



Melrose Drinking Water System

2023 Annual Performance & Summary Report

Date: January 15, 2024

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

Contents

Introduction	1
Section A – System Description.....	1
Section B – Significant Modifications & Replacements.....	2
Section C – Microbiological Testing.....	2
(I) E. coli & Total Coliform	2
Table 2 – E. Coli & Total Coliform Samples	2
(II) Heterotrophic Plate Count (HPC)	2
Table 3 – Heterotrophic Plate Count (HPC) Samples	2
Section D – Chemical Testing.....	3
Table 4 – Quarterly Nitrate & Nitrite.....	3
Table 5 – Quarterly Trihalomethane & Haloacetic Acid.....	3
Table 6 – 2022 Sodium & Fluoride	4
Table 7 – Lead Sampling.....	4
Table 8 – Schedule 23 & 24	5
Section E – Operational Monitoring	7
(I) Chlorine Residual	7
Table 9 – Chlorine Residuals.....	7
(II) Turbidity.....	7
Table 10 – Turbidity.....	7
Section F – Water Quantity	8
Table 11 – Rated Capacity	8
Table 12 – Monthly Raw Water Flows (m ³ /day).....	8
Table 13 – Treated Water Monthly Flow Summary	8
Table 14 – Treated Water Flow	9
Graph 2 – Monthly Treated Flows (m ³ /day).....	9
(I) Rated Capacity Assessment	9
Section G – Non-Compliance Findings & Adverse Results	10
(III) SUMMARY OR REPORTING TEST RESULTS AND OTHER PROBLEMS (SCHEDULE 16).....	10
Appendix A	A
Analytical Data	A
Appendix B	B
Notice Of Adverse Test Results And Other Problems with Notice Of Issue Resolution	B

Introduction

The Municipality of Middlesex Centre has prepared a report summarizing system operation and water quality for the Melrose Drinking Water System. The reports details 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	Melrose Well Supply System
Drinking Water System Number	260002915
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, 2023 to December 31, 2023

Section A – System Description

The Melrose Drinking Water System, owned and operated by the Municipality of Middlesex Centre, is a ground water supply system servicing 64 lots with an estimated population of approximately 200 residents. The system consists of two deep-drilled groundwater production wells operating under Permit to Take Water # P-300-8072386149.

Raw water is pumped through a 12% sodium hypochlorite pre-disinfection system into an aerator, where the iron is oxidized for removal, then to an aeration reservoir. From this reservoir, the water is pumped to three multimedia pressure filters for final iron removal. The filtered water is then stored in a triple-chambered clear well for disinfection contact time. A chlorine analyzer samples the disinfection residual from the clear well and if needed chemical pumps are available to boost the disinfection to the filtered water prior to the clear well. Water is pumped from the clear well to the distribution system through one of three vertical distribution pumps based on the pressure of the system. A fourth fire pump is available if a greater quantity of water is required to meet the pressure needs of the system. The system is controlled by on-site programming logic with an operator interface program (SCADA) to allow for operational changes as required. The system is operated under Municipal Drinking Water License Number 052-103 and Drinking Water Works Permit Number 052-203.

MECP licensed 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.

The Municipality of Middlesex Centre is currently performing the pre-design engineering to allow for the Melrose Drinking Water system to be connected to the Lake Huron Water Primary Water Supply System (LHPWSS) becoming a facility within the Middlesex Centre Water Distribution system.

Section B – Significant Modifications & Replacements

There were no significant changes to the Melrose system in 2023 due to the pending changes at the Melrose Water System.

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 and treated water from the distribution system. Raw water is collected once per month on each well, and the distribution water is collected on a bi-weekly schedule. 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 2023 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	24	0 - 0	0 - 9
Distribution	29	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 2023 results are shown in Table 3.

Table 3 – Heterotrophic Plate Count (HPC) Samples

	Number of Samples	Range of HPC Results Min-Max
Distribution	29	<10 - 280

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. An increased testing frequency of once every three months is required by the Regulation where the concentration of a parameter is above half of the Maximum Allowable Concentration (MAC) under the Ontario Drinking Water Quality Standards. 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 for the year can be seen in Table 4.

Table 4 – Quarterly Nitrate & Nitrite

Parameter & Sample Date	Result (mg/l)	MAC (mg/l)	Exceedance
Nitrate			
1st Quarter	0.007	10	No
2nd Quarter	0.009	10	No
3rd Quarter	0.006	10	No
4th Quarter	0.006	10	No
Nitrite			
1st Quarter	0.003	1	No
2nd Quarter	0.003	1	No
3rd Quarter	0.004	1	No
4th Quarter	0.003	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 Running Average (mg/l)	MAC (mg/l)	Exceedance
Trihalomethane (THM)				
1st Quarter	14	13.3	100	No
2nd Quarter	16	13.8	100	No
3rd Quarter	17	15.3	100	No

Parameter & Sample Date	Result (mg/l)	Annual Running Average (mg/l)	MAC (mg/l)	Exceedance
4th Quarter	16	15.8	100	No
Haloacetic Acid (HAA)				
1st Quarter	5.30	5.30	80	No
2nd Quarter	5.30	5.30	80	No
3rd Quarter	5.30	5.30	80	No
4th Quarter	5.30	5.30	80	No

*MDL- Minimum Detection Limit

Sodium & 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 and Fluoride samples are scheduled to be collected in January 2027.

Table 6 – 2022 Sodium & Fluoride

Parameter	Sample Date	Result Value (mg/L)	MAC (mg/L)
Sodium	January 17, 2022	24.8	20
Sodium	February 1, 2022	27.3	20
Fluoride	January 17, 2022	1.00	1.5

Lead

Lead sampling occurs twice a year in winter and summer months. As per Schedule D of the Melrose Municipal Drinking Water Licence (MDWL) # 052-103, Issue 7 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 2023. There were no exceedances.

Table 7 – Lead Sampling

Parameter	Result Value	MAC	Exceedance
Winter Sample (Dec. 15 – April 15)			
Lead (µg/l)	0.19	10	No

Distribution Alkalinity (mg/l)	227	*30 - 500	
Distribution pH	8.20	> 6.50	No
Summer Sample (June 15 – Oct. 15)			
Lead (µg/l)	0.19	10	No
Distribution Alkalinity	227	*30 - 500	
Distribution pH	7.83	> 6.50	No

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

Schedules 23 & 24

Schedules 23 and 24 are regulated chemical testing that is to be conducted every five (5) years on secure groundwater wells. Table 8 has the results of that testing with no exceedance reported. Schedules 23 & 24 samples are scheduled to be collected in January 2027.

Table 8 – Schedule 23 & 24

Sample Date: 17-Jan-22		
Parameter	Treated Water Value	Exceedance
Antimony [ug/L]	0.6 <MDL	No
Arsenic [ug/L]	0.2	No
Barium [ug/L]	155	No
Boron [ug/L]	164	No
Cadmium [ug/L]	0.003 <MDL	No
Chromium [ug/L]	0.08 <MDL	No
Mercury [ug/L]	0.01 <MDL	No
Selenium [ug/L]	0.04 <MDL	No
Uranium [ug/L]	0.108	No
Benzene [ug/L]	0.32 <MDL	No
Carbon tetrachloride [ug/L]	0.17 <MDL	No
1,2-Dichlorobenzene [ug/L]	0.41 <MDL	No
1,4-Dichlorobenzene [ug/L]	0.36 <MDL	No
1,1-Dichloroethylene (vinylidene chloride) [ug/L]	0.33 <MDL	No
1,2-Dichloroethane [ug/L]	0.35 <MDL	No
Dichloromethane [ug/L]	0.35 <MDL	No
Monochlorobenzene [ug/L]	0.3 <MDL	No
Tetrachloroethylene (perchloroethylene) [ug/L]	0.35 <MDL	No
Trichloroethylene [ug/L]	0.44 <MDL	No
Vinyl Chloride [ug/L]	0.17 <MDL	No

