



2017 Annual Water Quality Reports

Per: Ontario Regulation 170/03, s. 11 (1);
Ontario Regulation 247/06, s. 10 (1)





2017 Annual Water Quality Report

v.1.0

Reviewed by:

A handwritten signature in blue ink, appearing to be 'J. Friel', written over a horizontal line.

Julie Friel
Manager Water Treatment

FEB 22 2018

Date

Approved by:

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Mike Jensen
Acting Director, Water & Wastewater Services

FEB 21 2018

Date

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Randy Halverson
Director, Linear Infrastructure Services

FEB. 20, 2018

Date

Approved by:

A handwritten signature in blue ink, appearing to be 'Stephen P. Holmes', written over a horizontal line.

Stephen Holmes
Director, Infrastructure Capital Planning Services

FEB 21, 2018

Date



2017

Annual Water Quality Report

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

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	210001665
Drinking-Water System Name:	Dowling Drinking Water System
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u> Does your Drinking-Water System serve more than 10,000 people? Yes ☐ No ☒ Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐ Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. www.greatersudbury.ca TDS-Engineering Department	<u>Complete for all other Categories.</u> Number of Designated Facilities served: 0 Did you provide a copy of your annual report to all Designated Facilities you serve? Yes ☐ No ☒ Number of Interested Authorities you report to: 0 Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes ☐ No ☒
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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

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 ☐

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

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

The Dowling Drinking Water System encompasses all municipal water distribution within Dowling. The system includes Dowling Well #1 (Riverside) located on Riverside Dr., Dowling Well #2 (Lionel) located on Lionel Avenue and the Dowling Tank located off of Hwy. 144. Each of the wells is housed in individual structures. The wells pump water from an unconfined aquifer within a primarily sand and gravel formation. The discharge at each well site undergoes primary treatment in the form of Ultra-Violet irradiation, secondary disinfection by chlorination, and fluoridation before it enters the distribution system. Continuous analyzers for free chlorine residual, fluoride, turbidity and UV equipment are monitored by an onsite PLC. A standby power generator with an automatic transfer switch is located at Lionel well and supplies power to both wells. The distribution system includes an online continuous free chlorine analyzer. The entire water system is in compliance with O. Reg. 170/03 and is monitored 24/7 from the Wanapitei WTP.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid UN#1778

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

- 1) Rehabilitate well pump \$5,164.10
- 2) Dowling well rehabilitation \$ 49,840.00

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action

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: LIONEL WELL#2					
	49	0 to 0	0 to 0		
Raw: RIVERSIDE WELL#1					
	43	0 to 0	0 to 1		
Treated: LIONEL WELL					
	49	0 to 0	0 to 0	49	0 to 50
Treated: RIVERSIDE WELL					
	43	0 to 0	0 to 0	43	10 to 10
Distribution					
	154	0 to 0	0 to 0	39	10 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	0.22 - 2.94

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

LIONEL WELL

Turbidity	8,760	0.02 - 0.87	NTU
Chlorine	8,760	0.64 - 2.89	mg/L
Fluoride	8,760	0.20 - 0.74	mg/L

RIVERSIDE WELL

Turbidity	8,760	0.02 - 2.00	NTU
Chlorine	8,760	0.54 - 3.30	mg/L
Fluoride	8,760	0.20 - 1.04	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 or order or other legal instrument.

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

LIONEL WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2016/12/11	0.0005	mg/L	No
Arsenic	2016/12/11	0.001	mg/L	No
Barium	2016/12/11	0.021	mg/L	No
Boron	2016/12/11	0.016	mg/L	No
Cadmium	2016/12/11	0.0001	mg/L	No
Chromium	2016/12/11	0.001	mg/L	No
Mercury	2016/12/11	0.0001	mg/L	No
Selenium	2016/12/11	0.001	mg/L	No
Uranium	2016/12/11	0.001	mg/L	No
Nitrite	2017/03/07	0.05	mg/L	No
	2017/06/06	0.05	mg/L	No
	2017/09/06	0.03	mg/L	No

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

Nitrate	2017/03/07	0.48	mg/L	No
	2017/06/06	0.63	mg/L	No
	2017/09/06	0.52	mg/L	No
Sodium	2015/11/03	29.20	mg/L	Yes
	2015/11/12	30.30	mg/L	Yes

RIVERSIDE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.001	mg/L	No
Barium	2017/12/13	0.0121	mg/L	No
Boron	2017/12/13	0.0093	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No
Nitrite	2017/03/07	0.05	mg/L	No
	2017/09/06	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No
Nitrate	2017/03/07	0.53	mg/L	No
	2017/09/06	0.73	mg/L	No
	2017/12/13	0.49	mg/L	No
Sodium	2015/11/03	35.00	mg/L	Yes
	2015/11/12	35.60	mg/L	Yes

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing		mg/L	
Distribution		mg/L	

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)	2017	0.0107	mg/L	No

LIONEL WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2016/12/11	0.0005	mg/L	No

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

Atrazine + N-dealkylated metabolites	2016/12/11	0.0009	mg/L	No
Azinphos-methyl	2016/12/11	0.0003	mg/L	No
Benzene	2016/12/11	0.0002	mg/L	No
Benzo(a)pyrene	2016/12/11	0.000005	mg/L	No
Bromoxynil	2016/12/11	0.00009	mg/L	No
Carbaryl	2016/12/11	0.001	mg/L	No
Carbofuran	2016/12/11	0.001	mg/L	No
Carbon Tetrachloride	2016/12/11	0.0002	mg/L	No
Chlorpyrifos	2016/12/11	0.0003	mg/L	No
Diazinon	2016/12/11	0.0003	mg/L	No
Dicamba	2016/12/11	0.00008	mg/L	No
1,2-Dichlorobenzene	2016/12/11	0.0002	mg/L	No
1,4-Dichlorobenzene	2016/12/11	0.0003	mg/L	No
1,2-Dichloroethane	2016/12/11	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2016/12/11	0.0003	mg/L	No
Dichloromethane	2016/12/11	0.001	mg/L	No
2-4 Dichlorophenol	2016/12/11	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2016/12/11	0.00008	mg/L	No
Diclofop-methyl	2016/12/11	0.00008	mg/L	No
Dimethoate	2016/12/11	0.0003	mg/L	No
Diquat	2016/12/11	0.007	mg/L	No
Diuron	2016/12/11	0.006	mg/L	No
Glyphosate	2016/12/11	0.02	mg/L	No
Malathion	2016/12/11	0.0003	mg/L	No
Metolachlor	2016/12/11	0.0002	mg/L	No
Metribuzin	2016/12/11	0.0002	mg/L	No
Monochlorobenzene	2016/12/11	0.0005	mg/L	No
Paraquat	2016/12/11	0.001	mg/L	No
Pentachlorophenol	2016/12/11	0.0003	mg/L	No
Phorate	2016/12/11	0.0002	mg/L	No
Picloram	2016/12/11	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2016/12/11	0.00006	mg/L	No
Prometryne	2016/12/11	0.0001	mg/L	No
Simazine	2016/12/11	0.0003	mg/L	No
Terbufos	2016/12/11	0.0002	mg/L	No
Tetrachloroethylene	2016/12/11	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2016/12/11	0.0003	mg/L	No
Triallate	2016/12/11	0.0002	mg/L	No
Trichloroethylene	2016/12/11	0.0002	mg/L	No
2,4,6-Trichlorophenol	2016/12/11	0.0002	mg/L	No
Trifluralin	2016/12/11	0.0002	mg/L	No
Vinyl Chloride	2016/12/11	0.0002	mg/L	No
MCPA	2016/12/11	0.01	mg/L	No

