

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	220004000
Drinking-Water System Name:	Caledon Village Well Supply
Drinking-Water System Owner:	Region of Peel
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2005 to December 31, 2005

<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 [] No [x]</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;"> 10 Peel Centre Drive, 4th floor Brampton, Ontario L6T 4B9 </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 [] No []</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 [] 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 Drinking-Water Systems, which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
None	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 [x]

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 population served in Caledon Village is 2918. The groundwater drawn from two municipal wells is disinfected with chlorine and delivered to consumers through the water distribution system, which also services communities of Mono Mills and Skywood Park. Surplus water is stored in a 3.7 million-litre (810 thousand gallon) in-ground reservoir connect to the water distribution system as well as a 2.2 million-litre (474 thousand gallon) standpipe. Sodium silicate is also added to the water to help prevent the naturally occurring iron in the water from precipitating out of solution.

Caledon Village Well No.3 and Well No.3A

A communal well water supply consisting of two well supplies, treatment system and associated appurtenances. Wells 3 and 3A are equipped with a vented, watertight, galvanized steel enclosure over the wellhead and located in a concrete block well pump house.

Well No. 3 is a 254 mm in diameter, 32 m deep with a well screen length of 6.1 m well, capable of supplying 23.1 L/s at a Total Dynamic Head (TDH) of 50 m.

The well is equipped with flow meter, air release valve, pump control and check valves, raw and treated water sample taps, pressure relief valve and manual by pass, and all other fittings, online continuous chlorine residual analyzer with alarm and lockout capability and online continuous turbidity analyzer measuring treated water turbidity at the point of entrance to the distribution system with alarm and lockout capability.

Well 3 disinfection system consists of one chemical feed pump with a second shelved stand-by pump available on-site and sodium hypochlorite supplied from 204 L drums

A 135 kW stand-by diesel generator set complete with automatic transfer switch system to provide stand-by power to the facility in the event of the power failure is located in the pump house.

All instrumentation and equipment are compatible with the Region's SCADA system.

Well No. 3A is a 153 mm in diameter, 35 m deep with a well screen length of 3.7 m, capable of supplying 6.4 L/s at TDH of 51.5m

(Well No. 3A is not in operation and is to be abandoned.)

Caledon Village Well No. 4

A communal well water supply consisting of a well supply, treatment system and associated appurtenances.

Well No.4 is a 610 mm diameter, 77m deep well with a well screen of length 13.7m equipped with a submersible well water pump rated at 38 L/s at a TDH of 116 m.

Complete with a vented, watertight, galvanized steel enclosure over the wellhead and located in a concrete block well pump house.

The well is equipped with flow meter, air release valve, pump control and check valve, raw and treated water sample taps, a pressure relief valve as well as a manual by pass and all other fittings, including an inline static chlorine mixer, online continuous chlorine residual analyzer with alarm and lockout capability and Online continuous turbidity analyzer measuring treated water turbidity at the point of entrance to the distribution system with alarm and lockout capability.

Well 4 disinfection system consists of one chemical feed pump with a second shelved stand-by pump available on-site and sodium hypochlorite supplied from 204 L drums.

The iron sequestration system consists of one metering pump and sodium silicate supplied from 204 L drums.

All instrumentation and equipment are compatible with the Region's SCADA system.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
Sodium Silicate

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

Significant Installations	Approximate Expenditure
Mono Mills Standpipe	\$156,000
Modifications to the Caledon Village (Mono Mills #5) and Palgrave (Centreville #1 & #3) groundwater systems.	\$600,000

Significant Repairs	Approximate Expenditure
Maintenance comprising of preventative, scheduled, unscheduled at Well #3, 4, Reservoir and Mono Mills #5	\$62,577
Watermain Breaks	\$7,863
Fire Hydrant Repairs	\$5,988
Water Service Repairs	\$1,517
Fire Hydrant Replacement	\$6,237

Significant Replacements	Approximate Expenditure
Well #3 - Pump Replacement	\$19,729

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

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 (dd/mm/yy)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date (dd/mm/yy)
14/02/05	Total Coliform	1	CFU/100ml	Re-sampled upstream, downstream and the reported location	21/02/05 AWQI#52650

Note: Incident date represents the sampling date, corrective action date represents the date incident was resolved.

Microbiological testing done under 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#)
Caledon Village Well # 3 Raw	52	0	0	52	0
Caledon Village Well # 3 Treated	52	0	0	52	0
Caledon Village Well # 4 Raw	52	0	0	52	0
Caledon Village Well # 4 Treated	52	0	0	52	0
Distribution	363	0	0 – 1	363	0 - 12

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#) Caledon Village Well # 3	Range of Results (min#)-(max#) Caledon Village Well # 4	Range of Results (min#)-(max#) Caledon Village Distribution
Turbidity	51 59	0.05 – 0.32	0.09 – 0.46	Raw turbidity N/A
Chlorine	155 165 603	0.54 – 1.82	1.15 – 1.76	0.71 – 1.68
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A	N/A

