MUNICIPALITY OF
BRIGHTON

2012 ANNUAL COMPLIANCE AND SUMMARY REPORT ON BRIGHTON'S DRINKING WATER SYSTEM

Municipal Drinking Water License # 135-101 Issue #2
Drinking Water Works Permit # 135-201 Issue #1
Waterworks Identification No. 220000807

TABLE OF CONTENTS

List of Tables

APPENDICES

Appendix 1 Brighton Well Supply System – 2012 Monthly Summary

Appendix 2 Part III, Form 2 Drinking Water Systems Regulation O.Reg.170/03 Annual Compliance Report to MOE

1.0 ONTARIO DRINKING WATER LEGISLATION

The Municipality of Brighton is pleased to present the 2012 Annual Compliance and Summary Report for Brighton's Drinking Water System covering the period from January 1st, 2012 to December 31st, 2012. There are several laws that govern municipal drinking water systems. Some of the Acts include: the Clean Water Act, the Safe Drinking Water Act, and the Ontario Water Resources Act. This report is prepared in compliance with Section 11 and Schedule 22 of Ontario Regulation 170/03 of the Safe Drinking Water Act. "The purpose of the Safe Drinking Water Act is to protect human health through the control and regulation of drinking water systems and drinking water testing (Ministry of the Environment 2010)." Under the Act, all drinking water systems in Ontario must receive approval from the Ministry of the Environment (MOE) in order to operate, drinking water operators must receive appropriate training and certification, there are specific standards for the testing of drinking water and all testing must be performed in a licensed, MOE accredited laboratory. There are eleven regulations under the Act, which are listed below:

- O. Reg. 128/04 - Certification Of Drinking Water System Operators And Water Quality Analysts
- O. Reg. 242/05 - Compliance And Enforcement
- O. Reg. 172/03 - Definitions Of "Deficiency" and "Municipal Drinking Water System"
- O. Reg. 171/03 - Definitions Of Words And Expressions Used In The Act
- O. Reg. 170/03 - Drinking Water Systems
- O. Reg. 248/03 - Drinking Water Testing Services
- O. Reg. 453/07 - Financial Plans
- O. Reg. 188/07 - Licensing Of Municipal Drinking Water Systems
- O. Reg. 169/03 - Ontario Drinking Water Quality Standards
- O. Reg. 243/07 - Schools, Private Schools And Day Nurseries
- O. Reg. 229/07 - Service Of Documents

Brighton's drinking water system was in compliance with all applicable legislation during the period covered by this report.

Brighton's drinking water system operates under the following permits and license:

1. Permit to Take Water No. 2001-62MNU2,
2. Municipal Drinking Water Licence # 135-101 issue number 2.
3. Drinking Water Works Permit # 135-201 issue number 1.

2.0 BRIGHTON'S DRINKING WATER SYSTEM

2.1 Raw Water Source

The water supply for the Municipality of Brighton is from three drilled wells located at 406 County Road 26. The wells are approximately forty metres (130 ft) deep and supply water to Brighton's water treatment plant (WTP) on a rotational basis. Upon initiation of a well pump that has been static for any period of time, the water is pumped to a waste detention pond until turbidity levels are below 1.0 Nephelometric Turbidity Unit (NTU). Then, the water is permitted to pass through the treatment plant system.

According to a report by HydroTerra (2002), the water in the wells is not considered Groundwater Under the Direct Influence of Surface Water (GUDI). A fail safe control system has been installed to ensure that an upward hydraulic gradient is maintained at all times in the supply aquifer. This system includes: water level sensors in each of three observation wells that surround each supply well, a water level sensor in each supply well, an alarm system equipped with pre-determined set-points for well water depth, and a supervisory control and data acquisition (SCADA) data-log system.