Sample Date: 17-Jan-22		
Parameter	Treated Water Value	Exceedance
Diquat [ug/L]	1 <MDL	No
Paraquat [ug/L]	1 <MDL	No
Glyphosate [ug/L]	1 <MDL	No
Polychlorinated Biphenyls (PCBs) - Total [ug/L]	0.04 <MDL	No
Benzo(a)pyrene [ug/L]	0.004 <MDL	No
Alachlor [ug/L]	0.02 <MDL	No
Atrazine + N-dealkylated metabolites [ug/L]	0.01 <MDL	No
Atrazine [ug/L]	0.01 <MDL	No
Desethyl atrazine [ug/L]	0.01 <MDL	No
Azinphos-methyl [ug/L]	0.05 <MDL	No
Carbaryl [ug/L]	0.05 <MDL	No
Carbofuran [ug/L]	0.01 <MDL	No
Chlorpyrifos [ug/L]	0.02 <MDL	No
Diazinon [ug/L]	0.02 <MDL	No
Dimethoate [ug/L]	0.06 <MDL	No
Diuron [ug/L]	0.03 <MDL	No
Malathion [ug/L]	0.02 <MDL	No
Metolachlor [ug/L]	0.01 <MDL	No
Metribuzin [ug/L]	0.02 <MDL	No
Phorate [ug/L]	0.01 <MDL	No
Prometryne [ug/L]	0.03 <MDL	No
Simazine [ug/L]	0.01 <MDL	No
Terbufos [ug/L]	0.01 <MDL	No
Triallate [ug/L]	0.01 <MDL	No
Trifluralin [ug/L]	0.02 <MDL	No
2,4-dichlorophenoxyacetic acid (2,4-D) [ug/L]	0.19 <MDL	No
Bromoxynil [ug/L]	0.33 <MDL	No
Dicamba [ug/L]	0.20 <MDL	No
Diclofop-methyl [ug/L]	0.40 <MDL	No
MCPA [mg/L]	0.00012 <MDL	No
Picloram [ug/L]	1 <MDL	No
2,4-dichlorophenol [ug/L]	0.15 <MDL	No

Sample Date: 17-Jan-22		
Parameter	Treated Water Value	Exceedance
2,4,6-trichlorophenol [ug/L]	0.25 <MDL	No
2,3,4,6-tetrachlorophenol [ug/L]	0.20 <MDL	No
Pentachlorophenol [ug/L]	0.15 <MDL	No

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 were no reportable incidents in 2023. A summary of the chlorine residual readings is provided in the table below.

Table 9 – Chlorine Residuals

Parameter	Number of Tests or Monitoring Frequency	Range of Results (Min – Max)
Chlorine residual in distribution (mg/l)	117	0.85 - 1.57
Chlorine residual after treatment (mg/L)	Continuous	0.65 - 1.62

(II) Turbidity

Treated water turbidity, measured in units of NTU, is monitored continuously. Though turbidity of groundwater is not regulated under the Safe Drinking Water Act (SDWA) it is a tool that is used to signal a problem with plant operations. As a standard rule turbidity should be < 1 NTU at the treatment plant and < 5 NTU in the distribution system. As per the Permit to Take Water the turbidity of the raw well water is checked monthly. A summary of the monitoring results for 2023 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	0.03 - 1.18

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. A summary of the 2023 flows is provided below.

Table 11 – Rated Capacity

Flow Summary	Quantity
Permit to Take Water Limit	277 m ³ /d

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

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
Rated Flow	m ³	277	277	277	277	277	277	277	277	277	277	277	277	-
Raw Average	m ³ /d	31	34	30	39	56	57	43	47	45	37	33	35	41
Raw Max	m ³ /d	56	49	55	60	110	94	71	92	81	73	53	64	72

Graph 1 – Monthly Flows (m³/day)

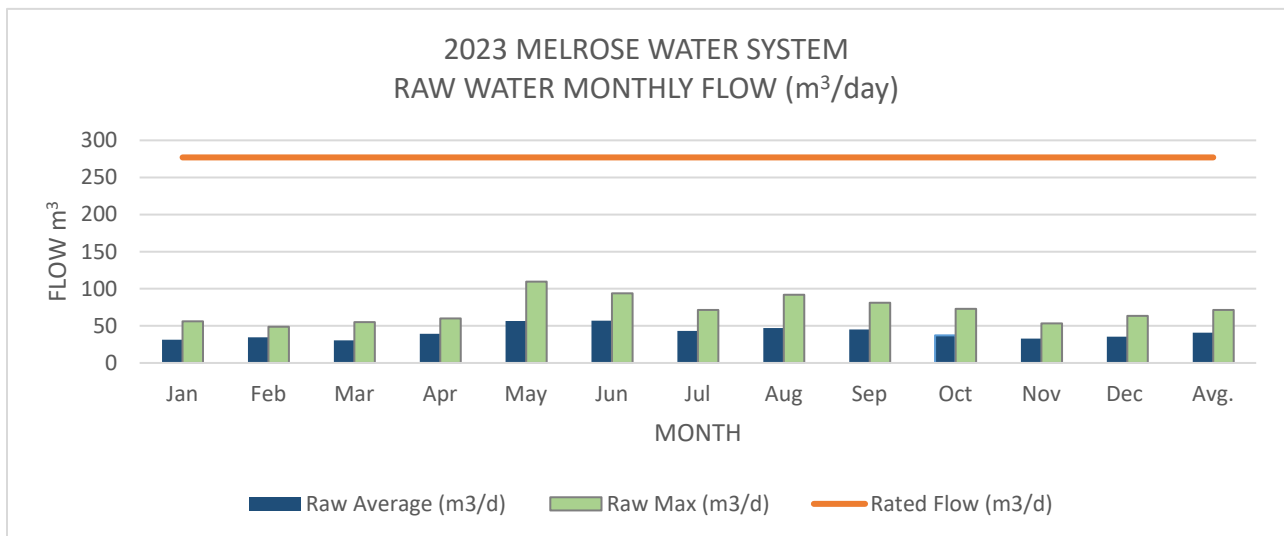


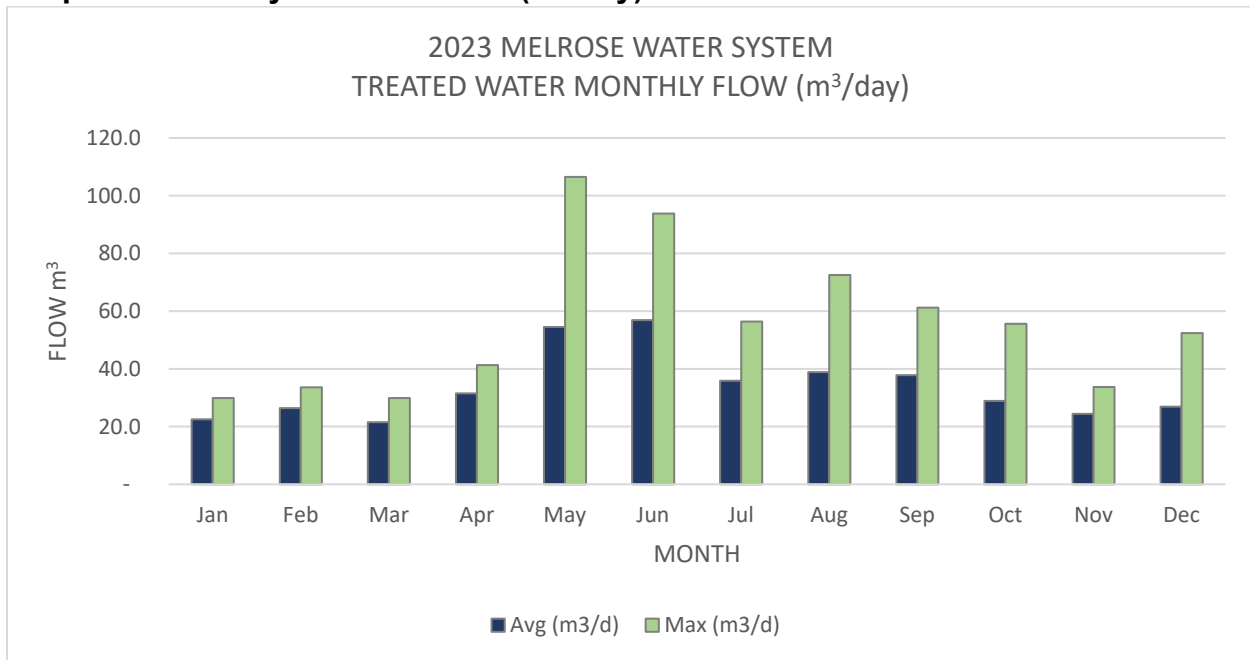
Table 13 – Treated Water Monthly Flow Summary

2023 Average Daily Treated Water Flow	33.84 m ³ /day
2023 Maximum Daily Treated Water Flow	106.47 m ³ /day
2023 Average Monthly Treated Water Flow	1,014 m ³
2023 Total Amount of Treated Water Supplied	12,173 m ³

