-22
2: Analysis Start Time		---	---	10:30	10:30	09:45
3: Analysis Completed Date		---	---	11-Nov-22	11-Nov-22	11-Nov-22
4: Analysis Completed Time		---	---	14:19	14:19	14:19
5: MAC		---	---	0	0	---
6: TW Birr Reservoir	08-Nov-22 17:35	6.8	1.14	0	0	< 10
7: DW Birr Blowoff	08-Nov-22 18:00	7.4	1.34	0	0	10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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 London - Ontario - N6E 2S8
 Phone: 519-672-4500 FAX: 519-672-0361

06-December-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 15 November 2022
LR Report: CA20627-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	15-Nov-22	15-Nov-22	15-Nov-22
2: Analysis Start Time		---	---	12:25	12:25	11:45
3: Analysis Completed Date		---	---	17-Nov-22	17-Nov-22	17-Nov-22
4: Analysis Completed Time		---	---	12:47	12:47	12:47
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Blowoff	14-Nov-22 11:53	8.6	0.63	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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05-December-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 29 November 2022
 LR Report: CA21267-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	29-Nov-22	29-Nov-22	29-Nov-22
2: Analysis Start Time		---	---	19:05	19:05	18:35
3: Analysis Completed Date		---	---	01-Dec-22	01-Dec-22	01-Dec-22
4: Analysis Completed Time		---	---	16:54	16:54	16:54
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Sample Station	28-Nov-22 12:42	8.4	0.97	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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08-December-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 06 December 2022
 LR Report: CA20096-DEC22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Total Coliform cfu/100mL	E.Coli cfu/100mL
1: Analysis Start Date		---	06-Dec-22	06-Dec-22
2: Analysis Start Time		---	12:40	12:40
3: Analysis Completed Date		---	08-Dec-22	08-Dec-22
4: Analysis Completed Time		---	13:07	13:07
5: MAC		---	0	0
6: 35E33 RW 35E33 Well #2	05-Dec-22 10:15	8.5	0	0

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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16-December-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 13 December 2022
LR Report: CA20472-DEC22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	13-Dec-22	13-Dec-22	13-Dec-22
2: Analysis Start Time		---	---	14:00	14:00	13:35
3: Analysis Completed Date		---	---	15-Dec-22	15-Dec-22	15-Dec-22
4: Analysis Completed Time		---	---	13:57	13:57	13:57
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Blow Off	12-Dec-22 12:53	10.6	1.11	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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 Environment, Health & Safety

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 Phone: 519-672-4500 FAX: 519-672-0361

30-December-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 28 December 2022
 LR Report: CA21044-DEC22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	28-Dec-22	28-Dec-22	28-Dec-22
2: Analysis Start Time		---	---	15:25	15:25	14:40
3: Analysis Completed Date		---	---	30-Dec-22	30-Dec-22	30-Dec-22
4: Analysis Completed Time		---	---	10:59	10:59	13:06
5: MAC		---	---	0	0	---
6: 1A0E6 DW 1A0E6 Blow Off	27-Dec-22 10:48	8.5	0.87	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



Cristal Schuster
 Project Specialist-London,
 Environment, Health & Safety

Appendix B

Notice Of Adverse Test Results And Other Problems And Notice Of Issue Resolution

Instructions

These Notice forms apply to drinking water system owners and operators (Owners/Operators) and Ministry of the Environment, Conservation and Parks (MECP) licensed laboratories (Licensed Laboratories) regulated by Drinking Water Systems Regulation, Ontario Regulation 170/03 (O. Reg. 170/03).

Immediate Report of Adverse Results

Section 16-3(3) of Schedule 16 of O. Reg. 170/03 sets out the requirements for Owners/Operators and Licensed Laboratories to make an immediate report of adverse test results under O. Reg. 170/03 by speaking in person or by telephone to the MECP's Spills Action Centre (SAC), at 1-800-268-6060 or 416-325-3000, the local Medical Officer of Health/Health Unit (Health Unit) and the Owner/Operator (Immediate Report).

[Adverse test results for trihalomethanes (THMs) or haloacetic acids (HAAs) do not require an Immediate Report; see section below.]

Written Notice within 24 hours of the Immediate Report

Within 24 hours of an Immediate Report, Section 16-7(3) of Schedule 16 requires that Owners/Operators and Licensed Laboratories also provide written notice to the MECP and the Health Unit, by fax or e-mail. Licensed Laboratories must complete and submit Sections 1 and 3 of this Notice. Owners/Operators must complete and submit Section 2A of this Notice. **Note:** Section 3 is not required to be completed for operational parameter incidents which have no correlating adverse results.

Notice Within 7 Days of Issue Resolution

Within 7 days after the issue has been resolved, Section 16-9(1) of Schedule 16 requires that Owners/Operators must provide a written notice, Section 2B of this Notice, to SAC and the Health Unit, summarizing the actions taken and the results achieved. This written notice must also be sent to the interested authority for any designated facility (if applicable) within 30 days.

Owners and Operators must follow any additional corrective actions required by the Health Unit.