2.2 Treatment Process

Brighton's WTP provides chlorine disinfection to the water supply and it provides water storage in a two-celled reservoir. The WTP houses a primary and secondary disinfection system consisting of two gas chlorinators, weigh scales, vacuum regulators, injectors and appurtenances to facilitate the application of a chlorine solution at a pre-chlorination location, prior to entering the reservoir and a post-chlorination location, prior to entering the distribution system. Instrumentation and controls, including on-line chlorine residual analyzers and turbidity meters, measure chlorine residuals and turbidity in the water supply prior to distribution. The concrete water storage reservoir is approximately 39 metres by 58 metres. Each cell is equipped with baffles and provides approximately 5,600 cubic metres of water storage. Emergency power for the WTP is provided by an 80 kilowatt, pad mounted standby generator, including an automatic transfer switch.

2.3 Distribution System

The Municipality of Brighton's distribution system provides drinking water to approximately 6,300 residents, and Presqu'ile Park, through a network of approximately 60 kilometres of piping. There is a chlorine booster station, located at the entrance of Presqu'ile Park, where chlorine, turbidity and pressure in the water supply are monitored and recorded. Additionally, there are four pressure reducing valves and two pressure booster pumps.

Water quality in the distribution system is maintained by the flushing of fire hydrants to clean the water mains and to flush out dead-end water mains. During the flushing, fire hydrants are also inspected. To confirm water quality, microbiological sampling and testing in the distribution system is conducted on a weekly basis at seven strategically chosen sites. In addition, operators test chlorine residuals on a daily basis, as per O. Reg. 170/03.

3.0 WATER CONSUMPTION

Over the year of 2012, a total of 920,003 cubic metres of water entered the distribution system from the WTP (Table I). Based on a service population of 6,300 residents, the per capita consumption was 146 cubic metres per person per year, or 0.4 cubic metres (400 litres) per person per day. This equates to an average daily demand of 2,520.6 cubic metres per day. Peak day demand represents the highest volume of treated water supplied to the distribution system over a 24-hour period, usually the hottest day of the year or on a day with very high usage due to fire suppression. In 2012, the peak day demand occurred on July 18, with a recorded flow of 4,565 cubic metres.

Brighton's drinking water system is permitted to take 6,446 cubic metres of water per day under Permit to take Water No. 2001-62MNU2. The rate of taking from each well cannot exceed 1.5 cubic metres per minute (24.9 L/s) or 2,151.4 cubic metres per day. The maximum daily taking during the reporting period was 2,030 cubic metres per day from Well 1, 2,030 m3/day cubic metres per day for Well 2 and 2,108 cubic metres per day for Well 3. The average daily water taking during the reporting period ranged from 661 cubic metres per day to 1,289 cubic metres per day for Well 1, 689 cubic metres per day to 1,366 cubic metres per day for Well 2 and 434 cubic metres per day to 1,231 cubic metres per day for Well 3. The total average daily demand was 2,520.6 cubic metres per day of water, which represents thirty-nine percent of the permitted water taking. The total peak day demand was 4,565 cubic metres of water, which represents seventy-one percent of the permitted water taking. Maximum total water taking during the reporting period remained less than the amount of water taking permitted by the permit.

There were occasional raw water takings that exceeded 24.9 litres per second, due to the automatic flow control valve searching for a position. The Municipality has a Standard Operating Procedure for incidents when water taking exceeds the allowable rate per second for greater than five minutes, which includes notification to the MOE, if necessary. The following were longer duration incidents of pumping at a rate greater than permitted:

Well 1:
May 2, 3, 30 (30.80 L/s, 25.60 L/s and 26.74 L/s respectively)
June 19, 2012 (30.07 L/s)
July 4, 2012 (28.95 L/s)

Well 3:
March 21 and 25, 2012 (30.87 L/s and 25.89 L/s respectively)
April 17, 2012 (30.89 L/s)

Table I –Water Consumption by Month, For the Years 2003-2012, Measured at the WTP as Water Enters the Distribution System