Table 14 – Treated Water Flow

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg (m³/d)	22.5	26.4	21.5	31.5	54.5	56.9	35.9	38.9	37.8	28.9	24.4	26.9
Max (m³/d)	29.9	33.6	29.9	41.3	106.5	93.8	56.4	72.5	61.2	55.6	33.7	52.4

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: Melrose Well Supply System				
Month	Total Flow (m ³ /month)	Monthly Raw Average Flow (m ³ /day)	Max Raw Flow (m ³ /day)	Avg Flow / Rated Capacity
January	973	31.40	56.02	11%
February	965	34.45	48.85	12%
March	945	30.49	55.01	11%
April	1,180	39.32	59.95	14%
May	1,751	56.49	109.50	20%
June	1,708	56.94	93.78	34%
July	1,335	43.07	71.42	16%
August	1,457	47.01	47.01	17%
September	1,356	45.19	81.11	16%

System Capability Assessment Comparison of Treated Water Rates: Melrose Well Supply System				
Month	Total Flow (m3/month)	Monthly Raw Average Flow (m3/day)	Max Raw Flow (m3/day)	Avg Flow / Rated Capacity
October	1,152	37.18	72.87	13%
November	987	32.89	53.37	12%
December	1,097	35.37	63.54	13%
Average Flow	1,242	40.82	67.70	16%
Maximum Flow	1,751	56.94	109.50	34%
Rated Capacity	277 (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.

Melrose Water System achieved a 100% inspection rating with zero non-compliances.

(III) SUMMARY OR REPORTING TEST RESULTS AND OTHER PROBLEMS (SCHEDULE 16)

AWQI # 161493

On March 14th the valve to distribution system was closed to facilitate a repair to the distribution disinfection injector, and when the repair was completed, the pressure was down to 50 kPa (7 psi). Residuals and microbiological samples were collected with results indicating no adverse effect to the system. No further action was required.

AWQI # 161701

A loss of pressure occurred on April 6th during a power loss that occurred while the generator was offline while waiting for the generator service technician to pick up a part to repair the generator. The system was flushed, and microbiological sample collected, with disinfection residuals, with results indicating no adverse effect to the system. Total time without power was 58 minutes. No further action was required.

AWQI # 163698

A loss of pressure occurred on October 2nd when the generator failed to start during a power outage. When power was restored the system was flushed, and microbiological samples were collected with residuals; results indicated no adverse effect to the system. Total time without power was 22 minutes. No further action was required.

Appendix A

Analytical Data

SGS Canada Inc.

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

25-July-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 19 July 2023
 LR Report: CA30410-JUL23

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 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		---	---	---	21-Jul-23	24-Jul-23
2: Analysis Start Time		---	---	---	15:17	08:26
3: Analysis Completed Date		---	---	---	24-Jul-23	24-Jul-23
4: Analysis Completed Time		---	---	---	13:58	10:03
5: MAC		---	---	---	---	10
6: AO/OG		---	---	6.5-8.5	30-500	---
7: MDL		---	---	---	2	0.01
8: DW Sample Station-Wynfield 1st	18-Jul-23 11:52	7.8	7.0	7.83	---	0.19
9: DW Sample Station-Wynfield 2nd	18-Jul-23 11:52	8.1	7.0	7.83	227	---

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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SGS Canada Inc.

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

06-March-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 24 February 2023
 LR Report: CA30400-FEB23

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 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		---	---	---	27-Feb-23	06-Mar-23
2: Analysis Start Time		---	---	---	10:51	09:27
3: Analysis Completed Date		---	---	---	28-Feb-23	06-Mar-23
4: Analysis Completed Time		---	---	---	10:11	12:45
5: MAC		---	---	---	---	10
6: AO/OG		---	---	6.5-8.5	30-500	---
7: MDL		---	---	---	2	0.01
8: DW Sample Station	Sample Station - Wynfield 1st 22-Feb-23 13:42	6.8	4.0	8.2	---	0.19
9: DW Sample Station	Sample Station - Wynfield 2nd 22-Feb-23 13:42	6.8	4.0	8.2	227	---

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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 Lakefield - Ontario - K0L 2H0
 Phone: 705-652-2000 FAX: 705-652-6365

12-January-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 04 January 2023
 LR Report: CA30101-JAN23

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 Ilderton, ON
 N0M 2A0, Canada

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 Fax:519-666-0271

CERTIFICATE OF ANALYSIS


Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: AO/OG	6: MDL	7: 1A0FC RW Well #2	8: 1A0FD RW Well #3
Sample Date & Time							03-Jan-23 12:32	03-Jan-23 12:39
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	7.7	7.7
Temperature Upon Receipt [at Lakefield Lab °C]	---	---	---	---	---	---	6.0	6.0
Bicarbonate [mg/L as CaCO3]	06-Jan-23	15:28	11-Jan-23	09:54	---	2	218	242
Carbonate [mg/L as CaCO3]	06-Jan-23	15:28	11-Jan-23	09:54	---	2	2 <MDL	2 <MDL
Total Suspended Solids [mg/L]	09-Jan-23	08:13	10-Jan-23	13:11	---	2	2	3
Sulphide [ug/L]	10-Jan-23	07:41	10-Jan-23	14:47	0.5	6	6 <MDL	6 <MDL
Iron [ug/L]	11-Jan-23	20:40	12-Jan-23	15:20	300	7	705	1010
Manganese [ug/L]	11-Jan-23	20:40	12-Jan-23	15:20	50	0.01	11.3	14.8

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

Method Descriptions

Units	Description	SGS Method Code
mg/L as CaCO3	Bicarbonate by Titration	ME-CA-[ENV]EWL-LAK-AN-006
mg/L as CaCO3	Carbonate by Titration	ME-CA-[ENV]EWL-LAK-AN-006
ug/L	Iron by ICP-MS drinking water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Manganese by ICP-MS Drinking Water	ME-CA-[ENV]SPE-LAK-AN-006
ug/L	Sulphide by Skalar	ME-CA-[ENV]SFA-LAK-AN-008
mg/L	Total Suspended Solids	ME-CA-[ENV]EWL-LAK-AN-004


 Carrie Greenlaw
 Project Specialist,
 Environment, Health & Safety



SGS Canada Inc.

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Lakefield - Ontario - K0L 2H0
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13-January-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 04 January 2023
LR Report: CA30116-JAN23

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

Table with 10 columns: Analysis, 1: Analysis Start Date, 2: Analysis Start Time, 3: Analysis Completed Date, 4: Analysis Completed Time, 5: MAC, 8: MDL, 9: 1A106 DW Sample Station, 10: 1A102 TW Water Treatment Facility. Rows include Sample Date & Time, Temperature Upon Receipt, Nitrite, Nitrate, Trihalomethanes, Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Total Haloacetic Acids, Chloroacetic Acid, Bromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid.

MAC - Maximum Acceptable Concentration
MDL - SGS Method Detection Limit

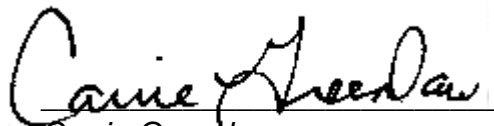
Method Descriptions

Table with 3 columns: Units, Description, SGS Method Code. Lists various analytical methods such as HAA wtr - DW, VOC wtr - THM, Nitrate by Ion Chromatography, and Nitrite by Ion Chromatography.