Total Trihalomethanes (THMs) and Haloacetic Acids (HAAs)

As of January 2016 for THMs and January 2020 for HAAs, Sections 16-6 and 16-7 of Schedule 16 require that Owners/Operators and Licensed Laboratories calculate the running annual average (RAA) for THMs and HAAs and report any adverse test result in writing to the MECP and the Health Unit within 7 calendar days of the end of the calendar quarter that produced the adverse test result. The written notice is to be submitted using Section 2C of this Notice. RAA calculation is outlined in Schedule 13-6 of O. Reg. 170/03.

Immediate oral notification is no longer required for these parameters.

Licensed Laboratories that upload all the THM and HAA test results into the ministry's data system and provide the results to Owners/Operators within 48 hours of the test result being authorized at the laboratory, may be exempt from the RAA reporting requirements noted above.

Note: Small municipal residential systems and non-municipal year-round residential systems that serve designated facilities also must notify the operator of each designated facility served by their system.

The 'Trihalomethane and Haloacetic Acid Sampling and Reporting Requirements Technical Bulletin' provides full details on the changes to the reporting requirements and provides examples for calculating quarterly and running annual averages. The Technical Bulletin is available on the ministry's web page via the following link:

<https://www.ontario.ca/page/total-trihalomethane-thm-reporting-requirements-technical-bulletin>

Fields marked with an asterisk (*) are mandatory.

SAC fax: 1-800-268-6061 or 416-325-3011

SAC e-mail: AWQI.Reporting@ontario.ca

Provincial standards for water quality are set out in:

[Safe Drinking Water Act, 2002](#)

[Ontario Regulation 169/03 \(Water Quality Standards\)](#)

[Ontario Regulation 170/03 \(Drinking Water Systems\)](#)

Failure to notify these parties in accordance with the Regulation constitutes an offence under the *Safe Drinking Water Act*. A copy of this form may be acquired through the MECP public website (www.ontario.ca/drinkingwater) or by contacting any MECP office.

Collection of information on this form is done in accordance with the [Safe Drinking Water Act, 2002](#) and its Regulations. Information gathered herein, including personal information, is governed by the *Freedom of Information and Protection of Privacy Act* (FIPPA) and may be disclosed to other government agencies (including municipal health unit employees) pursuant to 'Section 42' of the FIPPA for the consistent purpose of administering any Act or program that pertains to drinking water safety. For questions and concerns, please contact the MECP at 1-866-793-2588.

Are you a *

Licensed Laboratory DWS

Which Section(s) of the Form do you need today?

Section 1 - Written Notice By Licensed Laboratory

Section 2A - Written Notice By Drinking Water System

Section 2B - Notice Of Issues Resolution

Section 2C - Written Notice By Drinking Water System Owner - Reporting RAA for THMs and HAAs

Section 3 - Adverse Analytical Results

Notices of Adverse Test Results and Issue Resolution (Schedule 16)

Drinking Water Systems Regulation (O. Reg. 170/03)

Fields marked with an asterisk (*) are mandatory.

Section 2A – Written Notice By Drinking Water System (DWS) Owner (For THM and HAA reporting see Section 2C)

Indicators of Adverse Water Quality

AWQI Number *

160588

Is this a resample? *

Yes No Unknown If Yes, then provide initial AWQI number

Indicator of Adverse Results

Microbiological * Chemical * Radiological * Operational * Licence/Order/Certificate Authority *

Observations of Improperly disinfected water directed to water users

Low Distribution Chlorine 0.04 mg/L Free Chlorine Total Chlorine

High Turbidity _____ NTU

Other _____

Details of Adverse Result *

DWS Information

DWS Name *

Birr Drinking Water System

DWS Number *

220005492

Last Name *

Joudrey

First Name *

Eric

Position *

Manager of Water and Wastewater Operations

Email Address

joudrey@middlesexcentre.ca

Telephone Number (including area code)

519-859-3473

ext.

Additional Comments

Low level chlorine residual in distribution 0.04 mg/l. at no point was any water sent to the distribution system. Flushed system.

Oral Notification to Health Unit - Person Contacted

Public Health Unit Name *

Middlesex - London Health Unit

Last Name *

Tung

First Name *

Corey

Position *

Public Health Inspector

Telephone Number (including area code) *

519-663-5317

ext. 2596

Fax Number (including area code)

Date (yyyy/mm/dd) *

2022/11/07

Time (hh:mm) *

4:57 PM

Fields marked with an asterisk (*) are mandatory.