RIVERSIDE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No

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

Bromoxynil	2017/12/13	0.00009	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/13	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No
Diclofop-methyl	2017/12/13	0.00008	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.0007	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0003	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0002	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	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	UOM	Date of Sample	Location

(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)

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	240000020
Drinking-Water System Name:	Falconbridge Well Supply
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u> Does your Drinking-Water System serve more than 10,000 people? Yes ☐ No ☒ Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐ Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. www.greatersudbury.ca TDS-Engineering Department	<u>Complete for all other Categories.</u> Number of Designated Facilities served: 0 Did you provide a copy of your annual report to all Designated Facilities you serve? Yes ☐ No ☒ Number of Interested Authorities you report to: 0 Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes ☐ No ☒
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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

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 ☐

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

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

The Falconbridge system consists of three drilled wells, Numbers 5, 6, and 7, located north of the Sudbury Airport. All three wells share a common treatment building that includes a stand-by power generator, chlorine gas for disinfection and chemical addition for corrosion control. Continuous analyzers for free chlorine residual and turbidity are monitored by an onsite PLC. Fluoride is added to the water before it enters the Falconbridge Municipal distribution system at a designated fluoridation building. Water is supplied south to the Town of Falconbridge and north to the Nickel Rim Mine reservoir and the Sudbury Airport. The remainder of the system consists of an Elevated Storage Tank, Booster Pumping Station and a Pressure Regulating Valve, all located within the town of Falconbridge. The City provides water to Glencore and two industrial clients along the South transmission line. The distribution system includes an online continuous free chlorine analyzer and fluoride analyzer. The entire water system is in compliance with O. Reg. 170/03 and is monitored 24/7 from the Wanapitei WTP.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Polyphosphate, Hydrofluosilicic Acid UN#1778

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

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action

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: FALCONBRIDGE WELL #5					
	52	0 to 0	0 to 0		
Raw: FALCONBRIDGE WELL #6					
	52	0 to 0	0 to 0		
Raw: FALCONBRIDGE WELL #7					
	52	0 to 0	0 to 0		
Treated: FALCONBRIDGE WELLS TREATED					
	156	0 to 0	0 to 0	156	0 to 30
Distribution					
	206	0 to 0	0 to 0	56	10 to 1500

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	0.77 - 3.14

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

FALCONBRIDGE WELLS TREATED

Turbidity	8,760	0.01 - 5.01	NTU
Chlorine	8,760	0.69 - 4.92	mg/L
Fluoride (If the DWS provides fluoridation)	8,760	0.20 - 1.42	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 or order or other legal instrument.

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

FALCONBRIDGE WELLS TREATED

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/14	0.0005	mg/L	No
Arsenic	2017/12/14	0.0019	mg/L	No
Barium	2017/12/14	0.0076	mg/L	No
Boron	2017/12/14	0.0023	mg/L	No
Cadmium	2017/12/14	0.0001	mg/L	No
Chromium	2017/12/14	0.001	mg/L	No
Mercury	2017/12/14	0.0001	mg/L	No
Selenium	2017/12/14	0.001	mg/L	No
Uranium	2017/12/14	0.001	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/12	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/14	0.03	mg/L	No
Nitrate	2017/03/06	0.1	mg/L	No
	2017/06/12	0.15	mg/L	No
	2017/09/05	0.15	mg/L	No
	2017/12/14	0.14	mg/L	No
Sodium	2015/11/02	22.30	mg/L	Yes

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

Sodium	2015/11/02	21.70	mg/L	Yes
	2015/11/02	25.30	mg/L	Yes
	2015/11/08	28.20	mg/L	Yes
	2015/11/08	21.10	mg/L	Yes
	2015/11/08	21.40	mg/L	Yes

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing		mg/L	
Distribution		mg/L	

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)	2017	0.0035	mg/L	No

FALCONBRIDGE WELLS TREATED

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/14	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/14	0.0005	mg/L	No
Azinphos-methyl	2017/12/14	0.0002	mg/L	No
Benzene	2017/12/14	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/14	0.000005	mg/L	No
Bromoxynil	2017/12/14	0.00009	mg/L	No
Carbaryl	2017/12/14	0.001	mg/L	No
Carbofuran	2017/12/14	0.001	mg/L	No
Carbon Tetrachloride	2017/12/14	0.0002	mg/L	No
Chlorpyrifos	2017/12/14	0.0002	mg/L	No
Diazinon	2017/12/14	0.0002	mg/L	No
Dicamba	2017/12/14	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/14	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/14	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/14	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/14	0.0003	mg/L	No
Dichloromethane	2017/12/14	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/14	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/14	0.00008	mg/L	No
Diclofop-methyl	2017/12/14	0.00015	mg/L	No
Dimethoate	2017/12/14	0.0002	mg/L	No
Diquat	2017/12/14	0.0007	mg/L	No
Diuron	2017/12/14	0.006	mg/L	No
Glyphosate	2017/12/14	0.02	mg/L	No

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

Malathion	2017/12/14	0.0002	mg/L	No
Metolachlor	2017/12/14	0.0001	mg/L	No
Metribuzin	2017/12/14	0.0001	mg/L	No
Monochlorobenzene	2017/12/14	0.0005	mg/L	No
Paraquat	2017/12/14	0.0004	mg/L	No
Pentachlorophenol	2017/12/14	0.0003	mg/L	No
Phorate	2017/12/14	0.0001	mg/L	No
Picloram	2017/12/14	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/14	0.00006	mg/L	No
Prometryne	2017/12/14	0.00006	mg/L	No
Simazine	2017/12/14	0.0002	mg/L	No
Terbufos	2017/12/14	0.0001	mg/L	No
Tetrachloroethylene	2017/12/14	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/14	0.0002	mg/L	No
Triallate	2017/12/14	0.0001	mg/L	No
Trichloroethylene	2017/12/14	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/14	0.0002	mg/L	No
Trifluralin	2017/12/14	0.0001	mg/L	No
Vinyl Chloride	2017/12/14	0.0001	mg/L	No
MCPA	2017/12/14	0.01	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	UOM	Date of Sample	Location

(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)

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220003519
Drinking-Water System Name:	Onaping-Levack Well Supply
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes ☐ No ☒

Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

www.greatersudbury.ca
TDS-Engineering Department

Complete for all other Categories.

