# Killaloe Drinking Water System

Waterworks # 220006026
System Category – Large Municipal Residential

# Annual Water Report

## Prepared For: Township of Killaloe, Hagarty and Richards


Reporting Period of January 1st – December 31st 2021

Issued: February 28th, 2022

Revision: 0

Operating Authority:

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

The annual report will be available to residents at the Township of Killaloe, Hagarty and Richards Municipal Office and copies provided free of charge if requested. The Township of Killaloe, Hagarty and Richards Municipal Office is located at, 1 John Street, Killaloe, Ontario.

There are no additional drinking water systems that receive water from this facility.

# Compliance Report Card

| Compliance Event | # of Events |
|---|---|
| Ministry of Environment Inspections | 1 MECP Inspection on September 14th 2021<br>96.54% Rating |
| Ministry of Labour Inspections | 0 |
| QEMS External Audit | 1 Audit completed on January 11th 2021 by SAI Global. No major or minor non-conformances were identified. |
| AWQI's/BWA | 0/0 |
| Non-Compliance | 4 |
| Community Complaints | 0 |
| Spills | 0 |
| Watermain Breaks | 0 |

# System Process Description

## Raw Source

The Killaloe DWS drinking water is drawn from a ground water production well. The well is located approximately 33 m east of the treatment plant at 226 Water Street in Killaloe Ontario, in a prefabricated steel building. The well was drilled in 1989, measuring 200 mm in diameter, 56 m deep and is equipped with a submersible pump rated at 418 L/min at a total dynamic head (TDH) of 57.5 metres.

## Treatment

Groundwater is directed to the treatment plant through a 100 mm diameter discharge line where sodium hypochlorite is added to aid in the primary disinfection process. The water then flows through a dual media Green Sand Contactor for iron and manganese removal. Potassium permanganate is added to assist in the recharging of the greensand contactor. The water is then directed to a pair of UV disinfection systems (one duty, one standby) to achieve CT. Prior to entering the clearwells, stabilized hydrogen peroxide is added to achieve secondary disinfection.
Treated water is discharged into a clear well with a total storage 620 $m^3$, Five high lift pumps consisting of 3 vertical turbine pumps, one vertical turbine fire pump and one vertical turbine jockey pump provide water to the distribution system. Two 1400 L hydropneumatic pressure tanks maintain distribution system pressure and provide some storage.

The backwash wastewater and filter to waste water from the green sand contactor discharges into a wastewater 75 $m^3$ settling pond located 20 metres southwest of the treatment plant.

## Distribution

This Class 1 Water Distribution system supplies treated water to an estimated of population of 660 people. The distribution system consists of an assortment of plastic piping. Various valves are installed on the distribution lines to allow for isolation and flow direction control. The distribution piping runs as far north as Mill Street, east as Coll Street, south as Cameron Street and west as Angus Street. 12 fire hydrants are located throughout the distribution system.

*Treatment Chemicals used during the reporting year:*

| Chemical Name | Use | Supplier |
|---|---|---|
| Potassium Permanganate (granular 97.5%) | Manganese Control | Cariox via Brenntag |
| Sodium Hypochlorite (12%) | Disinfection | Brenntag |
| Hydrogen Peroxide (Huwa San) | Disinfection | San Eco Tech |
| Hydrogen Peroxide (Huwa San) | Disinfection | Arbourdale |

# Summary of Non-Compliance

## Adverse Water Quality Incidents

| Date | AWQI # | Location | Problem | Details | Legislation | Corrective Action Taken |
|---|---|---|---|---|---|---|
| None to report. | | | | | | |

