

Woods of Manilla Drinking Water System

Waterworks # 210002218
System Category – Small Municipal Residential

Annual Water Report

Prepared For: The City of Kawartha Lakes

Reporting Period of January 1st, 2018 – December 31st 2018

Issued: February 15, 2019

Revision: 0

Operating Authorities:



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 residence and the annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office and on the City's website at 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: 210002218

Drinking Water System Name: Woods of Manilla DWS

Drinking Water System Owner: City of Kawartha Lakes

Drinking Water System Category: Small Municipal Residential

Period Being Reported: January 1, 2018 - December 31, 2018

	# of Events	Date	Details
Health & Safety			
Number of Incidents	0		
Drinking Water			
MECP Inspections	1	June 13, 2018	Unannounced-Detailed Drinking Water Inspection - Final Inspection Rating of 100%
AWQI's	0		
Number of Non-Compliances	0		
Number of Boil Water Advisories	0		

System Process Description

Raw Source

The Woods of Manilla Drinking Supply System consists of two production wells. The Woods of Manilla I Water Treatment Plant is supplied with raw groundwater from one well (Well 1) and the Woods of Manilla II Water Treatment Plant is supplied from a separate groundwater well (Well 2).

Treatment

The treatment system consists of the following:

Woods of Manilla I

- One groundwater production well considered to be non-GUDI with a pump
- Sodium hypochlorite feed system with one metering pump
- Clearwell
- Two flow meters: raw and treated
- Chlorine analyzer
- Turbidity analyzer
- Two highlifts

Note: Woods of Manilla I was offline during the reporting year.

Woods of Manilla II

- One groundwater production well considered to be non-GUDI with a pump
- Sodium hypochlorite feed system with two metering pumps
- Clearwell
- Two flow meters: raw and treated
- Chlorine analyzer
- Turbidity analyzers
- Two highlifts
- Standby generator

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Brenntag

Summary of Non-Compliance**Adverse Water Quality Incidents:**

Date	AWQI #	Location	Problem	Details	Legislation	Corrective
There were no adverse water quality incidents reported during the reporting period.						

There were no Adverse Water Quality Incidents during the reporting period.

Non-Compliance(s):

Legislation	Requirement(s) system failed to meet	Duration of the failure	(i.e. date(s))	Corrective Action	Status
There were no non-compliance issues reported during the reporting period.					

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

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliances identified in a Ministry Inspection during this period.				

Flows

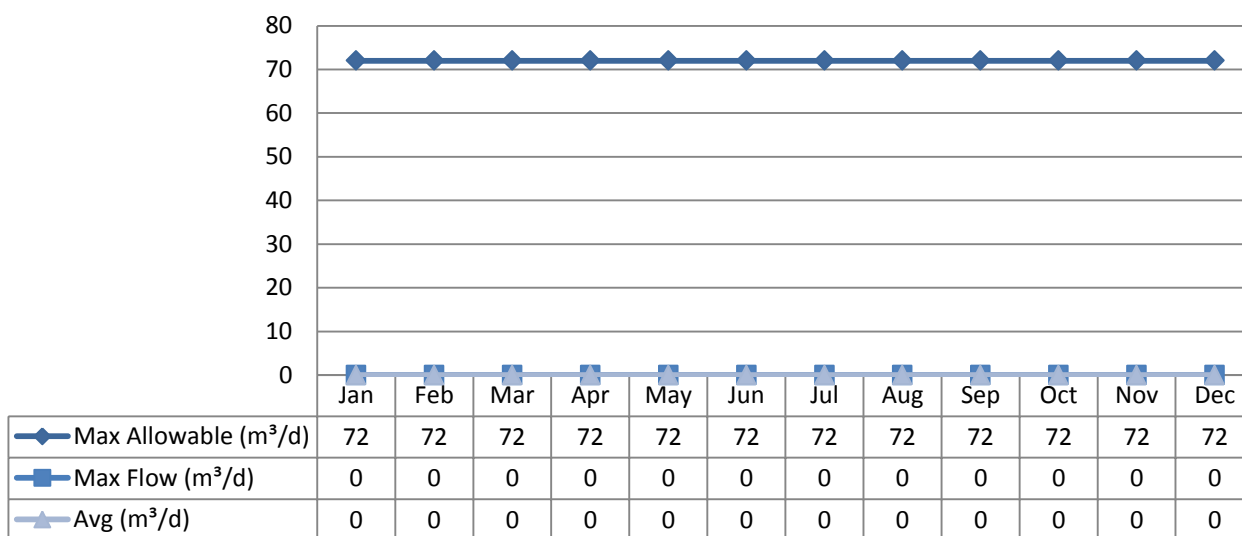
The Woods of Manilla Drinking Water System is operating on average under half the rated capacity.

Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water. 2018 Raw Flow Data was submitted to the Ministry electronically under permit #2300-AQHK4Y. The confirmation and a copy of the data that was submitted are attached in Appendix A.

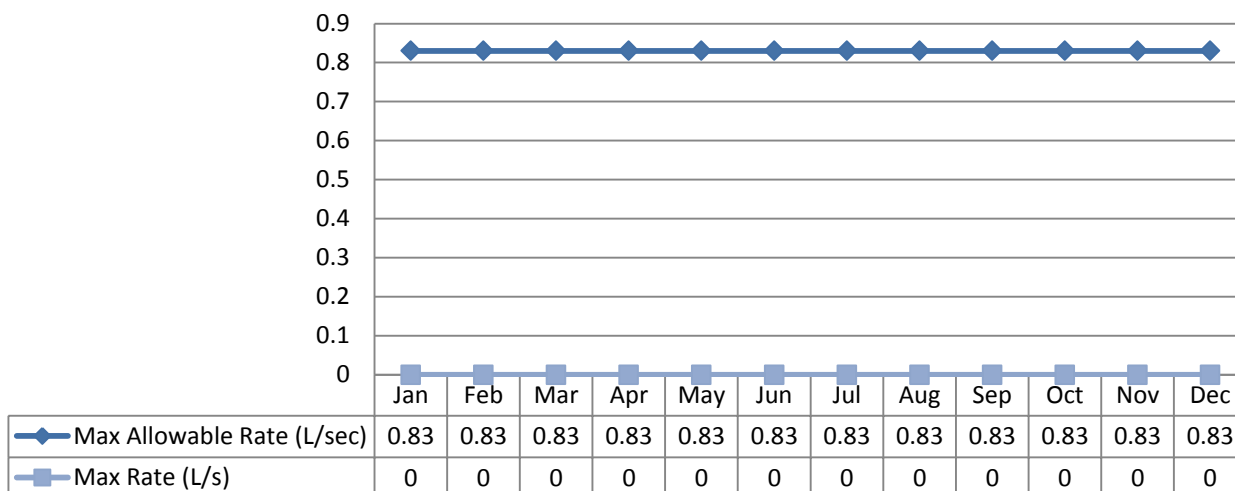
Total Monthly Flows (m³/d)

Max Allowable PTTW- Well #1



Monthly Rated Flows (L/s)

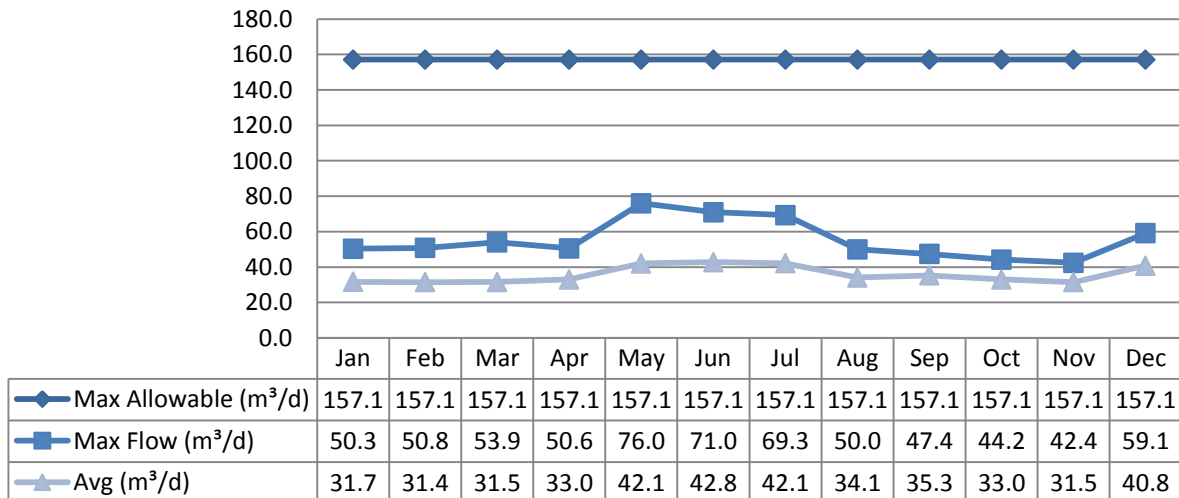
Max allowable rate – PTTW- Well #1



Note: Woods of Manilla I was offline during the reporting year.