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LR Report : CA30116-JAN23



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 657 Consortium Court
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10-January-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 04 January 2023
LR Report: CA20213-JAN23

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

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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		---	05-Jan-23	05-Jan-23
2: Analysis Start Time		---	09:30	09:30
3: Analysis Completed Date		---	09-Jan-23	09-Jan-23
4: Analysis Completed Time		---	09:09	09:09
5: MAC		---	0	0
6: 1A0FC RW Well #2	03-Jan-23 12:32	8.3	0	0
7: 1A0FD RW Well #3	03-Jan-23 12:39	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



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16-January-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 11 January 2023
LR Report: CA20515-JAN23

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

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	11-Jan-23	11-Jan-23	11-Jan-23	11-Jan-23
2: Analysis Start Time		---	---	16:05	16:05	16:05	15:50
3: Analysis Completed Date		---	---	13-Jan-23	13-Jan-23	13-Jan-23	13-Jan-23
4: Analysis Completed Time		---	---	16:59	16:59	16:59	16:59
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	10-Jan-23 11:49	5.9	1.16	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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30-January-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 25 January 2023
LR Report: CA21125-JAN23

10227 Ilderton Rd.
 Ilderton, ON
 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 °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	25-Jan-23	25-Jan-23	25-Jan-23	25-Jan-23
2: Analysis Start Time		---	---	17:25	17:25	17:25	16:50
3: Analysis Completed Date		---	---	27-Jan-23	27-Jan-23	27-Jan-23	27-Jan-23
4: Analysis Completed Time		---	---	15:26	15:26	15:26	15:26
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	24-Jan-23 11:48	12.3	1.12	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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13-February-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 08 February 2023
LR Report: CA20361-FEB23

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 Canada, N0M 2A0
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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	08-Feb-23	08-Feb-23	08-Feb-23	08-Feb-23
2: Analysis Start Time		---	---	15:30	15:30	15:30	15:00
3: Analysis Completed Date		---	---	10-Feb-23	10-Feb-23	10-Feb-23	10-Feb-23
4: Analysis Completed Time		---	---	16:58	16:58	16:58	16:58
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	07-Feb-23 13:02	5.6	---	0	0	---	---
7: 1A0FD RW Well #3	07-Feb-23 12:51	5.6	---	0	0	---	---
8: 1A106 DW Sample Station	07-Feb-23 12:31	5.6	1.15	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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27-February-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 22 February 2023
LR Report: CA20864-FEB23

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

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	22-Feb-23	22-Feb-23	22-Feb-23	22-Feb-23
2: Analysis Start Time		---	---	13:05	13:05	13:05	12:35
3: Analysis Completed Date		---	---	24-Feb-23	24-Feb-23	24-Feb-23	24-Feb-23
4: Analysis Completed Time		---	---	14:41	14:41	14:41	14:41
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	21-Feb-23 13:15	4.6	1.17	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

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Phone: 519-666-0190 ext 255
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Works #: 260002915

13-March-2023

Date Rec. : 08 March 2023
LR Report: CA20391-MAR23

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CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Sampled By	Temperature Upon Receipt °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date			---	---	08-Mar-23	08-Mar-23	08-Mar-23	08-Mar-23
2: Analysis Start Time			---	---	16:30	16:30	16:30	15:55
3: Analysis Completed Date			---	---	10-Mar-23	10-Mar-23	10-Mar-23	10-Mar-23
4: Analysis Completed Time			---	---	16:10	16:10	16:10	16:10
5: MAC			---	---	0	0	---	---
6: 1A0FC RW Well #2	07-Mar-23 10:05	Jesse Greenfield	10.1	---	0	0	---	---
7: 1A0FD RW Well #3	07-Mar-23 10:10	Jesse Greenfield	10.1	---	0	0	---	---
8: 1A106 DW Sample Station	07-Mar-23 11:20	Jesse Greenfield	10.1	1.14	0	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



SGS Canada Inc.

657 Consortium Court

London - Ontario - N6E 2S8

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

Works #: 260002915

LR Report : CA20391-MAR23

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

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24-March-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 22 March 2023
LR Report: CA20943-MAR23

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 Ilderton, ON
 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	22-Mar-23	22-Mar-23	22-Mar-23	22-Mar-23
2: Analysis Start Time		---	---	11:55	11:55	11:55	11:20
3: Analysis Completed Date		---	---	24-Mar-23	24-Mar-23	24-Mar-23	24-Mar-23
4: Analysis Completed Time		---	---	13:02	13:02	13:02	13:02
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	21-Mar-23 12:11	6.8	1.14	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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18-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 05 April 2023
 LR Report: CA30165-APR23

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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	Nitrite (as N) mg/L	Nitrate (as N) mg/L	Nitrate + Nitrite (as N) mg/L
1: Analysis Start Date		---	---	11-Apr-23	11-Apr-23	11-Apr-23
2: Analysis Start Time		---	---	07:06	07:06	07:06
3: Analysis Completed Date		---	---	18-Apr-23	18-Apr-23	18-Apr-23
4: Analysis Completed Time		---	---	11:48	11:48	11:48
5: MAC		---	---	1	10	---
6: MDL		---	---	0.003	0.006	0.006
7: 1A102 TW Water Treatment Facility	04-Apr-23 12:27	7.4	7.0	0.003 <MDL	0.009	0.009

MAC - Maximum Acceptable Concentration
 MDL - SGS Method Detection Limit

Method Descriptions

Parameter	Description	SGS Method Code
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

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10-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 05 April 2023
 LR Report: CA20276-APR23

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	06-Apr-23	06-Apr-23	06-Apr-23	06-Apr-23
2: Analysis Start Time		---	---	10:00	10:00	10:00	09:40
3: Analysis Completed Date		---	---	10-Apr-23	10-Apr-23	10-Apr-23	10-Apr-23
4: Analysis Completed Time		---	---	11:59	11:59	11:59	11:59
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	04-Apr-23 12:32	7.4	---	0	0	---	---
7: 1A0FD RW Well #3	04-Apr-23 12:33	7.4	---	0	0	---	---
8: 1A106 DW Sample Station	04-Apr-23 13:11	7.4	1.17	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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24-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 12 April 2023
 LR Report: CA30306-APR23

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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	6: MDL	7: 1A106 DW Sample Station
Sample Date & Time							11-Apr-23 10:55
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	6.6
Temperature Upon Receipt [°C]	---	---	---	---	---	---	13.0
Free Chlorine [mg/L]	---	---	---	---	---	---	1.18
Trihalomethanes (total) [ug/L]	21-Apr-23	15:16	24-Apr-23	13:26	100 (RAA)	0.37	16
Bromodichloromethane [ug/L]	21-Apr-23	15:16	24-Apr-23	13:26	--	0.26	5.1
Bromoform [ug/L]	21-Apr-23	15:16	24-Apr-23	13:26	--	0.34	0.38
Chloroform [ug/L]	21-Apr-23	15:16	24-Apr-23	13:26	--	0.29	7.5
Dibromochloromethane [ug/L]	21-Apr-23	15:16	24-Apr-23	13:26	--	0.37	3.2
Total Haloacetic Acids (HAA5) [ug/L]	21-Apr-23	08:38	24-Apr-23	11:17	80 (RAA)	5.3	5.3 <MDL
Bromoacetic Acid [ug/L]	21-Apr-23	08:38	24-Apr-23	11:17	---	2.9	2.9 <MDL
Chloroacetic Acid [ug/L]	21-Apr-23	08:38	24-Apr-23	11:17	---	4.7	4.7 <MDL
Dichloroacetic Acid [ug/L]	21-Apr-23	08:38	24-Apr-23	11:17	---	2.6	3.5
Dibromoacetic Acid [ug/L]	21-Apr-23	08:38	24-Apr-23	11:17	---	2.0	2.0 <MDL
Trichloroacetic Acid [ug/L]	21-Apr-23	08:38	24-Apr-23	11:17	---	5.3	5.3 <MDL

MAC - Maximum Acceptable Concentration
 MDL - SGS Method Detection Limit

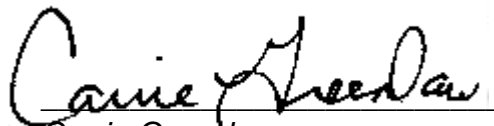
Method Descriptions

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
ug/L	HAA wtr - DW	ME-CA-[ENV]GC-LAK-AN-013
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004

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LR Report : CA30306-APR23



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17-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 12 April 2023
LR Report: CA20522-APR23

10227 Ilderton Rd.
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 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	12-Apr-23	12-Apr-23	12-Apr-23	12-Apr-23
2: Analysis Start Time		---	---	15:10	15:10	15:10	14:45
3: Analysis Completed Date		---	---	14-Apr-23	14-Apr-23	14-Apr-23	14-Apr-23
4: Analysis Completed Time		---	---	17:11	17:11	17:11	17:11
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	11-Apr-23 10:55	6.6	1.18	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001


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

21-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 19 April 2023
 LR Report: CA20913-APR23

10227 Ilderton Rd.
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 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	19-Apr-23	19-Apr-23	19-Apr-23	19-Apr-23
2: Analysis Start Time		---	---	15:00	15:00	15:00	14:25
3: Analysis Completed Date		---	---	21-Apr-23	21-Apr-23	21-Apr-23	21-Apr-23
4: Analysis Completed Time		---	---	12:15	12:15	12:15	12:15
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	18-Apr-23 10:43	4.3	0.93	0	0	0	110

