QMS Document Last Revision Date: January 5, 2018

Ontario Drinking-Water Systems Regulation O. Reg. 170-03 (s)11

Colling-Woodlands 2020 Annual Report

Drinking-Water System Number: 260005398

Drinking-Water System Name: Colling-Woodlands Drinking Water System
Drinking-Water System Owner: The Corporation of the Township of Clearview

Drinking-Water System Category: Small Municipal Residential Period being reported: January – December 2020

This Drinking-Water System does not serve more than 10,000 people.

This annual report is available to the public at no charge on the Clearview website at www.clearview.ca.

The Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection at the Clearview Municipal Office 217 Gideon Street, Stayner and at the Clearview public works building at 5833 County Road 96, Stayner.

No other Drinking Water Systems receive their drinking water from this system.

This annual report is available free of charge on our website, and at the locations listed above. Notice of the report availability is provided on the Clearview website and on digital signboards throughout Clearview. Report availability is also advertised in the local newspaper.

Description of the system:

The water source for this system is five groundwater source wells. Disinfection is provided with sodium hypochlorite. Sodium Silicate is used to sequester iron. Water storage is in two celled concrete reservoir with a total capacity of 100 m³. There are approximately 85 active service connections. There are 8 hydrants for flushing purposes, this system does not support fire protection.

Chemicals used for treatment include 12% Sodium Hypochlorite and Sodium Silicate.

Significant expenses incurred to install, repair, or replace equipment:

- Wells 1, 2, 3, & 4 rehabilitation \$13,500
- Well 5 rehabilitation & pump replacement \$5,800
- Communications equipment replacement \$18,400

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	Parameter	Result	Unit of	Corrective Action	Corrective
Date			Measure		Action Date
NA	NA	NA	NA	NA	NA

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

Sample Type	Number of	Range of E.Coli Or	Range of Total	Number of HPC	Range of HPC Results
	Samples	Fecal	Coliform	Samples	(min #)-
		Results	Results		(max #)
		(min #)-	(min #)-		
		(max #)	(max #)		CFU/100 mL
		CFU/100 mL	CFU/100 mL		
Raw – Well # 1	12	0 - 0	0 - 0	0	NA
Raw – Well # 2	16	0 - 1	0 - 1	0	NA
Raw – Well # 3	17	0 - 0	0 – 8	0	NA
Raw – Well # 4	13	0 - 0	0 - 1	0	NA
Raw – Well # 5	12	0 - 0	0 - 0	0	NA
Treated	0	N/A	N/A	0	N/A
Distribution	52	0 - 0	0 - 0	53	<10 - 120

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

Parameter	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
System Chlorine	105	0.38 - 1.21	mg/L
Chlorine	8760	0.51 - 1.52	mg/L
Turbidity			
Raw – Well # 1	12	0.58 - 1.94	NTU
Raw – Well # 2	12	0.65 - 1.88	NTU
Raw – Well # 3	12	0.83 - 2.14	NTU
Raw – Well # 4	12	0.73 - 1.81	NTU
Raw - Well # 5	12	0.31 - 2.02	NTU

NOTE: For continuous monitors use 8760 as the number of samples.

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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	Number of	Range of Lead Results	Unit of	Number of
Type	Samples	(min#) - (max #)	Measure	Exceedances
Plumbing	0	NA	mg/L	NA
Distribution	0	NA	mg/L	NA

Samples required under Schedule 13

Parameter	Last Date Sampled	Result	Unit of Measure
THM's (annual running average)	10/21/2020	0.0133	mg/L
HAA's (annual running average)	10/21/2020	<0.0053	mg/L
Nitrate	10/21/2020	<0.1	mg/L
Nitrite	10/21/2020	<0.1	mg/L
Sodium	08/28/2019	29.0	mg/L
Fluoride	07/18/2017	<0.1	mg/L

The most recent sample results of Inorganic parameters tested during this reporting period

- Appendix - A

The most recent sample results of Organic parameters sampled during this reporting period.