Water Consumption/ Flows m3										
	2012	**2011**	**2010**	**2009**	**2008**	**2007**	**2006**	**2005**	**2004**	**2003**
January	63,139	71,835	70,251	75,560	72,685	58,718	82,272	70,952	71,970	78,265
February	58,800	67,310	62,285	65,591	72,548	56,628	69,405	71,484	68,580	70,877
March	63,905	69,639	66,588	75,067	69,936	63,579	76,039	69,759	79,259	75,369
April	65,515	69,829	72,462	78,919	72,738	65,329	72,884	61,223	72,723	70,619
May	89,941	77,899	99,693	94,465	82,706	89,653	86,572	69,198	79,911	80,476
June	90,212	86,398	86,521	94,392	94,990	105,967	89,064	89,504	89,335	86,909
July	116,580	111,523	99,838	99,835	92,364	99,390	85,591	91,527	87,648	98,759
August	104,732	85,086	99,291	101,839	86,357	107,735	93,161	89,244	86,528	96,356
September	83,121	79,406	80,517	88,957	83,154	96,781	68,548	82,643	78,125	90,002
October	69,913	67,810	72,963	70,873	74,101	79,923	65,398	81,680	76,815	75,261
November	55,588	61,058	65,237	66,742	71,396	70,758	63,636	80,713	74,115	72,510
December	58,557	61969	71,208	70,205	74,067	74,357	59,960	79,890	72,995	70,377
Total Flow	**920,003**	**909,762**	**946,853**	**982,445**	**947,042**	**968,818**	**912,530**	**937,817**	**938,004**	**965,780**
Monthly Avg.	76,667	75,814	78,904	81,870	78,920	80,735	76,044	78,151	78,167	80,482
Monthly Max.	116,580	111,523	99,838	101,839	94,990	107,735	93,161	91,527	89,335	98,759
Monthly Min.	55,588	61,058	62,285	65,591	69,936	56,628	59,960	61,223	68,580	70,377
Year	**2012**	**2011**	**2010**	**2009**	**2008**	**2007**	**2006**	**2005**	**2004**	**2003**
Annual avg. Daily Flow m^3/day	2520.6	2492.5	2594.1	2691.6	2594.6	2654.3	2500.1	2569.4	2569.9	2646.0
Max Daily	4565.81	4648.00	4517.63		4,286	4,490	4,087	4,087	3,733	4,656
Rated Capacity	6445	6445	6445	6445	6445	6445	6445	6445	6445	6445
% Max Day	71%	72%	70%	0%	67%	70%	63%	63%	58%	72%
rated capacity % annual avg daily flow m^3/day	39%	39%	40%	42%	40%	41%	39%	40%	40%	41%

3.1 Water Use

The actual use of the water in Brighton is broken down into categories in Table II. Over the reporting period, there were 13 water leaks in the distribution system. There was one main line break, nine municipal services leaks, and three customer service leaks. Most of the water leaks were caused by worn flared connection fittings, and worn copper services lines. A major watermain break on Dean Drive resulted in the replacement of approximately four metres (13 feet) of watermain and an estimated water loss of 180 cubic metres of water. The water lost for this leak was tracked by the SCADA system at the WTP. Water loss for the other leaks is estimated based on the size of the leak, duration of leak and pressure at the location of the leak. Two of the leaks repaired in 2012 may have been leaking for six months or more.

Table II- Water Use Summary for 2012

Water produced at the Water Treatment Plant	**920,003** m^3
Customer Consumption including Bulk Water Station	629,417 m^3
Amount of water used for hydrant flushing	7,699 m^3
Amount of water sold at Public Dispensing	36 m^3
Estimated amount of water used for flushing and swabbing of new watermains	115 m^3
Estimated amount of water used by Fire Department for practices and fires	948 m^3
Estimated watermain and/or service connection leak	204,095 m^3
Water Accounted For	842,310 m^3
Water Unaccounted For	77,693 m^3
Loss per day	212.86 m^3
Loss per hour	8.87 m^3
Loss per minute	0.1478 m^3
Loss per second	0.0025 m^3
Percentage Loss	**8.4%**

For 2012, the percentage water loss is estimated at 8.4%. This a drop of 12.3% from last year. The reduction may be due to repairs of two long duration leaks, better estimates for water used in hydrant flushing and the application of a new formula for calculating water lost from leaks.

