

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220003528
Drinking-Water System	Capreol Wells and Distribution System
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2007-01-01 To 2007-12-31

<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 type="checkbox"/> No <input checked="" 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>www.greatersudbury.ca TDS-Engineering Building</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Number of Interested Authorities you report to: <input type="text" value="0"/></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 checked="" 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
Valley Wells and Distribution System	210000737

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/Citizen Service Centre**
- Public access/notice via other method**

Describe your Drinking-Water System

This system was supplied by three groundwater wells owned and operated by the City of Greater Sudbury. The system is now supplied by two groundwater wells as #6 well was decommissioned Oct. 31, 2007. Wells are located directly beneath the respective pump houses. As per the Engineer's report, all three wells appear to be constructed in the same unconfined aquifer comprising mostly of sand and gravel. The system consists of duty wells M and J, and standby Well #6 (decommissioned Oct 31, 2007) housed in individual structures. M & J Wells now have a common discharge that undergoes treatment in the form of disinfection by chlorination, Ultra-Violet irradiation, fluoridation and corrosion control with Aquamag. M and J wells were upgraded to include Ultra-Violet irradiation as required for Log removal regulations. Continuous analyzers for free chlorine residual, fluoride, and UV equipment are monitored by a PLC. A standby power generator with an automatic transfer switch is located at well M. In the event that M & J fail, the Valley wells can supply water to the Capreol Boosters located onsite at M Well. In the event that the entire system of wells and boosters fail, Capreol will be supplied with water from the Valley Wells but at a reduced pressure. The distribution system was originally constructed in approximately 1929-1930 and currently serves approximately 3700 residents. The system consists of a combination of PVC, Cast Iron, and Duct tile piping.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid (20-30%) UN#1778, Polyphosphate

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

Construct boosters to ensure supply of water to Capreol from Valley Well feed. Ultra-Violet irradiation added to outgoing combined supply from M & J wells. Booster project started 2004 and completed in 2007 for a total project cost of approx. \$4,000,000. New pump and discharge for J well for an approx. cost of \$33,000.

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
2007/03/14	UV	0	mj/cm ²	Disinfectant restored/increased;	2007/03/14
2007/05/30	Pressure / UV	28/0	psi / mj/cm ²	Resample/Re-test;	2007/06/01
2007/05/31	UV	0	mj/cm ²	Resample/Re-test;	2007/06/05
2007/06/25	UV	0	mj/cm ²	Resample/Re-test;	2007/06/25
2007/08/15	Fluoride	1.95	mg/L	Resample/Re-test;	2007/08/15
2007/08/23	UV	0	mj/cm ²	Disinfectant restored/increased;	2007/08/30
2007/08/29	Pressure	15	psi	Resample/Re-test;	2007/08/31

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: VERMILLION WELL#6					
	45	0 to 0	0 to 0		
Raw: GREEN'S LAKE J WELL					
	42	0 to 0	0 to 61		
Raw: GREEN'S LAKE M WELL					
	42	0 to 0	0 to 0		
Treated: CAPREOL WELL SUPPLY - WELL M&J					
	86	0 to 0	0 to 0	81	0 to 10
Treated: CAPREOL WELL SUPPLY - WELL#6					
	45	0 to 0	0 to 0	43	0 to 20
Distribution					
	226	0 to 0	0 to 0	74	0 to 10

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 #)
Chlorine Residual Distribution System	8,760	0.08 - 2.09

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

CAPREOL WELL SUPPLY - WELL J (Jan 1/07 - April 30/07)

Turbidity	8,760	0.00 - 2.00
Chlorine	8,760	0.16 - 2.00
Fluoride (If the DWS provides fluoridation)		

CAPREOL WELL SUPPLY - WELL M (Jan 1/07 - April 30/07)

Turbidity	8,760	0.04 - 2.00
Chlorine	8,760	0.43 - 1.93
Fluoride (If the DWS provides fluoridation)		