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	Caledon Village Well #3 Result	Caledon Village Cell #1	Caledon Village Cell #2	Monomills Standpipe Not sampled for R2A	Unit of Measure
CofA 09/11/04	R2A	03/01/05	0	0	2		cfu/100ml
		10/01/05	0	0	0		cfu/100ml
		17/01/05	0	0	2		cfu/100ml
		24/01/05	0	0	0		cfu/100ml
		31/01/05	0	0	1		cfu/100ml
		07/02/05	1	0	2		cfu/100ml
		14/02/05	0	1	0		cfu/100ml
		21/02/05	0	0	8		cfu/100ml
		28/02/05	0	0	0		cfu/100ml
		07/03/05	0	0	2		cfu/100ml
		14/03/05	1	0	1		cfu/100ml
		21/03/05	1	0	0		cfu/100ml
		29/03/05	1	0	2		cfu/100ml
		04/04/05	1	0	2		cfu/100ml
		11/04/05	0	0	10		cfu/100ml
		18/04/05	3	0	2		cfu/100ml
		25/04/05	5	0	4		cfu/100ml
		02/05/05	0	0	0		cfu/100ml
		09/05/05	8	0	0		cfu/100ml

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

Date of legal instrument issued	Parameter	Date Sampled	Caledon Village Well #3 Result	Caledon Village Cell #1	Caledon Village Cell #2	Monomills Standpipe Not sampled for R2A	Unit of Measure
CofA 09/11/04	R2A	16/05/05	3	3	5		cfu/100ml
		24/05/05	8	0	26		cfu/100ml
		30/05/05	7	0	2		cfu/100ml
		06/06/05	1	0	0		cfu/100ml
		13/06/05	3	0	0		cfu/100ml
		20/06/05	Well out of service	2	6		cfu/100ml
		27/06/05	25	3	0		cfu/100ml
		05/07/05	12	1	16		cfu/100ml
		12/07/05	18	0	4		cfu/100ml
		18/07/05	26	2	8		cfu/100ml
		25/07/05	28	0	0		cfu/100ml
		02/08/05	18	3	2		cfu/100ml
		08/08/05	28	0	0		cfu/100ml
		15/08/05	Well out of service	0	0		cfu/100ml
		22/08/05	32	1	2		cfu/100ml
		29/08/05	36	1	2		cfu/100ml
		06/09/05	32	0	3		cfu/100ml
		12/09/05	109	0	0		cfu/100ml
		19/09/05	82	0	0		cfu/100ml
		26/09/05	52	0	0		cfu/100ml
03/10/05	28	2	0		cfu/100ml		
11/10/05	22	0	10		cfu/100ml		
17/10/05	57	2	1		cfu/100ml		
24/10/05	14	0	0		cfu/100ml		
31/10/05	17	0	0		cfu/100ml		
07/11/05	7	0	0		cfu/100ml		
15/11/05	3	0	0		cfu/100ml		
21/11/05	0	5	9		cfu/100ml		
CofA 22/11/05		28/11/05	3	0	0		cfu/100ml
		05/12/05	11	0	0		cfu/100ml
		12/12/05	0	0	0		cfu/100ml
		19/12/05	30	0	0		cfu/100ml
		26/12/05	5	0	0		cfu/100ml

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

Date of legal instrument issued	Parameter	Date Sampled	Caledon Village Well #3 Result	Caledon Village Cell #1	Caledon Village Cell #2	Monomills Standpipe	Unit of Measure
CofA 09/11/04	AOC	10/01/05	72	111	95	143	ugAOC/L
		07/02/05	74	110	117	118	ugAOC/L
		07/03/05	55	58	79	85	ugAOC/L
		04/04/05	54	114	79	81	ugAOC/L
		02/05/05	63	108	102	Out of service	ugAOC/L
		06/06/05	78	105	113	118	ugAOC/L
		02/08/05	151	210	173	185	ugAOC/L
		06/09/05	75	108	92	94	ugAOC/L
		03/10/05	75	72	78	125	ugAOC/L
		07/11/05	72	91	77	98	ugAOC/L
CofA 22/11/05		05/12/05	88	79	82	93	ugAOC/L

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

Parameter	Sample Date (dd/mm/yy)	Result Value Well # 3	Result Value Well # 4	Unit of Measure	Exceedance
Antimony	27/01/05	ND		mg/L	No
	27/01/05		ND	mg/L	
Arsenic	27/01/05	ND		mg/L	No
	27/01/05		0.0042	mg/L	
Barium	27/01/05	0.045		mg/L	No
	27/01/05		0.10	mg/L	
Boron	27/01/05	0.022		mg/L	No
	27/01/05		0.068	mg/L	
Cadmium	27/01/05	ND		mg/L	No
	27/01/05		ND	mg/L	
Chromium	27/01/05	0.0048		mg/L	No
	27/01/05		0.0049	mg/L	
Lead	27/01/05	ND		mg/L	No
	27/01/05		ND	mg/L	
Mercury	27/01/05	0.0001		mg/L	No
	27/01/05		ND	mg/L	
Selenium	27/01/05	ND		mg/L	No
	27/01/05		ND	mg/L	
Sodium	28/07/05	34.5		mg/L	Yes
	28/07/05		11.2	mg/L	No
Uranium	27/01/05	ND		mg/L	No
	27/01/05		ND	mg/L	
Fluoride	24/11/05	<0.087		mg/L	No
	24/11/05		<0.087	mg/L	
Nitrite	27/01/05	<0.017		mg/L as N	No
	27/01/05		<0.017	mg/L as N	No
	14/04/05	<0.017		mg/L as N	No
	14/04/05		<0.017	mg/L as N	No
	28/07/05	ND		mg/L as N	No
	28/07/05		ND	mg/L as N	No
	24/11/05	<0.017		mg/L as N	No
	24/11/05		<0.017	mg/L as N	No