Section 2A continued

DWS Person Providing Oral Notification *

Eric Joudrey

Email Address

joudrey@middlesexcentre.ca

Corrective Actions to be Taken by Owner/Operator

Corrective Actions	Required *	Completed	Comments
Resample and Test (including upstream, downstream and at AWQI location)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Disinfection Restored / Increased	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Mains / Pipes Flushed	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Signs Posted (Do Not Drink Water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Users Advised to Boil Water / Seek Alternate Source	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Other (Include any other Health Unit directions and any additional attachments)

Other:

Yes No Yes No N/A

Oral Notification to Spills Action Centre (SAC) - Person Contacted

Last Name *

Green

First Name *

Larianne

Position *

Environmental Officer

DWS Person Providing Oral Notifying *

Eric Joudrey

Date (yyyy/mm/dd) *

2022/11/07

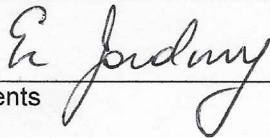
Time (hh:mm) *

4:30 PM

Initial DWS Notification Prepared by *

Eric Joudrey

Signature



Date (yyyy/mm/dd) *

2022/11/08

Additional Comments

Do you have another adverse to report? * Yes No

Instructions

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Immediate Report of Adverse Results

Section 16-3(3) of Schedule 16 of O. Reg. 170/03 sets out the requirements for Owners/Operators and Licensed Laboratories to make an immediate report of adverse test results under O. Reg. 170/03 by speaking in person or by telephone to the MECP's Spills Action Centre (SAC), at 1-800-268-6060 or 416-325-3000, the local Medical Officer of Health/Health Unit (Health Unit) and the Owner/Operator (Immediate Report).

[Adverse test results for trihalomethanes (THMs) or haloacetic acids (HAAs) do not require an Immediate Report; see section below.]

Written Notice within 24 hours of the Immediate Report

Within 24 hours of an Immediate Report, Section 16-7(3) of Schedule 16 requires that Owners/Operators and Licensed Laboratories also provide written notice to the MECP and the Health Unit, by fax or e-mail. Licensed Laboratories must complete and submit Sections 1 and 3 of this Notice. Owners/Operators must complete and submit Section 2A of this Notice. **Note:** Section 3 is not required to be completed for operational parameter incidents which have no correlating adverse results.

Notice Within 7 Days of Issue Resolution

Within 7 days after the issue has been resolved, Section 16-9(1) of Schedule 16 requires that Owners/Operators must provide a written notice, Section 2B of this Notice, to SAC and the Health Unit, summarizing the actions taken and the results achieved. This written notice must also be sent to the interested authority for any designated facility (if applicable) within 30 days.

Owners and Operators must follow any additional corrective actions required by the Health Unit.

Total Trihalomethanes (THMs) and Haloacetic Acids (HAAs)

As of January 2016 for THMs and January 2020 for HAAs, Sections 16-6 and 16-7 of Schedule 16 require that Owners/Operators and Licensed Laboratories calculate the running annual average (RAA) for THMs and HAAs and report any adverse test result in writing to the MECP and the Health Unit within 7 calendar days of the end of the calendar quarter that produced the adverse test result. The written notice is to be submitted using Section 2C of this Notice. RAA calculation is outlined in Schedule 13-6 of O. Reg. 170/03.

Immediate oral notification is no longer required for these parameters.

Licensed Laboratories that upload all the THM and HAA test results into the ministry's data system and provide the results to Owners/Operators within 48 hours of the test result being authorized at the laboratory, may be exempt from the RAA reporting requirements noted above.

Note: Small municipal residential systems and non-municipal year-round residential systems that serve designated facilities also must notify the operator of each designated facility served by their system.

The 'Trihalomethane and Haloacetic Acid Sampling and Reporting Requirements Technical Bulletin' provides full details on the changes to the reporting requirements and provides examples for calculating quarterly and running annual averages. The Technical Bulletin is available on the ministry's web page via the following link:

<https://www.ontario.ca/page/total-trihalomethane-thm-reporting-requirements-technical-bulletin>

Fields marked with an asterisk (*) are mandatory.

SAC fax: 1-800-268-6061 or 416-325-3011

SAC e-mail: AWQI.Reporting@ontario.ca

Provincial standards for water quality are set out in:

[Safe Drinking Water Act, 2002](#)

[Ontario Regulation 169/03 \(Water Quality Standards\)](#)

[Ontario Regulation 170/03 \(Drinking Water Systems\)](#)

Failure to notify these parties in accordance with the Regulation constitutes an offence under the *Safe Drinking Water Act*. A copy of this form may be acquired through the MECP public website (www.ontario.ca/drinkingwater) or by contacting any MECP office.

Collection of information on this form is done in accordance with the [Safe Drinking Water Act, 2002](#) and its Regulations. Information gathered herein, including personal information, is governed by the *Freedom of Information and Protection of Privacy Act* (FIPPA) and may be disclosed to other government agencies (including municipal health unit employees) pursuant to 'Section 42' of the FIPPA for the consistent purpose of administering any Act or program that pertains to drinking water safety. For questions and concerns, please contact the MECP at 1-866-793-2588.

Are you a *

Licensed Laboratory DWS

Which Section(s) of the Form do you need today?

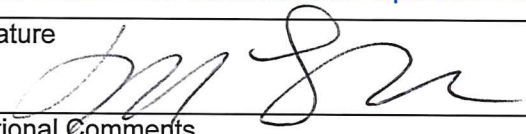
Section 1 - Written Notice By Licensed Laboratory

Section 2A - Written Notice By Drinking Water System

Section 2B - Notice Of Issues Resolution

Section 2C - Written Notice By Drinking Water System Owner - Reporting RAA for THMs and HAAs

Section 3 - Adverse Analytical Results

Last Name * Tyler	First Name * Jocelyn
Position * Water/Wastewater Maintenance Operator / Compliance Coordinator	
Signature 	Date (yyyy/mm/dd) * 2022/11/14
Additional Comments	

Do you have another adverse to report? Yes No

¹ The original adverse test result.