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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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

05-May-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 03 May 2023
 LR Report: CA20282-MAY23

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

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	03-May-23	03-May-23	03-May-23	03-May-23
2: Analysis Start Time		---	---	13:05	13:05	13:05	12:25
3: Analysis Completed Date		---	---	05-May-23	05-May-23	05-May-23	05-May-23
4: Analysis Completed Time		---	---	14:16	14:16	14:16	14:16
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	02-May-23 12:06	7.4	---	0	0	---	---
7: 1A0FD RW Well #3	02-May-23 12:12	7.4	---	0	0	---	---
8: 1A106 DW Sample Station	02-May-23 12:29	7.4	1.26	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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23-May-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 17 May 2023
 LR Report: CA21051-MAY23

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

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	17-May-23	17-May-23	17-May-23	17-May-23
2: Analysis Start Time		---	---	15:45	15:45	15:45	15:05
3: Analysis Completed Date		---	---	19-May-23	19-May-23	19-May-23	19-May-23
4: Analysis Completed Time		---	---	17:08	17:08	17:08	17:08
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	16-May-23 11:30	2.6	1.15	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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02-June-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 31 May 2023
 LR Report: CA21714-MAY23

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

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	31-May-23	31-May-23	31-May-23	31-May-23
2: Analysis Start Time		---	---	14:15	14:15	14:15	13:35
3: Analysis Completed Date		---	---	02-Jun-23	02-Jun-23	02-Jun-23	02-Jun-23
4: Analysis Completed Time		---	---	13:44	13:44	13:44	13:44
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	30-May-23 10:30	10.3	1.32	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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09-June-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 07 June 2023
LR Report: CA20416-JUN23

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

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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		---	07-Jun-23	07-Jun-23
2: Analysis Start Time		---	14:50	14:50
3: Analysis Completed Date		---	09-Jun-23	09-Jun-23
4: Analysis Completed Time		---	13:35	13:35
5: MAC		---	0	0
6: 1A0FC RW Well #2	06-Jun-23 11:47	6.5	0	0
7: 1A0FD RW Well #3	06-Jun-23 11:50	6.5	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-June-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 14 June 2023
 LR Report: CA20794-JUN23

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 Ilderton, ON
 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	14-Jun-23	14-Jun-23	14-Jun-23	14-Jun-23
2: Analysis Start Time		---	---	14:45	14:45	14:45	14:20
3: Analysis Completed Date		---	---	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
4: Analysis Completed Time		---	---	13:54	13:54	13:54	13:54
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	13-Jun-23 13:26	5.8	1.17	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

Angela Stott, B.Sc.
 Branch Manager-London
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23-June-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 21 June 2023
 LR Report: CA21243-JUN23

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	21-Jun-23	21-Jun-23	21-Jun-23	21-Jun-23
2: Analysis Start Time		---	---	16:30	16:30	16:30	16:00
3: Analysis Completed Date		---	---	23-Jun-23	23-Jun-23	23-Jun-23	23-Jun-23
4: Analysis Completed Time		---	---	15:12	15:12	15:12	15:12
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	20-Jun-23 10:14	8.3	1.18	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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30-June-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 28 June 2023
LR Report: CA21596-JUN23

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 Ilderton, ON
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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	28-Jun-23	28-Jun-23	28-Jun-23	28-Jun-23
2: Analysis Start Time		---	---	16:00	16:00	16:00	15:20
3: Analysis Completed Date		---	---	30-Jun-23	30-Jun-23	30-Jun-23	30-Jun-23
4: Analysis Completed Time		---	---	13:14	13:14	13:14	13:14
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	28-Jun-23 08:37	8.4	1.04	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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



SGS Canada Inc.

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

14-July-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 05 July 2023
LR Report: CA30082-JUL23

10227 Ilderton Rd.
Ilderton, ON
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Fax:519-666-0271

CERTIFICATE OF ANALYSIS
Final Report

Table with 9 columns: Analysis, 1: Analysis Start Date, 2: Analysis Start Time, 3: Analysis Completed Date, 4: Analysis Completed Time, 5: MAC, 6: MDL, 7: 1A106 DW Sample Station, 8: 1A102 TW Water Treatment Facility. Rows include Sample Date & Time, Temperature Upon Receipt, Field Free Chlorine, Nitrite, Nitrate, Trihalomethanes, Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Total Haloacetic Acids, Chloroacetic Acid, Bromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, Trichloroacetic Acid.

MAC - Maximum Acceptable Concentration
MDL - SGS Method Detection Limit

Method Descriptions

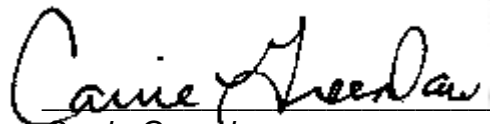
Table with 3 columns: Units, Description, SGS Method Code. Rows list various analytical methods such as HAA wtr - DW, VOC wtr - THM, Nitrate by Ion Chromatography, etc.

SGS Canada Inc.

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LR Report : CA30082-JUL23

Units	Description	SGS Method Code
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



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

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18-July-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 05 July 2023
 LR Report: CA20213-JUL23

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 Ilderton, ON
 N0M 2A0, Canada

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 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-Jul-23	06-Jul-23
2: Analysis Start Time		---	09:40	09:40
3: Analysis Completed Date		---	10-Jul-23	10-Jul-23
4: Analysis Completed Time		---	08:57	08:57
5: MAC		---	0	0
6: 1A0FC RW Well #2	04-Jul-23 13:10	4.1	0	0
7: 1A0FD RW Well #3	04-Jul-23 13:17	4.1	9	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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19-July-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 12 July 2023
 LR Report: CA30289-JUL23

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

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

CERTIFICATE OF ANALYSIS

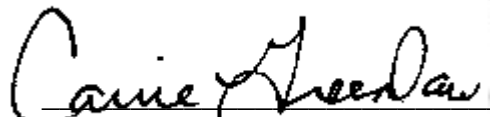
Final Report

Sample ID	Sample Date & Time	Temperature Upon Receipt at London Lab °C	Temperature Upon Receipt at Lakefield Lab °C	Nitrite (as N) mg/L	Nitrate (as N) mg/L	Nitrate + Nitrite (as N) mg/L
1: Analysis Start Date		---	---	18-Jul-23	18-Jul-23	18-Jul-23
2: Analysis Start Time		---	---	12:20	12:20	12:20
3: Analysis Completed Date		---	---	18-Jul-23	18-Jul-23	18-Jul-23
4: Analysis Completed Time		---	---	18:11	18:11	18:11
5: MAC		---	---	1	10	---
6: MDL		---	---	0.003	0.006	0.006
7: 1A102 TW Water Treatment Facility	11-Jul-23 12:15	8.8	11.0	0.004	0.006	0.010

MAC - Maximum Acceptable Concentration
 MDL - SGS Method Detection Limit

Method Descriptions

Units	Description	SGS Method Code
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



Carrie Greenlaw
 Project Specialist,
 Environment, Health & Safety

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17-July-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 12 July 2023
 LR Report: CA20678-JUL23

10227 Ilderton Rd.
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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	12-Jul-23	12-Jul-23	12-Jul-23	12-Jul-23
2: Analysis Start Time		---	---	16:40	16:40	16:40	15:45
3: Analysis Completed Date		---	---	14-Jul-23	14-Jul-23	14-Jul-23	14-Jul-23
4: Analysis Completed Time		---	---	15:45	15:45	15:45	15:45
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	11-Jul-23 12:06	9.0	1.13	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



Cristal Schuster
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28-July-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 26 July 2023
 LR Report: CA21465-JUL23

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

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	26-Jul-23	26-Jul-23	26-Jul-23	26-Jul-23
2: Analysis Start Time		---	---	15:50	15:50	15:50	15:25
3: Analysis Completed Date		---	---	28-Jul-23	28-Jul-23	28-Jul-23	28-Jul-23
4: Analysis Completed Time		---	---	15:23	15:23	15:23	15:23
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	25-Jul-23 11:44	14.1	1.05	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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

08-August-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 02 August 2023
 LR Report: CA20223-AUG23

