

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

Drinking-Water System Number:	220003993
Drinking-Water System Name:	Palgrave Well Supply
Drinking-Water System Owner:	Regional Municipality of Peel
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2004 to December 31, 2004

<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 Palgrave is 3334.

Palgrave Well No.1

A communal well water system supply system consisting of well supply and water treatment system and associated appurtenances, located in Lot 25, Concession 8, at 1 Gibson Lake Drive in Palgrave, Town of Caledon.

Well No.1 is a drilled well, located in a concrete block well pump house with a submersible well water pump with a rated capacity of 10.6 L/S at a Total Dynamic Head of 100 m It is equipped complete with a raw water flow meter with recording capabilities, check vales, pressure relief vale, air release vale, pump controls, raw and treated water sample taps, on-line continuous free chlorine residual analyzer with recording and alarming capabilities, an online continuous turbidity analyzer measuring treated water turbidity at the point of entrance to the distribution system with alarm and lockout capability, manual by-pass and filter to waste capabilities and all associated appurtenances, discharging directly into the distribution system.

The disinfection system consists of:

- one metering pump
- sodium hypochlorite supplied from 204 L drums.

The iron sequestration system consists of:

- one metering pump
- sodium silicate supplied from a 204 drums

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

Palgrave Well No.2

A communal well water supply system consisting of well supply and water treatment system and associated appurtenances, located in Lot 26, Concession 8, at 16860 Eight Line in Palgrave, Town of Caledon.

Well No.2 is a drilled well, located in a concrete block well pump house with a submersible well water pump with a rated capacity of 30.3 L/s at a TDH of 100 m.

It is equipped complete with a raw water flow meter with recording capabilities, check vale, pressure relief vale, air release vale, pump controls, raw and treated water sample taps, an online continuous turbidity analyzer measuring treated water turbidity at the point of entrance to the distribution system with alarm and lockout capability manual by-pass and filter to waste capabilities and all associated appurtenances, discharging directly into the distribution system, online continuous free chlorine residual analyzer with recording and alarming capabilities.

The disinfection system consists of:

- one metering pump
- sodium hypochlorite solution supplied from 204 L drums.

The iron sequestration system consists of:

- one metering pump
- sodium silicate supplied from 204 L drums

All instrumentation and equipment compatible with Region's SCADA system;

Palgrave Well No.3

A communal well water supply system consisting of well supply and water treatment system and associated appurtenances, located in Lot 27, Concession 8, on the East Side of 8th Line, approximately 190 m North of Pine Avenue in Palgrave, Town of Caledon.

Well No.3 is a drilled well, located in a concrete block well pump house with a submersible well water pump with a rated capacity of 68.1 L/s at a TDH of 129.9 m.

It is equipped complete with a raw water flow meter with recording capabilities, check valve, pressure relief valve, air release valve, pump controls, raw and treated water sample taps, online continuous free chlorine residual analyzer with recording and alarming capabilities, an online continuous turbidity analyzer measuring treated water turbidity at the point of entrance to the distribution system with alarm and lockout capability manual by-pass and filter to waste capabilities and all associated appurtenances discharging directly into the distribution system.

The disinfection system consists of:

- one metering pump
- sodium hypochlorite solution supplied from 204 L drums.

The iron sequestration system consists of:

- one metering pump
- sodium silicate supplied from 204 L drums

A 250 kW standby diesel generator set complete with automatic transfer switch system, to provide standby power to the facility in the event of power failure.

All instrumentation and equipment is 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
Palgrave Reservoir Expansion	\$700,000
Water Service Installations	\$56,255

Significant Repairs	Approximate Expenditure
Watermain Breaks	\$0
Fire Hydrant Repairs	\$6,135
Water Distribution System Valve Repairs	\$913
Water Service Repairs	\$5,263

Significant Replacements	Approximate Expenditure
Palgrave Reservoir Booster Pumps	\$100,000
Watermain Replacements	\$422,000
Fire Hydrant Replacements	\$0
Water Service Replacements	\$0

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)
03/08/04	Background	>200	CFU/100ml	Re-sampled upstream, downstream and the reported location	07/08/04

Note: Incident date represents the sampling date, corrective action date represents the date the 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#)
Palgrave Well # 1 Raw	50	0	0-6	50	0-1100
Palgrave Well # 1 Treated	26	0	0	15	0
Palgrave Well # 2 Raw	50	0	0	50	0-1
Palgrave Well # 2 Treated	52	0	0	52	0
Palgrave Well # 3 Raw	37	0	0	37	0
Palgrave Well # 3 Treated	52	0	0	39	13
Distribution	206	0	0	154	0-430