## Non-Compliance

| Legislation | requirement(s) system failed to meet | duration of the failure (i.e. date(s)) | Corrective Action | Status |
|---|---|---|---|---|
| MDWL | Monthly Backwash Wastewater samples for Suspended Solids, pH, and Total Chlorine Residual were not collected | March 2021 | Operations staff received training on the sampling procedures and responsibilities specific to the facility | Complete |
| O.Reg 170/03 | No Trihalomethanes, Haloacetic acids, Nitrate, and Nitrite samples were collected during the quarter | Q1: January – March 2021 | Operations staff received training on the sampling procedures and responsibilities specific to large municipal residential systems | Complete |
| O.Reg 170/03 | Microbiological distribution samples were not collected on a weekly basis | June 8th – June 21st 2021 | June 15th 2021 samples were not received due to a courier error. SGS laboratories now emails OCWA when coolers are received, should a courier error happen resampling can happen within the weekly sampling period | Complete |
| MDWL | Backwash Wastewater Total Chlorine Residual Annual Average Concentration exceeded 0.02 mg/L | 2021 | A single sample collected in February 2021 caused the exceedance | Complete |

## Non-Compliance Identified in a Ministry Inspection:

| Legislation | requirement(s) system failed to meet | duration of the failure (i.e. date(s)) | Corrective Action | Status |
|---|---|---|---|---|
| None to report. | | | | |

# Flows

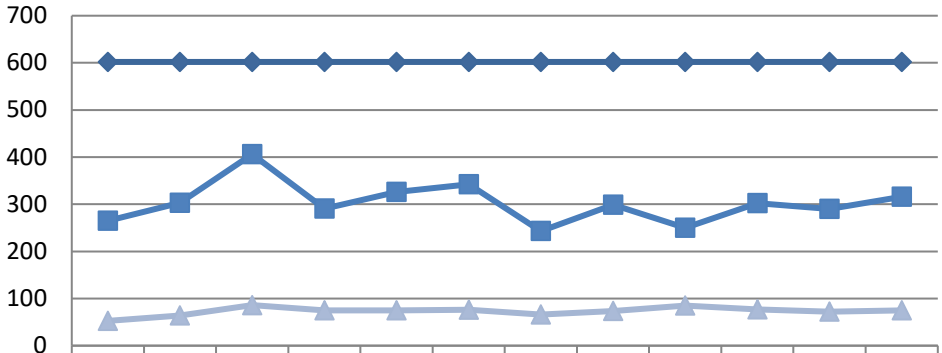
The Killaloe Drinking Water System is operating on average under half the rated capacity.

## Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water (PTTW). 2021 Raw Flow Data was submitted to the Ministry electronically under permit #2835-9LMRUZ. The confirmation and a copy of the data that was submitted are attached in Appendix A.

*Total Monthly Flows*

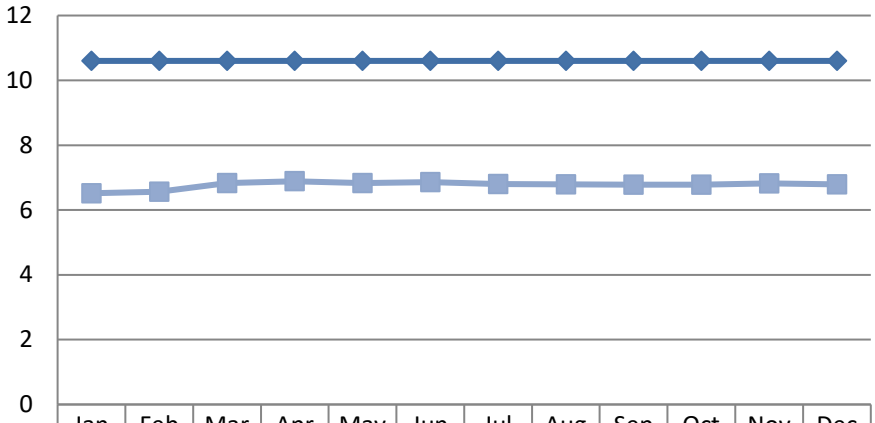
Max Allowable - PTTW




| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Max Allowable (m3/d) | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 | 601.9 |
| Max Flow (m3/d) | 265 | 303 | 406 | 291 | 326 | 342 | 243 | 299 | 250 | 302 | 290 | 316 |
| Avg (m3/d) | 53 | 64 | 86 | 75 | 75 | 76 | 66 | 73 | 85 | 77 | 72 | 75 |

