

# ANNUAL REPORT

ONTARIO REGULATION 170/03  
SECTION 11

## COLGAN DRINKING WATER SYSTEM



FOR THE PERIOD:  
JANUARY 1, 2021 – DECEMBER 31, 2021

*Prepared for the Corporation of the Township of Adjala-Tosorontio  
by the Ontario Clean Water Agency*



<b>Drinking-Water System Number:</b>	<b>220009933</b>
<b>Drinking-Water System Name:</b>	<b>Colgan Drinking Water System</b>
<b>Drinking-Water System Owner:</b>	The Corporation of the Township of Adjala-Tosorontio
<b>Drinking-Water System Category:</b>	Small Municipal Residential
<b>Period being reported:</b>	<b>January 1, 2021 to December 31, 2021</b>

**Does your Drinking-Water System serve more than 10,000 people?**

No

**Is your annual report available to the public at no charge on a web site on the Internet?**

Yes

**Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.**

Summary Report is available for inspection at the Township of Adjala-Tosorontio Municipal Office at 7855 Side Road 30, Alliston, ON or on the following website: <http://www.adjtos.ca>

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

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Not Applicable	Not Applicable

**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?**

Not Applicable

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

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

**Description of Drinking-Water System:**

The Colgan water system is classified as a Small Municipal Residential water system with 73 services including one public (primary) school, one church and one day nursery (i.e. two designated facilities) in the community of Colgan. Water is supplied via three (3) municipal wells, two (2) pumphouses and an in-ground reservoir. Inspections and maintenance duties are conducted by OCWA staff on a regular basis to maintain compliance with Ontario Regulation 170/03 to ensure that Colgan's water supply is safe to drink.

**List of water treatment chemicals used during the reporting period:**

- Ultraviolet Light, Disinfection
- Sodium Hypochlorite 12% Solution NSF, Primary Disinfection
- Sodium Silicate NSF, Iron Sequestering

**Significant expenses incurred to:**

- Install required equipment
- Purchase required equipment
- Repair required equipment
- Replace required equipment

**Description of significant expenses incurred:**

1. [Watermain Installation for Future Development](#)
2. [UV1 and UV3 Sensor Replacement](#)
3. [Pressure Tank Bladder Replacement](#)

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 (yyyy/mm/dd)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date (yyyy/mm/dd)
Not Applicable					

**Table 1: Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period.**

Location	Number of Samples	Range of E. Coli or Fecal Results		Range of Total Coliform Results		Number of HPC Samples	Range of HPC Samples	
		Min	Max	Min	Max		Min	Max
Raw - RW1	12	0	0	0	0	N/A	N/A	N/A
Raw - RW2	12	0	0	0	12	N/A	N/A	N/A
Raw - RW3	11*	0	0	0	88	N/A	N/A	N/A
Distribution - DW	26	0	0	0	0	26	<10	10

Note:

- RW1 – Raw Water Well CW1
- RW2 – Raw Water Well CW2
- RW3 – Raw Water Well CW3

\*RW3 was not in service from May 2021-October 2021, RW3 samples taken for monitoring purposes. July 12<sup>th</sup>, 2021 sample was NDOGT- No data overgrown with Target Bacteria.

**Table 2: Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report.**

Location & Test	Number of Samples	Range of Results	
		Minimum	Maximum
Turbidity, Raw CW1 (Grab) [NTU]	12	0.24	0.9
Turbidity, Raw CW2 (Grab) [NTU]	12	0.34	0.84
Turbidity, Raw CW3 (Grab) [NTU]	12	0.29	0.88
Free Chlorine Residual, Treated (Continuous) [mg/L]	8760	0.08 <sup>^</sup>	4.98 <sup>+</sup>
Free Chlorine Residual, Treated (Grab) [mg/L]	162	1.21	3.1
Total Chlorine Residual, Treated (Grab) [mg/L]	162	1.37	3.5
Free Chlorine Residual, Distribution (Grab) [mg/L]	29	1.4	2.4

Note: The number of samples used for continuous monitoring units is 8760.

<sup>^</sup>The minimum treated free chlorine residual did not result in an Adverse Observation because the wells were locked out during the event. Adequate CT achieved.

<sup>+</sup>The maximum treated free chlorine residual was due to a chlorine analyzer calibration; it was not an authentic chlorine residual that was distributed throughout the system.

**Table 3: 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
Not Applicable				

**Table 4: Summary of Inorganic parameters tested during this reporting period or the most recent sample results**

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedances	
				MAC	½ MAC
Antimony: Sb (µg/L) - TW	2019/10/07	<MDL 0.093	6.0	No	No
Arsenic: As (µg/L) - TW	2019/10/07	0.4	10.0	No	No
Barium: Ba (µg/L) - TW	2019/10/07	87.5	1000.0	No	No
Boron: B (µg/L) - TW	2019/10/07	10.0	5000.0	No	No
Cadmium: Cd (µg/L) - TW	2019/10/07	0.003	5.0	No	No
Chromium: Cr (µg/L) - TW	2019/10/07	0.16	50.0	No	No
Mercury: Hg (µg/L) - TW	2019/10/07	<MDL 0.01	1.0	No	No
Selenium: Se (µg/L) - TW	2019/10/07	<MDL 0.04	50.0	No	No
Uranium: U (µg/L) - TW	2019/10/07	0.131	20.0	No	No
Fluoride (mg/L) - TW	2019/10/07	0.13	1.5	No	No
Nitrite (mg/L) - TW	2021/01/25	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2021/05/04	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2021/07/20	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2021/10/18	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2021/01/25	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2021/05/04	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2021/07/20	<MDL 0.006	10.0	No	No

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedances	
				MAC	½ MAC
Nitrate (mg/L) - TW	2021/10/18	<MDL 0.006	10.0	No	No
Sodium: Na (mg/L) - TW	2019/10/07	11.3	20*	N/A	N/A

Note: MDL = Minimum Detection Limit

\*There is no "MAC" for Sodium. The aesthetic objective is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets. Sodium is reportable every 60 months. Next set of sodium samples is due in 2024.