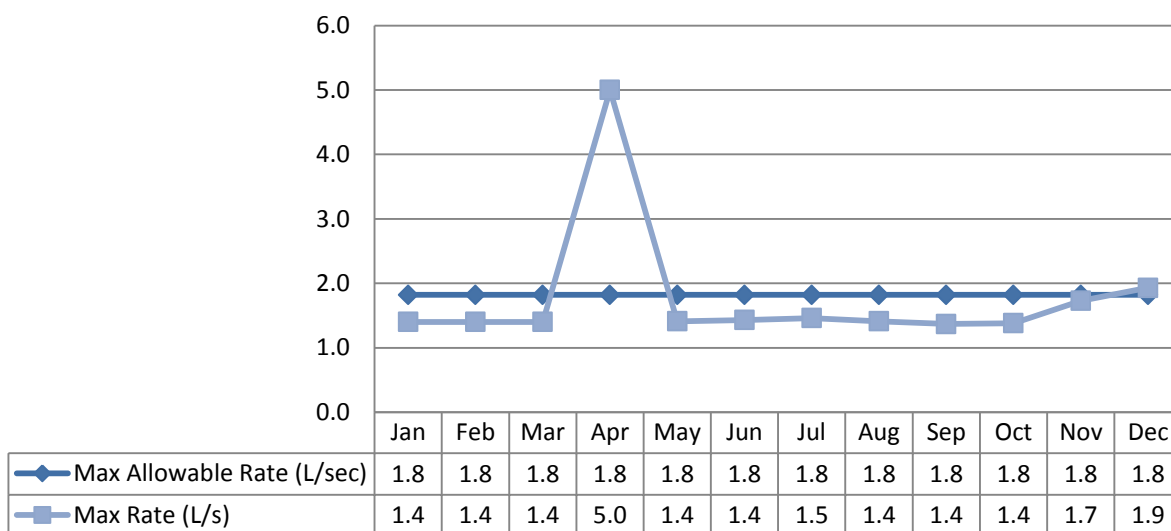
Total Monthly Flows (m³/d)

Max Allowable PTTW- Well #2



Monthly Rated Flows (L/s)

Max allowable rate – PTTW- Well #2



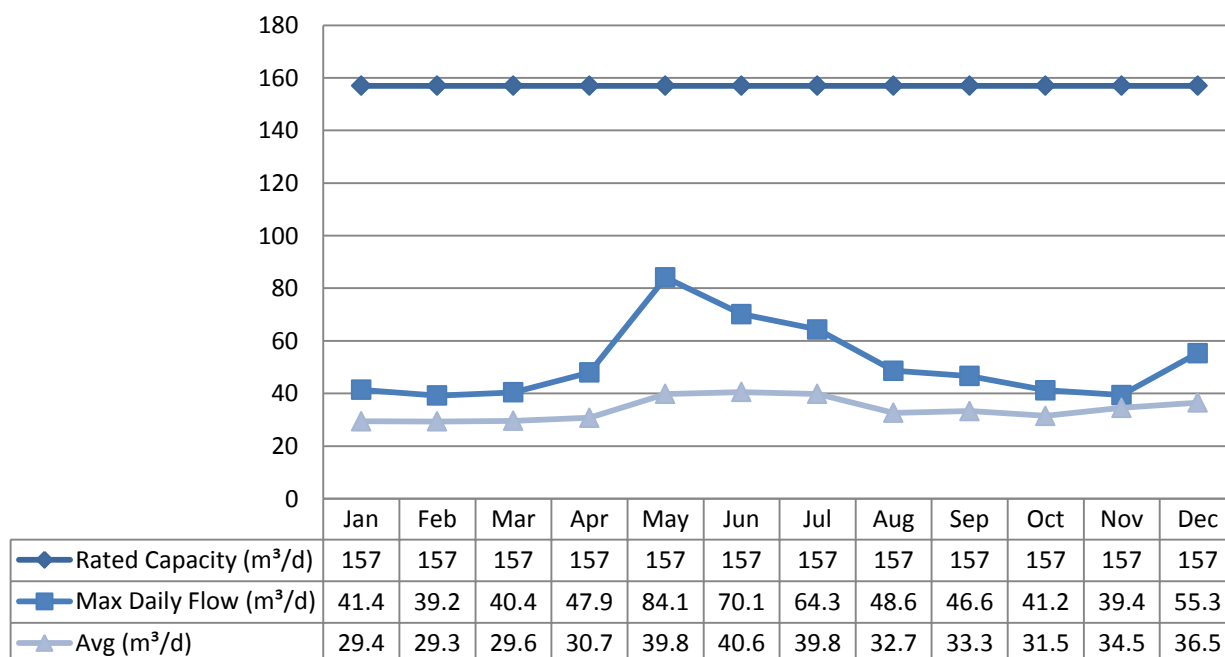
Note: The above table shows there was an exceedance in instantaneous peak flow rate (L/s) in December. This exceedance was short in duration. The significant spike in April was due to scheduled Flow Meter calibration.