4.0 WATER SAMPLING REQUIREMENTS OF O. REG. 170/03

4.1 Microbiological Sampling and Testing

Ontario Regulation 170/03 specifies the frequency and type of sampling required to measure water quality, depending on the category of the drinking water system. Brighton's drinking water system is categorized as a large municipal drinking water system. Schedule 10 of the regulation requires that at least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples being taken each week. Therefore, thirteen treated distribution samples would be required monthly. Brighton samples at least seven distribution samples weekly, or approximately twenty-eight samples monthly, and one treated water sample weekly. These samples are tested for Escherichia coliform and total coliforms, and twenty-five percent of the samples are additionally tested for general bacteria populations expressed as background colony on a heterotrophic plate. Raw water samples must be tested at least once every week. Raw water was sampled in Brighton weekly from each supply well.

Table III- Summary of 2012 Microbiological Samples and Results

Microbiological Results	**Number of Samples**	**Range of E.Coli Results**	**Range of Total Coliform Results**	**Number of HPC Samples**	**Range of HPC Results**
Raw	152	0	0	0	0
Treated Water - Treatment Plant	52	Absent	Absent	52	<10 - 40
Distribution	357	Absent	Absent	102	<10 - 60

4.2 Lead Sampling and Testing

In 2012, the Municipality applied for relief from the frequency of lead sampling required in the regulation based on satisfactory historical sample results. Supported by the Health Unit, Brighton was successful in this application and is therefore not required to conduct residential and non-residential lead sampling until fall of 2016. There are plans to reapply in early 2016 for further relief. It is important to note, however, that distribution sampling for lead is still required as per O. Reg. 170/03 (Table IV and V).

Table IV- 2012 Lead Samples Results for Spring

Sample Type	# of Samples	Pass	Fail	Resamples Pass/Fail
Plumbing – Residential	0	-	-	-
Plumbing – Non-Residential	0	-	-	-
Distribution	3	3	0	Not Required
Total Samples	3	3	0	Not Required

Table V- 2012 Lead Sample Results for Fall

Sample Type	# of Samples	Pass	Fail	Resamples Pass/Fail
Plumbing – Residential	0	-	-	-
Plumbing – Non-Residential	0	-	-	-
Distribution	3	3	0	Not Required
Total Samples	3	3	0	Not Required

*Note: Plumbing sampling was exempt from lead sampling due to MOE approval for reduced sampling.

4.3 Chemical Sampling and Testing

Schedule 13 of the regulation requires Large Municipal Residential Systems to test the water supply for the following parameters:

(i) Inorganics (Schedule 23) be tested at least every 12 months if the system obtains water from a raw water supply that is surface water. Note that once the water system switches to groundwater (wells) then sampling for organic/ inorganic parameters can be reduced to every 36 months.

(ii) Lead - at least one sample in the distribution system is taken every 12 months from a point in the drinking-water system's distribution system or in plumbing that is connected to the drinking-water system that is likely to have an elevated concentration of lead. In 2007 new Regulations were added to test for Lead -Schedule 15.1-5. Sampling is to be conducted from December 15th to April 15th in the spring, and June 15th to October 15th in the fall in various locations. This constitutes 52 samples for each reporting period; unless the Operating Authority has applied for and received a reduction.

(iii) Organics – if the system obtains water from a raw water supply that is surface water, at least one water sample is taken every 12 months. When the raw water source is groundwater (wells) then at least one water sample must be taken every 36 months.
(iv) Trihalomethanes – at least one distribution sample is taken every three months from a point in the drinking-water system that is likely to have an elevated potential for the formation of Trihalomethanes.
(v) Nitrate and Nitrite, one water sample taken every three months.
(vi) Sodium, one water sample taken every 60 months.
(vii) Fluoride, one water sample taken every 60 months.

Sampling results for the above parameters are listed in Appendix 2. There were no exceedances of organic or inorganic parameters tested during the most recent sampling period.

5.0 REPORTS TO MINISTRY OF THE ENVIRONMENT

Any test result that exceeds any of the standards in Schedules 1, 2, 3 (other than fluoride) in the Ontario Drinking Water Quality Standards (O.Reg.169/03) must be reported verbally and in writing to both the local Medical Officer of Health and the Ministry of the Environment Spills Action.

