QMS Document Last Revision Date: January 5, 2018

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

Buckingham Woods 2019 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 2019

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 34 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: None

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
Sept. 26, 2019	Pressure	Low System Pressure	PSI	 Restored system pressure. Verified system free chlorine residuals. Collected bacteriological samples. 	Sept. 26, 2019

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	12	0 - 0	0 - 0	0	NA
Raw – Well # 3	12	0 - 0	0 - 0	0	NA
Treated	0	NA	NA	0	NA
Distribution	53	0 - 0	0 - 0	53	<10 - 110

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	104	0.35 - 1.45	mg/L
Chlorine	8760	0.35 - 2.00	mg/L
Turbidity			
Raw – Well # 1	12	1.24 - 1.94	NTU
Raw – Well # 3	12	1.16 - 1.77	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 Type	Number of Samples	Range of Lead Results (min#) - (max #)	Unit of Measure	Number of Exceedances
Plumbing	0	NA	mg/L	NA
Distribution	2	0.00005 - 0.00022	mg/L	NA

Samples required under Schedule 13

Parameter	Last Date Sampled	Result	Unit of Measure
THM's (annual running average)	10/22/2019	0.0119	mg/L
HAA's (annual running average)	10/22/2019	<0.0053	mg/L
Nitrate	10/22/2019	< 0.1	mg/L
Nitrite	10/22/2019	< 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)



CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: DW 26215 REPORT No. B14-26215

Report To:

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

Attention: Todd Patton

DATE RECEIVED: 08-Oct-14

DATE REPORTED: 14-Oct-14

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.: Buckingham Woods

P.O. NUMBER:

WATERWORKS NO. 250001420

			Client I.D.		BW Pumphouse	Meadowlark Way Blvd.	
			Sample I.D.		B14-26215-1	B14-26215-2	
			Date Collecte	ed	07-Oct-14	07-Oct-14	
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed			•
Antimony	mg/L	0.0001	EPA 200.8	09-Oct-14/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	09-Oct-14/O	0.0015		
Barium	mg/L	0.001	SM 3120	09-Oct-14/O	0.204		
Boron	mg/L	0.005	SM 3120	09-Oct-14/O	0.032		
Cadmium	mg/L	0.00002	EPA 200.8	09-Oct-14/O	< 0.00002		
Chromium	mg/L	0.002	SM 3120	09-Oct-14/O	< 0.002		
Mercury	mg/L	0.00002	SM 3112 B	09-Oct-14/O	< 0.00002		
Sodium	mg/L	0.2	SM 3120	09-Oct-14/O	12.7		
Selenium	mg/L	0.001	EPA 200.8	09-Oct-14/O	< 0.001		
Uranium	mg/L	0.00005	EPA 200.8	09-Oct-14/O	0.00008		
Nitrite (N)	mg/L	0.1	SM4110C	08-Oct-14/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	08-Oct-14/O	< 0.1		
Nitrate + Nitrite (N)	mg/L	0.1	SM4110C	08-Oct-14/O	< 0.1		
Chloroform	μg/L	0.3	EPA 8260	09-Oct-14/O		3.8	
Bromodichloromethane	μg/L	0.1	EPA 8260	09-Oct-14/O		5.1	
Dibromochloromethane	μg/L	0.1	EPA 8260	09-Oct-14/O		4.7	
Bromoform	μg/L	0.1	EPA 8260	09-Oct-14/O		0.8	
Total Trihalomethanes	μg/L	0.3	EPA 8260	09-Oct-14/O		14.3	

M.D.L. = Method Detection Limit Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill Gord Murphy Lab Supervisor

APPENDIX B ORGANIC PARAMETERS (SCHEDULE 24)



CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: DW 06455 REPORT No. B16-06455

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.: Buckingham Woods

P.O. NUMBER: BW Sch.24/2016 WATERWORKS NO. 250001420

			Client I.D.		BW Treated Entering		
			Sample I.D.		B16-06455-1		
			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 06455 REPORT No. B16-06455

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.: Buckingham Woods

P.O. NUMBER: BW Sch.24/2016 WATERWORKS NO. 250001420

			Client I.D.		BW Treated Entering		
			Sample I.D.		B16-06455-1		
			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 #: 250001420

Clearview Township (Buckingham Woods)

Attn: Todd Patton

Date Rec.: 16 November 2016 LR Report: CA17999-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: 1 TW Buckingham Woods Pumphouse	15-Nov-16 09:30	Dale Lightheart	12.0	0.71	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