

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

Drinking-Water System Number:	#220007034
Drinking-Water System Name:	Tobermory Primary Place Day Care
Drinking-Water System Owner:	Municipality of Northern Bruce Peninsula
Drinking-Water System Category:	Small Municipal Non-Residential
Period being reported:	January 1, 2013 – October 18, 2013

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No []</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">1</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [X] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">1</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [X] No []</p>
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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
N/A	

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 [] No [] N/A

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 Include notice in water billings

Describe your Drinking-Water System

One drilled well

Raw water passes through a softener, followed by treatment consisting of two (2) 0.5 micron cartridge filters, one (1) UV disinfection unit and chlorine disinfection.

List all water treatment chemicals used over this reporting period

**Sodium hypochlorite
Water softening salt**

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

**Replacement of both cartridge filter housings
Replacement of the UV disinfection unit
Replacement of the turbidity analyzer**

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
2013/02/01	UV Dosage			Replaced UV Lamp, flushed plumbing	2013/02/01
2013/02/04	Turbidity/16-4 Equipment failure			Issued a Precautionary Boil Water Advisory (PBWA) to the facility, replaced the faulty turbidity analyzer, maintenance on water softener and UV system, microbiological testing.	2013/02/15
2013/03/12	Turbidity	> 1.0	NTU	Cleaned turbidity analyzer flow cell, replaced filter cartridges and housings, sampled and tested.	2013/03/14
2013/04/18	Turbidity	> 1.0	NTU	Flow cell cleaned, filter cartridges replaced, system flushed, degassing module installed, PBWA issued. Microbiological testing.	2013/04/25
2013/04/20	Turbidity	>1.0	NTU	Change filters and flush system. Improved piping at turbidity analyzer, PBWA issued, microbiological sampling	2013/04/25

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2013/04/26	Turbidity	>1.0	NTU	Flow cell cleaned, filter cartridges replaced, system flushed, PBWA issued, microbiological sampling.	2013/04/29
2013/05/24	Turbidity	>1.0	NTU	PBWA issued, filter cartridges replaced, system flushed, microbiological sampling.	2013/05/27
2013/07/04	Total Coliforms	10	Cfu/100 ml	PBWA, flush plumbing, resample and test.	2013/07/08
2013/07/15	16-4 – UV Disinfection system failure			PBWA issued, UV System replaced, plumbing flushed, microbiological sampling.	2013/07/18

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	11	0 - 18	0 - 460	N/A	N/A
Treated	N/A	N/A	N/A	N/A	N/A
Distribution	29	0 - 0	0 - 10	N/A	N/A

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 – Treated Water	8760	0.008 – > 1.0 NTU
Free Chlorine	8760	0.41 – 2.21
Dist. Free Chlorine	140	0.43 – 2.14

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
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N/A				
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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	09/22/10	0.08	ug/L	No
Arsenic	09/22/10	0.07	ug/L	No
Barium	09/22/10	20.5	ug/L	No
Boron	09/22/10	21.0	ug/L	No
Cadmium	09/22/10	0.035	ug/L	No
Chromium	09/22/10	2.7	ug/L	No
Lead (standing)	09/02/12	5.60	ug/L	No
Mercury	09/22/10	<0.02	ug/L	No
Selenium	09/22/10	8.0	ug/L	No
Sodium	05/19/10	103	mg/L	Yes
Uranium	09/22/10	0.030	ug/L	No
Fluoride	05/19/10	0.14	mg/L	No
Nitrite	01/07/13	<0.005	mg/L	No
Nitrite	04/02/13	<0.003	mg/L	No
Nitrite	07/02/13	<0.003	mg/L	No
Nitrite	10/09/13	<0.003	mg/L	No
Nitrate	01/07/13	4.86	mg/L	No
Nitrate	04/02/13	3.27	mg/L	No
Nitrate	07/02/13	4.01	mg/L	No
Nitrate	10/09/13	2.47	mg/L	No