CAPREOL WELL SUPPLY - WELL M&J (May 1/07 - Dec 31/07)

Turbidity	8,760	0.05 - 2.00
Chlorine	8,760	0.05 - 3.99
Fluoride (If the DWS provides fluoridation)	8,760	0.00 - 1.95

CAPREOL WELL SUPPLY - WELL#6 (Jan 1/07 - Oct 31/07 - Decommissioned)

Turbidity	8,760	0.00 - 2.00
Chlorine	8,760	0.08 - 3.80
Fluoride (If the DWS provides fluoridation)		

*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 or order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure

Summary of Inorganic parameters tested during this reporting period or most recent sample results

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Lead	2007/05/15	<0.001	mg/L	No

CAPREOL WELL SUPPLY - WELL J

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2007/04/18	0.0013	mg/L	No
Arsenic	2007/04/18	0.0011	mg/L	No
Barium	2007/04/18	0.0305	mg/L	No
Boron	2007/04/18	0.0054	mg/L	No
Cadmium	2007/04/18	0.0001	mg/L	No
Chromium	2007/04/18	0.0014	mg/L	No
Mercury	2007/04/18	0.0001	mg/L	No
Selenium	2007/04/18	0.001	mg/L	No
Uranium	2007/04/18	0.001	mg/L	No
Fluoride	2004/01/20	0.1	mg/L	No
Nitrate	2007/01/24	0.10	mg/L	No
	2007/04/18	0.10	mg/L	No
	2007/06/28	0.10	mg/L	No
	2007/11/08	0.10	mg/L	No
Nitrite	2007/01/24	0.05	mg/L	No
	2007/04/18	0.05	mg/L	No
	2007/06/28	0.05	mg/L	No
	2007/11/08	0.05	mg/L	No
Sodium	2005/12/19	13.30	mg/L	No

CAPREOL WELL SUPPLY - WELL M

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2007/01/24	0.0005	mg/L	No
Arsenic	2007/01/24	0.001	mg/L	No
Barium	2007/01/24	0.0134	mg/L	No
Boron	2007/01/24	0.0051	mg/L	No
Cadmium	2007/01/24	0.0001	mg/L	No
Chromium	2007/01/24	0.0022	mg/L	No
Mercury	2007/01/24	0.0001	mg/L	No
Selenium	2007/01/24	0.001	mg/L	No
Uranium	2007/01/24	0.001	mg/L	No
Fluoride	2004/01/20	0.1	mg/L	No
Nitrate	2007/04/12	0.10	mg/L	No
	2007/06/20	0.10	mg/L	No
	2007/08/30	0.10	mg/L	No
	2007/09/26	0.10	mg/L	No
	2007/11/07	0.10	mg/L	No
Nitrite	2007/04/12	0.05	mg/L	No
	2007/06/20	0.05	mg/L	No
	2007/08/30	0.05	mg/L	No
	2007/09/26	0.03	mg/L	No
	2007/11/07	0.05	mg/L	No
Sodium	2005/12/14	15.50	mg/L	No

CAPREOL WELL SUPPLY - WELL#6

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2007/01/23	0.0005	mg/L	No
Arsenic	2007/01/23	0.001	mg/L	No
Barium	2007/01/23	0.0673	mg/L	No
Boron	2007/01/23	0.0277	mg/L	No
Cadmium	2007/01/23	0.0001	mg/L	No
Chromium	2007/01/23	0.0051	mg/L	No
Mercury	2007/01/23	0.0001	mg/L	No
Selenium	2007/01/23	0.0016	mg/L	No
Uranium	2007/01/23	0.001	mg/L	No
Fluoride	2004/01/20	0.86	mg/L	No
Nitrate	2007/01/23	0.40	mg/L	No
	2007/04/12	0.39	mg/L	No
	2007/06/20	0.34	mg/L	No
	2007/09/27	0.36	mg/L	No
Nitrite	2007/01/23	0.05	mg/L	No
	2007/04/12	0.05	mg/L	No
	2007/06/20	0.05	mg/L	No
	2007/09/27	0.03	mg/L	No
Sodium	2005/12/23	49.00	mg/L	Yes