10227 Ilderton Rd.
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 N0M 2A0, Canada

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 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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	02-Aug-23	02-Aug-23	02-Aug-23	02-Aug-23
2: Analysis Start Time		---	---	16:45	16:45	16:45	16:10
3: Analysis Completed Date		---	---	08-Aug-23	08-Aug-23	08-Aug-23	08-Aug-23
4: Analysis Completed Time		---	---	09:19	09:19	09:19	09:19
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	01-Aug-23 11:29	8.2	---	0	0	---	---
7: 1A0FD RW Well #3	01-Aug-23 11:27	8.2	---	0	0	---	---
8: 1A106 DW Sample Station	01-Aug-23 11:19	8.2	1.10	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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14-August-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 09 August 2023
 LR Report: CA20479-AUG23

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 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	09-Aug-23	09-Aug-23	09-Aug-23	09-Aug-23
2: Analysis Start Time		---	---	15:10	15:10	15:10	14:35
3: Analysis Completed Date		---	---	11-Aug-23	11-Aug-23	11-Aug-23	11-Aug-23
4: Analysis Completed Time		---	---	15:03	15:03	15:03	15:03
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	08-Aug-23 16:11	8.1	1.56	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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25-August-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 23 August 2023
LR Report: CA21338-AUG23

10227 Ilderton Rd.
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 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	23-Aug-23	23-Aug-23	23-Aug-23	23-Aug-23
2: Analysis Start Time		---	---	11:05	11:05	11:05	10:20
3: Analysis Completed Date		---	---	25-Aug-23	25-Aug-23	25-Aug-23	25-Aug-23
4: Analysis Completed Time		---	---	11:39	11:39	11:39	11:39
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	22-Aug-23 10:41	13.2	1.09	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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11-September-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 06 September 2023
LR Report: CA20189-SEP23

10227 Ilderton Rd.
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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	06-Sep-23	06-Sep-23	06-Sep-23	06-Sep-23
2: Analysis Start Time		---	---	14:35	14:35	14:35	14:00
3: Analysis Completed Date		---	---	08-Sep-23	08-Sep-23	08-Sep-23	08-Sep-23
4: Analysis Completed Time		---	---	13:26	13:26	13:26	13:26
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	05-Sep-23 09:10	6.3	---	0	0	---	---
7: 1A0FD RW Well #3	05-Sep-23 09:06	6.3	---	0	0	---	---
8: 1A106 DW Sample Station	05-Sep-23 08:59	6.3	1.18	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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25-September-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 20 September 2023
LR Report: CA21085-SEP23

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	20-Sep-23	20-Sep-23	20-Sep-23	20-Sep-23
2: Analysis Start Time		---	---	15:25	15:25	15:25	14:55
3: Analysis Completed Date		---	---	22-Sep-23	22-Sep-23	22-Sep-23	22-Sep-23
4: Analysis Completed Time		---	---	16:14	16:14	16:14	16:14
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	19-Sep-23 08:38	6.8	1.10	0	0	0	280

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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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06-October-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 04 October 2023
LR Report: CA20201-OCT23

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	04-Oct-23	04-Oct-23	04-Oct-23	04-Oct-23
2: Analysis Start Time		---	---	11:15	11:15	11:15	10:55
3: Analysis Completed Date		---	---	06-Oct-23	06-Oct-23	06-Oct-23	06-Oct-23
4: Analysis Completed Time		---	---	12:57	12:57	12:57	12:57
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	03-Oct-23 11:33	7.4	---	0	0	---	---
7: 1A0FD RW Well #3	03-Oct-23 11:18	7.4	---	0	0	---	---
8: 1A106 DW Sample Station	03-Oct-23 10:36	7.4	1.11	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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13-October-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 04 October 2023
LR Report: CA30083-OCT23

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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	6: MDL	7: 1A106 DW Sample Station	8: 1A102 TW Water Treatment Facility
Sample Date & Time							03-Oct-23 10:36	03-Oct-23 11:25
Temperature Upon Receipt [at London Lab °C]	---	---	---	---	---	---	8.1	8.1
Temperature Upon Receipt [at Lakefield Lab °C]	---	---	---	---	---	---	9.0	9.0
Field Free Chlorine [mg/L]	---	---	---	---	---	---	1.11	---
Nitrite (as N) [mg/L]	06-Oct-23	14:28	10-Oct-23	14:36	1.0	0.003	---	0.003 <MDL
Nitrate (as N) [mg/L]	06-Oct-23	14:28	10-Oct-23	14:36	10	0.006	---	0.006 <MDL
Nitrate + Nitrite (as N) [mg/L]	06-Oct-23	14:28	10-Oct-23	14:36	---	0.006	---	0.006 <MDL
Trihalomethanes (total) [ug/L]	06-Oct-23	12:29	10-Oct-23	10:15	100 (RAA)	0.37	16	---
Bromodichloromethane [ug/L]	06-Oct-23	12:29	10-Oct-23	10:15	--	0.26	5.2	---
Bromoform [ug/L]	06-Oct-23	12:29	10-Oct-23	10:15	--	0.34	0.34 <MDL	---
Chloroform [ug/L]	06-Oct-23	12:29	10-Oct-23	10:15	--	0.29	7.6	---
Dibromochloromethane [ug/L]	06-Oct-23	12:29	10-Oct-23	10:15	--	0.37	3.1	---
Total Haloacetic Acids (HAA5) [ug/L]	12-Oct-23	07:18	13-Oct-23	11:24	80 (RAA)	5.3	5.3 <MDL	---
Chloroacetic Acid [ug/L]	12-Oct-23	07:18	13-Oct-23	11:24	---	4.7	4.7 <MDL	---
Bromoacetic Acid [ug/L]	12-Oct-23	07:18	13-Oct-23	11:24	---	2.9	2.9 <MDL	---
Dichloroacetic Acid [ug/L]	12-Oct-23	07:18	13-Oct-23	11:24	---	2.6	2.6 <MDL	---
Dibromoacetic Acid [ug/L]	12-Oct-23	07:18	13-Oct-23	11:24	---	2.0	2.0 <MDL	---
Trichloroacetic Acid [ug/L]	12-Oct-23	07:18	13-Oct-23	11:24	---	5.3	5.3 <MDL	---

MAC - Maximum Acceptable Concentration
 MDL - SGS Method Detection Limit

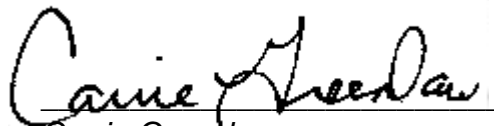
Method Descriptions

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

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LR Report : CA30083-OCT23



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

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20-October-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 18 October 2023
LR Report: CA20986-OCT23

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	18-Oct-23	18-Oct-23	18-Oct-23	18-Oct-23
2: Analysis Start Time		---	---	15:55	15:55	15:55	15:15
3: Analysis Completed Date		---	---	20-Oct-23	20-Oct-23	20-Oct-23	20-Oct-23
4: Analysis Completed Time		---	---	14:01	14:01	14:01	14:01
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	17-Oct-23 11:49	5.4	1.18	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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09-November-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 01 November 2023
LR Report: CA20053-NOV23

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	01-Nov-23	01-Nov-23	01-Nov-23	01-Nov-23
2: Analysis Start Time		---	---	15:50	15:50	15:50	15:30
3: Analysis Completed Date		---	---	03-Nov-23	03-Nov-23	03-Nov-23	03-Nov-23
4: Analysis Completed Time		---	---	13:43	13:43	13:43	13:43
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	31-Oct-23 12:05	4.4	0.85	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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10-November-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 08 November 2023
LR Report: CA20412-NOV23

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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-Nov-23	08-Nov-23
2: Analysis Start Time		---	15:55	15:55
3: Analysis Completed Date		---	10-Nov-23	10-Nov-23
4: Analysis Completed Time		---	13:02	13:02
5: MAC		---	0	0
6: 1A0FC RW Well #2	07-Nov-23 12:48	4.9	0	0
7: 1A0FD RW Well #3	07-Nov-23 12:53	4.9	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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17-November-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 15 November 2023
LR Report: CA20660-NOV23

10227 Ilderton Rd.
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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	15-Nov-23	15-Nov-23	15-Nov-23	15-Nov-23
2: Analysis Start Time		---	---	13:30	13:30	13:30	13:05
3: Analysis Completed Date		---	---	17-Nov-23	17-Nov-23	17-Nov-23	17-Nov-23
4: Analysis Completed Time		---	---	13:25	13:25	13:25	13:25
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	14-Nov-23 10:32	4.9	1.19	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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01-December-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 29 November 2023
LR Report: CA21292-NOV23

