



OPTIONAL ANNUAL REPORT TEMPLATE

| | |
|--|-------------------------------------|
| Drinking-Water System Number: | 220001423 |
| Drinking-Water System Name: | KENORA AREA WATER TREATMENT PLANT |
| Drinking-Water System Owner: | CITY OF KENORA |
| Drinking-Water System Category: | LARGE MUNICIPAL RESIDENTIAL |
| Period being reported: | JANUARY 1, 2015 – DECEMBER 31, 2015 |

| | |
|---|---|
| <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 <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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; padding: 5px;"> <p>City Hall – 1 Main Street South Kenora Water Treatment Plant – 9 7th Street South City of Kenora – Website http://www.kenora.ca</p> </div> | <p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text" value="N/A"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Number of Interested Authorities you report to: <input type="text" value="N/A"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input type="checkbox"/></p> |
|---|---|

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 |
|-----------------------------------|------------------------------|
| Rocky Heights Distribution System | 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



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 _____

Describe your Drinking-Water System

The Kenora Water Treatment Plant is categorized as Large Municipal Residential. It is designated a Class III plant. The total number of service connections at this time is 5136. The water plant has a rated capacity of 292 Litres per second. The process is chemically assisted and includes filtration to meet the treatment requirements of O.Reg 170/03 for surface water. The plant uses chloramination to provide secondary disinfection prior to distribution.

List all water treatment chemicals used over this reporting period

Chlorine, Ammonium Sulphate, Aluminum Sulphate, Polyelectrolyte, Sodium Hydroxide, Sodium Silicofluoride.

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 Polymer Metering Pumps – \$15,000
Replacement of Highlift Motors – \$20,000
Addition of Booster Station Pressure Transmitters – \$10,000

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 |
|---------------|--|---------|-----------------|---|------------------------|
| May 14 2015 | Total coliform present in a sample from a summer service during turn on sampling. | Present | | Service remained on a BWA until flushing was done and sampling confirmed the absence of TC. | May 21 2015 |
| Jul 9 2015 | Total coliform present in a sample from a residence under BWA due to a watermain repair. | Present | | Residence remained on a BWA until flushing was done and sampling confirmed the absence of TC. | Jul 13 2015 |
| Jul 31 2015 | Low chlorine residual in distribution system. | 0.00 | mg/L | Sample was taken from a bleeder at end of dead end main with no usage. Leaving bleeder running was sufficient to restore and maintain residual. | Aug 4 2015 |
| Dec 7 2015 | Low chlorine residual in distribution system. | 0.12 | mg/L | Nearest hydrant was flushed and a permanent bleeder was installed at the end of the main to maintain residual. | Jan 7 2016 |
| Dec 10 2015 | Total Coliform present in sample from a residence under BWA due to a watermain repair. | Present | | Residence remained on a BWA until a permanent bleeder was installed and sampling confirmed the absence of TC. | Jan 11 2016 |

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 Results (min #)-(max #) | Range of Total Coliform Results (min #)-(max #) | Number of HPC Samples | Range of HPC Results (min #)-(max #) |
|--------------|-------------------|---|---|-----------------------|--------------------------------------|
| Raw | 52 | <1 – 20 | <1 – 1420 | N/A | N/A |
| Treated | 52 | Absent | Absent | 52 | 0 – 1 |
| Distribution | 312 | Absent | Absent-Present | 95 | 0 – 7 |

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 | Number of Online Samples | Range of Results |
|---|------------------------|-------------------|--------------------------|-------------------|
| Turbidity | 365 | 0.035 - 0.092 NTU | 8760 | 0.007 – 0.105 NTU |
| Chlorine | 365 | 1.51 – 2.11 mg/L | 8760 | 1.38 – 2.32 mg/L |
| Fluoride (If the DWS provides fluoridation) | 365 | 0.02 -0.75 mg/L | 8760 | 0.03 – 0.66 mg/L |

*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 |
|---------------------------------|------------------------|---|--------|-----------------|
| Nov 3/2004 | Total suspended solids | No samples were taken as effluent was not discharged to lake in 2015. | N/A | mg/L |

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 | Jan 5/2015 | <0.60 | ug/L | No |
| Arsenic | Jan 5/2015 | <1.0 | ug/L | No |
| Barium | Jan 5/2015 | 10 | ug/L | No |
| Boron | Jan 5/2015 | <50 | ug/L | No |
| Cadmium | Jan 5/2015 | <0.10 | ug/L | No |
| Chromium | Jan 5/2015 | <1.0 | ug/L | No |
| *Lead | N/A | N/A | N/A | N/A |
| Mercury | Jan 5/2015 | <0.10 | ug/L | No |
| Selenium | Jan 5/2015 | <1.0 | ug/L | No |
| Sodium | Jan 5/2015 | 14.1 | mg/L | No |
| Uranium | Jan 5/2015 | <2.0 | ug/L | No |
| Fluoride | Jan 5/2015 | 0.550 | mg/L | No |
| Nitrite | Jan 5/2015 | <0.010 | mg/L | No |
| | Apr 7/2015 | <0.010 | mg/L | No |
| | July 6/2015 | <0.010 | mg/L | No |
| | Oct 5/2015 | <0.010 | mg/l | No |
| Nitrate | Jan 5/2015 | 0.219 | mg/L | No |
| | Apr 7/2015 | 0.252 | mg/L | No |
| | July 6/2015 | <0.020 | mg/L | No |
| | Oct 5/2015 | <0.020 | 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 | 132 | <1 – 7.4 ug/L | 0 |
| Distribution | 8 | <1 - <1 | 0 |