Number of Designated Facilities served:

0

Did you provide a copy of your annual report to all Designated Facilities you serve?

Yes ☐ No ☒

Number of Interested Authorities you report to:

0

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?

Yes ☐ No ☒

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

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 ☐

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

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

The Onaping/Levack system includes three drilled wells, Numbers 3, 4 and 5 with a common treatment building. Well pumps 3 and 4 are housed in a separate building while well pump 5 is situated in the treatment building. The treatment building provides chlorine gas injection for disinfection, fluoridation, chemical addition for corrosion control, Sodium Hydroxide for pH control and a stand-by power generator. Continuous analyzers for free chlorine residual, fluoride, turbidity and pH are monitored by an onsite PLC. The system is equipped with an elevated storage tank having re-chlorination capabilities, a Pressure Control /Booster building with stand-by power, a pressure sustaining valve, a distribution online continuous free chlorine analyzer and the distribution piping. The entire water system is in compliance with O. Reg. 170/03 and is monitored 24/7 from the Wanapitei WTP.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid UN#1778, Polyphosphate, Sodium Hydroxide UN#1824

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

- 1) New corrosion system install, building upgrades, fluoride room upgrades, HVAC upgrades
\$256,628.22
- 2) Onaping well rehabilitation \$59,075.00

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action

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: WICKWAS WELL #3					
	49	0 to 0	0 to 0		
Raw: WICKWAS WELL #4					
	52	0 to 0	0 to 0		
Raw: WICKWAS WELL #5					
	52	0 to 0	0 to 0		
Treated: WICKWAS TREATED PUMPHOUSE					
	52	0 to 0	0 to 0	52	0 to 110
Distribution					
	156	0 to 0	0 to 0	42	10 to 80

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	0.25 - 2.56

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

WICKWAS TREATED PUMPHOUSE

Turbidity	8,760	0.01 - 10.00	NTU
Chlorine	8,760	0.74 - 3.76	mg/L
Fluoride	8,760	0.02 - 1.08	mg/L

***NOTE:** Record the unit of measure if it is **not** milligrams per litre.*

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

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
2009/03/09	Sodium	2017/01/03	60.5	mg/L
2009/03/09	Sodium	2017/01/03	66.4	mg/L
2009/03/09	Sodium	2017/01/03	70.3	mg/L
2009/03/09	Sodium	2017/02/07	55.7	mg/L
2009/03/09	Sodium	2017/02/07	58	mg/L
2009/03/09	Sodium	2017/02/07	51.2	mg/L
2009/03/09	Sodium	2017/03/07	42	mg/L
2009/03/09	Sodium	2017/03/07	59.4	mg/L
2009/03/09	Sodium	2017/03/07	50.2	mg/L
2009/03/09	Sodium	2017/04/04	57.3	mg/L
2009/03/09	Sodium	2017/04/04	62.5	mg/L
2009/03/09	Sodium	2017/04/04	62.6	mg/L
2009/03/09	Sodium	2017/05/03	53.5	mg/L
2009/03/09	Sodium	2017/05/03	57.1	mg/L
2009/03/09	Sodium	2017/05/03	58.7	mg/L
2009/03/09	Sodium	2017/06/06	61	mg/L
2009/03/09	Sodium	2017/06/06	52	mg/L
2009/03/09	Sodium	2017/06/06	66.7	mg/L
2009/03/09	Sodium	2017/07/04	51.4	mg/L
2009/03/09	Sodium	2017/07/04	59.3	mg/L
2009/03/09	Sodium	2017/07/04	78	mg/L
2009/03/09	Sodium	2017/07/10	65.7	mg/L
2009/03/09	Sodium	2017/07/10	53.4	mg/L
2009/03/09	Sodium	2017/07/10	69.1	mg/L
2009/03/09	Sodium	2017/08/02	53.8	mg/L
2009/03/09	Sodium	2017/08/02	47.8	mg/L
2009/03/09	Sodium	2017/08/02	68.2	mg/L
2009/03/09	Sodium	2017/09/07	56.1	mg/L
2009/03/09	Sodium	2017/09/07	41.6	mg/L
2009/03/09	Sodium	2017/09/07	68.2	mg/L
2009/03/09	Sodium	2017/10/02	51.7	mg/L
2009/03/09	Sodium	2017/10/02	38.6	mg/L
2009/03/09	Sodium	2017/10/02	61.1	mg/L
2009/03/09	Sodium	2017/12/28	81.7	mg/L
2009/03/09	Sodium	2017/12/28	85.8	mg/L

WICKWAS TREATED PUMPHOUSE

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.001	mg/L	No
Barium	2017/12/13	0.0678	mg/L	No
Boron	2017/12/13	0.012	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No

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

Nitrite	2017/03/07	0.05	mg/L	No
	2017/06/06	0.05	mg/L	No
	2017/09/07	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No
Nitrate	2017/03/07	0.49	mg/L	No
	2017/06/06	0.76	mg/L	No
	2017/09/07	0.21	mg/L	No
	2017/12/13	0.86	mg/L	No
Sodium	2015/11/17	65.70	mg/L	Yes
	2015/11/24	52.90	mg/L	Yes

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing	47	0.0001 - 0.00622 mg/L	0
Distribution	10	0.0001 - 0.0002 mg/L	0

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)	2017	0.0091	mg/L	No

WICKWAS TREATED PUMPHOUSE

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No
Bromoxynil	2017/12/13	0.0001	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2,4 Dichlorophenol	2017/12/13	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No

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

Diclofop-methyl	2017/12/13	0.00008	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.0007	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0003	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0003	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	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	UOM	Date of Sample	Location

(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)

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

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220003485
Drinking-Water System Name:	Sudbury Drinking Water System -Garson
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes ☐ No ☒

Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

www.greatersudbury.ca
TDS-Engineering Department

Complete for all other Categories.

Number of Designated Facilities served:

0

Did you provide a copy of your annual report to all Designated Facilities you serve?

Yes ☐ No ☒

Number of Interested Authorities you report to:

0

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?