*Monthly Rated Flows*

Max Allowable Rate - PTTW



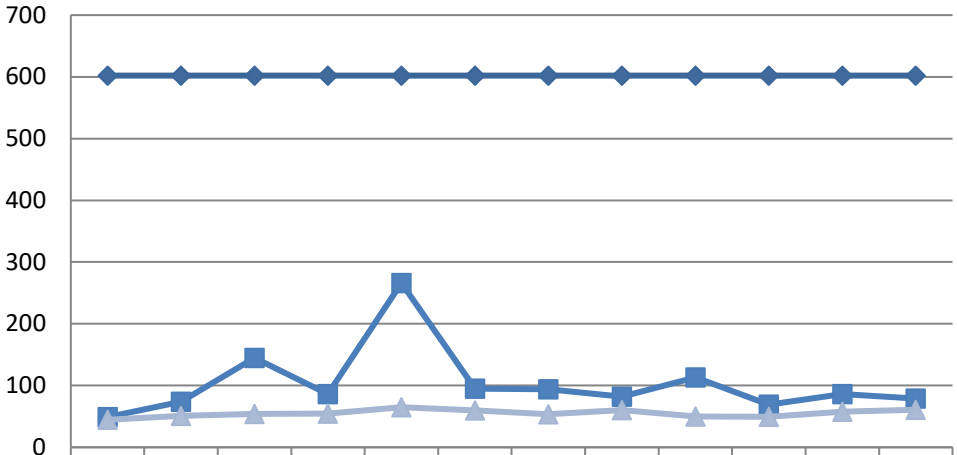

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Max Allowable Rate (L/sec) | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 |
| Max Rate (L/s) | 6.52 | 6.56 | 6.83 | 6.89 | 6.83 | 6.86 | 6.80 | 6.79 | 6.78 | 6.79 | 6.82 | 6.80 |

## Treated Water Flows

The Treated Water flows are regulated under the Municipal Drinking Water Licence (MDWL).

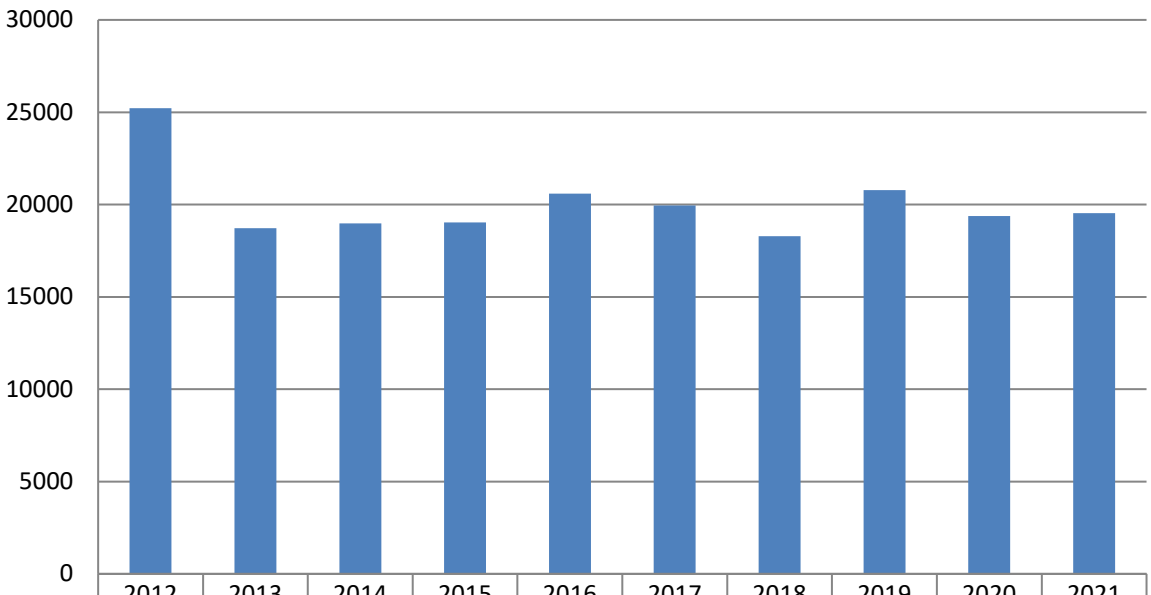
*Monthly Rated Flows*

Rated Capacity - MDWL




| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rated Capacity (m3/d) | 602 | 602 | 602 | 602 | 602 | 602 | 602 | 602 | 602 | 602 | 602 | 602 |
| Max Daily Flow (m3/d) | 49 | 74 | 145 | 86 | 266 | 95 | 94 | 82 | 113 | 69 | 86 | 79 |
| Avg (m3/d) | 45 | 51 | 54 | 55 | 65 | 60 | 53 | 61 | 50 | 49 | 58 | 61 |

