

# Pleasant Point Drinking Water System

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Waterworks # 220006525  
System Category – Large Municipal Residential

## Annual Water Report

Prepared For: The City of Kawartha Lakes

Reporting Period of January 1<sup>st</sup> – December 31<sup>st</sup>, 2019

Issued: February 18, 2020

Revision: 0

Operating Authorities:



# OCWA

 ONTARIO CLEAN WATER AGENCY  
AGENCE ONTARIENNE DES EAUX

This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22

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## Report Availability

This system does not serve more than 10,000 residences. The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office and online at the [City's website](http://www.kawarthalakes.ca) (www.kawarthalakes.ca.) Notification that reports are available free of charge will be made on the City of Kawartha Lakes website. The City of Kawartha Lakes Public Works Administration Office is located at 12 Peel Street in Lindsay, Ontario.

## Compliance Report Card

**Drinking Water System Number:** 220006525

**Drinking Water System Name:** Pleasant Point DWS

**Drinking Water System Owner:** City of Kawartha Lakes

**Drinking Water System Category:** Large Municipal Residential

**Period Being Reported:** January 1, 2019 - December 31, 2019

	# of Events	Date	Details
<b>Health &amp; Safety</b>			
Number of Incidents	0		
<b>Drinking Water</b>			
MECP Inspections	1	October 3, 2019	Unannounced - Focused Drinking Water Inspection - Final Inspection Rating of 100%
AWQI's	1	Feb. 17, 2019	Low system pressure due to union on Well #1 blew off inside the plant
Number of Non-Compliances	2	Jul. 29 – Aug. 27, 2019 Sep. 3 – Sep. 16, 2019	Missed weekly raw water sample from Well #1
Number of Boil Water Advisories	0		

## System Process Description

### Raw Source

The water supply for the DWS comes from two (2) groundwater wells that are designated as GUDI (groundwater under direct influence).

### Treatment

The treatment system consists of the following:

- Two (2) cartridge filtration systems,
- One (1) 600 mm diameter chlorine contact pipe,
- Two (2) ultraviolet disinfection systems operating in parallel,
- Three (3) pre-charged pressure tanks,
- A sodium hypochlorite feed system for secondary disinfection and monitoring equipment,
- Stand-by diesel generator on-site.

#### **Treatment Chemicals used during the reporting year:**

<b>Chemical Name</b>	<b>Use</b>	<b>Supplier</b>
Sodium Hypochlorite	Disinfection	Brenntag

#### **Summary of Non-Compliance**

##### **Adverse Water Quality Incidents**

<b>Date</b>	<b>AWQI #</b>	<b>Location</b>	<b>Problem</b>	<b>Details</b>	<b>Legislation</b>	<b>Corrective Action Taken</b>
February 17, 2019	144811	Distribution	Low system pressure	Occurred when the union on Well #1 blew off inside the plant.	O. Reg. 170/03	Isolated Well #1, put Well #2 back into service, flushed system, sampled daily for treated and distribution chlorine residuals and collected one set of samples as per MOH direction.

**Non-Compliance(s)**

<b>Legislation</b>	<b>Requirement(s) system failed to meet</b>	<b>Duration of the failure (i.e. dates)</b>	<b>Corrective Action</b>	<b>Status</b>
O. Reg. 170/03	Weekly raw water sample for Well 1	Jul. 29 to Aug. 27, 2019	Install VFD on well pump, disinfect equipment, sample and test, place well back into production.	Weekly sampling resumed on Aug. 19, 2019.
O. Reg. 170/03	Weekly raw water sample for Well 1	Sep. 3 to Sep. 16, 2019	Install new motor on well pump, disinfect equipment, sample and test, place well back into production.	Weekly sampling resumed on Sep. 16, 2019

**Non-Compliance(s) Identified in a Ministry Inspection**

There were no non-compliances identified in a Ministry Inspection during the reporting period.