² When resolving an AWQI state all resample AWQI numbers associated with the initial AWQI. For example, an adverse test result of total coliform requires the corrective action of resampling. If any of the resamples come back adverse, then you must continue resampling until the test results for two consecutive sets of samples taken 24 to 48 hours apart are clear or as directed by the Health Unit. Submit the AWQI form and include all related AWQI numbers (Initial AWQI number and any Resample AWQI number) on the same Section 2B. This eliminates the requirement to submit a Section 2B form for every adverse test result associated with one incident. If the first resample test result is clear then this section does not apply. For THMs and HAAs drinking water system owners/operators are not required to take resamples as part of the prescribed corrective actions; unless directed by the Health Unit.

Notices of Adverse Test Results and Issue Resolution (Schedule 16)

Drinking Water Systems Regulation (O. Reg. 170/03)

Fields marked with an asterisk (*) are mandatory.

Section 2B – Notice of Issue Resolution – Section 16-9 (O. Reg. 170/03)

DWS Information

DWS Name *	DWS Number *
Birr Drinking Water System	220005492

DWS Contact Name

Last Name *	First Name *
Joudrey	Eric

Telephone Number (including area code) *	Fax Number (including area code)	Email Address
519-859-3473 ext.		joudrey@middlesexcentre.ca

Initial AWQI Number ¹ *	Date Resolved (yyyy/mm/dd) *	Date Resolution Notice Provided (yyyy/mm/dd) *
160588	2022/11/11	2022/11/14

Are there previous resample AWQI numbers? *

Yes No

If known, please provide All Other Resample AWQI numbers²

Summary of action taken and results achieved (include test results showing water quality is no longer adverse) *

At time of incident the chlorine dosage was increased and operator started flushing from the plant and then distribution, microbiological samples were taken the following day and the day after it was resampled. Residuals during sampling on November 7 were 1.47 mg/L at the reservoir and 0.71 mg/L in the distribution system with 0 cfu/100mL for both EC and TC and <10 cfu/1mL HPC. Residuals on November 8 were 1.14 mg/L at the reservoir and 1.34 mg/L in the distribution system. Both had 0 cfu/100 mL for both EC and TC and a max of 10 cfu/1mL HPC. Both reports are attached.

A dosing pump that was in normal rotation at that time was found to not be working properly while dosing, it has been repaired.

Was an advisory issued by the Health Unit? *	Advisory Type	Date Issued (yyyy/mm/dd)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Self Imposed Advisory		

If rescinded, please select date the advisory was rescinded

Date Rescinded (yyyy/mm/dd)

Other (Include Health Unit directions and any additional attachments)

Attached File Name	Created	Modified	Size (MB)	Remove Selected File
				<input type="checkbox"/>
			Number of attachments	2 0

Notification/Report Provided By

SGS Canada Inc.
 657 Consortium Court
 London - Ontario - N6E 2S8
 Phone: 519-672-4500 FAX: 519-672-0361

11-November-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 08 November 2022
 LR Report: CA20357-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #1

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Draft Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	08-Nov-22	08-Nov-22	08-Nov-22
2: Analysis Start Time		---	---	16:05	16:05	15:20
3: Analysis Completed Date		---	---	10-Nov-22	10-Nov-22	10-Nov-22
4: Analysis Completed Time		---	---	16:24	16:24	16:24
5: MAC		---	---	0	0	---
6: TW Birr Reservoir	07-Nov-22 17:35	9.9	1.47	0	0	< 10
7: DW Birr Blowoff	07-Nov-22 17:59	12.3	0.71	0	0	< 10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

Angela Stott, B.Sc.
 Branch Manager-London
 Environment, Health & Safety

SGS Canada Inc.
 657 Consortium Court
 London - Ontario - N6E 2S8
 Phone: 519-672-4500 FAX: 519-672-0361

11-November-2022

Mun of Middlesex Centre (Birr)

Attn : Brian Watson

Date Rec. : 09 November 2022
 LR Report: CA20433-NOV22

10227 Ilderton Rd.
 Ilderton, ON
 N0M 2A0, Canada

Copy: #2

Phone: 519-666-0190 ext 255
 Fax:519-666-0271

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt °C	Field ResCI Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	09-Nov-22	09-Nov-22	09-Nov-22
2: Analysis Start Time		---	---	10:30	10:30	09:45
3: Analysis Completed Date		---	---	11-Nov-22	11-Nov-22	11-Nov-22
4: Analysis Completed Time		---	---	14:19	14:19	14:19
5: MAC		---	---	0	0	---
6: TW Birr Reservoir	08-Nov-22 17:35	6.8	1.14	0	0	< 10
7: DW Birr Blowoff	08-Nov-22 18:00	7.4	1.34	0	0	10