*Annual Total Flow Comparison*




| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| WTP (m3) | 25221 | 18725 | 18982 | 19027 | 20594 | 19948 | 18292 | 20780 | 19378 | 19541 |

# Regulatory Sample Results Summary

## Microbiological 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 Water | 51 | 0 | 0 | 0 | 0 | N/A | N/A |
| Treated Water | 51 | 0 | 0 | 0 | 0 | 0 | 10 |
| Distribution Water | 110 | 0 | 0 | 0 | 0 | 0 | 22 |

NOTE: 52 samples were collected in 2021 but samples collected on June 15th 2021 samples were not received by the laboratory due to a courier error.

## Operational Testing

| | No. of Samples Collected | Range of Results | |
|---|---|---|---|
| | | Minimum | Maximum |
| Turbidity, In-House (NTU) - RW | 155 | 0.14 | 0.51 |
| Turbidity, In-House (NTU) - TW | 244 | 0.09 | 0.29 |
| Free Chlorine Residual, In-House (mg/L) - TW | 139 | 0.56 | 0.99 |
| Free Chlorine Residual, On-Line (mg/L) - TW | 8760 | 0.55 | 1.00 |
| Post Clearwell Peroxide Residual, On-Line (mg/L) - TW | 8760 | 2.38 | 15.95 |
| Distribution Peroxide Residual, In-House (mg/L) - DW | 209 | 1.00 | 7.80 |
| Distribution Peroxide Residual, On-Line (mg/L) - DW | 8760 | 1.99 | 8.23 |
| Distribution pH, In-House - DW | 52 | 7.01 | 7.86 |
| UV Transmittance (%)- RW | 49 | 85 | 86.2 |

NOTE: 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 60 months. Nitrate and Nitrite are tested quarterly and metals are tested annually as required under O. Reg. 170/03. In the event any parameter exceeds half the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- <MDL = Less than 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 | 2021/01/11 | <MDL 0.9 | 6.0 | No | No |
| Arsenic: As (ug/L) - TW | 2021/01/11 | <MDL 0.2 | 10.0 | No | No |
| Barium: Ba (ug/L) - TW | 2021/01/11 | 160.0 | 1000.0 | No | No |
| Boron: B (ug/L) - TW | 2021/01/11 | 95.0 | 5000.0 | No | No |
| Cadmium: Cd (ug/L) - TW | 2021/01/11 | 0.008 | 5.0 | No | No |
| Chromium: Cr (ug/L) - TW | 2021/01/11 | 1.32 | 50.0 | No | No |
| Mercury: Hg (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 1.0 | No | No |

| | Sample Date (yyyy/mm/dd) | Sample Result | MAC | No. of Exceedances | |
|---|---|---|---|---|---|
| | | | | MAC | 1/2 MAC |
| Selenium: Se (ug/L) - TW | 2021/01/11 | 0.05 | 50.0 | No | No |
| Uranium: U (ug/L) - TW | 2021/01/11 | 2.14 | 20.0 | No | No |
| **Additional Inorganics** | | | | | |
| Nitrite (mg/L) - TW | Missed | Missed | 1.0 | No | No |
| Nitrite (mg/L) - TW | 2021/04/06 | 0.006 | 1.0 | No | No |
| Nitrite (mg/L) - TW | 2021/07/06 | 0.004 | 1.0 | No | No |
| Nitrite (mg/L) - TW | 2021/10/04 | <MDL 0.003 | 1.0 | No | No |
| Nitrate (mg/L) - TW | Missed | Missed | 10.0 | No | No |
| Nitrate (mg/L) - TW | 2021/04/06 | 0.008 | 10.0 | No | No |
| Nitrate (mg/L) - TW | 2021/07/06 | 0.009 | 10.0 | No | No |
| Nitrate (mg/L) - TW | 2021/10/04 | 0.01 | 10.0 | No | No |
| Fluoride (mg/L) - TW | 2018/01/09 | 0.26 | 1.5 | No | No |
| Sodium: Na (mg/L) - TW | 2018/01/16 | 26.5 | 20* | Yes | 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 | 8 | 247 | 260 | N/A | N/A |
| pH | 2 | 8 | 7.23 | 7.82 | N/A | N/A |
| Lead (ug/l) | 2 | 6 | 0.07 | 0.20 | 10 | 0 |