- Appendix - B

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards. – Sodium 29.0 mg/L

APPENDIX A INORGANIC PARAMETERS (SCHEDULE 23)



CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: DWC191008N REPORT No. B19-32357

Report To:

Clearview, Township of 217 Gideon Street, Box 200 Stayner Ontario L0M 1S0 Canada

Attention: Todd Patton

DATE RECEIVED: 08-Oct-19
DATE REPORTED: 15-Oct-19
SAMPLE MATRIX: Drinking Water

Caduceon Environmental Laboratories

112 Commerce Park Drive Barrie ON L4N 8W8 Tel: 705-252-5743

Fax: 705-252-5746

JOB/PROJECT NO.: Colling-Woodlands

P.O. NUMBER: CW Sched 23 2019

WATERWORKS NO. 260005398

		ſ	Client I.D.:		CW Treated	OD	ws
			Sample I.D.:	Sample I.D.:		Objective	Type of
			Date Collecte	d:	08-Oct-19	Objective	Objective
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Antimony	mg/L	0.0001	EPA 200.8	09-Oct-19/O	< 0.0001	0.006,0.006	IMAC,MAC
Arsenic	mg/L	0.0001	EPA 200.8	09-Oct-19/O	0.0001	0.025,0.01	IMAC,MAC
Barium	mg/L	0.001	SM 3120	15-Oct-19/O	0.327	1	MAC
Boron	mg/L	0.005	SM 3120	15-Oct-19/O	0.078	5,5	IMAC,MAC
Cadmium	mg/L	0.000015	EPA 200.8	09-Oct-19/O	< 0.000015	0.005	MAC
Chromium	mg/L	0.002	SM 3120	15-Oct-19/O	< 0.002	0.05	MAC
Mercury	mg/L	0.00002	SM 3112 B	11-Oct-19/O	< 0.00002	0.001	MAC
Selenium	mg/L	0.001	EPA 200.8	09-Oct-19/O	< 0.001	 0.05	MAC
Uranium	mg/L	0.00005	EPA 200.8	09-Oct-19/O	< 0.00005	0.02	MAC
Free Chlorine	mg/L		n/a	08-Oct-19/B	1.20		

¹ Free chlorine results provided by client.

ODWS - Ontario Drinking Water Standards

AO - Aesthetic Objectives

IMAC - Interim Maximum Acceptable Concentration

MAC - Maximum Acceptable Concentration

OG - Operational Guidelines

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an * Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Christine Burke Lab Manager

APPENDIX B ORGANIC PARAMETERS (SCHEDULE 24)



CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: DW 06456 REPORT No. B16-06456

Client I.D.

Report To:

Clearview, Township of 217 Gideon Street, Box 200 Stayner Ontario LOM 1S0 Canada

Attention: Todd Patton

DATE RECEIVED: 16-Mar-16

DATE REPORTED: 31-Mar-16

SAMPLE MATRIX: Drinking Water

Caduceon Environmental Laboratories

2378 Holly Lane

Fax: 613-526-1244

CW Treated

Ottawa Ontario K1V 7P1 Tel: 613-526-0123

JOB/PROJECT NO.: Colling-Woodlands

P.O. NUMBER: CW Sch.24/2016

WATERWORKS NO. 260005398

			Client I.D.		Entering		
			Sample I.D.		B16-06456-1		
			Date Collect	ed	15-Mar-16		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed		•	
Benzene	μg/L	0.5	EPA 8260	16-Mar-16/O	< 0.5		
Carbon Tetrachloride	μg/L	0.2	EPA 8260	16-Mar-16/O	< 0.2		
Dichlorobenzene,1,2-	μg/L	0.1	EPA 8260	16-Mar-16/O	< 0.1		
Dichlorobenzene,1,4-	μg/L	0.2	EPA 8260	16-Mar-16/O	< 0.2		
Dichloroethane,1,2-	μg/L	0.1	EPA 8260	16-Mar-16/O	< 0.1		
Dichloroethene, 1,1-	μg/L	0.1	EPA 8260	16-Mar-16/O	< 0.1		
Dichloromethane (Methylene Chloride)	μg/L	0.3	EPA 8260	16-Mar-16/O	< 0.3		
Monochlorobenzene (Chlorobenzene)	μg/L	0.2	EPA 8260	16-Mar-16/O	< 0.2		
Tetrachloroethylene	μg/L	0.2	EPA 8260	16-Mar-16/O	< 0.2		
Trichloroethylene	μg/L	0.1	EPA 8260	16-Mar-16/O	< 0.1		
Vinyl Chloride	μg/L	0.2	EPA 8260	16-Mar-16/O	< 0.2		
Alachlor	μg/L	0.3	EPA 8270	24-Mar-16/K	< 0.3		
Atrazine + Metabolites	μg/L	0.5	Calc.	24-Mar-16/K	< 0.5		
Azinphos-methyl	μg/L	1	EPA 8270	24-Mar-16/K	< 1		
Benzo(a)pyrene	μg/L	0.005	EPA 8270	24-Mar-16/K	< 0.005		
Bromoxynil	μg/L	0.3	EPA 8270	24-Mar-16/K	< 0.3		
Carbaryl	μg/L	3	EPA 8270	24-Mar-16/K	< 3		
Carbofuran	μg/L	1	EPA 8270	24-Mar-16/K	< 1		
Chlorpyrifos	μg/L	0.5	EPA 8270	24-Mar-16/K	< 0.5		
Diazinon	µg/L	1	EPA 8270	24-Mar-16/K	< 1		
Dicamba	μg/L	5	EPA 8270	24-Mar-16/K	< 5		
Dichlorophenol, 2,4-	μg/L	0.1	EPA 8270	24-Mar-16/K	< 0.1		
Dichlorophenoxy acetic acid, 2,4- (2,4-D)	μg/L	5	EPA 8270	24-Mar-16/K	< 5	 	
Diclofop-methyl	μg/L	0.5	EPA 8270	24-Mar-16/K	< 0.5		
Dimethoate	μg/L	1	EPA 8270	24-Mar-16/K	< 1		