There were no adverse test results at the Brighton WTP during the reporting period.

6.0 MAJOR EXPENSES

Major expenses to the drinking water system in 2012 included: reconstruction of the watermains and services on Francis Street and Victoria Street in the amount of $168,000. There were no other major expenses for the drinking water system.

Appendix 1 - 2012 Monthly Summary

Monthly Data 2012

Brighton Reservoir Outlet Monthly Data

	JAN.	*FEB.*	*MAR.*	*APR.*	*MAY*	*JUNE*	*JULY*	*AUG.*	*SEPT.*	*OCT.*	*NOV.*	*DEC.*	*ANNUAL*
FLOWS													
TOTAL DISCHARGE FLOWS (m^3)	63,140.00	58,800.10	63,905.00	65,514.90	89,940.80	90,212.10	116,580.3	104,732.2	83,121.40	69,913.20	55,588.20	58,557.40	920,006
DAILY AVG. FLOW (m^3)	2,036.77	2,027.59	2,061.45	2,183.83	2,901.32	3,007.07	3,760.66	3,378.46	2,770.71	2,255.27	1,852.94	1,888.95	2,510
MAXIMUM DAILY DISCHARGE FLOW (m^3)	2,261.71	2,142.13	3,615.88	2,629.15	3,898.14	4,157.75	4,565.81	4,215.20	4,106.53	2,553.67	2,184.98	2,041.36	2,041
MINIMUM DAILY DISCHARGE FLOW (m^3)	1,917.33	1,936.89	1,937.84	1,806.62	2,179.63	2,193.12	2,435.52	2,590.62	2,452.84	1,749.99	1,715.17	1,773.88	2,591
CHLORINE CONSUMPTION													
TOTAL USED (kg)	86.80	71.70	75.90	78.50	116.30	117.00	153.10	135.10	106.80	84.30	68.10	71.80	1,165.40
DAILY AVERAGE (kg)	2.8	2.5	2.4	2.6	3.8	3.9	4.9	4.4	3.60	2.70	2.30	2.30	3.18
AVERAGE PRE-DAILY DOSAGE (mg/L)	1.35	1.19	1.18	1.03	1.26	1.26	1.27	1.26	1.25	1.16	1.19	1.04	1.20
LOWEST RESIDUAL (mg/l) (POST)	1.14	0.99	0.97	1.01	1.01	1.04	1.09	1.07	1.02	1.01	0.93	0.92	
TURBIDITY (NTU) post													
MONTHLY AVERAGE (POST)	0.09	0.09	0.10	0.09	0.060	0.090	0.05	0.05	0.05	0.08	0.10	0.10	0.079
RANGE (POST)	0.08-0.10	0.09-0.10	0.09-0.11	0.09-0.12	0.05-0.11	0.07-0.12	0.05-0.09	0.05-0.06	0.05-0.06	0.05-0.54	0.09-0.11	0.1-0.11	
PH OUTLET													
MONTHLY AVERAGE	7.56	7.56	7.57	7.56	7.42	7.38	7.43	7.43	7.44	7.45	7.45	7.45	7.48
HIGHEST PH	7.65	7.56	8.23	7.74	7.57	12.00	7.45	7.45	7.46	7.53	7.49	7.46	
TEMPERATURE (^{o} C.) OUTLET													
MONTHLY AVERAGE	9.89	9.90	10.05	10.00	10.02	9.81	10.03	10.32	10.28	10.00	9.66	9.71	9.97
MONTHLY LOWEST	9.40	9.89	9.88	9.84	9.3	9.62	9.8	10.27	10.24	9.5	9.9	9.3	

Appendix 2

Drinking-System Regulations O.Reg. 170/03
Part III Form 2

Drinking-Water System Number:	**220000807**
Drinking-Water System Name:	**Brighton Springs Drinking Water System**
Drinking-Water System Owner:	**Corporation of the Municipality of Brighton**
Drinking-Water System Category:	**Large Municipal Residential**
Period being reported:	**January 1 – December 31, 2012**

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 [ ] Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. Municipal Offices: 35 Alice St., Brighton 67 Sharp Rd., Brighton	Number of Designated Facilities served: Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ] Number of Interested Authorities you report to: Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] 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
Presqu'ile Provincial Park- Parks Ontario	

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.