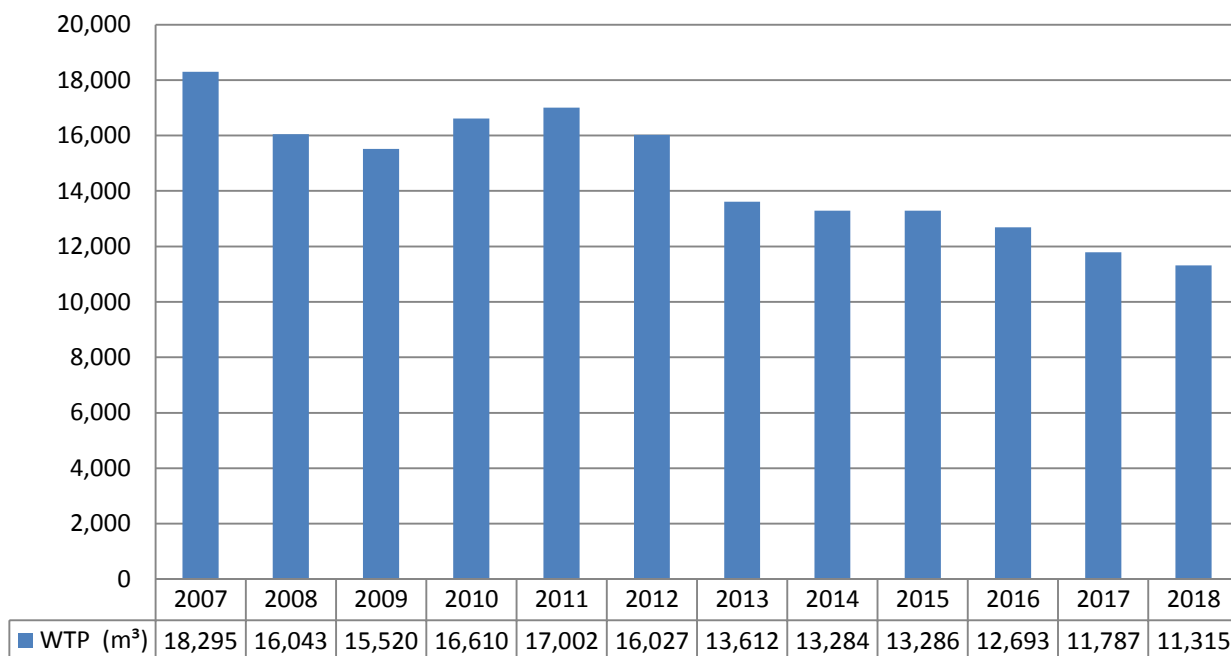
Treated Water Flows

The Treated Water flows are regulated under the Municipal Licence.

Monthly Rated Flows – Woods of Manilla II

Rated Capacity - MDWL



Annual Total Flow ComparisonTotal Annual m³Regulatory Sample Results SummaryMicrobiological Testing

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Well 1	0						
Raw Well 2	28	0	0	0	0		
Treated	0	0	0	0	0	0	3
Distribution	52	0	0	0	0	0	2

Note: Woods of Manilla I was offline during the reporting year.