## Organic Parameters

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

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

| | Sample Date (yyyy/mm/dd) | Sample Result | MAC | Number of Exceedances | |
|---|---|---|---|---|---|
| | | | | MAC | 1/2 MAC |
| **Treated Water** | | | | | |
| Alachlor (ug/L) - TW | 2021/01/11 | <MDL 0.02 | 5.0 | No | No |
| Atrazine + N-dealkylated metabolites (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 5.0 | No | No |
| Azinphos-methyl (ug/L) - TW | 2021/01/11 | <MDL 0.05 | 20.0 | No | No |
| Benzene (ug/L) - TW | 2021/01/11 | <MDL 0.32 | 1.0 | No | No |
| Benzo(a)pyrene (ug/L) - TW | 2021/01/11 | <MDL 0.004 | 0.01 | No | No |
| Bromoxynil (ug/L) - TW | 2021/01/11 | <MDL 0.33 | 5.0 | No | No |
| Carbaryl (ug/L) - TW | 2021/01/11 | <MDL 0.05 | 90.0 | No | No |

| | Sample Date (yyyy/mm/dd) | Sample Result | MAC | Number of Exceedances | |
|---|---|---|---|---|---|
| | | | | MAC | 1/2 MAC |
| Carbofuran (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 90.0 | No | No |
| Carbon Tetrachloride (ug/L) - TW | 2021/01/11 | <MDL 0.17 | 2.0 | No | No |
| Chlorpyrifos (ug/L) - TW | 2021/01/11 | <MDL 0.02 | 90.0 | No | No |
| Diazinon (ug/L) - TW | 2021/01/11 | <MDL 0.02 | 20.0 | No | No |
| Dicamba (ug/L) - TW | 2021/01/11 | <MDL 0.2 | 120.0 | No | No |
| 1,2-Dichlorobenzene (ug/L) - TW | 2021/01/11 | <MDL 0.41 | 200.0 | No | No |
| 1,4-Dichlorobenzene (ug/L) - TW | 2021/01/11 | <MDL 0.36 | 5.0 | No | No |
| 1,2-Dichloroethane (ug/L) - TW | 2021/01/11 | <MDL 0.35 | 5.0 | No | No |
| 1,1-Dichloroethylene (ug/L) - TW | 2021/01/11 | <MDL 0.33 | 14.0 | No | No |
| Dichloromethane (Methylene Chloride) (ug/L) - TW | 2021/01/11 | <MDL 0.35 | 50.0 | No | No |
| 2,4-Dichlorophenol (ug/L) - TW | 2021/01/11 | <MDL 0.15 | 900.0 | No | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW | 2021/01/11 | <MDL 0.19 | 100.0 | No | No |
| Diclofop-methyl (ug/L) - TW | 2021/01/11 | <MDL 0.4 | 9.0 | No | No |
| Dimethoate (ug/L) - TW | 2021/01/11 | <MDL 0.06 | 20.0 | No | No |
| Diquat (ug/L) - TW | 2021/01/11 | <MDL 1.0 | 70.0 | No | No |
| Diuron (ug/L) - TW | 2021/01/11 | <MDL 0.03 | 150.0 | No | No |
| Glyphosate (ug/L) - TW | 2021/01/11 | <MDL 1.0 | 280.0 | No | No |
| Malathion (ug/L) - TW | 2021/01/11 | <MDL 0.02 | 190.0 | No | No |
| Metolachlor (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 50.0 | No | No |
| Metribuzin (ug/L) - TW | 2021/01/11 | <MDL 0.02 | 80.0 | No | No |
| MCPA (ug/L) - TW | 2021/01/11 | <0.12 | 100.0 | No | No |
| Monochlorobenzene (Chlorobenzene) (ug/L) - TW | 2021/01/11 | <MDL 0.3 | 80.0 | No | No |
| Paraquat (ug/L) - TW | 2021/01/11 | <MDL 1.0 | 10.0 | No | No |
| PCB (ug/L) - TW | 2021/01/11 | <MDL 0.04 | 3.0 | No | No |
| Pentachlorophenol (ug/L) - TW | 2021/01/11 | <MDL 0.15 | 60.0 | No | No |
| Phorate (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 2.0 | No | No |
| Picloram (ug/L) - TW | 2021/01/11 | <MDL 1.0 | 190.0 | No | No |
| Prometryne (ug/L) - TW | 2021/01/11 | <MDL 0.03 | 1.0 | No | No |
| Simazine (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 10.0 | No | No |
| Terbufos (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 1.0 | No | No |
| Tetrachloroethylene (ug/L) - TW | 2021/01/11 | <MDL 0.35 | 10.0 | No | No |
| 2,3,4,6-Tetrachlorophenol (ug/L) - TW | 2021/01/11 | <MDL 0.2 | 100.0 | No | No |
| Triallate (ug/L) - TW | 2021/01/11 | <MDL 0.01 | 230.0 | No | No |
| Trichloroethylene (ug/L) - TW | 2021/01/11 | <MDL 0.44 | 5.0 | No | No |
| 2,4,6-Trichlorophenol (ug/L) - TW | 2021/01/11 | <MDL 0.25 | 5.0 | No | No |
| 2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW | 2021/01/11 | <MDL 0.12 | 100.0 | No | No |
| Trifluralin (ug/L) - TW | 2021/01/11 | <MDL 0.02 | 45.0 | No | No |
| Vinyl Chloride (ug/L) - TW | 2021/01/11 | <MDL 0.17 | 1.0 | No | No |