Flows

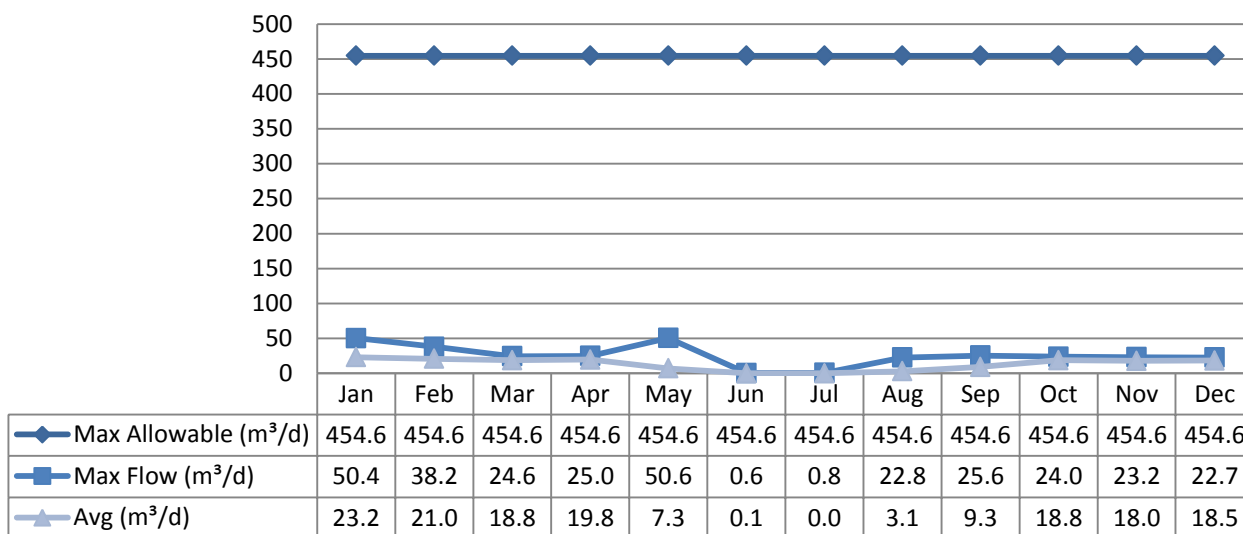
**Raw Water Flows**

The Raw Water flows are regulated under the Permit to Take Water. 2019 Raw Flow Data was submitted to the Ministry electronically under permit #5087-9ZQJJU. The confirmation of the data that was submitted is attached in Appendix A.

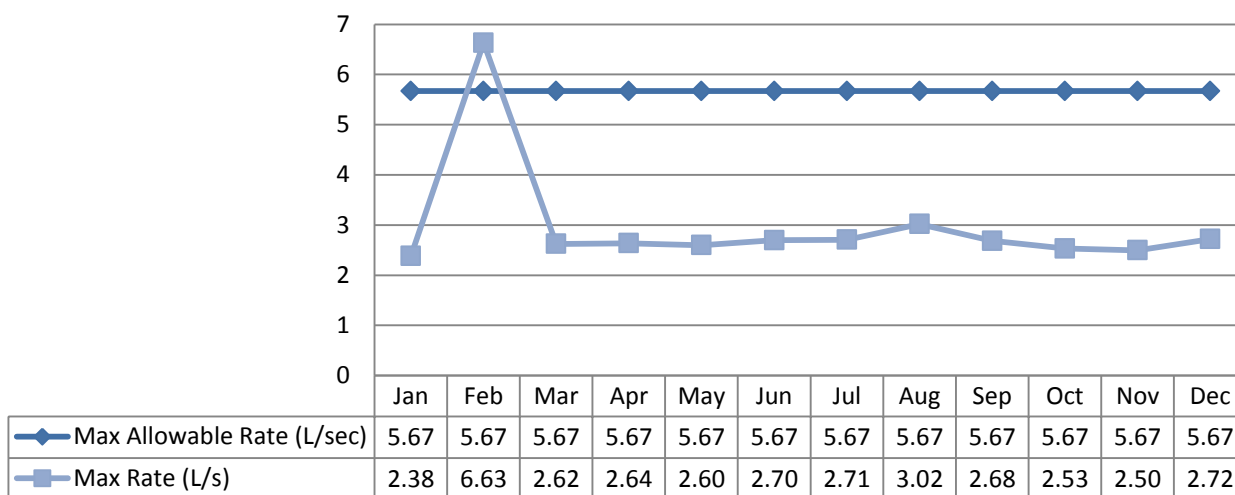
The Pleasant Point Drinking Water System is operating on average under half the rated capacity.

Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW – Well #1

Monthly Rated Flows (L/s)

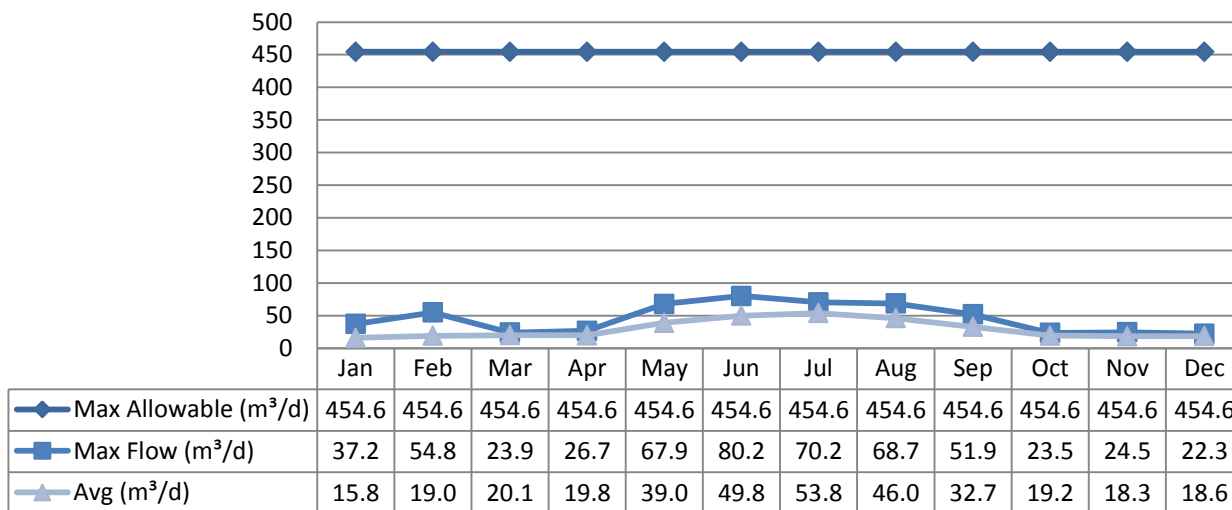
Max allowable rate – PTTW – Well #1



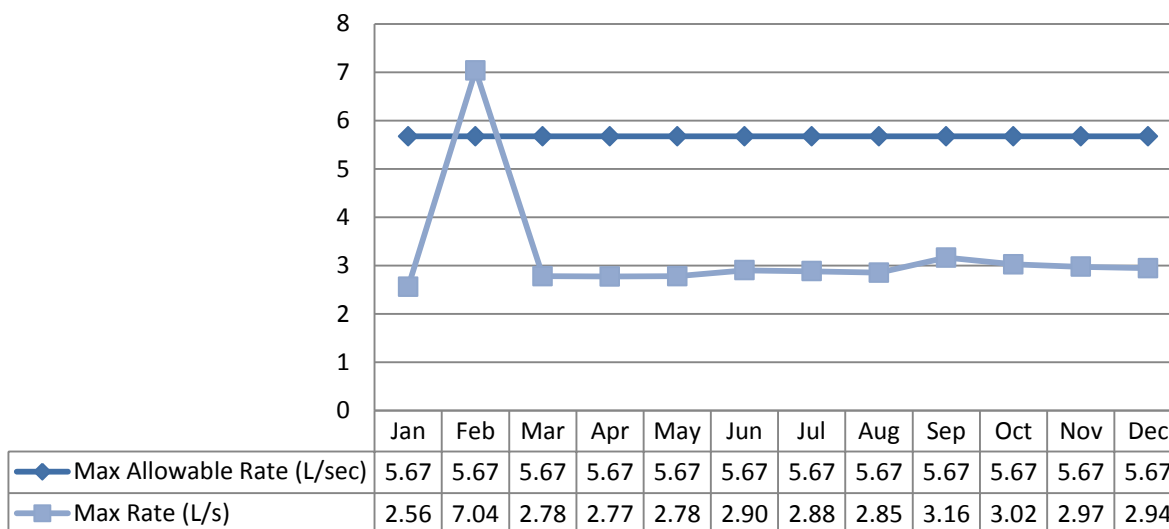
Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in February was due to the Well #1 union failure resulting in AWQI 144811.

Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW – Well #2R

Monthly Rated Flows (L/s)

Max allowable rate – PTTW – Well #2R



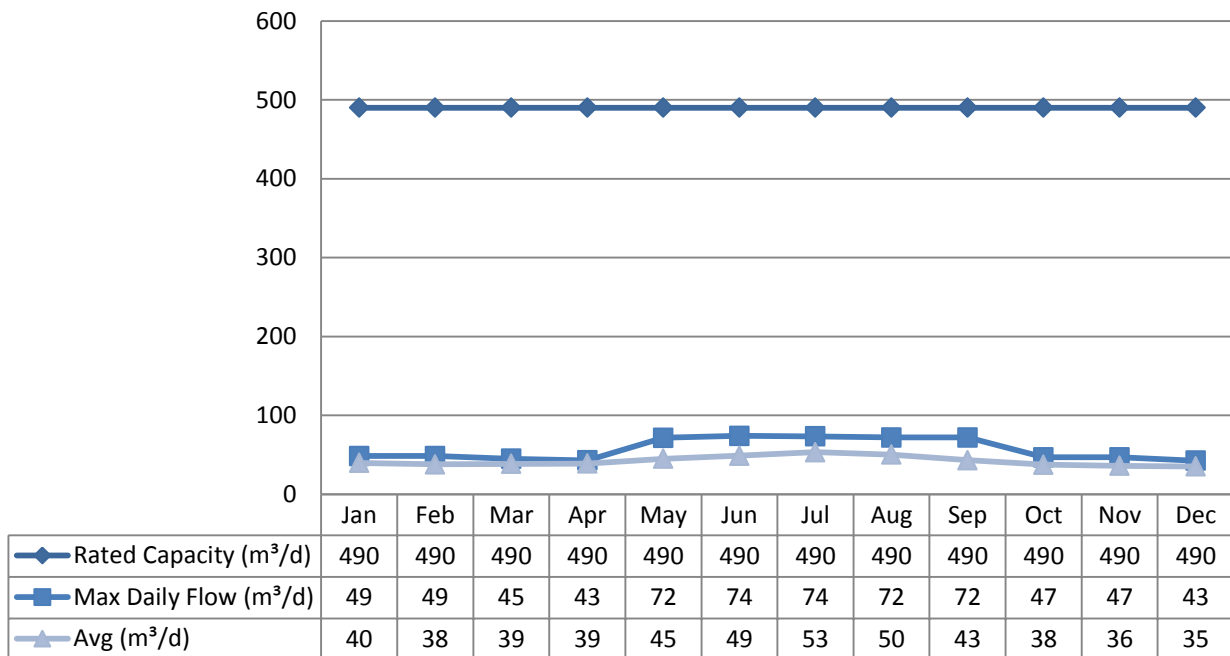
**Note:** The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in February was due to the Well #1 union failure resulting in AWQI 144811.