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 N0M 2A0, Canada

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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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	29-Nov-23	29-Nov-23	29-Nov-23	29-Nov-23
2: Analysis Start Time		---	---	14:50	14:50	14:50	13:40
3: Analysis Completed Date		---	---	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23
4: Analysis Completed Time		---	---	12:29	12:29	12:29	12:29
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	28-Nov-23 12:10	5.2	1.22	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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18-December-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 13 December 2023
LR Report: CA20593-DEC23

10227 Ilderton Rd.
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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 °C	Field ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	13-Dec-23	13-Dec-23	13-Dec-23	13-Dec-23
2: Analysis Start Time		---	---	17:05	17:05	17:05	16:30
3: Analysis Completed Date		---	---	15-Dec-23	15-Dec-23	15-Dec-23	15-Dec-23
4: Analysis Completed Time		---	---	17:38	17:38	17:38	17:38
5: MAC		---	---	0	0	---	---
6: 1A0FC RW Well #2	12-Dec-23 09:49	5.2	---	0	0	---	---
7: 1A0FD RW Well #3	12-Dec-23 09:38	5.2	---	0	0	---	---
8: 1A106 DW Sample Station	12-Dec-23 08:39	5.2	1.30	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001



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

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

29-December-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 27 December 2023
LR Report: CA21045-DEC23

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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	27-Dec-23	27-Dec-23	27-Dec-23	27-Dec-23
2: Analysis Start Time		---	---	14:00	14:00	14:00	13:30
3: Analysis Completed Date		---	---	29-Dec-23	29-Dec-23	29-Dec-23	29-Dec-23
4: Analysis Completed Time		---	---	12:33	12:33	12:33	12:33
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	26-Dec-23 12:24	8.9	1.23	0	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
cfu/100mL	Background 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 with 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 *

161493

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 _____ mg/L

High Turbidity _____ NTU

Other Low distribution pressure - drop to 50 kpa (7psi).

Details of Adverse Result *

Water plant distribution system was isolated to allow for the replacement of a leaking chlorine injector ball valve fitting on March 14. The system was isolated at 17:23 and the distribution pressure was 400.8 kpa (58psi). The leak was repaired. The distribution pressure was 50 kpa (7psi) upon completion of the repair and system start up at 17:40. Chlorine residuals were checked at the outgoing distribution sample point = 1.18 mg/l free chlorine and a residual of 1.12 mg/l free chlorine at the end of system at the sample station.

DWS Information

DWS Name *

Melrose Drinking Water System

DWS Number *

260002915

Last Name *

Joudrey

First Name *

Eric

Position *

Manager of Water & Wastewater Operations

Email Address

joudrey@middlesexcentre.ca

Telephone Number (including area code)

519-859-3473

ext.

Additional Comments

system residuals were checked on distribution system existing the treatment building - 1.18 mg/l free chlorine. Residual was taken at sample station at end of distribution - 1.12 mg/l free chlorine.

Oral Notification to Health Unit - Person Contacted

Public Health Unit Name *

Middlesex London Health Unit

Last Name *

Walsh

First Name *

Chris

Position *

Public Health Inspector

Telephone Number (including area code) *

519-617-0518

ext.

Fax Number (including area code)

Date (yyyy/mm/dd) *

2023/03/15

Time (hh:mm) *

8:50 AM

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 type="checkbox"/> Yes <input type="checkbox"/> No	<input 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 type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Users Advised to Boil Water / Seek Alternate Source	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input 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 *

Jabeen

First Name *

Fatima

Position *

Environmental Officer

DWS Person Providing Oral Notifying *

Eric Joudrey

Date (yyyy/mm/dd) *

2023/03/15

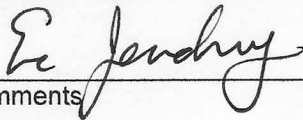
Time (hh:mm) *

8:31 AM

Initial DWS Notification Prepared by *

Eric Joudrey

Signature



Date (yyyy/mm/dd) *

2023/03/15

Additional Comments

Do you have another adverse to report? * Yes No

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

DWS Information

DWS Name * Melrose Drinking Water System	DWS Number * 260002915
---------------------------------------------	---------------------------

DWS Contact Name	
Last Name * Joudrey	First Name * Eric

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

Initial AWQI Number ¹ * 161493	Date Resolved (yyyy/mm/dd) * 2023/03/16	Date Resolution Notice Provided (yyyy/mm/dd) * 2023/03/20
----------------------------------------------	--------------------------------------------	--------------------------------------------------------------

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) *
System sampled at treatment system discharge point (upstream) and at hydrant at end of distribution.

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

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			0	

Notification/Report Provided By

Fields marked with an asterisk (*) are mandatory.

Section 2B continued

Last Name *	Joudrey	First Name *	Eric
Position *	Manager of Water and Wastewater Operations		
Signature		Date (yyyy/mm/dd) *	2023/03/20
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.



SGS Canada Inc.

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

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

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

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

Works #: 260002915

20-March-2023

Date Rec. : 15 March 2023
LR Report: CA20678-MAR23

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	Total Coliform Background cfu/100mL
1: Analysis Start Date		---	---	15-Mar-23	15-Mar-23	15-Mar-23
2: Analysis Start Time		---	---	16:55	16:55	16:55
3: Analysis Completed Date		---	---	18-Mar-23	18-Mar-23	18-Mar-23
4: Analysis Completed Time		---	---	11:08	11:08	11:08
5: MAC		---	---	0	0	---
6: 1A102 TW Water Treatment Facility	15-Mar-23 08:59	8.4	1.18	0	0	0
7: DW Hydrant 10, 59 Wynfield Ln	15-Mar-23 08:53	8.4	1.04	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

Online LIMS

0003269863



SGS Canada Inc.

657 Consortium Court

London - Ontario - N6E 2S8

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

Works #: 260002915

LR Report : CA20678-MAR23

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

Instructions

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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.

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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.

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 *

161701

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 _____ mg/L

High Turbidity _____ NTU

Other **Drop of distribution pressure at plant outlet**

Details of Adverse Result *

While repairing the backup generator there was a power outage resulting in no power being supplied to the plant between 16:15 and 16:38. As a result of this the distribution pressure dropped to a minimum of 37.07 kPa at 16:35. When generator power was restored the operator on site began flushing hydrants, and took a sample.

DWS Information

DWS Name *

Melrose Limited Groundwater System

DWS Number *

260002915

Last Name *

Tyler

First Name *

Jocelyn

Position *

Compliance Coordinator / Maintenance Operator

Email Address

Tyler@middlesexcentre.ca

Telephone Number (including area code)

519-854-7639

ext.

Additional Comments

Oral Notification to Health Unit - Person Contacted

Public Health Unit Name *

Middlesex-London Health Unit

Last Name *

First Name *

Position *

Telephone Number (including area code) *

519-663-5317

ext.

Fax Number (including area code)

Date (yyyy/mm/dd) *

Time (hh:mm) *

Fields marked with an asterisk (*) are mandatory.

Section 2A continued

DWS Person Providing Oral Notification *	Email Address
Jocelyn Tyler	Tyler@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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	One sample taken during flushing
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	Disinfection at distribution analyzer was at 1.05 mg/L when the pressure was at it's lowest
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	Flushing at closest and furthest points in the system. Flushing also conducted next day with a residual of 1.13 mg/L
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:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
--------	----------------------------------------------------------	---------------------------------------------------------------------------------------	--

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

Last Name *	First Name *
McKay	Candice

Position *	
Senior Environmental Officer	

DWS Person Providing Oral Notifying *	Date (yyyy/mm/dd) *	Time (hh:mm) *
Jocelyn Tyler	2023/04/06	6:45 PM

Initial DWS Notification Prepared by *	
Jocelyn Tyler	

Signature	Date (yyyy/mm/dd) *
	2023/04/07

Additional Comments
Called local health unit and left message, have yet to receive a reply.

Do you have another adverse to report? * Yes No

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:

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

DWS Information

DWS Name *	Melrose Limited Groundwater System	DWS Number *	260002915
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DWS Contact Name

Last Name *	Jocelyn	First Name *	Tyler
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Telephone Number (including area code) *	519-854-7639	Fax Number (including area code)		Email Address	tyler@middlesexcentre.ca
------------------------------------------	--------------	----------------------------------	--	---------------	--------------------------

Initial AWQI Number ¹ *	161701	Date Resolved (yyyy/mm/dd) *	2023/04/10	Date Resolution Notice Provided (yyyy/mm/dd) *	2023/04/11
------------------------------------	--------	------------------------------	------------	------------------------------------------------	------------

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) *

System was flushed directly after the low pressure incident with a sample taken after flushing. System was also flushed the next day with residuals within normal range before and after flushing.