**Table 5: Summary of lead testing under Schedule 15.1 during this reporting period**

Location Type	Number of Samples	Range of Lead Results		MAC	Exceedances
		Minimum	Maximum		
Lead – Plumbing (µg/L)	Not Applicable - Relief from all Plumbing Requirements*				
Lead – Distribution** (µg/L)	2	0.03	1.38	10	0

Note: The Alkalinity results for 2021 were 206 and 207 mg/L as CaCO<sub>3</sub>. The pH results for 2021 for all samples taken was 7.0. The aesthetic objective/operational guideline for pH is 6.5-8.5.

\*This system qualifies for the plumbing exemption as per O. Regulation 170/03 Schedule 15.1-5 (9) (10).

\*\*Distribution lead samples are taken every 36 months. The last set of distribution lead samples were taken in 2021. The next set of distribution lead samples is scheduled for 2024.

**Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results**

Parameter	Sample Date (yyyy/mm/dd)*	Sample Result	Maximum Allowable Concentration (MAC)	Exceedances	
				MAC	½ MAC
Alachlor (µg/L) - TW	2019/10/07	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (µg/L) - TW	2019/10/07	<MDL 0.01	5.00	No	No
Azinphos-methyl (µg/L) - TW	2019/10/07	<MDL 0.05	20.00	No	No
Benzene (µg/L) - TW	2019/10/07	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (µg/L) - TW	2019/10/07	<MDL 0.004	0.01	No	No
Bromoxynil (µg/L) - TW	2019/10/07	<MDL 0.33	5.00	No	No
Carbaryl (µg/L) - TW	2019/10/07	<MDL 0.05	90.00	No	No
Carbofuran (µg/L) - TW	2019/10/07	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (µg/L) - TW	2019/10/07	<MDL 0.17	2.00	No	No
Chlorpyrifos (µg/L) - TW	2019/10/07	<MDL 0.02	90.00	No	No
Diazinon (µg/L) - TW	2019/10/07	<MDL 0.02	20.00	No	No
Dicamba (µg/L) - TW	2019/10/07	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (µg/L) - TW	2019/10/07	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (µg/L) - TW	2019/10/07	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (µg/L) - TW	2019/10/07	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (µg/L) - TW	2019/10/07	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (µg/L) - TW	2019/10/07	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (µg/L) - TW	2019/10/07	<MDL 0.15	900.00	No	No



Parameter	Sample Date (yyyy/mm/dd)*	Sample Result	Maximum Allowable Concentration (MAC)	Exceedances	
				MAC	½ MAC
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW	2019/10/07	<MDL 0.19	100.00	No	No
Diclofop-methyl (µg/L) - TW	2019/10/07	<MDL 0.4	9.00	No	No
Dimethoate (µg/L) - TW	2019/10/07	<MDL 0.06	20.00	No	No
Diquat (µg/L) - TW	2019/10/07	<MDL 1.0	70.00	No	No
Diuron (µg/L) - TW	2019/10/07	<MDL 0.03	150.00	No	No
Glyphosate (µg/L) - TW	2019/10/07	<MDL 1.0	280.00	No	No
Malathion (µg/L) - TW	2019/10/07	<MDL 0.02	190.00	No	No
Metolachlor (µg/L) - TW	2019/10/07	<MDL 0.01	50.00	No	No
Metribuzin (µg/L) - TW	2019/10/07	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW	2019/10/07	<MDL 0.3	80.00	No	No
Paraquat (µg/L) - TW	2019/10/07	<MDL 1.0	10.00	No	No
PCB (µg/L) - TW	2019/10/07	<MDL 0.04	3.00	No	No
Pentachlorophenol (µg/L) - TW	2019/10/07	<MDL 0.15	60.00	No	No
Phorate (µg/L) - TW	2019/10/07	<MDL 0.01	2.00	No	No
Picloram (µg/L) - TW	2019/10/07	<MDL 1.0	190.00	No	No
Prometryne (µg/L) - TW	2019/10/07	<MDL 0.03	1.00	No	No
Simazine (µg/L) - TW	2019/10/07	<MDL 0.01	10.00	No	No
Terbufos (µg/L) - TW	2019/10/07	<MDL 0.01	1.00	No	No
Tetrachloroethylene (µg/L) - TW	2019/10/07	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW	2019/10/07	<MDL 0.2	100.00	No	No
Triallate (µg/L) - TW	2019/10/07	<MDL 0.01	230.00	No	No
Trichloroethylene (µg/L) - TW	2019/10/07	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (µg/L) - TW	2019/10/07	<MDL 0.25	5.00	No	No
Trifluralin (µg/L) - TW	2019/10/07	<MDL 0.12	45.00	No	No
Vinyl Chloride (µg/L) - TW	2019/10/07	<MDL 0.02	1.00	No	No
Trihalomethane: Total Annual Average (µg/L) - DW	4 Quarters of 2021	13.225	100.00	No	No
Haloacetic Acid: Total Annual Average (µg/L) - DW	4 Quarters of 2021	5.375	80.00	No	No

Note: MDL = Minimum Detection Limit

\* O.Reg 170 13-2 (3) The owner of a small municipal residential system or non-municipal year-round residential system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months and tested for every parameter set out in Schedule 23/24. The last set of samples were taken in 2019 and the next set of samples is due in 2024.

**Table 7: List of 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
Not Applicable			