[x] Public access/notice via the web
[x] Public access/notice via Government Office
[x] 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

Raw Water Source

The water supply for the Municipality of Brighton is from three drilled wells located at 406 County Road 26. The wells are approximately forty metres (130 ft) deep and supply water to Brighton's water treatment plant (WTP) on a rotational basis. Upon initiation of a well pump that has been static for any period of time, the water is pumped to a waste detention pond until turbidity levels are below 1.0 Nephelometric Turbidity Unit (NTU). Then, the water is permitted to pass through the treatment plant system.

According to a report by HydroTerra (2002), the water in the wells is not considered Groundwater Under the Direct Influence of Surface Water (GUDI). A fail safe control system has been installed to ensure that an upward hydraulic gradient is maintained at all times in the supply aquifer. This system includes: water level sensors in each of three observation wells that surround each supply well, a water level sensor in each supply well, an alarm system equipped with pre-determined set-points for well water depth, and a supervisory control and data acquisition (SCADA) data-log system.

Treatment Process

Brighton's WTP provides chlorine disinfection to the water supply and it provides water storage in a two-celled reservoir. The WTP houses a primary and secondary disinfection system consisting of two gas chlorinators, weigh scales, vacuum regulators, injectors and appurtenances to facilitate the application of a chlorine solution at a pre-chlorination location, prior to entering the reservoir and a post-chlorination location, prior to entering the distribution system. Instrumentation and controls, including on-line chlorine residual analyzers and turbidity meters, measure chlorine residuals and turbidity in the water supply prior to distribution. The concrete water storage reservoir is approximately 39 metres by 58 metres. Each cell is equipped with baffles and provides approximately 5,600 cubic metres of water storage. Emergency power for the WTP is provided by an 80 kilowatt, pad mounted standby generator, including an automatic transfer switch.

Distribution System

The Municipality of Brighton's distribution system provides drinking water to approximately 6,300 residents, and Presqu'ile Park, through a network of approximately 60 kilometres of piping. There is a chlorine booster station, located at the entrance of Presqu'ile Park, where chlorine, turbidity and pressure in the water supply are monitored and recorded. Additionally, there are four pressure reducing valves and two pressure booster pumps.

List all water treatment chemicals used over this reporting period

Chlorine Gas

Were any significant expenses incurred to?

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

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

There was reconstruction of the watermains and services on Francis Street and Victoria Street in the amount of $168,000.

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
N/A					

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

Microbiological Results	**Number of Samples**	**Range of E.Coli Results**	**Range of Total Coliform Results**	**Number of HPC Samples**	**Range of HPC Results**
Raw	152	0	0	0	0
Treated Water - Treatment Plant	52	Absent	Absent	52	<10 - 40
Distribution	357	Absent	Absent	102	<10 - 60

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	8760	0.05-0.54 NTU
Chlorine	8760	0.92-1.43 mg/L
Fluoride (If the DWS provides fluoridation)	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
N/A				

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedances
Arsenic	Aug 09/11	0.0003	mg/L	No
Barium	Aug 09/11	0.077	mg/L	No
Boron	Aug 09/11	0.014	mg/L	No
Cadmium	Aug 09/11	<0.00002	mg/L	No
Chromium	Aug 09/11	<0.002	mg/l	No
*Lead				
Mercury	Aug 09/11	<0.00002	mg/L	No
Selenium	Aug 09/11	<0.001	mg/L	No
Sodium	Feb 14/12	4.1	mg/L	No
Uranium	Aug 09/11	0.00062	mg/l	No
Fluoride	Feb 14/12	<0.1	mg/L	No
Nitrite	Nov 20/12	<0.1	mg/L	No
Nitrate	Nov 20/12	3	mg/L	No
Nitrate + Nitrite	Nov 20/12	3	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems.