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an * Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Greg Clarkin , BSc., C. Chem Lab Manager - Ottawa District



CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: DW 06456 REPORT No. B16-06456

Report To:

Clearview, Township of 217 Gideon Street, Box 200 Stayner Ontario LOM 1S0 Canada

Attention: Todd Patton

DATE RECEIVED: 16-Mar-16

DATE REPORTED: 31-Mar-16

SAMPLE MATRIX: Drinking Water

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1 Tel: 613-526-0123

Fax: 613-526-1244

JOB/PROJECT NO.: Colling-Woodlands

P.O. NUMBER: CW Sch.24/2016 WATERWORKS NO. 260005398

			Client I.D.		CW Treated Entering		
			Sample I.D.		B16-06456-1		
			Date Collect	ed	15-Mar-16		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Diquat	μg/L	5	EPA 549.1	23-Mar-16/K	< 5		
Diuron	μg/L	5	EPA 8270	24-Mar-16/K	< 5		
Glyphosate	μg/L	25	EPA 547	23-Mar-16/K	< 25		
Malathion	μg/L	5	EPA 8270	24-Mar-16/K	< 5		
Metolachlor	μg/L	3	EPA 8270	24-Mar-16/K	< 3		
Metribuzin	μg/L	3	EPA 8270	24-Mar-16/K	< 3		
Paraquat	μg/L	1	EPA 549.1	23-Mar-16/K	< 1		
Pentachlorophenol	μg/L	0.1	EPA 8270	24-Mar-16/K	< 0.1		
Phorate	μg/L	0.3	EPA 8270	24-Mar-16/K	< 0.3		
Picloram	μg/L	5	EPA 8270	24-Mar-16/K	< 5		
Poly-Chlorinated Biphenyls (PCB's)	μg/L	0.05	EPA 8080	24-Mar-16/K	< 0.05		
Prometryne	μg/L	0.1	EPA 8270	24-Mar-16/K	< 0.1		
Simazine	μg/L	0.5	EPA 8270	24-Mar-16/K	< 0.5		
Terbufos	μg/L	0.3	EPA 8270	24-Mar-16/K	< 0.3		
Tetrachlorophenol, 2,3,4,6-	μg/L	0.1	EPA 8270	24-Mar-16/K	< 0.1		
Triallate	μg/L	10	EPA 8270	24-Mar-16/K	< 10		
Trichlorophenol 2,4,6-	μg/L	0.1	EPA 8270	24-Mar-16/K	< 0.1		
Trifluralin	μg/L	0.5	EPA 8270	24-Mar-16/K	< 0.5		

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an * Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill

Greg Clarkin , BSc., C. Chem Lab Manager - Ottawa District



SGS Canada Inc.

P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO

Phone: 705-652-2000 FAX: 705-652-6365

22-November-2016

Works #: 260005398

Clearview Township (Colling-Woodlands)

Attn: Todd Patton

Date Rec.: 16 November 2016 LR Report: CA18000-NOV16

217 Gideon St Stayner, ON

Copy: #1

L0M 1S0, Canada

Phone: 705-428-5024 Fax:705-428-2993

CERTIFICATE OF ANALYSIS Final Report

Sample ID	Sample Date & Time	Sampled By	Temperature Upon Receipt °C	Field Free Chlorine mg/L	MCPA mg/L
1: Analysis Start Date					18-Nov-16
2: Analysis Start Time					06:12
3: Analysis Approval Date					21-Nov-16
4: Analysis Approval Time					16:32
5: MDL					0.00012
6: 2 TW Colling-Woodlands Pumphouse	15-Nov-16 09:15	Dale Lightheart	12.0	0.81	0.00012 <mdl< td=""></mdl<>

Method Descriptions

Units	Description	SGS Method Code			
ma/L	Herbicides by GC/MS	ME-CA-[ENV]GC-LAK-AN-003			

Project Specialist

Environmental Services, Analytical