**Treated Water Flows**

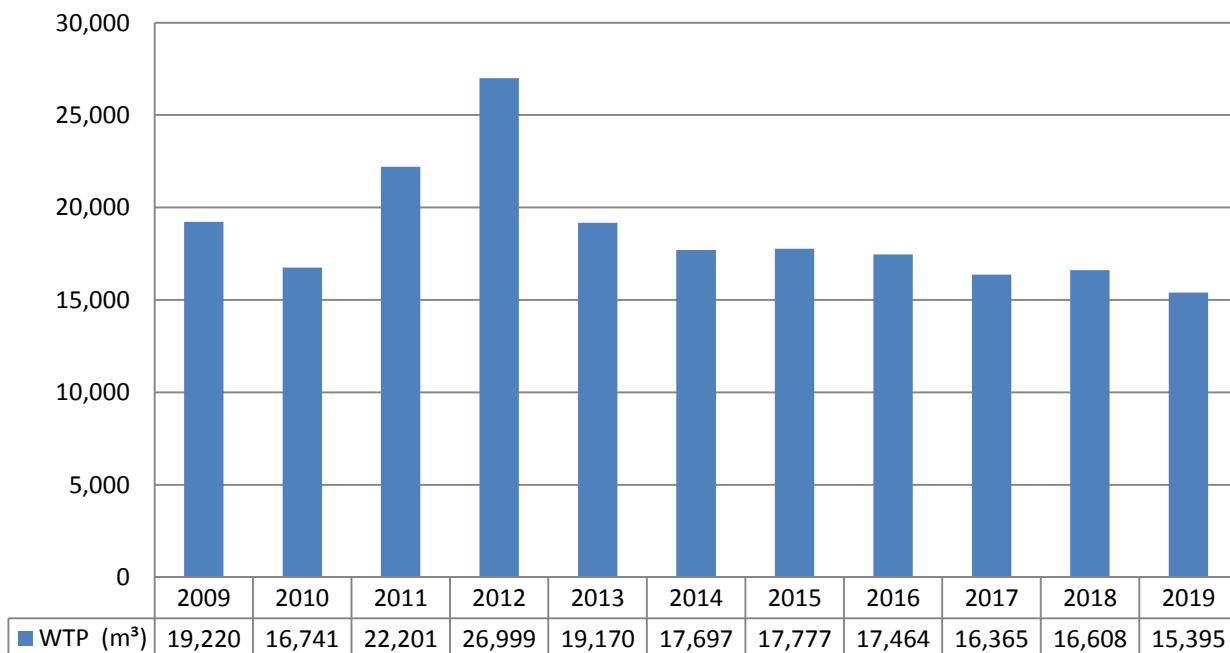
The Treated Water flows are regulated under the Municipal Licence.

**Monthly Rated Flows**

Rated Capacity – MDWL

**Annual Total Flow Comparison**

Total Annual m³





## Regulatory Sample Results Summary

### Microbiological Testing

Source	No. of Samples	Range of E.coli Results (MIN)	Range of E.coli Results (MAX)	Range of Total Coliform Results (MIN)	Range of Total Coliform Results (MAX)	Range of HPC Results (MIN)	Range of HPC Results (MAX)
Raw Well 1	49	0	0	0	0		
Raw Well 2R	52	0	0	0	0		
Treated	52	0	0	0	0	0	6
Distribution	157	0	0	0	0	0	6

**Note:** Well 1 – Raw water samples were not taken between Jul. 29 and Aug. 19, 2019, and Sep. 3 and Sep. 16, 2019.

### Operational Testing

Parameter	Number of Samples Collected	Range of Results Minimum	Range of Results Maximum
<b>Turbidity Well 1 (NTU)</b>	12	0.09	1.41
<b>Turbidity Well 2R (NTU)</b>	14	0.13	0.69
<b>Turbidity – TW (NTU)</b>	8760	0	1.99
<b>Chlorine</b>	8760	0.74	4.98
<b>Fluoride</b> (If the DWS provides fluoridation)	N/A	N/A	N/A

**Note:** Record the unit of measure if it is **not** milligrams per litre.

**Note:** For continuous monitors 8760 is used as the number of samples. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O.Reg.170/03.

### Inorganic Parameters

These parameters are tested as a requirement under O. Reg.170/03. Sodium and Fluoride are required to be tested every five years. Nitrate and Nitrite are tested quarterly and the metals are tested every three years as required under O.Reg.170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Method Detection Limit

Treated Water	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedances (MAC)	Exceedances (1/2 MAC)
Antimony: Sb (ug/L) - TW	2019/01/07	0.02	6.0	No	No
Arsenic: As (ug/L) - TW	2019/01/07	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2019/01/07	65.6	1000 .0	No	No
Boron: B (ug/L) - TW	2019/01/07	9.0	5000 .0	No	No
Cadmium: Cd (ug/L) - TW	2019/01/07	<MDL 0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2019/01/07	0.24	50.0	No	No
Mercury: Hg (ug/L) - TW	2019/01/07	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2019/01/07	0.12	50.0	No	No
Uranium: U (ug/L) - TW	2019/01/07	1.19	20.0	No	No
<b>Additional Inorganics</b>					
Fluoride (mg/L) - TW	2018/01/02	0.07	1.5	No	No
Nitrite (mg/L) - TW	2019/01/07	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2019/01/07	1.44	10.0	No	No
Nitrate (mg/L) - TW	2019/04/01	1.68	10.0	No	No
Nitrate (mg/L) - TW	2019/07/02	2.2	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	1.32	10.0	No	No
Sodium: Na (mg/L) - TW	2018/01/02	8.5	20*	No	No