Distribution samples are tested quarterly for THM's and HAA's in accordance with O. Reg. 170/03.

| | Sample Year | Sample Result | MAC | No. of Exceedances | |
|---|---|---|---|---|---|
| | | | | MAC | 1/2 MAC |
| **Distribution Water** | | | | | |
| Trihalomethane (THM): Total (ug/L) Annual Average - DW | 2021 | 32 | 100.0 | No | No |
| Haloacetic Acid (HAA): Total (ug/L) Annual Average - DW | 2021 | 9.5 | 80.0 | No | No |

*BTEX Parameters*

A monitoring well was constructed adjacent to Water Street to monitor the potential migration of a petroleum products contaminated plume toward the source water/production well. Sampling of the ground water from the single purpose constructed monitoring well is conducted annually. These contaminants have not been detected since the beginning of the sampling program in 1998.

| | Sample Date (yyyy/mm/dd) | Sample Result | MAC | No. of Exceedances | |
|---|---|---|---|---|---|
| | | | | MAC | 1/2 MAC |
| **Production Well** | | | | | |
| Benzene (ug/L) - RW | 2021/05/12 | <MDL 0.32 | 1 | No | No |
| Ethylbenzene (ug/L) - RW | 2021/05/12 | <MDL 0.33 | 140 | No | No |
| Toluene (ug/L) - RW | 2021/05/12 | <MDL 0.36 | 60 | No | No |
| Xylene: Total (ug/L) - RW | 2021/05/12 | <MDL 0.43 | 90 | No | No |
| m/p-xylene (ug/L) - RW | 2021/05/12 | <MDL 0.43 | N/A | No | No |
| o-xylene (ug/L) - RW | 2021/05/12 | <MDL 0.17 | N/A | No | No |
| **Monitoring Well** | | | | | |
| Benzene (ug/L) - RW | 2021/05/12 | <MDL 0.32 | 1 | No | No |
| Ethylbenzene (ug/L) - RW | 2021/05/12 | <MDL 0.33 | 140 | No | No |
| Toluene (ug/L) - RW | 2021/05/12 | <MDL 0.36 | 60 | No | No |
| Xylene: Total (ug/L) - RW | 2021/05/12 | <MDL 0.43 | 90 | No | No |
| m/p-xylene (ug/L) - RW | 2021/05/12 | <MDL 0.43 | N/A | No | No |
| o-xylene (ug/L) - RW | 2021/05/12 | <MDL 0.17 | N/A | No | No |