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity Well 1 (NTU)	0		
Turbidity Well 2 (NTU)	27	0.11	2.07
Chlorine	8760	0	5.01
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

Note: Woods of Manilla I was offline during the reporting year.

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 5 years. Nitrate and Nitrite are tested quarterly and the metals are tested every five 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

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2015/01/19	< 0.02	6.0	No	No
Arsenic: As (ug/L) - TW	2015/01/19	< 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2015/01/19	182.0	1000.0	No	No
Boron: B (ug/L) - TW	2015/01/19	48.1	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2015/01/19	< 0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2015/01/19	< 0.03	50.0	No	No
Mercury: Hg (ug/L) - TW	2015/01/19	0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2015/01/19	< 1.0	50.0	No	No
Uranium: U (ug/L) - TW	2015/01/19	0.006	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2015/02/10	0.23	1.5	No	No
Nitrite (mg/L) - TW	2018/01/15	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2018/04/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2018/07/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2018/10/02	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2018/01/15	0.016	10.0	No	No
Nitrate (mg/L) - TW	2018/04/03	0.015	10.0	No	No
Nitrate (mg/L) - TW	2018/07/03	0.023	10.0	No	No
Nitrate (mg/L) - TW	2018/10/02	0.017	10.0	No	No
Sodium: Na (mg/L) - TW	2015/02/10	17.7	20*	No	Yes

*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.

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.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	2	2	165	169	N/A	N/A
pH	2	2	7.98	8.31	N/A	N/A
Lead (ug/l)	N/A	N/A				

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.

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2015/01/19	< 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2015/01/19	< 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2015/01/19	< 0.02	20.00	No	No
Benzene (ug/L) - TW	2015/01/19	< 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2015/01/19	< 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2015/01/19	< 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2015/01/19	< 0.01	90.00	No	No
Carbofuran (ug/L) - TW	2015/01/19	< 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2015/01/19	< 0.16	2.00	No	No
Chlorpyrifos (ug/L) - TW	2015/01/19	< 0.02	90.00	No	No
Diazinon (ug/L) - TW	2015/01/19	< 0.02	20.00	No	No
Dicamba (ug/L) - TW	2015/01/19	< 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2015/01/19	< 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2015/01/19	< 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2015/01/19	< 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2015/01/19	< 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2015/01/19	< 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2015/01/19	< 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2015/01/19	< 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2015/01/19	< 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2015/01/19	< 0.03	20.00	No	No
Diquat (ug/L) - TW	2015/01/19	< 1.0	70.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Diuron (ug/L) - TW	2015/01/19	< 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2015/01/19	< 1.0	280.00	No	No
Malathion (ug/L) - TW	2015/01/19	< 0.02	190.00	No	No
Metolachlor (ug/L) - TW	2015/01/19	< 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2015/01/19	< 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2015/01/19	< 0.3	80.00	No	No
Paraquat (ug/L) - TW	2015/01/19	< 1.0	10.00	No	No
PCB (ug/L) - TW	2015/01/19	< 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2015/01/19	< 0.15	60.00	No	No
Phorate (ug/L) - TW	2015/01/19	< 0.01	2.00	No	No
Picloram (ug/L) - TW	2015/01/19	< 1.0	190.00	No	No
Prometryne (ug/L) - TW	2015/01/19	< 0.03	1.00	No	No
Simazine (ug/L) - TW	2015/01/19	< 0.01	10.00	No	No
Terbufos (ug/L) - TW	2015/01/19	< 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2015/01/19	< 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2015/01/19	< 0.2	100.00	No	No
Triallate (ug/L) - TW	2015/01/19	< 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2015/01/19	< 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2015/01/19	< 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2015/01/19	< 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2015/01/19	< 0.17	1.00	No	No
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average - DW	2018	11.6	100.00	No	No
HAA Total (ug/L) Annual Average - DW	2018	5.3	N/A	N/A	N/A

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

MDL = Method Detection Limit

Additional Legislated Samples

There was no additional sampling required.

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

WO #	Description
	Equipment was maintained in a fit state of repair as per legislation.

Appendix A

WTRS Data and Submission Confirmation

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 2300-AQHK4Y

Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.

Received on: Jan 30, 2019 11:13 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.

[Print Confirmation](#)

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