MAC - Maximum Acceptable Concentration

Method Descriptions

Units	Description	SGS Method Code
cfu/100mL	E.Coli by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001
cfu/1mL	Heterotrophic Plate Count (HPC) by SP (using SPCA)	ME-CA-[ENV]MIC-LAK-AN-002
cfu/100mL	Total Coliform by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

Angela Stott, B.Sc.
 Branch Manager-London
 Environment, Health & Safety

Instructions

These Notice forms apply to drinking water system owners and operators (Owners/Operators) and Ministry of the Environment, Conservation and Parks (MECP) licensed laboratories (Licensed Laboratories) regulated by Drinking Water Systems Regulation, Ontario Regulation 170/03 (O. Reg. 170/03).

Immediate Report of Adverse Results

Section 16-3(3) of Schedule 16 of O. Reg. 170/03 sets out the requirements for Owners/Operators and Licensed Laboratories to make an immediate report of adverse test results under O. Reg. 170/03 by speaking in person or by telephone to the MECP's Spills Action Centre (SAC), at 1-800-268-6060 or 416-325-3000, the local Medical Officer of Health/Health Unit (Health Unit) and the Owner/Operator (Immediate Report).

[Adverse test results for trihalomethanes (THMs) or haloacetic acids (HAAs) do not require an Immediate Report; see section below.]

Written Notice within 24 hours of the Immediate Report

Within 24 hours of an Immediate Report, Section 16-7(3) of Schedule 16 requires that Owners/Operators and Licensed Laboratories also provide written notice to the MECP and the Health Unit, by fax or e-mail. Licensed Laboratories must complete and submit Sections 1 and 3 of this Notice. Owners/Operators must complete and submit Section 2A of this Notice. **Note:** Section 3 is not required to be completed for operational parameter incidents which have no correlating adverse results.

Notice Within 7 Days of Issue Resolution

Within 7 days after the issue has been resolved, Section 16-9(1) of Schedule 16 requires that Owners/Operators must provide a written notice, Section 2B of this Notice, to SAC and the Health Unit, summarizing the actions taken and the results achieved. This written notice must also be sent to the interested authority for any designated facility (if applicable) within 30 days.

Owners and Operators must follow any additional corrective actions required by the Health Unit.

Total Trihalomethanes (THMs) and Haloacetic Acids (HAAs)

As of January 2016 for THMs and January 2020 for HAAs, Sections 16-6 and 16-7 of Schedule 16 require that Owners/Operators and Licensed Laboratories calculate the running annual average (RAA) for THMs and HAAs and report any adverse test result in writing to the MECP and the Health Unit within 7 calendar days of the end of the calendar quarter that produced the adverse test result. The written notice is to be submitted using Section 2C of this Notice. RAA calculation is outlined in Schedule 13-6 of O. Reg. 170/03.

Immediate oral notification is no longer required for these parameters.

Licensed Laboratories that upload all the THM and HAA test results into the ministry's data system and provide the results to Owners/Operators within 48 hours of the test result being authorized at the laboratory, may be exempt from the RAA reporting requirements noted above.

Note: Small municipal residential systems and non-municipal year-round residential systems that serve designated facilities also must notify the operator of each designated facility served by their system.

The 'Trihalomethane and Haloacetic Acid Sampling and Reporting Requirements Technical Bulletin' provides full details on the changes to the reporting requirements and provides examples for calculating quarterly and running annual averages. The Technical Bulletin is available on the ministry's web page via the following link:

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Fields marked with an asterisk (*) are mandatory.

SAC fax: 1-800-268-6061 or 416-325-3011

SAC e-mail: AWQI.Reporting@ontario.ca

Provincial standards for water quality are set out in:

[Safe Drinking Water Act, 2002](#)

[Ontario Regulation 169/03 \(Water Quality Standards\)](#)

[Ontario Regulation 170/03 \(Drinking Water Systems\)](#)

Failure to notify these parties in accordance with the Regulation constitutes an offence under the *Safe Drinking Water Act*. A copy of this form may be acquired through the MECP public website (www.ontario.ca/drinkingwater) or by contacting any MECP office.

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Are you a *

Licensed Laboratory DWS

Which Section(s) of the Form do you need today?

Section 1 - Written Notice By Licensed Laboratory

Section 2A - Written Notice By Drinking Water System

Section 2B - Notice Of Issues Resolution

Section 2C - Written Notice By Drinking Water System Owner - Reporting RAA for THMs and HAAs

Section 3 - Adverse Analytical Results

**Notices of Adverse Test Results and
Issue Resolution (Schedule 16)**

Drinking Water Systems Regulation (O. Reg. 170/03)

Fields marked with an asterisk (*) are mandatory.

