



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, 2013 – DECEMBER 31, 2013

<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 [X] No []</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</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:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</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 [X] 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

Dehumidifier (pipe gallery) - \$ 40,000
VFD (zone 3 booster station) - \$ 16,913
VFD (low lift) - \$ 8,463
Computer System for Plant (SCADA) - \$ 22,190
2 new sump pumps - \$ 1,417
Spectrophotometer - \$ 4,531
High lift Motor - \$ 9,489
Different Valves - \$ 5,590



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
Mar 20 2013	Total Coliform present in distribution sample with chlorine residual of 1.37 combined.	1.37	mg/L	Flushed hydrant and resample from affected residence. Collected upstream sample at neighbors house.	Mar 21-23 2013

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 – 26	<1 – 730	N/A	N/A
Treated	52	Absent	Absent – Present	52	0 – 126
Distribution	314	Absent	Absent	94	0 – 24

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	0.023 - 0.158 NTU	8760	0.029 – 0.193 NTU
Chlorine	365	1.69 – 2.21 mg/L	8760	1.75 – 2.37 mg/L
Fluoride (If the DWS provides fluoridation)	365	0.05 -0.74 mg/L	8760	0.03 – 0.78 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 2013.	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 14/2013	<0.60	µg/L	No
Arsenic	Jan 14/2013	<1.0	µg/L	No
Barium	Jan 14/2013	11	µg/L	No
Boron	Jan 14/2013	<50	µg/L	No
Cadmium	Jan 14/2013	<0.10	µg/L	No
Chromium	Jan 14/2013	<1.0	µg/L	No
*Lead	N/A	N/A	N/A	N/A
Mercury	Jan 14/2013	<0.10	µg/L	No
Selenium	Jan 14/2013	<1.0	µg/L	No
Sodium	Feb 8/2010	13.4	mg/L	No
Uranium	Jan 14/2013	<2.0	µg/L	No
Fluoride	Feb 8/2010	0.582	mg/L	No
Nitrite	Jan 14/2013	<0.020	mg/L	No
	Apr 8/2013	<0.020	mg/L	No
	July 8/2013	<0.020	mg/L	No
	Oct 7/2013	<0.020	mg/l	No
Nitrate	Jan 14/2013	0.136	mg/L	No
	Apr 8/2013	0.166	mg/L	No
	July 8/2013	<0.030	mg/L	No
	Oct 7/2013	0.035	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	<1.0 – 23.4 µg/L	2
Distribution	8	<1.0 - <1.0 µg/L	0

Note: carried from 2012 annual report

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 14/2013	<0.10	µg/L	No
Aldicarb	Jan 14/2013	<1.0	µg/L	No
Aldrin + Dieldrin	Jan 14/2013	<0.040	µg/L	No
Atrazine + N-dealkylated metabolites	Jan 14/2013	<0.20	µg/L	No
Azinphos-methyl	Jan 14/2013	<0.10	µg/L	No
Bendiocarb	Jan 14/2013	<0.20	µg/L	No
Benzene	Jan 14/2013	<0.50	µg/L	No
Benzo(a)pyrene	Jan 14/2013	<0.010	µg/L	No
Bromoxynil	Jan 14/2013	<0.20	µg/L	No
Carbaryl	Jan 14/2013	<0.20	µg/L	No
Carbofuran	Jan 14/2013	<0.20	µg/L	No
Carbon Tetrachloride	Jan 14/2013	<0.50	µg/L	No
Chlordane (Total)	Jan 14/2013	<0.30	µg/L	No
Chlorpyrifos	Jan 14/2013	<0.10	µg/L	No
Cyanazine	Jan 14/2013	<0.10	µg/L	No
Diazinon	Jan 14/2013	<0.10	µg/L	No
Dicamba	Jan 14/2013	<0.20	µg/L	No
1,2-Dichlorobenzene	Jan 14/2013	<0.50	µg/L	No
1,4-Dichlorobenzene	Jan 14/2013	<0.50	µg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Jan 14/2013	<0.40	µg/L	No
1,2-Dichloroethane	Jan 14/2013	<0.50	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 14/2013	<0.50	µg/L	No
Dichloromethane	Jan 14/2013	<0.50	µg/L	No
2-4 Dichlorophenol	Jan 14/2013	<0.30	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 14/2013	<0.20	µg/L	No
Diclofop-methyl	Jan 14/2013	<0.20	µg/L	No



Dimethoate	Jan 14/2013	<0.10	µg/L	No
Dinoseb	Jan 14/2013	<0.20	µg/L	No
Diquat	Jan 14/2013	<1.00	µg/L	No
Diuron	Jan 14/2013	<1.00	µg/L	No
Glyphosate	Jan 14/2013	<5.00	µg/L	No
Heptachlor + Heptachlor Epoxide	Jan 14/2013	<0.10	µg/L	No
Lindane (Total)	Jan 14/2013	<0.10	µg/L	No
Malathion	Jan 14/2013	<0.10	µg/L	No
Methoxychlor	Jan 14/2013	<0.10	µg/L	No
Metolachlor	Jan 14/2013	<0.10	µg/L	No
Metribuzin	Jan 14/2013	<0.10	µg/L	No
Monochlorobenzene	Jan 14/2013	<0.50	µg/L	No
Paraquat	Jan 14/2013	<1.00	µg/L	No
Parathion	Jan 14/2013	<0.10	µg/L	No
Pentachlorophenol	Jan 14/2013	<0.50	µg/L	No
Phorate	Jan 14/2013	<0.10	µg/L	No
Picloram	Jan 14/2013	<0.20	µg/L	No
Polychlorinated Biphenyls(PCB)	Jan 14/2013	<0.035	µg/L	No
Prometryne	Jan 14/2013	<0.10	µg/L	No
Simazine	Jan 14/2013	<0.10	µg/L	No
THM (NOTE: show latest annual average)	Jan 14/2013 April 8/2013 July 8/2013 Oct 7/2013	50.8	µg/L	No
Temephos	Jan 14/2013	<0.10	µg/L	No
Terbufos	Jan 14/2013	<0.20	µg/L	No
Tetrachloroethylene	Jan 14/2013	<0.50	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan 14/2013	<0.50	µg/L	No
Triallate	Jan 14/2013	<0.10	µg/L	No
Trichloroethylene	Jan 14/2013	<0.50	µg/L	No
2,4,6-Trichlorophenol	Jan 14/2013	<0.50	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Jan 14/2013	<0.20	µg/L	No
Trifluralin	Jan 14/2013	<0.10	µg/L	No
Vinyl Chloride	Jan 14/2013	<0.50	µg/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	13.4	mg/L	Feb 8/2010
THM	50.8	µg/L	Annual Average