



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, 2016 – DECEMBER 31, 2016

<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: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div></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: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div></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>
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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

Installation of New Pumps and VFD's at Pine Portage Booster – \$15,000
Purchase of Backup Sludge Pump – \$16,000
Replacement of Loss of Head Pressure Transmitters – \$11,000
Installation of Dehumidification Equipment in Highlift Area - \$15,000



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
Jun 27 2016	Total coliform present in a sample taken during routine sampling. Subsequent downstream sampling revealed further total coliform at one specific residence.	Present		Flushing was conducted and resampling confirmed the absence of TC at the original sample location. Investigation revealed TC at downstream residence was likely an internal plumbing issue. Sampling from service line to residence confirmed the absence of TC.	Jul 18 2016
Jul 18 2016	Total coliform present in two consecutive samples taken 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 25 2016
Aug 29 2016	Total coliform present in a sample taken during routine sampling.	Present		Flushing was conducted and resampling confirmed the absence of TC.	Sep 6 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 – 22	<1 – >2420	N/A	N/A
Treated	52	Absent	Absent	52	0 – 3
Distribution	312	Absent	Absent-Present	98	0 – 525

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	0.038 - 0.085 NTU	8760	0.004 – 0.093 NTU
Chlorine	365	1.03 – 1.71 mg/L	8760	1.04 – 1.65 mg/L
Fluoride (If the DWS provides fluoridation)	365	0.19 - 0.76 mg/L	8760	0.05 – 0.72 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 2016.	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 11/2016	<0.60	ug/L	No
Arsenic	Jan 11/2016	<1.0	ug/L	No
Barium	Jan 11/2016	<10	ug/L	No
Boron	Jan 11/2016	<50	ug/L	No
Cadmium	Jan 11/2016	<0.10	ug/L	No
Chromium	Jan 11/2016	<1.0	ug/L	No
*Lead	N/A	N/A	N/A	N/A
Mercury	Jan 11/2016	<0.10	ug/L	No
Selenium	Jan 11/2016	<1.0	ug/L	No
Sodium	Jan 5/2015	14.1	mg/L	No
Uranium	Jan 11/2016	<2.0	ug/L	No
Fluoride	Jan 5/2015	0.550	mg/L	No
Nitrite	Jan 11/2016	<0.010	mg/L	No
	Apr 4/2016	<0.010	mg/L	No
	July 11/2016	<0.010	mg/L	No
	Oct 3/2016	<0.010	mg/l	No
Nitrate	Jan 11/2016	0.177	mg/L	No
	Apr 4/2016	0.224	mg/L	No
	July 11/2016	<0.020	mg/L	No
	Oct 3/2016	0.041	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	N/A	N/A	N/A
Distribution	N/A	N/A	N/A

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 11/2016	<0.10	ug/L	No
Aldicarb	Jan 11/2016	<1.0	ug/L	No
Atrazine + N-dealkylated metabolites	Jan 11/2016	<0.20	ug/L	No
Azinphos-methyl	Jan 11/2016	<0.10	ug/L	No



Benzene	Jan 11/2016	<0.50	ug/L	No
Benzo(a)pyrene	Jan 11/2016	<0.010	ug/L	No
Bromoxynil	Jan 11/2016	<0.20	ug/L	No
Carbaryl	Jan 11/2016	<0.20	ug/L	No
Carbofuran	Jan 11/2016	<0.20	ug/L	No
Carbon Tetrachloride	Jan 11/2016	<0.50	ug/L	No
Chlorpyrifos	Jan 11/2016	<0.10	ug/L	No
Diazinon	Jan 11/2016	<0.10	ug/L	No
Dicamba	Jan 11/2016	<0.20	ug/L	No
1,2-Dichlorobenzene	Jan 11/2016	<0.50	ug/L	No
1,4-Dichlorobenzene	Jan 11/2016	<0.50	ug/L	No
1,2-Dichloroethane	Jan 11/2016	<0.50	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 11/2016	<0.50	ug/L	No
Dichloromethane	Jan 11/2016	<5.0	ug/L	No
2-4 Dichlorophenol	Jan 11/2016	<0.30	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 11/2016	<0.20	ug/L	No
Diclofop-methyl	Jan 11/2016	<0.20	ug/L	No
Dimethoate	Jan 11/2016	<0.10	ug/L	No
Diquat	Jan 11/2016	<1.00	ug/L	No
Diuron	Jan 11/2016	<1.00	ug/L	No
Glyphosate	Jan 11/2016	<5.00	ug/L	No
Malathion	Jan 11/2016	<0.10	ug/L	No
Metolachlor	Jan 11/2016	<0.10	ug/L	No
Metribuzin	Jan 11/2016	<0.10	ug/L	No
Monochlorobenzene	Jan 11/2016	<0.50	ug/L	No
Paraquat	Jan 11/2016	<1.00	ug/L	No
Pentachlorophenol	Jan 11/2016	<0.50	ug/L	No
Phorate	Jan 11/2016	<0.10	ug/L	No
Picloram	Jan 11/2016	<0.20	ug/L	No
Polychlorinated Biphenyls(PCB)	Jan 11/2016	<0.035	ug/L	No
Prometryne	Jan 11/2016	<0.10	ug/L	No
Simazine	Jan 11/2016	<0.10	ug/L	No
THM (NOTE: show latest annual average)	Jan 11/2016 April 4/2016 July 11/2016 Oct 3/2016	51.9	ug/L	No
Terbufos	Jan 11/2016	<0.20	ug/L	No
Tetrachloroethylene	Jan 11/2016	<0.50	ug/L	No
2,3,4,6-Tetrachlorophenol	Jan 11/2016	<0.50	ug/L	No
Triallate	Jan 11/2016	<0.10	ug/L	No
Trichloroethylene	Jan 11/2016	<0.50	ug/L	No
2,4,6-Trichlorophenol	Jan 11/2016	<0.50	ug/L	No
Trifluralin	Jan 11/2016	<0.10	ug/L	No



Vinyl Chloride	Jan 11/2016	<0.20	ug/L	No
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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	51.9	ug/L	Annual Average