

Ontario Drinking-Water Systems Regulation O. Reg. 170/03 SAM Drinking Water System Annual Report 2024

Drinking-Water System Number:	260008284
Drinking-Water System Name:	SAM Drinking Water System
Drinking-Water System Owner:	Municipality of Central Huron
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	January 1 to December 31, 2024

Complete if your Category is Large Municipal <u>Residential or Small Municipal Residential</u>	Complete for all other Categories.
Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]	Number of Designated Facilities served:
Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []	Did you provide a copy of your annualreport to all Designated Facilities youserve?Yes [] No []
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.	Number of Interested Authorities you report to:
Municipal Office	Did you provide a copy of
23 Albert St. Clinton Ontario	your annual report to all Interested Authorities you report to for each Designated Facility?
Utilities Work Centre	Yes [] No []
17 Park Lane Clinton Ontario	

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number		

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water? Yes [] No []



Ontario Drinking-Water Systems Regulation O. Reg. 170/03 SAM Drinking Water System Annual Report 2024

Indicate how you notified system users that your annual report is available, and is free of charge.

- [X] Public access/notice via the web
- [] Public access/notice via Government Office
- [] Public access/notice via a newspaper
- [X] Public access/notice via Public Request
- [] Public access/notice via a Public Library
- [] Public access/notice via other method _

Describe your Drinking-Water System

The SAM Drinking Water System is located at 77301 Forest Ridge Road. There is a single drilled groundwater well, approximately 159mm diameter by 59.44m deep, with a submersible well pump.

Treatment consists of sodium hypochlorite disinfection in a 33m of 300 mm contact water main. Sodium silicate is added for iron sequestering.

Storage is provided by 3 hydropneumatic pressure tanks. Standby power is provided by a natural gas powered generator with automatic power transfer.

The distribution system supplies approximately 14 year around residential connections.

List all water treatment chemicals used over this reporting period

Sodium hypochlorite

Sodium silicate

Were any significant expenses incurred to?

- [] Install required equipment
- **[X]** Repair required equipment
- [X] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

UPS replaced and PLC replaced

Ontario Drinking-Water Systems Regulation O. Reg. 170/03

SAM Drinking Water System Annual Report 2024

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to **Spills Action Centre**

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
March 11, 2024	Arsenic	10.9	µg/L	Resample taken	March 18, 2024
March 11, 2024	Sodium	21.3	mg/L	Resample, letters to customers	Mar 19, 2024
March 8, 2024	Fluoride	1.62	mg/L	Resample, letters to customers	Mar 20, 2024
Jan 13, 2024	Chlorine residual @ pumphouse	<0.15	mg/L	Restore chlorination, flush, distribution residual taken	Jan 13, 2024

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	27	0 - 0	0 - 0	0	
Treated	27	0 - 0	0 - 0	27	0-20
Distribution	27	0 - 0	0 - 0	27	0-10

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	NOTE: For continuous
Turbidity			monitors use 8760 as the
Raw Well	21	0.24-1.44 NTU	number of samples.
Chlorine			
Treated	8760	0.11-4.97mg/L	
Distribution	105	0.70-1.83mg/L	
Fluoride (If the DWS provides fluoridation)	N/A		

Ontario

Ontario Drinking-Water Systems Regulation O. Reg. 170/03 SAM Drinking Water System Annual Report 2024

NOTE: Record the unit of measure if it is not milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
None to Report				

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Mar 5, 2024	ND	μg/L	no
Arsenic	Oct 22, 2024	7.6	μg/L	no
Barium	Mar 5, 2024	50.5	μg/L	no
Boron	Mar 5, 2024	118	μg/L	no
Cadmium	Mar 5, 2024	0.003	μg/L	no
Chromium	Mar 5, 2024	0.08	μg/L	no
*Lead	See below			no
Mercury	Mar 5, 2024	ND	μg/L	no
Selenium	Mar 5, 2024	ND	μg/L	no
Sodium	Mar 12, 2024	19.6	mg/L	no
Uranium	Mar 5, 2024	0.639	μg/L	no
Fluoride	Mar 12, 2024	1.52	mg/L	yes
Nitrite	Oct 22, 2024	ND	mg/L	no
Nitrate	Oct 22, 2024	ND	mg/L	no

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances		
Plumbing	0-reduced sampling now in effect				
Distribution	1	0.14µg/L	0		

Ontario

Ontario Drinking-Water Systems Regulation O. Reg. 170/03 SAM Drinking Water System Annual Report 2024