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

Parameter	Sample Date	Result Value	Exceedance
Alachlor (ug/L) - TW	09/22/10	< 0.11	No
Aldicarb (ug/L) - TW	09/22/10	< 0.30	No
Aldrin + Dieldrin (ug/L) - TW	09/22/10	< 0.067	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	09/22/10	< 0.12	No
Azinphos-methyl (ug/L) - TW	09/22/10	< 0.21	No
Bendiocarb (ug/L) - TW	09/22/10	< 0.13	No
Benzene (ug/L) - TW	09/22/10	< 0.32	No
Benzo(a)pyrene (ug/L) - TW	09/22/10	< 0.0040	No
Bromoxynil (ug/L) - TW	09/22/10	< 0.33	No

Carbaryl (ug/L) - TW	09/22/10	< 0.16	No
Carbofuran (ug/L) - TW	09/22/10	< 0.37	No
Carbon Tetrachloride (ug/L) - TW	09/22/10	< 0.16	No
Chlordane:Total (ug/L) - TW	09/22/10	< 0.11	No
Chlorpyrifos (ug/L) - TW	09/22/10	< 0.18	No
Cyanazine (ug/L) - TW	09/22/10	< 0.18	No
Diazinon (ug/L) - TW	09/22/10	< 0.081	No
Dicamba (ug/L) - TW	09/22/10	< 0.20	No
1,2-Dichlorobenzene (ug/L) - TW	09/22/10	< 0.41	No
1,4-Dichlorobenzene (ug/L) - TW	09/22/10	< 0.36	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L) - TW	09/22/10	< 0.14	No
1,2-Dichloroethane (ug/L) - TW	09/22/10	< 0.35	No
1,1-Dichloroethylene (ug/L) - TW	09/22/10	< 0.33	No
Dichloromethane (ug/L) - TW	09/22/10	< 0.35	No
2,4-Dichlorophenol (ug/L) - TW	09/22/10	< 0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	09/22/10	< 0.19	No
Diclofop-methyl (ug/L) - TW	09/22/10	< 0.40	No
Dimethoate (ug/L) - TW	09/22/10	< 0.12	No
Dinoseb (ug/L) - TW	09/22/10	< 0.36	No
Diquat (ug/L) - TW	09/22/10	< 1.00	No
Diuron (ug/L) - TW	09/22/10	< 0.087	No
Glyphosate (ug/L) - TW	09/22/10	< 6.00	No
Heptachlor+Hepachlor Epoxide (ug/L) - TW	09/22/10	< 0.11	No
Lindane: (ug/L) - TW	09/22/10	< 0.056	No
Malathion (ug/L) - TW	09/22/10	< 0.091	No
Methoxychlor (ug/L) - TW	09/22/10	< 0.14	No
Metolachlor (ug/L) - TW	09/22/10	< 0.092	No
Metribuzin (ug/L) - TW	09/22/10	< 0.12	No
Monochlorobenzene (ug/L) - TW	09/22/10	< 0.30	No
Paraquat (ug/L) - TW	09/22/10	< 1.00	No
Parathion (ug/L) - TW	09/22/10	< 0.18	No
Pentachlorophenol (ug/L) - TW	09/22/10	< 0.15	No

Phorate (ug/L) - TW	09/22/10	< 0.11	No
Picloram (ug/L) - TW	09/22/10	< 0.25	No
Polychlorinated Bichenysl(PCB) (ug/L) - TW	09/22/10	< 0.040	No
Prometryne (ug/L) - TW	09/22/10	< 0.23	No
Simazine (ug/L) - TW	09/22/10	< 0.15	No
THM (ug/L) – DW (Average)	2011	8.65	No
Temephos (ug/L) - TW	09/22/10	< 0.31	No
Terbufos (ug/L) - TW	09/22/10	< 0.12	No
Tetrachloroethylene (ug/L) - TW	09/22/10	< 0.35	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	09/22/10	< 0.14	No
Triallate (ug/L) - TW	09/22/10	< 0.10	No
Trichloroethylene (ug/L) - TW	09/22/10	< 0.43	No
2,4,6-Trichlorophenol (ug/L) - TW	09/22/10	< 0.25	No
2,4,5-Trichlorophenoxy acetic acid (ug/L) - TW	09/22/10	< 0.22	No
Trifluralin (ug/L) - TW	09/22/10	< 0.12	No
Vinyl Chloride (ug/L) - TW	09/22/10	< 0.17	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
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(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)