Section 2A – Written Notice By Drinking Water System (DWS) Owner (For THM and HAA reporting see Section 2C)

Indicators of Adverse Water Quality

AWQI Number *	Is this a resample? *
157675	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, then provide initial AWQI number

Indicator of Adverse Results

- Microbiological * Chemical * Radiological * Operational * Licence/Order/Certificate Authority *
- Observations of Improperly disinfected water directed to water users
- Low Distribution Chlorine _____ mg/L
- High Turbidity _____ NTU
- Other _____

Details of Adverse Result *

Sodium testing result of 40.9 mg/L; exceeding the 20 mg/L as per Schedule 18 section 16-3 (1) 8.

DWS Information

DWS Name *		DWS Number *	
Birr Drinking Water System		220005492	
Last Name *		First Name *	
Watson		Brian	
Position *			
Operations Supervisor			
Email Address		Telephone Number (including area code)	
watson@middlesexcentre.on.ca		519-854-7618 ext.	
Additional Comments			

Oral Notification to Health Unit - Person Contacted

Public Health Unit Name *			
Middlesex-London Health Unit			
Last Name *		First Name *	
Walsh		Chris	
Position *			
Public Health Inspector			
Telephone Number (including area code) *	Fax Number (including area code)	Date (yyyy/mm/dd) *	Time (hh:mm) *
519-617-0518 ext.		2022/01/24	12:00 PM

Fields marked with an asterisk (*) are mandatory.

Section 2A continued

DWS Person Providing Oral Notification *	Email Address
Brian Watson	watson@middlesexcentre.on.ca

Corrective Actions to be Taken by Owner/Operator

Corrective Actions	Required *	Completed	Comments
Resample and Test (including upstream, downstream and at AWQI location)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	completed same day as notification; Jan 24 2022
Disinfection Restored / Increased	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Mains / Pipes Flushed	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Signs Posted (Do Not Drink Water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Users Advised to Boil Water / Seek Alternate Source	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Other (Include any other Health Unit directions and any additional attachments)

Other: Health Notices	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Will deliver notices to houses effected when re-sample results are received.
-----------------------	---	--	--

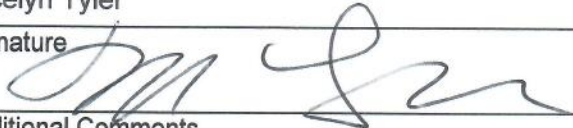
Oral Notification to Spills Action Centre (SAC) - Person Contacted

Last Name *	First Name *
McDonald	Haiden

Position *
Environmental Officer

DWS Person Providing Oral Notifying *	Date (yyyy/mm/dd) *	Time (hh:mm)*
Jocelyn Tyler	2022/01/24	12:20 PM

Initial DWS Notification Prepared by *
Jocelyn Tyler

Signature	Date (yyyy/mm/dd) *
	2022/01/24

Additional Comments

Do you have another adverse to report? * Yes No

Instructions

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Total Trihalomethanes (THMs) and Haloacetic Acids (HAAs)

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SAC fax: 1-800-268-6061 or 416-325-3011

SAC e-mail: AWQI.Reporting@ontario.ca

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Are you a *

Licensed Laboratory DWS

Which Section(s) of the Form do you need today?

Section 1 - Written Notice By Licensed Laboratory

Section 2A - Written Notice By Drinking Water System

Section 2B - Notice Of Issues Resolution

Section 2C - Written Notice By Drinking Water System Owner - Reporting RAA for THMs and HAAs

Section 3 - Adverse Analytical Results

Notices of Adverse Test Results and Issue Resolution (Schedule 16)

Drinking Water Systems Regulation (O. Reg. 170/03)

Fields marked with an asterisk (*) are mandatory.

Section 2B – Notice of Issue Resolution – Section 16-9 (O. Reg. 170/03)

DWS Information

DWS Name * [Birr Drinking Water System](#) | DWS Number * [220005492](#)

DWS Contact Name

Last Name * [Watson](#) | First Name * [Brian](#)

Telephone Number (including area code) * [519-854-7618](#) ext. | Fax Number (including area code) | Email Address watson@middlesexcentre.on.ca

Initial AWQI Number¹ * [157675](#) | Date Resolved (yyyy/mm/dd) * [2022/02/02](#) | Date Resolution Notice Provided (yyyy/mm/dd) * [2022/02/02](#)

Are there previous resample AWQI numbers? *

Yes No

If known, please provide All Other Resample AWQI numbers²

Summary of action taken and results achieved (include test results showing water quality is no longer adverse) *

[Sodium resampled with a result of 47.6 mg/L.](#)

[MLHU to provide a health notice to be delivered within effected area. Notice will be posted on website](#)

Was an advisory issued by the Health Unit? *	Advisory Type	Date Issued (yyyy/mm/dd)
<input type="checkbox"/> Yes		
<input checked="" type="checkbox"/> No <input type="checkbox"/> Self Imposed Advisory		

If rescinded, please select date the advisory was rescinded

Date Rescinded (yyyy/mm/dd)

Other (Include Health Unit directions and any additional attachments)

Attachments

[Birr WT 17 Jan 22 60 month Report CA30332-JAN22 \(Initial sampling\)](#)

[Birr WT 1 Feb 22 Sodium resample Report CA30462-JAN22](#)

Attached File Name	Created	Modified	Size (MB)	Remove Selected File
				<input type="checkbox"/>
			Number of attachments	0

Notification/Report Provided By

Last Name *	First Name *
Tyler	Jocelyn
Position *	
Water/Wastewater Operator / Compliance Co-ordinator	
Signature	Date (yyyy/mm/dd) *
	2022/02/02
Additional Comments	

Do you have another adverse to report? Yes No

¹ The original adverse test result.