Yes ☐ No ☒

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

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 ☐

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

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

The Garson system includes three wells, Garson Well #2 located near the intersection of Spruce St. and Falconbridge Hwy., plus Garson Wells #1 & 3 located on Falconbridge Hwy. The system's wells take water from an unconfined aquifer in a sand and gravel formation at Garson Well #2, and a sand, gravel, boulder formation at Garson #1 & 3. All the well groundwater is disinfected by chlorination and fluoridated at the well sites before it enters the distribution system. A common chemical room and a chlorine contact chamber is installed at the Garson #1 & 3 site. Garson Well #2 includes an oversized pipe on discharge that provides chlorine contact time. Continuous analyzers for free chlorine residual, fluoride and turbidity are monitored by an onsite PLC. A standby power generator with an automatic transfer switch is located at the Garson #1 & 3 site. The Garson Distribution System encompasses all municipal distribution in the north east part of Garson, east of the intersection of O'Neil Drive W. and Falconbridge Road and North to include the Old Skead Rd. area of Garson. The distribution system includes an online continuous chlorine analyzer. In the case of a complete system failure, a pressure sustaining valve, at the corner of O'Neil Drive W. and Falconbridge Hwy, ensures a water supply to Garson by connecting the Garson and Sudbury/Wanapitei Systems. The entire water system is in compliance with O. Reg. 170/03 and is monitored 24/7 from the Wanapitei WTP.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite UN#1791, Hydrofluosilicic Acid UN#1778

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

- 1) Rehabilitate well pump \$9,066.23
- 2) Garson wells rehabilitation \$46,682.00

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action
132704	2017/03/22	Total Coliform	32	CFU/100 mL	Resample/Re-test;	2017/03/27
132719	2017/03/23	Total Coliform	21	CFU/100 mL	Resample/Re-test;	2017/03/27
138153	2017/11/22	E. Coli	11	CFU/100 mL	Resample/Re-test;	2017/11/24
138153	2017/11/22	Total Coliform	30	CFU/100 mL	Resample/Re-test;	2017/11/24

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: GARSON WELL #1					
	52	0 to 0	0 to 0		
Raw: GARSON WELL #2					
	52	0 to 0	0 to 0		
Raw: GARSON WELL #3					
	47	0 to 0	0 to 0		
Treated: GARSON #1 & #3 WELL TREATED					
	53	0 to 0	0 to 0	53	0 to 10
Treated: GARSON #2 WELL TREATED					
	52	0 to 0	0 to 0	52	0 to 1500
Distribution					
	219	0 to 11	0 to 32	56	10 to 210

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	0.10 - 3.35

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

GARSON #1 & #3 WELL TREATED

Turbidity	8,760	0.03 - 1.12	NTU
Chlorine	8,760	0.54 - 2.97	mg/L
Fluoride	8,760	0.00 - 1.05	mg/L

GARSON #2 WELL TREATED

Turbidity	8,760	0.02 - 2.00	NTU
Chlorine	8,760	0.50 - 3.55	mg/L
Fluoride	8,760	0.00 - 1.12	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 or order or other legal instrument.

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

GARSON #1 & #3 WELL TREATED

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/14	0.0005	mg/L	No
Arsenic	2017/12/14	0.0033	mg/L	No
Barium	2017/12/14	0.0423	mg/L	No
Boron	2017/12/14	0.0046	mg/L	No
Cadmium	2017/12/14	0.0001	mg/L	No
Chromium	2017/12/14	0.001	mg/L	No
Mercury	2017/12/14	0.0001	mg/L	No
Selenium	2017/12/14	0.001	mg/L	No
Uranium	2017/12/14	0.0031	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/14	0.03	mg/L	No

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

Nitrate	2017/03/06	0.61	mg/L	No
	2017/06/05	0.97	mg/L	No
	2017/09/05	0.67	mg/L	No
	2017/12/14	0.52	mg/L	No
Sodium	2015/06/23	24.50	mg/L	Yes
	2015/07/03	22.20	mg/L	Yes
	2015/11/02	18.20	mg/L	No

GARSON #2 WELL TREATED

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/14	0.0005	mg/L	No
Arsenic	2017/12/14	0.0034	mg/L	No
Barium	2017/12/14	0.0418	mg/L	No
Boron	2017/12/14	0.011	mg/L	No
Cadmium	2017/12/14	0.0001	mg/L	No
Chromium	2017/12/14	0.001	mg/L	No
Mercury	2017/12/14	0.0001	mg/L	No
Selenium	2017/12/14	0.001	mg/L	No
Uranium	2017/12/14	0.0024	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/14	0.03	mg/L	No
Nitrate	2017/03/06	0.89	mg/L	No
	2017/06/05	0.65	mg/L	No
	2017/09/05	0.93	mg/L	No
	2017/12/14	0.79	mg/L	No
Sodium	2015/11/02	58.50	mg/L	Yes
	2015/11/08	56.40	mg/L	Yes

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing		mg/L	
Distribution		mg/L	

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)	2017	0.0051	mg/L	No

GARSON #2 WELL TREATED

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
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Drinking-Water Systems Regulation O. Reg. 170/03

Alachlor	2017/12/14	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/14	0.0005	mg/L	No
Azinphos-methyl	2017/12/14	0.0002	mg/L	No
Benzene	2017/12/14	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/14	0.000005	mg/L	No
Bromoxynil	2017/12/14	0.00009	mg/L	No
Carbaryl	2017/12/14	0.001	mg/L	No
Carbofuran	2017/12/14	0.001	mg/L	No
Carbon Tetrachloride	2017/12/14	0.0002	mg/L	No
Chlorpyrifos	2017/12/14	0.0002	mg/L	No
Diazinon	2017/12/14	0.0002	mg/L	No
Dicamba	2017/12/14	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/14	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/14	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/14	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/14	0.0003	mg/L	No
Dichloromethane	2017/12/14	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/14	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/14	0.00008	mg/L	No
Diclofop-methyl	2017/12/14	0.00031	mg/L	No
Dimethoate	2017/12/14	0.0002	mg/L	No
Diquat	2017/12/14	0.0007	mg/L	No
Diuron	2017/12/14	0.006	mg/L	No
Glyphosate	2017/12/14	0.02	mg/L	No
Malathion	2017/12/14	0.0002	mg/L	No
Metolachlor	2017/12/14	0.0001	mg/L	No
Metribuzin	2017/12/14	0.0001	mg/L	No
Monochlorobenzene	2017/12/14	0.0005	mg/L	No
Paraquat	2017/12/14	0.0003	mg/L	No
Pentachlorophenol	2017/12/14	0.0003	mg/L	No
Phorate	2017/12/14	0.0001	mg/L	No
Picloram	2017/12/14	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/14	0.00006	mg/L	No
Prometryne	2017/12/14	0.00006	mg/L	No
Simazine	2017/12/14	0.0002	mg/L	No
Terbufos	2017/12/14	0.0001	mg/L	No
Tetrachloroethylene	2017/12/14	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/14	0.0002	mg/L	No
Triallate	2017/12/14	0.0001	mg/L	No
Trichloroethylene	2017/12/14	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/14	0.0002	mg/L	No
Trifluralin	2017/12/14	0.0001	mg/L	No
Vinyl Chloride	2017/12/14	0.0001	mg/L	No
MCPA	2017/12/14	0.01	mg/L	No