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

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|--------------------------------------|-------------|--------------|-----------------|------------|
| Alachlor | Jan 5/2015 | <0.10 | ug/L | No |
| Aldicarb | Jan 5/2015 | <1.0 | ug/L | No |
| Aldrin + Dieldrin | Jan 5/2015 | <0.040 | ug/L | No |
| Atrazine + N-dealkylated metabolites | Jan 5/2015 | <0.20 | ug/L | No |



| | | | | |
|---|------------|--------|------|----|
| Azinphos-methyl | Jan 5/2015 | <0.10 | ug/L | No |
| Bendiocarb | Jan 5/2015 | <0.20 | ug/L | No |
| Benzene | Jan 5/2015 | <0.50 | ug/L | No |
| Benzo(a)pyrene | Jan 5/2015 | <0.010 | ug/L | No |
| Bromoxynil | Jan 5/2015 | <0.20 | ug/L | No |
| Carbaryl | Jan 5/2015 | <0.20 | ug/L | No |
| Carbofuran | Jan 5/2015 | <0.20 | ug/L | No |
| Carbon Tetrachloride | Jan 5/2015 | <0.50 | ug/L | No |
| Chlordane (Total) | Jan 5/2015 | <0.30 | ug/L | No |
| Chlorpyrifos | Jan 5/2015 | <0.10 | ug/L | No |
| Cyanazine | Jan 5/2015 | <0.10 | ug/L | No |
| Diazinon | Jan 5/2015 | <0.10 | ug/L | No |
| Dicamba | Jan 5/2015 | <0.20 | ug/L | No |
| 1,2-Dichlorobenzene | Jan 5/2015 | <0.50 | ug/L | No |
| 1,4-Dichlorobenzene | Jan 5/2015 | <0.50 | ug/L | No |
| Dichlorodiphenyltrichloroethane (DDT) + metabolites | Jan 5/2015 | <0.40 | ug/L | No |
| 1,2-Dichloroethane | Jan 5/2015 | <0.50 | ug/L | No |
| 1,1-Dichloroethylene (vinylidene chloride) | Jan 5/2015 | <0.50 | ug/L | No |
| Dichloromethane | Jan 5/2015 | <5.0 | ug/L | No |
| 2,4 Dichlorophenol | Jan 5/2015 | <0.30 | ug/L | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | Jan 5/2015 | <0.20 | ug/L | No |
| Diclofop-methyl | Jan 5/2015 | <0.20 | ug/L | No |
| Dimethoate | Jan 5/2015 | <0.10 | ug/L | No |
| Dinoseb | Jan 5/2015 | <0.20 | ug/L | No |
| Diquat | Jan 5/2015 | <1.00 | ug/L | No |
| Diuron | Jan 5/2015 | <1.00 | ug/L | No |
| Glyphosate | Jan 5/2015 | <5.00 | ug/L | No |
| Heptachlor + Heptachlor Epoxide | Jan 5/2015 | <0.20 | ug/L | No |
| Lindane (Total) | Jan 5/2015 | <0.10 | ug/L | No |
| Malathion | Jan 5/2015 | <0.10 | ug/L | No |
| Methoxychlor | Jan 5/2015 | <0.10 | ug/L | No |
| Metolachlor | Jan 5/2015 | <0.10 | ug/L | No |
| Metribuzin | Jan 5/2015 | <0.10 | ug/L | No |
| Monochlorobenzene | Jan 5/2015 | <0.50 | ug/L | No |
| Paraquat | Jan 5/2015 | <1.00 | ug/L | No |
| Parathion | Jan 5/2015 | <0.10 | ug/L | No |
| Pentachlorophenol | Jan 5/2015 | <0.50 | ug/L | No |
| Phorate | Jan 5/2015 | <0.10 | ug/L | No |
| Picloram | Jan 5/2015 | <0.20 | ug/L | No |
| Polychlorinated Biphenyls(PCB) | Jan 5/2015 | <0.035 | ug/L | No |
| Prometryne | Jan 5/2015 | <0.10 | ug/L | No |
| Simazine | Jan 5/2015 | <0.10 | ug/L | No |



| | | | | |
|---|---|-----------------|-------------|-----------|
| THM (NOTE: show latest annual average) | Jan 5/2015 April 7/2015 July 6/2015 Oct 5/2015 | 60.0 | ug/L | No |
| Temephos | Jan 5/2015 | <0.10 | ug/L | No |
| Terbufos | Jan 5/2015 | <0.20 | ug/L | No |
| Tetrachloroethylene | Jan 5/2015 | <0.50 | ug/L | No |
| 2,3,4,6-Tetrachlorophenol | Jan 5/2015 | <0.50 | ug/L | No |
| Triallate | Jan 5/2015 | <0.10 | ug/L | No |
| Trichloroethylene | Jan 5/2015 | <0.50 | ug/L | No |
| 2,4,6-Trichlorophenol | Jan 5/2015 | <0.50 | ug/L | No |
| 2,4,5-Trichlorophenoxy acetic acid (2,4,5-T) | Jan 5/2015 | <0.20 | ug/L | No |
| Trifluralin | Jan 5/2015 | <0.10 | ug/L | No |
| Vinyl Chloride | Jan 5/2015 | <0.20 | ug/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 |
|------------------|---------------------|------------------------|-----------------------|
| Sodium | 14.1 | mg/L | Jan 5/2015 |
| THM | 60.0 | ug/L | Annual Average |