² When resolving an AWQI state all resample AWQI numbers associated with the initial AWQI. For example, an adverse test result of total coliform requires the corrective action of resampling. If any of the resamples come back adverse, then you must continue resampling until the test results for two consecutive sets of samples taken 24 to 48 hours apart are clear or as directed by the Health Unit. Submit the AWQI form and include all related AWQI numbers (Initial AWQI number and any Resample AWQI number) on the same Section 2B. This eliminates the requirement to submit a Section 2B form for every adverse test result associated with one incident. If the first resample test result is clear then this section does not apply. For THMs and HAAs drinking water system owners/operators are not required to take resamples as part of the prescribed corrective actions; unless directed by the Health Unit.

Appendix C

Drinking Water System Forms 2(A) & 2(B)

Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Birr Drinking Water System

Installation of new level control system in reservoir for pump control.


The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print)		Name of Owner Representative (Print)	
Municipality of Middlesex Centre		BRIAN LIMA	
Signature		Date (yyyy/mm/dd)	
		2014/06/19	



Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Birr Drinking Water System

Replacement of two chlorine metering pumps

The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print)

Municipality of Middlesex Centre

Name of Owner Representative (Print)

Brian Lima

Signature

Date (yyyy/mm/dd)

2015/10/08



Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Birr Drinking Water System

Replaced existing Distribution Cl2 analyzer Prominent DULCOMETER DICb, with an updated ProMinent DULCOMETER DACb on August 10, 2018. 2017

The description shall include:

- 1) An identification of the system component being modified or replaced;
2) The location of the works being modified or replaced; and
3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
2) I am authorized by the owner to complete this verification.

Table with 3 columns: Name of Owner (Print), Name of Owner Representative (Print), Date (yyyy/mm/dd). Row 1: Municipality of Middlesex Centre, Brian Lima, P.Eng, 2018/06/28. Row 2: Signature, [Handwritten Signature]



Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Installation of Allen-Bradley programmable logic controller for distribution pumps on July 10, 2019.

The description shall include:

- 1) An identification of the system component being modified or replaced;
2) The location of the works being modified or replaced; and
3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
2) I am authorized by the owner to complete this verification.

Table with 3 columns: Name of Owner (Print), Name of Owner Representative (Print), Date (yyyy/mm/dd). Row 1: Municipality of Middlesex Centre, Brian Watson, 2019/07/16. Row 2: Signature, [Handwritten Signature], [Blank]



Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Replaced Allen-Bradley Mirco 820 programable logic controller (PLC) for distribution pumps to Allen-Bradley Mirco 850 PLC on August 14, 2019.

The description shall include:

- 1) An identification of the system component being modified or replaced;
2) The location of the works being modified or replaced; and
3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
2) I am authorized by the owner to complete this verification.

Table with 2 columns: Name of Owner (Print) and Name of Owner Representative (Print). Row 1: Municipality of Middlesex Centre, Brian Watson. Row 2: Signature (with handwritten signature) and Date (yyyy/mm/dd) 2019/08/14.

**Form 2 - Record of Minor
Modifications or Replacements to the
Drinking Water System****RETAIN COMPLETED FORM - DO NOT SEND TO MOE****Part 1 - Drinking Water Works Permit Number**

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Replaced raw water pressure gauge piping from upstream flange to downstream ball valve.

The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print) Municipality of Middlesex Centre	Name of Owner Representative (Print) Brian Watson
Signature <i>Brian Watson</i>	Date (yyyy/mm/dd) 2020/05/20

**Form 2 - Record of Minor
Modifications or Replacements to the
Drinking Water System****RETAIN COMPLETED FORM - DO NOT SEND TO MOE****Part 1 - Drinking Water Works Permit Number**

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

- 1) Replaced 2" distribution piping from downstream of pressure tanks to discharge flange including a new sample tap on 14-Apr-21.
- 2) Replaced raw chlorine injector and associated chemical line and raw water piping on 14-Apr.21.
- 3) Replaced 1" isolation valve on the bypass sample line coming into the building on 14-Apr-21.

The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print)	Name of Owner Representative (Print)
Municipality of Middlesex Centre	Brian Watson
Signature	Date (yyyy/mm/dd)
<i>Brian Watson</i>	2021/04/19

**Form 2 - Record of Minor
Modifications or Replacements to the
Drinking Water System****RETAIN COMPLETED FORM - DO NOT SEND TO MOE****Part 1 - Drinking Water Works Permit Number**

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Replaced 1/4" supply piping to pressure switch and replaced pressure guage.

