Ministry of the Ministère de Environment l'Environnement

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

Part III Form 2 Section 11. ANNUAL REPORT.

Drinking-Water System Number:260011674Drinking-Water System Name:Vivian Outdoor Resource CentreDrinking-Water System Owner:York Region District School BoardDrinking-Water System Category:Small Non-Municipal Non-ResidentialPeriod being reported:01/04/2018 to 31/03/2019

Complete if your Category is Large Municipal Residential or Small Municipal Residential	Complete for all other Categories.
Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X] Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []	Number of Designated Facilities served: 1 Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [x] No []
Location where Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.	Number of Interested Authorities you report to: 1 Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [x] No []

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		
Vivian Outdoor Resource Centre	260011674		

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 [x] No [..]



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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 Vivian Outdoor Resource Centre is served by an on-site well water supply located on the right side of the centre's entrance. The original well was drilled to a depth of 19.50 metres below grade where water was obtained from an unconfined clay aquifer. A new drilled well was completed on October 7, 2003. This well is drilled to a depth of 53.96 meters, where water is obtained from an unconfined clay aquifer. In order to comply with minimum treatment requirements ultraviolet disinfection equipment was installed at this site. As an extra precaution, chlorine feed equipment and turbidity meter were installed even though they were not required by the regulation. A professional engineer hired by the Board provided certification that the water works at the site meets minimum treatment requirements set forth in the regulation. This engineering assessment and certification is a mandatory part of the regulation. In 2007 UPS power back up units were installed for the turbidity meter, chlorine analyzer, chessell recorder and UV system to provide power to the water treatment system for up to three hours in case of power failure. Automatic shut off valves were installed which stop the water flow in the event the UV disinfection unit alarms due to loss of intensity. This prevents untreated water from being distributed to the system when the UV cannot provide an adequate level of disinfection.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite (12% Chlorine solution)

Were any significant expenses incurred to?

- [x] Install required equipment
- [x] Repair required equipment
- [x] Replace required equipment

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

The cost to install, repair and replace required equipment, as well as the contractor to service the equipment and test the water, is approximately \$15346.45.

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



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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	13	0 - 0	0 - 0		
Treated	26	0 - 0	0 - 0	26	0 - 6
Distribution					

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

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	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	n/a	n/a
Chlorine	n/a	n/a
Fluoride (If the	n/a	n/a
DWS provides		
fluoridation)		

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

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

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



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Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	23/01/2017	.00002	mg/L	No
Arsenic	23/01/2017	.0014	mg/L	No
Barium	23/01/2017	.00016	mg/L	No
Boron	23/01/2017	.027	mg/L	No
Cadmium	23/01/2017	.000003	mg/L	No
Chromium	23/01/2017	.0004	mg/L	No
Fluoride	23/01/2017	.18	mg/L	No
Lead (Standing Sample)	09/06/2018	<1.0	mg/L	No
Lead (Flushed Sample)	09/06/2018	<1.0	mg/L	No
Mercury	23/01/2017	.00001	mg/L	No
Nitrate	09/01/2017	.007	mg/L	No
Nitrite	09/01/2017	.003	mg/L	No
Selenium	23/01/2017	.00004	mg/L	No
Sodium	23/01/2017	72.3	mg/L	Yes
Uranium	23/01/2017	.000028	mg/L	No

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

Sample	Result	Unit of	Exceedance
Date	Value	Measure	
23/01/2017	.00033	mg/L	No
23/01/2017	.00041	mg/L	No
23/01/2017	.00035	mg/L	No
23/01/2017	.00036	mg/L	No
23/01/2017	.0002	mg/L	No
23/01/2017	.00025	mg/L	No
23/01/2017	.00019	mg/L	No
23/01/2017	.00015	mg/L	No
23/01/2017	1.2E-07	mg/L	No
23/01/2017	.00002	mg/L	No
23/01/2017	.00001	mg/L	No
23/01/2017	.00005	mg/L	No
23/01/2017	.00032	mg/L	No
23/01/2017	.000004	mg/L	No
23/01/2017	.00033	mg/L	No
23/01/2017	.00005	mg/L	No
23/01/2017	.00001	mg/L	No
23/01/2017	.00016	mg/L	No
23/01/2017	.00002	mg/L	No
23/01/2017	.00002	mg/L	No
23/01/2017	.0002	mg/L	No
	Date 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017 23/01/2017	Date Value 23/01/2017 .00033 23/01/2017 .00041 23/01/2017 .00035 23/01/2017 .00036 23/01/2017 .0002 23/01/2017 .00025 23/01/2017 .00019 23/01/2017 .00015 23/01/2017 .00002 23/01/2017 .00002 23/01/2017 .00005 23/01/2017 .000032 23/01/2017 .00003 23/01/2017 .00005 23/01/2017 .00005 23/01/2017 .00001 23/01/2017 .00001 23/01/2017 .00001 23/01/2017 .00001 23/01/2017 .00002 23/01/2017 .00002	Date Value Measure 23/01/2017 .00033 mg/L 23/01/2017 .00041 mg/L 23/01/2017 .00035 mg/L 23/01/2017 .0002 mg/L 23/01/2017 .0002 mg/L 23/01/2017 .00019 mg/L 23/01/2017 .00019 mg/L 23/01/2017 .00015 mg/L 23/01/2017 .00002 mg/L 23/01/2017 .00002 mg/L 23/01/2017 .00005 mg/L 23/01/2017 .00032 mg/L 23/01/2017 .00003 mg/L 23/01/2017 .00003 mg/L 23/01/2017 .00005 mg/L 23/01/2017 .00005 mg/L 23/01/2017 .00001 mg/L 23/01/2017 .00001 mg/L 23/01/2017 .00002 mg/L 23/01/2017 .00002 mg/L 23/01/2017 .00002 mg/L



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Dichloromethane	23/01/2017	.00035	mg/L	No
Diclofop-methyl	23/01/2017	.0004	mg/L	No
Dimethoate	23/01/2017	.00003	mg/L	No
Diquat	23/01/2017	.001	mg/L	No
Diuron	23/01/2017	.00003	mg/L	No
Glyphosate	23/01/2017	.001	mg/L	No
Malathion	23/01/2017	.00002	mg/L	No
Metolachlor	23/01/2017	.00001	mg/L	No
Metribuzin	23/01/2017	.00002	mg/L	No
Monochlorobenzene	23/01/2017	.0003	mg/L	No
Paraquat	23/01/2017	.001	mg/L	No
PCB	23/01/2017	.00004	mg/L	No
Pentachlorophenol	23/01/2017	.00015	mg/L	No
Phorate	23/01/2017	.00001	mg/L	No
Picloram	23/01/2017	.001	mg/L	No
Prometryne	23/01/2017	.00003	mg/L	No
Simazine	23/01/2017	.00001	mg/L	No
Terbufos	23/01/2017	.00001	mg/L	No
Tetrachloroethylene	23/01/2017	.00035	mg/L	No
Triallate	23/01/2017	.00001	mg/L	No
Trichloroethylene	23/01/2017	.00044	mg/L	No
Trifluralin	23/01/2017	.00002	mg/L	No
Trihalomethanes	04/04/2016	.0053	mg/L	No
Trihalomethanes	17/10/2016	.0022	mg/L	No
Trihalomethanes	11/07/2016	.0064	mg/L	No
Vinyl Chloride	23/01/2017	.00017	mg/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				
n/a		n/a	n/a	n/a			

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)