GARSON #1 & #3 WELL TREATED

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/14	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/14	0.0005	mg/L	No
Azinphos-methyl	2017/12/14	0.0002	mg/L	No
Benzene	2017/12/14	0.0001	mg/L	No

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

Benzo(a)pyrene	2017/12/14	0.000005	mg/L	No
Bromoxynil	2017/12/14	0.00009	mg/L	No
Carbaryl	2017/12/14	0.001	mg/L	No
Carbofuran	2017/12/14	0.001	mg/L	No
Carbon Tetrachloride	2017/12/14	0.0002	mg/L	No
Chlorpyrifos	2017/12/14	0.0002	mg/L	No
Diazinon	2017/12/14	0.0002	mg/L	No
Dicamba	2017/12/14	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/14	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/14	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/14	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/14	0.0003	mg/L	No
Dichloromethane	2017/12/14	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/14	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/14	0.00008	mg/L	No
Diclofop-methyl	2017/12/14	0.00024	mg/L	No
Dimethoate	2017/12/14	0.0002	mg/L	No
Diquat	2017/12/14	0.0007	mg/L	No
Diuron	2017/12/14	0.006	mg/L	No
Glyphosate	2017/12/14	0.02	mg/L	No
Malathion	2017/12/14	0.0002	mg/L	No
Metolachlor	2017/12/14	0.0001	mg/L	No
Metribuzin	2017/12/14	0.0001	mg/L	No
Monochlorobenzene	2017/12/14	0.0005	mg/L	No
Paraquat	2017/12/14	0.0003	mg/L	No
Pentachlorophenol	2017/12/14	0.0003	mg/L	No
Phorate	2017/12/14	0.0001	mg/L	No
Picloram	2017/12/14	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/14	0.00006	mg/L	No
Prometryne	2017/12/14	0.00006	mg/L	No
Simazine	2017/12/14	0.0002	mg/L	No
Terbufos	2017/12/14	0.0001	mg/L	No
Tetrachloroethylene	2017/12/14	0.00378	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/14	0.0002	mg/L	No
Triallate	2017/12/14	0.0001	mg/L	No
Trichloroethylene	2017/12/14	0.00078	mg/L	No
2,4,6-Trichlorophenol	2017/12/14	0.0002	mg/L	No
Trifluralin	2017/12/14	0.0001	mg/L	No
Vinyl Chloride	2017/12/14	0.0001	mg/L	No
MCPA	2017/12/14	0.01	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	UOM	Date of Sample	Location

(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)

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220003537
Drinking-Water System Name:	Sudbury Drinking Water System - David St.
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes ☒ No ☐

Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

www.greatersudbury.ca
TDS-Engineering Department

Complete for all other Categories.

Number of Designated Facilities served:

0

Did you provide a copy of your annual report to all Designated Facilities you serve?

Yes ☐ No ☒

Number of Interested Authorities you report to:

0

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?

Yes ☐ No ☒

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
Sudbury Drinking Water System - Wanapitei	210001111

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 ☒

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

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

The David St. Water Treatment Plant is a surface water plant which draws water from Ramsey Lake. Proportionally, the plant services approximately 40% of Sudbury, however, most of the water produced at the David St. WTP is normally delivered to the south, west and downtown areas of Sudbury as well as supplying water to the Ellis reservoir. Treatment incorporated is in the form of membrane ultrafiltration, disinfection by chlorination, Ultra-Violet irradiation, fluoridation, pH adjustment and corrosion control with a polyphosphate. The distribution system includes an online continuous chlorine analyzer & related appurtenances. The plant is in full treatment compliance with O. Reg. 170/03 and is monitored 24/7 from the Wanapitei WTP.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite UN#1791, Hydrofluosilicic Acid UN#1778, Polyphosphate, Sodium Hydroxide UN#1824, Sodium Bisulfate UN#2693, Citric Acid UN#3625, Sodium Permanganate UN#3214

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

1) Watermain lining \$687,854.10

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action

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: RAMSEY LAKE					
	52	0 to 32	0 to 395		
Treated: SUDBURY (DAVID ST) Water Treatment Plant					
	52	0 to 0	0 to 0	52	0 to 20
Distribution					
	1,418	0 to 0	0 to 0	345	10 to 90

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	0.25 - 2.13

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

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

SUDBURY (DAVID ST) Water Treatment Plant

Turbidity	8,760	0.00 - 5.01	NTU
Chlorine	8,760	0.10 - 3.95	mg/L
Fluoride	8,760	0.03 - 1.31	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 or order or other legal instrument.

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

SUDBURY (DAVID ST) Water Treatment Plant

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.0022	mg/L	No
Barium	2017/12/13	0.0141	mg/L	No
Boron	2017/12/13	0.01	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No
Nitrate	2017/03/06	0.1	mg/L	No
	2017/06/05	0.1	mg/L	No
	2017/09/05	0.1	mg/L	No
	2017/12/13	0.1	mg/L	No
Sodium	2015/11/02	52.80	mg/L	Yes
	2015/11/06	52.30	mg/L	Yes

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing	46	0.0001 - 0.3 mg/L	2
Distribution	9	0.0001 - 0.00142 mg/L	0

Summary of Organic parameters sampled 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
THM (NOTE: show latest annual average)	2017	0.0731	mg/L	No

SUDBURY (DAVID ST) Water Treatment Plant

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No
Bromoxynil	2017/12/13	0.0001	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2,4 Dichlorophenol	2017/12/13	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No
Diclofop-methyl	2017/12/13	0.00008	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.0007	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0004	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0003	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	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	UOM	Date of Sample	Location

(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)

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

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	210001111
Drinking-Water System Name:	Sudbury Drinking Water System - Wanapitei
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u> Does your Drinking-Water System serve more than 10,000 people? Yes ☒ No ☐ Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐ Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. www.greatersudbury.ca TDS-Engineering Department	<u>Complete for all other Categories.</u> Number of Designated Facilities served: 0 Did you provide a copy of your annual report to all Designated Facilities you serve? Yes ☐ No ☒ Number of Interested Authorities you report to: 0 Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes ☐ No ☒
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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
Markstay-Warren	220013606
Sudbury Drinking Water System - Garson	220003485
Sudbury Drinking Water System - David St.	220003537