The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print) Municipality of Middlesex Centre	Name of Owner Representative (Print) Brian Watson
Signature <i>Brian Watson</i>	Date (yyyy/mm/dd) 2021/06/04

**Form 2 - Record of Minor
Modifications or Replacements to the
Drinking Water System****RETAIN COMPLETED FORM - DO NOT SEND TO MOE****Part 1 - Drinking Water Works Permit Number**

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Replaced reservoir hatch on 7-Sep-21.

The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print)	Name of Owner Representative (Print)
Municipality of Middlesex Centre	Brian Watson
Signature	Date (yyyy/mm/dd)
<i>Brian Watson</i>	2021/09/07



Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204 Issue #4

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Added float weight to Low Level Float and replaced weight on Distribution Pump Shut-off Float. Completed August 05, 2022.

The description shall include:

- 1) An identification of the system component being modified or replaced;
2) The location of the works being modified or replaced; and
3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
2) I am authorized by the owner to complete this verification.

Name of Owner (Print)

Name of Owner Representative (Print)

Municipality of MIDDLESEX CENTRE

ERIC JONDREY

Signature

Eric Jondrey

Date (yyyy/mm/dd)

2022/09/02



MUNICIPALITY OF MIDDLESEX CENTRE
 10227 Ilderton Road – RR 2 Ilderton, ON N0M 2A0
 P 519-666-0190 – Web: www.middlesexcentre.on.ca

EQUIPMENT DISINFECTION RECORD

Contractors must complete this information when a connection, modification or replacement is made in the distribution system.

Contractor Information:

Company / Contact Name	Terdan Small Mills		
Address	10227 Ilderton Rd		
Telephone	519 200 5734	Email	Phillips@middlesexcentre.ca

Equipment Name: Float weights

Reason for Work: Install & replace floats

Location of Equipment in Process Stream: Barr water Treatment Facility Reservoir

Is disinfection required: YES NO (circle one)

Is bacteriological sampling required: YES NO (circle one)

Is dechlorination required: YES NO (circle one)

Applicable Disinfection Procedure reviewed and followed (select one):

- AWWA C653-13 (Disinfection of Water Treatment Plants)
- AWWA C651-14 (Disinfecting Water Mains)
- AWWA C652-11 (Disinfection of Water Storage Facilities)
- Ontario Watermain Disinfection Procedure

NOTE: Disinfection is required for all portions of the facility that are downstream from the filter influent or that are downstream from the first point of disinfectant application in the treatment process when the water is disinfected prior to filtration. That part of the treatment facility handling raw water need not be disinfected but should be thoroughly cleaned. (AWWA C653)

Contractor Signature: [Signature] (performing required disinfection)

Date: 11/20/20

Describe Disinfection Process Followed:
soured weights in 6% sodium hypochlorite (7200mg/l) for more than 30 minutes
Describe Chemical, Product and Materials Used:
Anchlor 6
Describe Dechlorination Process and Materials Used:
N/A

Internal Use Section:

Required Documentation Attached:

- Corresponding current MSDS
- Disinfection Plan

Check and Complete:

- Work recorded in log book. _____
- Work order submitted (if applicable). _____
- Sample results and chain of custody attached (if applicable). _____

1.0 Reference Documents

- 1.1 Equipment Manuals
- 1.2 AWWA C653-13 (Disinfection of Water Treatment Plants)
- 1.3 AWWA C652-11 (Disinfection of Water Storage Facilities)
- 1.4 AWWA C651-14 (Disinfecting Water Mains)
- 1.5 Ontario Watermain Disinfection Procedure

**Form 2 - Record of Minor
Modifications or Replacements to the
Drinking Water System****RETAIN COMPLETED FORM - DO NOT SEND TO MOE****Part 1 - Drinking Water Works Permit Number**

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204 Issue #4

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Replaced UPS unit and installed new UPS outlets on 30-Aug-22.

The description shall include:

- 1) An identification of the system component being modified or replaced;
- 2) The location of the works being modified or replaced; and
- 3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
- 2) I am authorized by the owner to complete this verification.

Name of Owner (Print)	Name of Owner Representative (Print)
Municipality of Middlesex Centre	Brian Watson
Signature	Date (yyyy/mm/dd)
<i>Brian Watson</i>	2022/08/30



Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System

RETAIN COMPLETED FORM - DO NOT SEND TO MOE

Part 1 - Drinking Water Works Permit Number

(Insert the Drinking Water Works Permit number authorizing minor modifications or replacements to the Drinking Water System)

052-204 Issue #4

Part 2 - Description of Minor Modifications or Replacements (Use attachments if required)

Birr Drinking Water System

Replaced existing distribution chlorine day tank with 60L HDPE tank.

The description shall include:

- 1) An identification of the system component being modified or replaced;
2) The location of the works being modified or replaced; and
3) A brief description of the modification or replacement

Part 3 - Verification by Owner

I hereby verify that

- 1) The minor modifications or replacements described in Part 2 of this form meets the requirements of the conditions of the Drinking Water Works Permit identified in Part 1 of this form which authorizes the minor modifications or replacements; and
2) I am authorized by the owner to complete this verification.

Signature fields for Municipality of Middlesex Centre and Name of Owner Representative (Print) with date 2022/12/09