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	0

Notification/Report Provided By

Last Name * Tyler	First Name * Jocelyn
----------------------	-------------------------

Position *
Water wastewater maintenance operator / Compliance Coordinator

Signature 	Date (yyyy/mm/dd) * 2023/04/11
------------------------------------------------------------------------------------------------	-----------------------------------

Additional Comments
Have not yet heard from Middlesex London Health Unit.

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.

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

10-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 07 April 2023
 LR Report: CA20338-APR23

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 ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Total Coliform Background cfu/100mL
1: Analysis Start Date		---	---	07-Apr-23	07-Apr-23	07-Apr-23
2: Analysis Start Time		---	---	17:40	17:40	17:40
3: Analysis Completed Date		---	---	10-Apr-23	10-Apr-23	10-Apr-23
4: Analysis Completed Time		---	---	13:28	13:28	13:28
5: MAC		---	---	0	0	---
6: DW Melrose Hydrant ME-01	06-Apr-23 18:16	5.7	1.59	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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

Instructions

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Are you a *

Licensed Laboratory DWS

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

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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

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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 * Melrose Limited Groundwater System	DWS Number * 260002915
--------------------------------------------------	---------------------------

DWS Contact Name

Last Name * Tyler	First Name * Jocelyn
----------------------	-------------------------

Telephone Number (including area code) * 519-854-7639 ext.	Fax Number (including area code)	Email Address tyler@middlesexcentre.ca
------------------------------------------------------------------	----------------------------------	-------------------------------------------

Initial AWQI Number ¹ * 161701	Date Resolved (yyyy/mm/dd) * 2023/04/10	Date Resolution Notice Provided (yyyy/mm/dd) * 2023/04/11
----------------------------------------------	--------------------------------------------	--------------------------------------------------------------

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) *

This is a follow-up to the Notice of Resolution sent on April 11th. Spoke with Andrew Powell, Manager of Safe Water, Rabies and Vector Borne Disease (phone # 226-678-4129), at 08:23 2023/04/12. He was satisfied with the course of action taken and the chlorine residuals at time of incident and no directions were given.

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


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	0

Notification/Report Provided By

Last Name *	Tyler	First Name *	Jocelyn
Position *	Water wastewater Operator / Compliance Coordinator		
Signature		Date (yyyy/mm/dd) *	2023/04/12
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.

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

10-April-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 07 April 2023
 LR Report: CA20338-APR23

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 ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Total Coliform Background cfu/100mL
1: Analysis Start Date		---	---	07-Apr-23	07-Apr-23	07-Apr-23
2: Analysis Start Time		---	---	17:40	17:40	17:40
3: Analysis Completed Date		---	---	10-Apr-23	10-Apr-23	10-Apr-23
4: Analysis Completed Time		---	---	13:28	13:28	13:28
5: MAC		---	---	0	0	---
6: DW Melrose Hydrant ME-01	06-Apr-23 18:16	5.7	1.59	0	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
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Angela Stott, B.Sc.
 Branch Manager-London
 Environment, Health & Safety

Instructions

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Total Trihalomethanes (THMs) and Haloacetic Acids (HAAs)

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Are you a *

Licensed Laboratory DWS

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

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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 *	Melrose Drinking Water System	DWS Number *	260002915
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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.ca
------------------------------------------	--------------	------	----------------------------------	---------------	---------------------------

Initial AWQI Number ¹ *	163698	Date Resolved (yyyy/mm/dd) *	2023/10/05	Date Resolution Notice Provided (yyyy/mm/dd) *	2023/10/06
------------------------------------	--------	------------------------------	------------	------------------------------------------------	------------

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) *

- Flushed from the treatment plant, upstream hydrant Me-01 and downstream hydrant Me-10.
- Collected bacti samples from the treatment plant, upstream hydrant Me-01 and downstream Sample Station.
- Replaced generator starter.
- Sample results are attached to this report.

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			0	

Notification/Report Provided By

Fields marked with an asterisk (*) are mandatory.

Section 2B continued

Last Name *		First Name *	
Watson		Brian	
Position *			
Water/Wastewater Operations Supervisor			
Signature		Date (yyyy/mm/dd) *	
		2023/10/06	
Additional Comments			

Do you have another adverse to report? Yes No

¹ The original adverse test result.

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Section 3 - Adverse Analytical Results

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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 * 163698 | 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 _____ mg/L
- High Turbidity _____ NTU
- Other Low Pressure

Details of Adverse Result *
 Low pressure event during a power outage.

On 2-Oct-23 at 14:35 a power outage occurred and the generator failed to start due to a bad starter. The power was restored at 14:57 and the lowest pressure reading was 84.78 kpa at 14:54.

DWS Information

DWS Name * Melrose Drinking Water System		DWS Number * 260002915
Last Name * Watson	First Name * Brian	
Position * Water/Wastewater Operations Supervisor		
Email Address watson@middlesexcentre.ca	Telephone Number (including area code) 519-854-7618	ext.
Additional Comments		

Oral Notification to Health Unit - Person Contacted

Public Health Unit Name * Middlesex-London Health Unit			
Last Name * Walsh		First Name * Chris	
Position * Public Health Inspector			
Telephone Number (including area code) * 519-617-0518 ext.	Fax Number (including area code)	Date (yyyy/mm/dd) * 2023/10/02	Time (hh:mm) * 6:10 PM

Fields marked with an asterisk (*) are mandatory.

Section 2A continued

DWS Person Providing Oral Notification *	Email Address
Brian Watson	watson@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 type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Disinfection Restored / Increased	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Mains / Pipes Flushed	<input 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 type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Users Advised to Boil Water / Seek Alternate Source	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

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

Other: Sample and test, repair generator	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample Cl2 Residuals: 17:10 - 1.17 mg/L 17:23 - 1.14 mg/L 17:53 - 1.12 mg/L
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Oral Notification to Spills Action Centre (SAC) - Person Contacted

Last Name *	First Name *
Daya	Aaron

Position *
Environmental Officer

DWS Person Providing Oral Notifying *	Date (yyyy/mm/dd) *	Time (hh:mm)*
Brian Watson	2023/10/03	3:18 PM

Initial DWS Notification Prepared by *
Brian Watson

Signature	Date (yyyy/mm/dd) *
	2023/10/03

Additional Comments

Do you have another adverse to report? * Yes No

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

05-October-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 03 October 2023

LR Report: CA20044-OCT23

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	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	03-Oct-23	03-Oct-23	03-Oct-23	03-Oct-23
2: Analysis Start Time		---	---	11:40	11:40	11:40	11:00
3: Analysis Completed Date		---	---	05-Oct-23	05-Oct-23	05-Oct-23	05-Oct-23
4: Analysis Completed Time		---	---	10:48	10:48	10:48	10:48
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	02-Oct-23 17:53	10.8	1.12	0	0	0	< 10
7: 1A102 TW Water Treatment Facility	02-Oct-23 17:10	10.8	1.17	0	0	0	20
8: DW Hydrant ME-01	02-Oct-23 17:23	10.8	1.14	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001


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

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

06-October-2023

Mun of Middlesex Centre (Melrose)

Attn : Brian Watson

Date Rec. : 04 October 2023
 LR Report: CA20200-OCT23

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 ResCl Free mg/L	Total Coliform cfu/100mL	E.Coli cfu/100mL	Total Coliform Background cfu/100mL	Heterotrophic Plate Count (HPC) cfu/1mL
1: Analysis Start Date		---	---	04-Oct-23	04-Oct-23	04-Oct-23	04-Oct-23
2: Analysis Start Time		---	---	11:15	11:15	11:15	10:55
3: Analysis Completed Date		---	---	06-Oct-23	06-Oct-23	06-Oct-23	06-Oct-23
4: Analysis Completed Time		---	---	12:57	12:57	12:57	12:57
5: MAC		---	---	0	0	---	---
6: 1A106 DW Sample Station	03-Oct-23 17:56	7.4	1.09	0	0	0	< 10
7: 1A102 TW Water Treatment Facility	03-Oct-23 17:14	7.4	1.11	0	0	0	< 10
8: DW Hydrant ME-01	03-Oct-23 17:26	7.4	1.08	0	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
cfu/100mL	Background by MF (using DCM)	ME-CA-[ENV]MIC-LAK-AN-001

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