

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

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	260011648
Drinking-Water System Name:	Kettleby PS
Drinking-Water System Owner:	York Region District School Board
Drinking-Water System Category:	Small Non-Municipal Non-Residential
Period being reported:	01/04/2018 to 31/03/2019

Complete if your Category is Large Municipal Residential or Small Municipal Residential

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 []

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

Complete for all other Categories.

Number of Designated Facilities served:

1

Did you provide a copy of your annual report to all Designated Facilities you serve?
Yes [x] No [..]

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
Kettleby PS	260011648

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 [..]

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:**

Describe your Drinking-Water System

Kettleby PS is served by an onsite well water supply located on the north side of the school. The well is drilled to a depth of 24.82 meters below grade where water is obtained from a confined clay aquifer. An ultraviolet disinfection system is used in order to comply with minimum treatment requirements (please note a new ultraviolet disinfection system was installed in 2010). Chlorine feed equipment and turbidity meter are installed in accordance with regulatory requirements. A professional engineer hired by the Board in 2010 to complete an evaluation and provided certification that the water works at the school meets minimum treatment requirements set forth in the regulation. A UPS power back up unit was 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 the event of a power failure. Automatic shut off valves were installed which stops water flow in the event the UV disinfection system alarms due to loss of intensity. This prevents the untreated water from being distributed to the system when the UV cannot provide adequate disinfection. In 2011, the Board installed three additional filter housing units in parallel to increase filtration capacity.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite (12% Chlorine solution)

Were any significant expenses incurred to?

- ☒ Install required equipment
☒ Repair required equipment
☒ 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 \$13,430.34.

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 - 27
Distribution					

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

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

***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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	23/01/2017	.00002	mg/L	No
Arsenic	23/01/2017	.0013	mg/L	No
Barium	23/01/2017	.0844	mg/L	No
Boron	23/01/2017	.044	mg/L	No
Cadmium	23/01/2017	.000004	mg/L	No
Chromium	23/01/2017	.00055	mg/L	No
Fluoride	23/01/2017	.18	mg/L	No
Lead (Standing Sample)	26/05/2018	2.00	mg/L	No
Lead (Flushed Sample)	26/05/2018	1.90	mg/L	No
Lead (Standing Sample)	26/05/2018	<1.0	mg/L	No
Lead (Flushed Sample)	26/05/2018	<1.0	mg/L	No
Nitrite	09/01/2017	.003	mg/L	No
Selenium	23/01/2017	.00004	mg/L	No
Sodium	23/01/2017	18.2	mg/L	No
Uranium	23/01/2017	.000029	mg/L	No

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
1,1-Dichloroethylene	23/01/2017	.00033	mg/L	No
1,2-Dichlorobenzene	23/01/2017	.00041	mg/L	No
1,2-Dichloroethane	23/01/2017	.00035	mg/L	No
1,4-Dichlorobenzene	23/01/2017	.00036	mg/L	No
2,3,4,6-Tetrachlorophenol	23/01/2017	.0002	mg/L	No
2,4,6-Trichlorophenol	23/01/2017	.00025	mg/L	No
2,4-D	23/01/2017	.00019	mg/L	No
2,4-Dichlorophenol	23/01/2017	.00015	mg/L	No
2-methyl-4-chlorophenoxyacetic acid (MCPA)	23/01/2017	1.2E-07	mg/L	No
Alachlor	23/01/2017	.00002	mg/L	No
Atrazine + N-dealkylated metabolites	23/01/2017	.00001	mg/L	No
Azinphos-methyl	23/01/2017	.00005	mg/L	No
Benzene	23/01/2017	.00032	mg/L	No
Benzo(a)pyrene	23/01/2017	.000004	mg/L	No
Bromoxynil	23/01/2017	.00033	mg/L	No
Carbaryl	23/01/2017	.00005	mg/L	No
Carbofuran	23/01/2017	.00001	mg/L	No
Carbon Tetrachloride	23/01/2017	.00016	mg/L	No
Chlorpyrifos	23/01/2017	.00002	mg/L	No
Diazinon	23/01/2017	.00002	mg/L	No

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Dicamba	23/01/2017	.0002	mg/L	No
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
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	.0075	mg/L	No
Trihalomethanes	17/10/2016	.0054	mg/L	No
Trihalomethanes	11/07/2016	.011	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)