



<b>Drinking-Water System Number:</b>	<b>220002789</b>
<b>Drinking-Water System Name:</b>	Elliot Lake Water Works
<b>Drinking-Water System Owner:</b>	Corporation of the City of Elliot Lake
<b>Drinking-Water System Category:</b>	Water Treatment Subsystem Class 2
<b>Period being reported:</b>	January 1 – December 31, 2011

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> <p><b>The summary report will be available at City Hall, the Water Treatment Plant, and will be posted on the City's website.</b></p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b>  <input style="width: 100px; height: 20px;" type="text"/></p> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b> <input style="width: 100px; height: 20px;" type="text"/></p> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></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
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 method of treatment at the Elliot Lake Water Plant is that of direct filtration.**

**Water is drawn from the lake through an intake structure located in approximately 12.2m (40ft) of water and is gravity fed through a 295m long marine pipeline to the low lift pumping station wet well. The water is then pumped to the main plant on Spine Road. At the plant it passes through a raw water flow meter and into reactor/mixing tanks. At this point Polyhydroxyl Aluminum Chloride (PAC) is added to the process to aid in the production of floc (particulate matter of sufficient size to be removed by the filters). The water is then filtered through granular media, collected in an underdrain system, and stored in a clearwell (storage reservoir) on site.**

**Chlorine is added to the treated water as it leaves the filters to achieve required disinfection. Fluoride is also added at this point. Fluoride does not play a role in the treatment process but rather acts as an agent in the prevention of tooth decay in young children.**

**Lime is added to the water as it leaves the plant to aid in the prevention of corrosion in the distribution system. Water pumped from the plant enters the distribution system where it makes its way to consumers' homes, either directly or from the standpipe storage facilities.**

**List all water treatment chemicals used over this reporting period**

**Chlorine, Polyhydroxyl Aluminum Chloride (PAC), Lime, Fluoride**

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment



# Ontario Drinking-Water Systems Regulation O. Reg. 170/03

Please provide a brief description and a breakdown of monetary expenses incurred

In 2011, \$12,700 was expended to have all the breakers in the plant sub-station refurbished. \$13,700 was spent on parts to replace one low lift pump.

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
Sept. 9	Total Coliform	1	cfu/100ml	Flush/resample	Sept. 9
Sept. 22	Chlorine residual	<0.05	mg/L	Flush and adjust valve	Sept.22 – Oct 12
Oct. 26	Total Coliform	1	cfu/100ml	Resample	Oct. 26
Nov. 23	Total Coliform	2	cfu/100ml	Resample	Nov. 23

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 Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	52	0-8	0 - 158	N/A	N/A
Treated	52	Absent	Absent	52	0-2030
Distribution	312	Absent	Absent - 2	115	0-1530

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 (min #)-(max #)
Turbidity	8760	.19 - .61 NTU
Chlorine	8760	1.31 – 1.98 mg/L
Fluoride (If the DWS provides fluoridation)	365	.20 - .90 mg/L