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

The Wanapitei Water Treatment Plant is a surface water plant which draws water from the Wanapitei River. Proportionally, the plant services approximately 60% of Sudbury, with the water being produced supplying the northeastern and northwestern areas of the City but includes Markstay, Coniston and parts of Garson (west of Falconbridge Road at O'Neil Drive) as well as supplying water to the Ellis Reservoir. The raw water is pumped from the Wanapitei River via the Wanapitei intake, a concrete intake structure that protrudes into the Wanapitei River. The raw intake pump house is situated north of Hwy. 17, in the community of Wahnapiatae. The raw water passes through a coarse aluminum bar screen then through two finer stainless steel screens inside the station before being pumped to the treatment plant to the west. The Wanapitei WTP utilizes a conventional water treatment process complete with Coagulation / Flocculation, Sedimentation and Filtration by dual media filters. Chlorine and/or Chlorine Dioxide are used for disinfection purposes and Ultra-Violet irradiation was added to the end of the process in 2010. Corrosion control, pH adjustment plus the addition of fluoride complete the process. The distribution system includes an online continuous chlorine analyzer & various other appurtenances. The plant is in full treatment compliance with O. Reg. 170/03.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid UN#1778, Polyphosphate, Sodium Chlorite UN#1908, PAS-Aluminum Sulfate UN#3264, Hydrated Lime, Polyelectrolyte, Chlorine Dioxide (generated onsite)

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

- 1) Alum tank clean and inspection \$4,121.11
- 2) UV system rehabilitation \$23,409.08
- 3) Reactivator 1 and 2 maintenance \$78,559.00
- 4) Repair Coniston Pressure Reducing Valve \$10,021.00
- 5) Watermain lining \$937,042.64
- 6) Install reactivator online turbidity analyzers \$15,085.50
- 7) Treatment pump #2 shaft replacement \$29,026.00
- 8) Moss and Montrose booster station upgrades and decommissioning of Kingsway booster station \$68,538.00

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action

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: WANAPITEI RIVER					
	52	0 to 30	0 to 380		
Treated: HL PUMP STATION, Sudbury (Wanapitei) WTP					
	52	0 to 0	0 to 0	52	0 to 10
Distribution					
	1,418	0 to 0	0 to 0	345	10 to 50

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	0.25 - 2.13

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

HL PUMP STATION, Sudbury (Wanapitei) WTP

Turbidity	8,760	0.00 - 0.94	NTU
Chlorine	8,760	0.70 - 2.80	mg/L
Fluoride	8,760	0.19 - 0.92	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 or order or other legal instrument.

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

HL PUMP STATION, Sudbury (Wanapitei) WTP

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.001	mg/L	No
Barium	2017/12/13	0.013	mg/L	No
Boron	2017/12/13	0.0036	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/06	0.05	mg/L	No
	2017/09/12	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No
Nitrate	2017/03/06	0.1	mg/L	No
	2017/06/06	0.2	mg/L	No
	2017/09/12	0.1	mg/L	No
	2017/12/13	0.18	mg/L	No
Sodium	2015/11/03	2.16	mg/L	No

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing	45	0.0001 - 0.00059 mg/L	0
Distribution	12	0.0001 - 0.0034 mg/L	0

Summary of Organic parameters sampled 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
THM (NOTE: show latest annual average)	2017	0.0543	mg/L	No

HL PUMP STATION, Sudbury (Wanapitei) WTP

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No
Bromoxynil	2017/12/13	0.00009	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2,4 Dichlorophenol	2017/12/13	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No
Diclofop-methyl	2017/12/13	0.00008	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.001	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0005	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0003	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	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	UOM	Date of Sample	Location

(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)

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	210000737
Drinking-Water System Name:	Blezard Valley - Capreol Well Supply
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u> Does your Drinking-Water System serve more than 10,000 people? Yes ☒ No ☐ Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐ Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. www.greatersudbury.ca TDS-Engineering Department	<u>Complete for all other Categories.</u> Number of Designated Facilities served: 0 Did you provide a copy of your annual report to all Designated Facilities you serve? Yes ☐ No ☒ Number of Interested Authorities you report to: 0 Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes ☐ No ☒
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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

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 ☐

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

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

The system includes nine Blezard Valley wells, which extend in a well field from Val Therese to Hanmer and two Capreol Wells adjacent to Greens Lake. All of the groundwater wells undergo primary treatment in the form of Ultra-Violet irradiation, secondary disinfection by chlorination, and fluoridation. The Capreol wells also include chemical addition for corrosion control. Continuous analyzers for free chlorine residual, fluoride, turbidity and UV equipment are monitored at each well by onsite PLC's. A standby power generator with an automatic transfer switch is located at several of the wells. In the event that the Capreol wells fail, the Valley wells can supply water to the Capreol Boosters located onsite. In the event that the entire system of wells and boosters fail, water will continue to be supplied from the three storage facilities, but at a reduced pressure. Three water storage tanks are situated in Azilda, Chelmsford and Val Caron and all distribution piping completes the system. The Blezard Valley distribution includes an online continuous chlorine analyzer and encompasses the communities of Chelmsford, Azilda, McCrea Heights, Blezard Valley, Val Caron, Val Therese, Hanmer and Capreol. The entire water system is in compliance with O. Reg. 170/03 and is monitored 24/7 from the Wanapitei WTP.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid 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

- 1) Capreol and Valley wells UV system rehabilitation \$24,012.06
- 2) Valley wells manganese and iron removal study \$79,976.00
- 3) Val Caron booster upgrade design \$59,614.00
- 4) Valley wells rehabilitation \$193,496.00
- 5) Capreol wells rehabilitation \$149,082.00
- 6) Centennial booster station domestic pump \$11,808.50

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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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action

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: WELL A -DESCHENE WELL					
	52	0 to 0	0 to 1		
Raw: WELL B- KENNETH WELL					
	52	0 to 0	0 to 0		
Raw: WELL C -PHILIPPE WELL					
	29	0 to 0	0 to 0		
Raw: WELL D -FROST WELL					
	52	0 to 0	0 to 1		
Raw: WELL E -NOTRE DAME					
	40	0 to 0	0 to 0		
Raw: WELL F -LINDEN WELL					
	52	0 to 0	0 to 0		
Raw: WELL G -PHARAND WELL					
	42	0 to 0	0 to 0		
Raw: WELL H -MICHELLE WELL					
	45	0 to 0	0 to 1		
Raw: WELL I -I WELL					
	0				
Raw: WELL J - GREEN LAKE					
	42	0 to 0	0 to 1		
Raw: WELL M - GREEN LAKE					
	46	0 to 0	0 to 1		
Raw: WELL Q - CHENIER					
	52	0 to 0	0 to 0		
Raw: WELL R					
	52	0 to 0	0 to 0		