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM (NOTE: show latest annual average)	2007	0.0142	mg/L	No

CAPREOL WELL SUPPLY - WELL M

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2007/01/24	0.00042	mg/L	No
Aldicarb	2007/01/24	0.00057	mg/L	No
Aldrin + Dieldrin	2007/01/24	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2007/01/24	0.0009	mg/L	No
Azinphos-methyl	2007/01/24	0.00032	mg/L	No
Bendiocarb	2007/01/24	0.0011	mg/L	No
Benzene	2007/01/24	0.00025	mg/L	No
Benzo(a)pyrene	2007/01/24	0.0000084	mg/L	No
Bromoxynil	2007/01/24	0.0004	mg/L	No
Carbaryl	2007/01/24	0.0011	mg/L	No
Carbofuran	2007/01/24	0.0011	mg/L	No
Carbon Tetrachloride	2007/01/24	0.00025	mg/L	No
Chlordane (Total)	2007/01/24	0.000004	mg/L	No
Chlorpyrifos	2007/01/24	0.00032	mg/L	No
Cyanazine	2007/01/24	0.00032	mg/L	No
Diazinon	2007/01/24	0.00032	mg/L	No
Dicamba	2007/01/24	0.00016	mg/L	No
1,2-Dichlorobenzene	2007/01/24	0.00025	mg/L	No

1,4-Dichlorobenzene	2007/01/24	0.00025	mg/L	No
(DDT) + metabolites	2007/01/24	0.000005	mg/L	No
1,2-Dichloroethane	2007/01/24	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2007/01/24	0.00025	mg/L	No
Dichloromethane	2007/01/24	0.00025	mg/L	No
2-4 Dichlorophenol	2007/01/24	0.000061	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2007/01/24	0.00016	mg/L	No
Diclofop-methyl	2007/01/24	0.00016	mg/L	No
Dimethoate	2007/01/24	0.00032	mg/L	No
Dinoseb	2007/01/24	0.00004	mg/L	No
Diquat	2007/01/24	0.007	mg/L	No
Diuron	2007/01/24	0.0057	mg/L	No
Glyphosate	2007/01/24	0.01	mg/L	No
Heptachlor + Heptachlor Epoxide	2007/01/24	0.000004	mg/L	No
Linadane (Total)	2007/01/24	0.00000042	mg/L	No
Malathion	2007/01/24	0.00032	mg/L	No
Methoxychlor	2007/01/24	0.0000011	mg/L	No
Metolachlor	2007/01/24	0.00021	mg/L	No
Metribuzin	2007/01/24	0.00021	mg/L	No
Monochlorobenzene	2007/01/24	0.00025	mg/L	No
Paraquat	2007/01/24	0.001	mg/L	No
Parathion	2007/01/24	0.00021	mg/L	No
Pentachlorophenol	2007/01/24	0.000061	mg/L	No
Phorate	2007/01/24	0.00032	mg/L	No
Picloram	2007/01/24	0.00004	mg/L	No
Polychlorinated Biphenyls(PCB)	2007/01/24	0.000069	mg/L	No
Prometryne	2007/01/24	0.00021	mg/L	No
Simazine	2007/01/24	0.00032	mg/L	No
Temephos	2007/01/24	0.016	mg/L	No
Terbufos	2007/01/24	0.00021	mg/L	No
Tetrachloroethylene	2007/01/24	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2007/01/24	0.000061	mg/L	No
Triallate	2007/01/24	0.00021	mg/L	No
Trichloroethylene	2007/01/24	0.00025	mg/L	No
2,4,6-Trichlorophenol	2007/01/24	0.000061	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2007/01/24	0.00004	mg/L	No
Trifluralin	2007/01/24	0.00021	mg/L	No
Vinyl Chloride	2007/01/24	0.00025	mg/L	No