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 #)	Number of Exceedances
Plumbing	0	-	0
Distribution	6	<0.00002 – 0.0014	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedances
Alachlor	Aug 09/11	<0.3	µg/L	No
Aldicarb	Aug 09/11	<3	µg/L	No
Aldrin + Dieldrin	Aug 09/11	<0.02	µg/L	No
Atrazine + metobolites	Aug 09/11	<0.5	µg/L	No
Azinphos-methyl	Aug 09/11	<1	µg/L	No
Bendiocarb	Aug 09/11	<3	µg/L	No
Benzene	Aug 09/11	<0.5	µg/L	No
Benzo(a)pyrene	Aug 09/11	<0.005	µg/L	No
Bromoxynil	Aug 09/11	<0.3	µg/L	No
Carbaryl	Aug 09/11	<3	µg/L	No
Carbofuran	Aug 09/11	<1	µg/L	No

Carbon Tetrachloride	Aug 09/11	<0.2	µg/L	No
Chlordane (Total)	Aug 09/11	<0.04	µg/L	No
Chlorpyrifos	Aug 09/11	<0.5	µg/L	No
Cyanazine	Aug 09/11	<0.5	µg/L	No
Diazinon	Aug 09/11	<1	µg/L	No
Dicamba	Aug 09/11	<5	µg/L	No
1,2-Dichlorobenzene	Aug 09/11	<0.1	µg/L	No
1,4-Dichlorobenzene	Aug 09/11	<0.2	µg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Aug 09/11	<0.1	µg/L	No
1,2-Dichloroethane	Aug 09/11	<0.1	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Aug 09/11	<0.1	µg/L	No
Dichloromethane	Aug 09/11	<0.3	µg/L	No
2-4 Dichlorophenol	Aug 09/11	<0.1	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Aug 09/11	<5	µg/L	No
Diclofop-methyl	Aug 09/11	<0.5	µg/L	No
Dimethoate	Aug 09/11	<1	µg/L	No
Dinoseb	Aug 09/11	<0.5	µg/L	No
Diquat	Aug 09/11	<5	µg/L	No
Diuron	Aug 09/11	<5	µg/L	No
Glyphosate	Aug 09/11	<25	µg/L	No
Heptachlor + Heptachlor Epoxide	Aug 09/11	<0.1	µg/L	No

Linadane (Total)	Aug 09/11	<0.1	µg/L	No
Malathion	Aug 09/11	<5	µg/L	No
Methoxychlor	Aug 09/11	<0.1	µg/L	No
Metolachlor	Aug 09/11	<3	µg/L	No
Metribuzin	Aug 09/11	<3	µg/L	No
Monochlorobenzene	Aug 09/11	<0.2	µg/L	No
Paraquat	Aug 09/11	<1	µg/L	No
Parathion	Aug 09/11	<3	µg/L	No
Pentachlorophenol	Aug 09/11	<0.1	µg/L	No
Phorate	Aug 09/11	<0.3	µg/L	No
Picloram	Aug 09/11	<5	µg/L	No
Polychlorinated Biphenyls(PCB)	Aug 09/11	<0.05	µg/L	No
Promethyne	Aug 09/11	<0.1	µg/L	No
Simazine	Aug 09/11	<0.5	µg/L	No
THM (NOTE: show latest annual average)	Feb 14/12 May 15/12 Sep 5/12 Nov 20/12	Annual Average 0.0047	mg/l	No
Sodium	Feb 14/12	4.1	mg/L	No
Nitrate+Nitrite	Nov 20/12	3	mg/L	No
Bromodichloromethane	Aug 09/11	1.9	µg/L	No
Temephos	Aug 09/11	<10	µg/L	No

Terbufos	Aug 09/11	<0.3	µg/L	No
Tetrachloroethylene	Aug 09/11	<0.2	µg/L	No
2,3,4,6-Tetrachlorophenol	Aug 09/11	<0.1	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Aug 09/11	<10	µg/L	No
Trifluralin	Aug 09/11	<0.5	µg/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			