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Treated: CAPREOL WELL SUPPLY - WELL M&J					
	88	0 to 0	0 to 0	88	10 to 10
Treated: WELL A - DESCHENE WELL					
	52	0 to 0	0 to 0	52	10 to 50
Treated: WELL B - KENNETH WELL					
	52	0 to 0	0 to 0	52	0 to 20
Treated: WELL C - PHILIPPE WELL					
	29	0 to 0	0 to 0	29	10 to 10
Treated: WELL D - FROST WELL					
	52	0 to 0	0 to 0	52	0 to 240
Treated: WELL E - NOTRE DAME WELL					
	40	0 to 0	0 to 0	40	0 to 30
Treated: WELL F - LINDEN WELL					
	52	0 to 0	0 to 0	52	0 to 110
Treated: WELL G - PHARAND WELL					
	42	0 to 0	0 to 0	42	10 to 40
Treated: WELL H - MICHELLE WELL					
	45	0 to 0	0 to 0	45	0 to 10
Treated: WELL I - I WELL					
	0			0	
Treated: WELL Q- CHENIER					
	52	0 to 0	0 to 0	52	0 to 20
Treated: WELL R					
	52	0 to 0	0 to 0	52	0 to 20
Distribution					
	589	0 to 0	0 to 0	156	10 to 80

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	0.68 - 2.13

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

CAPREOL WELL SUPPLY - WELL M&J

Turbidity	8,760	0.00 - 2.00	NTU
Chlorine	8,760	0.62 - 3.46	mg/L
Fluoride	8,760	0.00 - 1.37	mg/L

WELL A - DESCHENE WELL

Turbidity	8,760	0.01 - 1.09	NTU
Chlorine	8,760	0.55 - 3.95	mg/L
Fluoride	8,760	0.22 - 1.01	mg/L

WELL B - KENNETH WELL

Turbidity	8,760	0.04 - 2.00	NTU
Chlorine	8,760	0.50 - 3.11	mg/L
Fluoride	8,760	0.20 - 1.04	mg/L

WELL C - PHILIPPE WELL

Turbidity	8,760	0.02 - 1.87	NTU
Chlorine	8,760	0.55 - 3.15	mg/L
Fluoride	8,760	0.20 - 1.01	mg/L

WELL D - FROST WELL

Turbidity	8,760	0.02 - 2.00	NTU
Chlorine	8,760	0.60 - 2.95	mg/L
Fluoride	8,760	0.20 - 0.95	mg/L

WELL E - NOTRE DAME WELL

Turbidity	8,760	0.20 - 2.00	NTU
Chlorine	8,760	0.55 - 5.00	mg/L
Fluoride	8,760	0.20 - 1.01	mg/L

WELL F - LINDEN WELL

Turbidity	8,760	0.02 - 2.00	NTU
Chlorine	8,760	0.55 - 4.15	mg/L
Fluoride	8,760	0.00 - 1.30	mg/L

WELL G - PHARAND WELL

Turbidity	8,760	0.03 - 1.36	NTU
Chlorine	8,760	0.55 - 2.45	mg/L
Fluoride	8,760	0.00 - 1.10	mg/L

WELL H - MICHELLE WELL

Turbidity	8,760	0.03 - 2.00	NTU
Chlorine	8,760	0.50 - 3.35	mg/L
Fluoride	8,760	0.24 - 0.98	mg/L

WELL I - I WELL

Turbidity			
Chlorine			
Fluoride			

WELL Q- CHENIER

Turbidity	8,760	0.01 - 0.92	NTU
Chlorine	8,760	0.53 - 3.74	mg/L
Fluoride	8,760	0.00 - 1.13	mg/L

WELL R

Turbidity	8,760	0.01 - 0.88	NTU
Chlorine	8,760	0.51 - 2.60	mg/L
Fluoride	8,760	0.00 - 1.00	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 or order or other legal instrument.

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

WELL A - DESCHENE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/12	0.0005	mg/L	No
Arsenic	2017/12/12	0.001	mg/L	No
Barium	2017/12/12	0.0153	mg/L	No
Boron	2017/12/12	0.014	mg/L	No
Cadmium	2017/12/12	0.0001	mg/L	No
Chromium	2017/12/12	0.001	mg/L	No
Mercury	2017/12/12	0.0001	mg/L	No
Selenium	2017/12/12	0.001	mg/L	No
Uranium	2017/12/12	0.001	mg/L	No
Nitrite	2017/03/07	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/12	0.03	mg/L	No
Nitrate	2017/03/07	2.47	mg/L	No
	2017/06/05	2.54	mg/L	No
	2017/09/05	2.54	mg/L	No
	2017/12/12	2.49	mg/L	No
Sodium	2015/11/03	16.00	mg/L	No

WELL B - KENNETH WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/12	0.0005	mg/L	No
Arsenic	2017/12/12	0.001	mg/L	No
Barium	2017/12/12	0.0498	mg/L	No
Boron	2017/12/12	0.017	mg/L	No
Cadmium	2017/12/12	0.0001	mg/L	No
Chromium	2017/12/12	0.001	mg/L	No
Mercury	2017/12/12	0.0001	mg/L	No
Selenium	2017/12/12	0.001	mg/L	No
Uranium	2017/12/12	0.001	mg/L	No
Nitrite	2017/03/07	0.05	mg/L	No
	2017/06/07	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/12	0.03	mg/L	No
Nitrate	2017/03/07	0.42	mg/L	No
	2017/06/07	0.46	mg/L	No
	2017/09/05	0.47	mg/L	No
	2017/12/12	0.56	mg/L	No
Sodium	2017/06/15	21.60	mg/L	Yes

WELL C - PHILIPPE WELL

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Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/29	0.0005	mg/L	No
Arsenic	2017/12/29	0.0015	mg/L	No
Barium	2017/12/29	0.0083	mg/L	No
Boron	2017/12/29	0.0076	mg/L	No
Cadmium	2017/12/29	0.0001	mg/L	No
Chromium	2017/12/29	0.0011	mg/L	No
Mercury	2017/12/29	0.0001	mg/L	No
Selenium	2017/12/29	0.001	mg/L	No
Uranium	2017/12/29	0.001	mg/L	No
Nitrite	2017/03/07	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/12/29	0.03	mg/L	No
Nitrate	2017/03/07	0.2	mg/L	No
	2017/06/05	0.3	mg/L	No
	2017/12/29	0.3	mg/L	No
Sodium	2015/11/02	15.70	mg/L	No

WELL D - FROST WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/18	0.0005	mg/L	No
Arsenic	2017/12/18	0.0016	mg/L	No
Barium	2017/12/18	0.0414	mg/L	No
Boron	2017/12/18	0.0027	mg/L	No
Cadmium	2017/12/18	0.0001	mg/L	No
Chromium	2017/12/18	0.001	mg/L	No
Mercury	2017/12/18	0.0001	mg/L	No
Selenium	2017/12/18	0.001	mg/L	No
Uranium	2017/12/18	0.001	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/18	0.03	mg/L	No
Nitrate	2017/03/06	0.65	mg/L	No
	2017/06/05	0.74	mg/L	No
	2017/09/05	0.7	mg/L	No
	2017/12/18	0.92	mg/L	No
Sodium	2015/11/03	19.00	mg/L	No