CAPREOL WELL SUPPLY - WELL#6

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2007/01/23	0.00041	mg/L	No
Aldicarb	2007/01/23	0.00056	mg/L	No
Aldrin + Dieldrin	2007/01/23	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2007/01/23	0.0009	mg/L	No
Azinphos-methyl	2007/01/23	0.00031	mg/L	No
Bendiocarb	2007/01/23	0.0011	mg/L	No
Benzene	2007/01/23	0.00025	mg/L	No
Benzo(a)pyrene	2007/01/23	0.0000082	mg/L	No
Bromoxynil	2007/01/23	0.00051	mg/L	No

Carbaryl	2007/01/23	0.0011	mg/L	No
Carbofuran	2007/01/23	0.0011	mg/L	No
Carbon Tetrachloride	2007/01/23	0.00025	mg/L	No
Chlordane (Total)	2007/01/23	0.000004	mg/L	No
Chlorpyrifos	2007/01/23	0.00031	mg/L	No
Cyanazine	2007/01/23	0.00031	mg/L	No
Diazinon	2007/01/23	0.00031	mg/L	No
Dicamba	2007/01/23	0.0002	mg/L	No
1,2-Dichlorobenzene	2007/01/23	0.00025	mg/L	No
1,4-Dichlorobenzene	2007/01/23	0.00025	mg/L	No
(DDT) + metabolites	2007/01/23	0.000005	mg/L	No
1,2-Dichloroethane	2007/01/23	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2007/01/23	0.00025	mg/L	No
Dichloromethane	2007/01/23	0.00025	mg/L	No
2-4 Dichlorophenol	2007/01/23	0.000041	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2007/01/23	0.0002	mg/L	No
Diclofop-methyl	2007/01/23	0.0002	mg/L	No
Dimethoate	2007/01/23	0.00031	mg/L	No
Dinoseb	2007/01/23	0.000051	mg/L	No
Diquat	2007/01/23	0.007	mg/L	No
Diuron	2007/01/23	0.0056	mg/L	No
Glyphosate	2007/01/23	0.01	mg/L	No
Heptachlor + Heptachlor Epoxide	2007/01/23	0.000004	mg/L	No
Linadane (Total)	2007/01/23	0.00000034	mg/L	No
Malathion	2007/01/23	0.00031	mg/L	No
Methoxychlor	2007/01/23	0.0000009	mg/L	No
Metolachlor	2007/01/23	0.0002	mg/L	No
Metribuzin	2007/01/23	0.0002	mg/L	No
Monochlorobenzene	2007/01/23	0.00025	mg/L	No
Paraquat	2007/01/23	0.001	mg/L	No
Parathion	2007/01/23	0.0002	mg/L	No
Pentachlorophenol	2007/01/23	0.00049	mg/L	No
Phorate	2007/01/23	0.00031	mg/L	No
Picloram	2007/01/23	0.000051	mg/L	No
Polychlorinated Biphenyls(PCB)	2007/01/23	0.000056	mg/L	No
Prometryne	2007/01/23	0.0002	mg/L	No
Simazine	2007/01/23	0.00031	mg/L	No
Temephos	2007/01/23	0.016	mg/L	No
Terbufos	2007/01/23	0.0002	mg/L	No
Tetrachloroethylene	2007/01/23	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2007/01/23	0.000041	mg/L	No
Triallate	2007/01/23	0.0002	mg/L	No
Trichloroethylene	2007/01/23	0.00025	mg/L	No
2,4,6-Trichlorophenol	2007/01/23	0.000041	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2007/01/23	0.000051	mg/L	No
Trifluralin	2007/01/23	0.0002	mg/L	No
Vinyl Chloride	2007/01/23	0.00025	mg/L	No