*NOTE: For continuous monitors use 8760 as the number of samples.*

*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
C of A Feb. 13, 2002	Clarifier Overflow Suspended Solids	January 10	21	mg/L
		February 16	21	mg/L
		March 2	19	mg/L
		April 6	22	mg/L
		May 4	7	mg/L
		June 14	22	mg/L
		July 12	11	mg/L
		August 3	11	mg/L
		September 14	8	mg/L
		October 3	14	mg/L
		November 1	9	mg/L
		December 5	16	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	Aug 8	<0.5	ug/L	no
Arsenic	Aug 8	<1	ug/L	no
Barium	Aug 8	10.3	ug/L	no
Boron	Aug 8	<2	ug/L	no
Cadmium	Aug 8	<0.1	ug/L	no
Chromium	Aug 8	<1	ug/L	no
*Lead	n/a	n/a		n/a
Mercury	Aug 8	<0.01	ug/L	no
Selenium	Aug 8	<1	ug/L	no
Sodium	Aug 8	7.39	mg/L	no
Uranium	Aug 8	<1	ug/L	no
Fluoride	Aug 8	0.7	mg/L	no
Nitrite	Quarterly Ave.	<0.05	mg/L	no
Nitrate	Quarterly Ave.	<0.1	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
	0		
	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	Aug 8	<0.5	ug/L	no
Aldicarb	Aug 8	<0.69	ug/L	no
Aldrin + Dieldrin	Aug 8	<0.004	ug/L	no
Atrazine + N-dealkylated metabolites	Aug 8	<0.90	ug/L	no
Azinphos-methyl	Aug 8	<0.38	ug/L	no
Bendiocarb	Aug 8	<1.4	ug/L	no
Benzene	Aug 8	<0.25	ug/L	no
Benzo(a)pyrene	Aug 8	<0.005	ug/L	no
Bromoxynil	Aug 8	<0.50	ug/L	no
Carbaryl	Aug 8	<1.4	ug/L	no
Carbofuran	Aug 8	<1.4	ug/L	no
Carbon Tetrachloride	Aug 8	<0.25	ug/L	no
Chlordane (Total)	Aug 8	<0.004	ug/L	no
Chlorpyrifos	Aug 8	<0.38	ug/L	no
Cyanazine	Aug 8	<0.38	ug/L	no
Diazinon	Aug 8	<0.38	ug/L	no
Dicamba	Aug 8	<0.20	ug/L	no
1,2-Dichlorobenzene	Aug 8	<0.25	ug/L	no
1,4-Dichlorobenzene	Aug 8	<0.25	ug/L	no
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Aug 8	<0.005	ug/L	no
1,2-Dichloroethane	Aug 8	<0.25	ug/L	no
1,1-Dichloroethylene (vinylidene chloride)	Aug 8	<0.25	ug/L	no
Dichloromethane	Aug 8	<0.25	ug/L	no
2-4 Dichlorophenol	Aug 8	<0.055	ug/L	no
2,4-Dichlorophenoxy acetic acid (2,4-D)	Aug 8	<0.20	ug/L	no
Diclofop-methyl	Aug 8	<0.22	ug/L	no
Dimethoate	Aug 8	<0.38	ug/L	no
Dinoseb	Aug 8	<0.056	ug/L	no
Diquat	Aug 8	<7	ug/L	no
Diuron	Aug 8	<6.9	ug/L	no
Glyphosate	Aug 8	<20	ug/L	no

Heptachlor + Heptachlor Epoxide	Aug 8	<0.00078	ug/L	no
Lindane (Total) (γ-BHC)	Aug 8	<0.00059	ug/L	no
Malathion	Aug 8	<0.38	ug/L	no
Methoxychlor	Aug 8	<0.0016	ug/L	no
Metolachlor	Aug 8	<0.25	ug/L	no
Metribuzin	Aug 8	<0.25	ug/L	no
Monochlorobenzene	Aug 8	<0.25	ug/L	no
Paraquat	Aug 8	<1	ug/L	no
Parathion	Aug 8	<0.25	ug/L	no
Pentachlorophenol	Aug 8	<0.055	ug/L	no
Phorate	Aug 8	<0.38	ug/L	no
Picloram	Aug 8	<0.056	ug/L	no
Polychlorinated Biphenyls(PCB)	Aug 8	<0.0049	ug/L	no
Prometryne	Aug 8	<0.25	ug/L	no
Simazine	Aug 8	<0.38	ug/L	no
THM (NOTE: show latest annual average)	n/a	57.43	ug/L	no
Temephos	Aug 8	<19	ug/L	no
Terbufos	Aug 8	<0.25	ug/L	no
Tetrachloroethylene	Aug 8	<0.25	ug/L	no
2,3,4,6-Tetrachlorophenol	Aug 8	<0.055	ug/L	no
Triallate	Aug 8	<0.25	ug/L	no
Trichloroethylene	Aug 8	<0.25	ug/L	no
2,4,6-Trichlorophenol	Aug 8	<0.055	ug/L	no
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Aug 8	<0.050	ug/L	no
Trifluralin	Aug 8	<0.25	ug/L	no
Vinyl Chloride	Aug 8	<0.25	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
THM	62.3	ug/L	Apr 4
THM	57.8	ug/L	Aug 8
THM	61.9	ug/L	Oct.31