ParameterSample DateResult ValueUnit of MeasureExc MeasureAlachlorMar 5, 2024NDμg/LnoAtrazineMar 5, 2024NDμg/LnoAtrazine + N-dealkylated metobolitesMar 5, 2024NDμg/LnoAzinphos-methylMar 5, 2024NDμg/LnoBenzeneMar 5, 2024NDμg/LnoBenzeneMar 5, 2024NDμg/LnoBenzo(a)pyreneMar 5, 2024NDμg/Lno	reedance
AlachlorMar 5, 2024NDμg/LnoAtrazineMar 5, 2024NDμg/LnoAtrazine + N-dealkylated metobolitesMar 5, 2024NDμg/LnoAzinphos-methylMar 5, 2024NDμg/LnoBenzeneMar 5, 2024NDμg/Lno	
AtrazineMar 5, 2024NDµg/LnoAtrazine + N-dealkylated metobolitesMar 5, 2024NDµg/LnoAzinphos-methylMar 5, 2024NDµg/LnoBenzeneMar 5, 2024NDµg/Lno	
Atrazine + N-dealkylated metobolitesMar 5, 2024NDµg/LnoAzinphos-methylMar 5, 2024NDµg/LnoBenzeneMar 5, 2024NDµg/Lno	
Azinphos-methyl Mar 5, 2024 ND μg/L no Benzene Mar 5, 2024 ND μg/L no	
BenzeneMar 5, 2024NDμg/Lno	
BromoxynilMar 5, 2024ND $\mu g/L$ no	
CarbarylMar 5, 2024ND $\mu g/L$ no	
CarbofuranMar 5, 2024ND $\mu g/L$ no	
Carbon TetrachlorideMar 5, 2024ND $\mu g/L$ no	
ChlorpyrifosMar 5, 2024NDµg/Lno	
Desethyl atrazineMar 5, 2024ND $\mu g/L$ no	
DiazinonMar 5, 2024ND $\mu g/L$ no	
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1,2-DichlorobenzeneMar 5, 2024ND $\mu g/L$ no	
1,4-DichlorobenzeneMar 5, 2024ND $\mu g/L$ no	
1,2-DichloroethaneMar 5, 2024ND $\mu g/L$ no	
1,1-DichloroethyleneMar 5, 2024NDµg/Lno	
(vinylidene chloride)	
DichloromethaneMar 5, 2024NDμg/Lno	
2,4 Dichlorophenol Mar 5, 2024 ND μg/L no	
2,4-Dichlorophenoxy acetic acid (2,4-D) Mar 5, 2024 ND µg/L no	
Diclofop-methyl Mar 5, 2024 ND µg/L no	
Dimethoate Mar 5, 2024 ND µg/L no	
Diquat Mar 5, 2024 ND μg/L no	
Diuron Mar 5, 2024 ND μg/L no	
Glyphosate Mar 5, 2024 ND µg/L no	
MalathionMar 5, 2024NDμg/Lno	
MCPA Mar 5, 2024 ND μg/L no	
Metolachlor Mar 5, 2024 ND μg/L no	
MetribuzinMar 5, 2024NDμg/Lno	
MonochlorobenzeneMar 5, 2024NDμg/Lno	
ParaquatMar 5, 2024NDμg/Lno	
PentachlorophenolMar 5, 2024NDμg/Lno	
Phorate Mar 5, 2024 ND μg/L no	
PicloramMar 5, 2024NDμg/Lno	

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Ontario Drinking-W

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SAM Drinking Water System Annual Report 2024								
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Polychlorinated Biphenyls(PCB)	Mar 5, 2024	ND	μg/L	no
Prometryne	Mar 5, 2024	ND	μg/L	no
Simazine	Mar 5, 2024	ND	μg/L	no
ТНМ	2024	9.4	μg/L	no
(annual average)				
Terbufos	Mar 5, 2024	ND	μg/L	no
Tetrachloroethylene	Mar 5, 2024	ND	μg/L	no
2,3,4,6-Tetrachlorophenol	Mar 5, 2024	ND	µg/L	no
Triallate	Mar 5, 2024	ND	μg/L	no
Trichloroethylene	Mar 5, 2024	ND	μg/L	no
2,4,6-Trichlorophenol	Mar 5, 2024	ND	μg/L	no
Trifluralin	Mar 5, 2024	ND	μg/L	no
Vinyl Chloride	Mar 5, 2024	ND	μg/L	no

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Fluoride	1.52	mg/L	Mar 12, 2024
Arsenic	8.1	ug/L	Jan 23, 2024
Arsenic	7.8	ug/L	Mar 12, 2024
Arsenic	8.4	ug/L	Apr 23, 2024
Arsenic	7.2	ug/L	July 30, 2024
Arsenic	7.6	ug/L	Oct 22, 2024