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# Well # 1	Range of Results (min#)-(max#) Well # 2	Range of Results (min#)-max# Well # 3
Turbidity	67 125 179	0.01-0.42	0.01-0.36	0.01-0.32
Chlorine	89 126 193	0.88-1.79	1.01-1.59	1.14-1.71
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	Result	Unit of Measure

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

Parameter	Sample Date (dd/mm/yy)	Result Value Well # 1	Result Value Well # 2	Result Value Well # 3	Unit of Measure	Exceedance
Antimony	11/02/04	<0.0005		<0.0005	mg/L	No
	14/10/04		<0.485	<0.485	ug/L	
Arsenic	11/02/04	<0.002			mg/L	No
	14/10/04		1.22	1.88	ug/L	
Barium	11/02/04	0.156			mg/L	No
	14/10/04		0.106	0.142	mg/L	
Boron	11/02/04	0.012			mg/L	No
	14/10/04		0.005	0.004	mg/L	
Cadmium	11/02/04	<0.0001			mg/L	No
	14/10/04		<0.0001	<0.0001	mg/L	
Chromium	11/02/04	<0.005			mg/L	No
	14/10/04		<0.003	<0.003	mg/L	
Lead	11/02/04	<0.0005			mg/L	No
	14/10/04		4.32	1.67	ug/L	
Mercury	11/02/04	<0.00005			mg/L	No
	14/10/04		<0.0001	<0.0001	mg/L	
Selenium	11/02/04	<0.002			mg/L	No
	14/10/04		1.11	0.692	ug/L	
Sodium	14/10/04		8.50	7.04	mg/L	No
	14/05/03	15.1				
Uranium	11/02/04	<0.0001			mg/L	No
	14/10/02		<0.0001	<0.0001	mg/L	
Fluoride	14/10/04		<0.087	<0.087	mg/L	No
	04/11/04	0.100			mg/L	
Nitrite	15/06/04	<0.017			mg/L as N	No
	14/10/04		<0.017	<0.017	mg/L as N	
Nitrate	11/02/04	<0.044			mg/L as N	No
	14/10/04		<0.044	<0.044	mg/L as N	

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

Parameter	Sample Date	Result Value Well # 1	Result Value Well # 2	Result Value Well # 3	Unit of Measure	Exceedance
Alachlor	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Aldicarb	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Aldrin + Dieldrin	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Atrazine + N-dealkylated metabolites	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Azinphos-methyl	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Bendiocarb	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Benzene	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Benzo(a)pyrene	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Bromoxynil	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Carbaryl	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Carbofuran	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Carbon Tetrachloride	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Chlordane (Total)	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Chlorpyrifos	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Cyanazine	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Diazinon	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Dicamba	03/11/04 22/09/04	ND	ND	ND	ug/L	No
1,2-Dichlorobenzene	03/11/04 22/09/04	ND	ND	ND	ug/L	No
1,4-Dichlorobenzene	03/11/04 22/09/04	ND	ND	ND	ug/L	No

Dichlorodiphenyltrichloroethane (DDT) + metabolites	03/11/04 22/09/04	ND		ND	ND	ug/L	No
1,2-Dichloroethane	03/11/04 22/09/04	ND		ND	ND	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Dichloromethane	03/11/04 22/09/04	0.32		ND	ND	ug/L	No
2-4 Dichlorophenol	03/11/04 22/09/04	ND		ND	ND	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Diclofop-methyl	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Dimethoate	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Dinoseb	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Diquat	03/11/04 22/09/04	ND		ND	ND	ppb	No
Diuron	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Glyphosate	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Heptachlor + Heptachlor Epoxide	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Linadane (Total)	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Malathion	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Methoxychlor	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Metolachlor	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Metribuzin	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Monochlorobenzene	03/11/04 22/09/04	ND		ND	ND	ug/L	No
Paraquat	03/11/04 22/09/04	ND		ND	ND	ppb	No
Parathion	03/11/04 22/09/04	ND	<0.49	<0.49		ug/L	No
Pentachlorophenol	03/11/04 22/09/04	ND		ND	ND	ug/L	No

Phorate	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Picloram	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Polychlorinated Biphenyls(PCB)	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Prometryne	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Simazine	03/11/04 22/09/04	ND	ND	ND	ug/L	No
THM (NOTE: show latest annual average)	14/10/04	13.7 (distribution)			ug/L	No
Temephos	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Terbufos	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Tetrachloroethylene	03/11/04 22/09/04	ND	ND	ND	ug/L	No
2,3,4,6-Tetrachlorophenol	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Triallate	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Trichloroethylene	03/11/04 22/09/04	ND	ND	ND	ug/L	No
2,4,6-Trichlorophenol	03/11/04 22/09/04	ND	ND	ND	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Trifluralin	03/11/04 22/09/04	ND	ND	ND	ug/L	No
Vinyl Chloride	03/11/04 22/09/04	ND	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)