CAPREOL WELL SUPPLY - WELL J

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
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Alachlor	2007/04/18	0.00041	mg/L	No
Aldicarb	2007/04/18	0.00056	mg/L	No
Aldrin + Dieldrin	2007/04/18	0.000012	mg/L	No
Atrazine + N-dealkylated metabolites	2007/04/18	0.0009	mg/L	No
Azinphos-methyl	2007/04/18	0.00031	mg/L	No
Bendiocarb	2007/04/18	0.0011	mg/L	No
Benzene	2007/04/18	0.00025	mg/L	No
Benzo(a)pyrene	2007/04/18	0.00001	mg/L	No
Bromoxynil	2007/04/18	0.00051	mg/L	No
Carbaryl	2007/04/18	0.0011	mg/L	No
Carbofuran	2007/04/18	0.0011	mg/L	No
Carbon Tetrachloride	2007/04/18	0.00025	mg/L	No
Chlordane (Total)	2007/04/18	0.000012	mg/L	No
Chlorpyrifos	2007/04/18	0.00031	mg/L	No
Cyanazine	2007/04/18	0.00031	mg/L	No
Diazinon	2007/04/18	0.00031	mg/L	No
Dicamba	2007/04/18	0.00021	mg/L	No
1,2-Dichlorobenzene	2007/04/18	0.00025	mg/L	No
1,4-Dichlorobenzene	2007/04/18	0.00025	mg/L	No
(DDT) + metabolites	2007/04/18	0.000012	mg/L	No
1,2-Dichloroethane	2007/04/18	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2007/04/18	0.00025	mg/L	No
Dichloromethane	2007/04/18	0.00025	mg/L	No
2-4 Dichlorophenol	2007/04/18	0.000052	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2007/04/18	0.00021	mg/L	No
Diclofop-methyl	2007/04/18	0.00021	mg/L	No
Dimethoate	2007/04/18	0.00031	mg/L	No
Dinoseb	2007/04/18	0.000051	mg/L	No
Diquat	2007/04/18	0.007	mg/L	No
Diuron	2007/04/18	0.0056	mg/L	No
Glyphosate	2007/04/18	0.01	mg/L	No
Heptachlor + Heptachlor Epoxide	2007/04/18	0.000012	mg/L	No
Linadane (Total)	2007/04/18	0.000006	mg/L	No
Malathion	2007/04/18	0.00031	mg/L	No
Methoxychlor	2007/04/18	0.000024	mg/L	No
Metolachlor	2007/04/18	0.00021	mg/L	No
Metribuzin	2007/04/18	0.00021	mg/L	No
Monochlorobenzene	2007/04/18	0.00025	mg/L	No
Paraquat	2007/04/18	0.001	mg/L	No
Parathion	2007/04/18	0.00021	mg/L	No
Pentachlorophenol	2007/04/18	0.000052	mg/L	No
Phorate	2007/04/18	0.00031	mg/L	No
Picloram	2007/04/18	0.000051	mg/L	No
Polychlorinated Biphenyls(PCB)	2007/04/18	0.00005	mg/L	No
Prometryne	2007/04/18	0.00021	mg/L	No
Simazine	2007/04/18	0.00031	mg/L	No
Temephos	2007/04/18	0.016	mg/L	No
Terbufos	2007/04/18	0.00021	mg/L	No
Tetrachloroethylene	2007/04/18	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2007/04/18	0.000052	mg/L	No
Triallate	2007/04/18	0.00021	mg/L	No
Trichloroethylene	2007/04/18	0.00025	mg/L	No

2,4,6-Trichlorophenol	2007/04/18	0.000052	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2007/04/18	0.000051	mg/L	No
Trifluralin	2007/04/18	0.00021	mg/L	No
Vinyl Chloride	2007/04/18	0.00025	mg/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

(Only if DWS category is large municipal residential, small municipal residential, large municipal non-residential, non municipal year round residential, large non municipal non residential)