\*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

**Organic Parameters**

These parameters are tested as a requirement under O. Reg.170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

<b>Parameter (Treated Water)</b>	<b>Sample Date (yyyy/mm/dd)</b>	<b>Sample Result</b>	<b>MAC</b>	<b>No. of Exceedances (MAC)</b>	<b>No. of Exceedances (1/2 MAC)</b>
Alachlor (ug/L) - TW	2019/01/07	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2019/01/07	0.02	5.00	No	No
Azinphos-methyl (ug/L) - TW	2019/01/07	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2019/01/07	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2019/01/07	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2019/01/07	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2019/01/07	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2019/01/07	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2019/01/07	<MDL 0.16	2.00	No	No
Chlorpyrifos (ug/L) - TW	2019/01/07	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2019/01/07	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2019/01/07	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2019/01/07	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2019/01/07	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2019/01/07	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2019/01/07	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2019/01/07	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2019/01/07	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2019/01/07	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2019/01/07	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2019/01/07	<MDL 0.03	20.00	No	No
Diquat (ug/L) - TW	2019/01/07	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2019/01/07	<MDL 0.03	150.00	No	No

Parameter (Treated Water)	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances (MAC)	No. of Exceedances (1/2 MAC)
Glyphosate (ug/L) - TW	2019/01/07	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2019/01/07	<MDL 0.02	190.00	No	No
2-Methyl- 4chlorophenoxyacetic Acid (MCPA)	2019/01/07	<MDL 0.12	100.00	No	No
Metolachlor (ug/L) - TW	2019/01/07	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2019/01/07	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2019/01/07	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2019/01/07	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2019/01/07	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2019/01/07	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2019/01/07	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2019/01/07	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2019/01/07	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2019/01/07	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2019/01/07	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2019/01/07	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2019/01/07	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2019/01/07	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2019/01/07	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2019/01/07	<MDL 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2019/01/07	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2019/01/07	<MDL 0.17	1.00	No	No
<b>Distribution Water</b>					
HAA Total (ug/L) Annual Average - DW	2019	5.3	N/A	N/A	N/A
Trihalomethane: Total (ug/L) Annual Average – DW	2019	10.4	100	No	No

MAC = Maximum Allowable Concentration as per O. Reg.169/03

MDL = Method Detection Limit

### Schedule 15 Sampling

The Schedule 15 Sampling is required under O.Reg.170/03. This system is under reduced sampling. No plumbing samples were collected.

<b>Distribution System</b>	<b>No. of Sampling Points</b>	<b>Number of Samples</b>	<b>Range of Results (MIN)</b>	<b>Range of Results (MAX)</b>	<b>MAC (ug/L)</b>	<b>No. of Exceedances</b>
Alkalinity (mg/L)	2	2	243	246	N/A	N/A
pH	2	2	7.36	7.89	N/A	N/A
Lead (ug/l)	N/A	N/A				

### Additional Legislated Samples


There were no additional legislated samples required to report during this reporting period.



### **Major Maintenance Summary incurred to install, repair or replace required equipment**

<b>WO #</b>	<b>Description</b>
1299772	Transfer Switch Inspection
1301383	Replacement of Starter with Sub Drive
1420138	Well Pump 1 Motor Replacement

# Appendix A

## WTRS Submission Confirmation





Ministry of the Environment,  
Conservation and Parks

| [WT DATA](#) | [USER PROFILE](#) | [CONTACT US](#) | [HELP](#) | [HOME](#) | [LOGOUT](#) |

Location: [WTRS](#) / [WT DATA](#) / [Input WT Record](#)WTRS-WT-008

**Water Taking Data submitted successfully.**


**Confirmation:**

Thank you for submitting your water taking data online.

Permit Number: 5087-9ZQJJU  
Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.  
Received on: Feb 11, 2020 10:50 AM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

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