## Additional Legislated Samples

Schedule C: System-Specific Conditions of Municipal Drinking Water License #259-101 requires the Killaloe Drinking Water System to monitor the effluent discharged to the natural environment.

| Legal Document | Date of Issuance | Parameter | Limit | Result | Unit of measure |
|---|---|---|---|---|---|
| MDWL #259-101 | 30-Nov-2020 | Backwash Effluent Suspended Solids | Annual Avg < 15 mg/L | 3.10 | mg/L |
| | | Backwash Effluent pH | Annual Avg 6.5-8.5 | 8.00 | N/A |
| | | Backwash Effluent Total Chlorine Residual | Annual Avg < 0.02 mg/L | 0.03 | mg/L |

Schedule D: Conditions for Relief from Regulatory Requirements of Municipal Drinking Water License #259-101 requires the Killaloe Drinking Water System to monitor the distribution system for the following parameters for using Huwa-San NSF Certified Stabilized Hydrogen Peroxide as a disinfectant.

| Legal Document | Date of Issuance | Parameter | Date Sampled | Result | Unit of measure |
|---|---|---|---|---|---|
| MDWL #259-101 | 30-Nov-2020 | Distribution pH | 2021/01/11 | 7.17 | N/A |
| | | | 2021/07/06 | 7.55 | N/A |
| | | Distribution Copper | 2021/01/11 | 64.2 | ug/L |
| | | | 2021/07/06 | 0.14 | ug/L |
| | | Distribution Lead | 2021/01/11 | 164 | ug/L |
| | | | 2021/07/06 | 0.07 | ug/L |

See Distribution Peroxide Residuals in the “Operational Testing” section of this report for data of hydrogen peroxide residuals using a continuous monitoring analyzer, weekly grab samples, and from grab samples collected at the same time as a microbiological sample as required by the Municipal Drinking Water Licence.

## Evaluation of the Effectiveness of Secondary Disinfectant

The hydrogen peroxide continues to work well as a secondary disinfectant while producing reduced THM's and HAA's within the distribution system. There have been no significant anomalies in any tested levels. The trend in past years of HPC results that are unusually high on approximately a yearly basis did not occur in 2021, with the highest HPC result found to be 22 cfu/mL. Though, there was no evidence to the high HPC results occurring in regards to the hydrogen peroxide residual taken at the time of sample.

There were no events of observations made under Section 16-4 (Duty to Report Other Observations) where hydrogen peroxide residuals were below 0.5 mg/L in the treated water or in the distribution system. The maximum hydrogen peroxide residual exceeded 8 mg/L in distribution system on March 5th 2021 from 20:22:00 to 23:22:00 for a total of three hours. Operations staff received an alarm for High Distribution H2O2 and found the analyzer feed line to be airlocked. The air was flushed from the line and the analyzer began to read 4.8 mg/L once the air was removed. It should be noted that the hydrogen peroxide residual in the treated water leaving the water treatment plant did not exceed 6.60 mg/L.

## Major Maintenance Summary

| WO # | Description |
|---|---|
| 2094029 | Flash mixer unit refurbished |
| 2173352 | Clean and inspect clearwell #1, clearwell #2, and pump chambers |
| 2175283 | Replace well level pressure probe |
| 2579440 | Replace Post UV H202 analyzer sample cell block |
| 2497107 | Replace chlorine dosing chemical line |

# Appendix A

## WTRS Data and Submission Confirmation

Ontario

**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: 2835-9LMRUZ
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF KILLALOE, HAGARTY AND RICHARDS.
Received on:Feb 11, 2022 3:08 PM

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.

Return to Main Page

KAYLEE SAAR | 2022/02/11
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