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

Parameter	Sample Date (dd/mm/yy)	Result Value Well # 3	Result Value Well # 4	Unit of Measure	Exceedance
Alachlor	27/01/05	ND	ND	ug/L	No
Aldicarb	27/01/05	ND	ND	ug/L	No
Aldrin + Dieldrin	27/01/05	ND	ND	ug/L	No
Atrazine + N-dealkylated metabolites	27/01/05	ND	ND	ug/L	No
Azinphos-methyl	27/01/05	ND	ND	ug/L	No
Bendiocarb	27/01/05	ND	ND	ug/L	No
Benzene	27/01/05	ND	ND	ug/L	No
Benzo(a)pyrene	27/01/05	ND	ND	ug/L	No
Bromoxynil	27/01/05	ND	ND	ug/L	No
Carbaryl	27/01/05	ND	ND	ug/L	No
Carbofuran	27/01/05	ND	ND	ug/L	No
Carbon Tetrachloride	27/01/05	ND	ND	ug/L	No
Chlordane (Total)	27/01/05	ND	ND	ug/L	No
Chlorpyrifos	27/01/05	ND	ND	ug/L	No
Cyanazine	27/01/05	ND	ND	ug/L	No
Diazinon	27/01/05	ND	ND	ug/L	No
Dicamba	27/01/05		ND	ug/L	No
	08/03/05	ND		ug/L	No
1,2-Dichlorobenzene	27/01/05	ND	ND	ug/L	No
1,4-Dichlorobenzene	27/01/05	ND	ND	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	27/01/05	ND	ND	ug/L	No
1,2-Dichloroethane	27/01/05	ND	ND	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	27/01/05	ND	ND	ug/L	No
Dichloromethane	27/01/05	ND	ND	ug/L	No
2-4 Dichlorophenol	27/01/05	ND	ND	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	27/01/05	ND	ND	ug/L	No
Diclofop-methyl	27/01/05		ND	ug/L	No
	08/03/05	ND		ug/L	No
Dimethoate	27/01/05	ND	ND	ug/L	No
Dinoseb	27/01/05		ND	ug/L	No
	08/03/05	ND		ug/L	No
Diquat	27/01/05	ND	ND	ppb	No
Diuron	27/01/05	ND	ND	ug/L	No
Glyphosate	27/01/05	ND	ND	ug/L	No
Heptachlor + Heptachlor Epoxide	27/01/05	ND	ND	ug/L	No
Linadane (Total)	27/01/05	ND	ND	ug/L	No
Malathion	27/01/05	ND	ND	ug/L	No

Methoxychlor	27/01/05	ND	ND	ug/L	No
Metolachlor	27/01/05	ND	ND	ug/L	No
Metribuzin	27/01/05	ND	ND	ug/L	No
Monochlorobenzene	27/01/05	ND	ND	ug/L	No
Paraquat	27/01/05	ND	ND	ppb	No
Parathion	27/01/05	ND	ND	ug/L	No
Pentachlorophenol	27/01/05	ND	ND	ug/L	No
Phorate	27/01/05	ND	ND	ug/L	No
Picloram	27/01/05	ND	ND	ug/L	No
Polychlorinated Biphenyls(PCB)	27/01/05	ND	ND	ug/L	No
Prometryne	27/01/05	ND	ND	ug/L	No
Simazine	27/01/05	ND	ND	ug/L	No
THM (NOTE: show latest annual average)	Jan 01 - Dec 31 2005	10.9 (annual running average in the distribution system)		ug/L	No
Temephos	27/01/05	ND	ND	ug/L	No
Terbufos	27/01/05	ND	ND	ug/L	No
Tetrachloroethylene	27/01/05	ND	ND	ug/L	No
2,3,4,6-Tetrachlorophenol	27/01/05	ND	ND	ug/L	No
Triallate	27/01/05	ND	ND	ug/L	No
Trichloroethylene	27/01/05	ND	ND	ug/L	No
2,4,6-Trichlorophenol	27/01/05	ND	ND	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	27/01/05 08/03/05		ND	ug/L ug/L	No No
Trifluralin	27/01/05	ND	ND	ug/L	No
Vinyl Chloride	27/01/05	ND	ND	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
None	N/A	N/A	N/A

(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)