

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

Buckingham Woods 2020 Annual Report

Drinking-Water System Number: 250001420
Drinking-Water System Name: Buckingham Woods 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 web-site, and at the locations listed above. Notice of the report availability is provided on the Clearview web-site 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 two 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 39 active service connections. There are 13 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:

- Fire Hydrant replacement – \$10,000
- Well # 3 Cleaning and pump replacement - \$11,300
- Communications equipment replacement - \$7,900

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
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 Samples	Range of E.coli Or Fecal Results (min #)-(max #) CFU/100 mL	Range of Total Coliform Results (min #)-(max #) CFU/100 mL	Number of HPC Samples	Range of HPC Results (min #)-(max #) CFU/100 mL
Raw – Well # 1	16	0 – NDOGN ¹	0 - NDOGN ¹	0	NA
Raw – Well # 3	12	0 – 0	0 – 0	0	NA
Treated	0	NA	NA	0	NA
Distribution	52	0 - 0	0 - 0	52	<10 - 120

¹ NDOGT = No Data; Overgrown with non-target bacteria.

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	0.53 – 1.51	mg/L
Chlorine	8760	0.63 – 2.06	mg/L
Turbidity			
Raw – Well # 1	12	1.19 – 1.86	NTU
Raw – Well # 3	12	0.40 – 2.29	NTU

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

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 #)	Unit of Measure	Number of 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	0.0100	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	09/24/2019	13.4	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. – N/A

APPENDIX A
INORGANIC PARAMETERS
(SCHEDULE 23)

C.O.C.: DWC191008M

REPORT No. B19-32358

Report To:

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

Attention: Todd Patton

Caduceon Environmental Laboratories

112 Commerce Park Drive
 Barrie ON L4N 8W8
 Tel: 705-252-5743
 Fax: 705-252-5746

DATE RECEIVED: 08-Oct-19

JOB/PROJECT NO.: Buckingham Woods

DATE REPORTED: 15-Oct-19

P.O. NUMBER: BW Sched 23 2019

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 250001420

Parameter	Units	R.L.	Reference Method	Date/Site Analyzed		ODWS	
						Objective	Type of Objective
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	0.0006	0.025,0.01	IMAC,MAC
Barium	mg/L	0.001	SM 3120	15-Oct-19/O	0.209	1	MAC
Boron	mg/L	0.005	SM 3120	15-Oct-19/O	0.031	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	0.00011	0.02	MAC
Free Chlorine	mg/L		n/a	08-Oct-19/B	1.30		

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)

C.O.C.: DW 06455

REPORT No. B16-06455

Report To:

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

Attention: Todd Patton

Caduceon Environmental Laboratories

2378 Holly Lane
 Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 16-Mar-16

JOB/PROJECT NO.: Buckingham Woods

DATE REPORTED: 31-Mar-16

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

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 250001420

Client I.D.	BW Treated Entering			
Sample I.D.	B16-06455-1			
Date Collected	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			



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

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 Site Analyzed=K-Kingston, W-Windsor, O-Ottawa, R-Richmond Hill

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: DW 06455

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2378 Holly Lane
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P.O. NUMBER: BW Sch.24/2016

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 250001420

Client I.D.	BW Treated Entering			
Sample I.D.	B16-06455-1			
Date Collected	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			

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

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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

22-November-2016

Clearview Township (Buckingham Woods)

Attn : Todd Patton

Date Rec. : 16 November 2016
LR Report: CA17999-NOV16

217 Gideon St
Stayner, ON
L0M 1S0, Canada

Copy: #1

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: 1 TW Buckingham Woods Pumphouse	15-Nov-16 09:30	Dale Lighthouse	12.0	0.71	0.00012 <MDL

Method Descriptions

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

Carrie Greenlaw
Project Specialist
Environmental Services, Analytical