WELL E - NOTRE DAME WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
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Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.001	mg/L	No
Barium	2017/12/13	0.015	mg/L	No
Boron	2017/12/13	0.01	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No
Nitrite	2017/06/05	0.05	mg/L	No
	2017/09/06	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No
Nitrate	2017/06/05	1.25	mg/L	No
	2017/09/06	1.21	mg/L	No
	2017/12/13	1.3	mg/L	No
Sodium	2015/11/02	11.60	mg/L	No

WELL F - LINDEN WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/12	0.0005	mg/L	No
Arsenic	2017/12/12	0.0019	mg/L	No
Barium	2017/12/12	0.0251	mg/L	No
Boron	2017/12/12	0.0035	mg/L	No
Cadmium	2017/12/12	0.0001	mg/L	No
Chromium	2017/12/12	0.001	mg/L	No
Mercury	2017/12/12	0.0001	mg/L	No
Selenium	2017/12/12	0.001	mg/L	No
Uranium	2017/12/12	0.0016	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/07	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/12	0.03	mg/L	No
Nitrate	2017/03/06	0.3	mg/L	No
	2017/06/07	0.37	mg/L	No
	2017/09/05	0.31	mg/L	No
	2017/12/12	0.38	mg/L	No
Sodium	2015/11/02	13.50	mg/L	No

WELL G - PHARAND WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/12	0.0005	mg/L	No
Arsenic	2017/12/12	0.001	mg/L	No
Barium	2017/12/12	0.0512	mg/L	No
Boron	2017/12/12	0.0204	mg/L	No
Cadmium	2017/12/12	0.0001	mg/L	No
Chromium	2017/12/12	0.001	mg/L	No
Mercury	2017/12/12	0.0001	mg/L	No
Selenium	2017/12/12	0.001	mg/L	No

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Uranium	2017/12/12	0.0011	mg/L	No
Nitrite	2017/03/07	0.05	mg/L	No
	2017/06/05	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/12	0.03	mg/L	No
Nitrate	2017/03/07	3.43	mg/L	No
	2017/06/05	3.65	mg/L	No
	2017/09/05	3.79	mg/L	No
	2017/12/12	3.54	mg/L	No
Sodium	2015/11/02	72.60	mg/L	Yes
	2015/11/12	70.10	mg/L	Yes

WELL H - MICHELLE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/19	0.0005	mg/L	No
Arsenic	2017/12/19	0.0013	mg/L	No
Barium	2017/12/19	0.0209	mg/L	No
Boron	2017/12/19	0.0047	mg/L	No
Cadmium	2017/12/19	0.0001	mg/L	No
Chromium	2017/12/19	0.001	mg/L	No
Mercury	2017/12/19	0.0001	mg/L	No
Selenium	2017/12/19	0.001	mg/L	No
Uranium	2017/12/19	0.001	mg/L	No
Nitrite	2017/06/21	0.05	mg/L	No
	2017/09/05	0.03	mg/L	No
	2017/12/19	0.03	mg/L	No
Nitrate	2017/06/21	1.54	mg/L	No
	2017/09/05	1.39	mg/L	No
	2017/12/19	1.67	mg/L	No
Sodium	2015/06/02	30.90	mg/L	Yes
	2015/06/02	34.40	mg/L	Yes
	2015/11/02	28.90	mg/L	Yes
	2015/11/12	26.20	mg/L	Yes

WELL I - I WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
Mercury				
Selenium				
Uranium				

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Nitrite				
Nitrate				
Sodium				

WELL J - Capreol

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.001	mg/L	No
Barium	2017/12/13	0.0168	mg/L	No
Boron	2017/12/13	0.0038	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No
Nitrite	2017/06/20	0.05	mg/L	No
	2017/09/07	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No
Nitrate	2017/06/20	0.1	mg/L	No
	2017/09/07	0.1	mg/L	No
	2017/12/13	0.1	mg/L	No
Sodium	2015/11/04	10.60	mg/L	No

WELL M - Capreol

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/13	0.0005	mg/L	No
Arsenic	2017/12/13	0.001	mg/L	No
Barium	2017/12/13	0.0373	mg/L	No
Boron	2017/12/13	0.003	mg/L	No
Cadmium	2017/12/13	0.0001	mg/L	No
Chromium	2017/12/13	0.001	mg/L	No
Mercury	2017/12/13	0.0001	mg/L	No
Selenium	2017/12/13	0.001	mg/L	No
Uranium	2017/12/13	0.001	mg/L	No
Nitrite	2017/02/16	0.05	mg/L	No
	2017/06/20	0.05	mg/L	No
	2017/09/07	0.03	mg/L	No
	2017/12/13	0.03	mg/L	No

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Nitrate	2017/02/16	0.1	mg/L	No
	2017/06/20	0.1	mg/L	No
	2017/09/07	0.1	mg/L	No
	2017/12/13	0.1	mg/L	No
Sodium	2015/11/04	10.90	mg/L	No

WELL Q- CHENIER

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/12	0.0005	mg/L	No
Arsenic	2017/12/12	0.001	mg/L	No
Barium	2017/12/12	0.0239	mg/L	No
Boron	2017/12/12	0.0094	mg/L	No
Cadmium	2017/12/12	0.0001	mg/L	No
Chromium	2017/12/12	0.001	mg/L	No
Mercury	2017/12/12	0.0001	mg/L	No
Selenium	2017/12/12	0.001	mg/L	No
Uranium	2017/12/12	0.001	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/19	0.05	mg/L	No
	2017/09/06	0.03	mg/L	No
	2017/12/12	0.03	mg/L	No
Nitrate	2017/03/06	1.22	mg/L	No
	2017/06/19	1.35	mg/L	No
	2017/09/06	1.34	mg/L	No
	2017/12/12	1.51	mg/L	No
Sodium	2015/11/03	8.15	mg/L	No

WELL R

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2017/12/19	0.0005	mg/L	No
Arsenic	2017/12/19	0.001	mg/L	No
Barium	2017/12/19	0.0242	mg/L	No
Boron	2017/12/19	0.002	mg/L	No
Cadmium	2017/12/19	0.0001	mg/L	No
Chromium	2017/12/19	0.001	mg/L	No
Mercury	2017/12/19	0.0001	mg/L	No
Selenium	2017/12/19	0.001	mg/L	No
Uranium	2017/12/19	0.001	mg/L	No
Nitrite	2017/03/06	0.05	mg/L	No
	2017/06/19	0.05	mg/L	No
	2017/09/06	0.03	mg/L	No
	2017/12/19	0.03	mg/L	No
Nitrate	2017/03/06	0.3	mg/L	No
	2017/06/19	0.37	mg/L	No
	2017/09/06	0.34	mg/L	No
	2017/12/19	0.5	mg/L	No
Sodium	2015/11/03	26.60	mg/L	Yes
	2015/11/13	27.20	mg/L	Yes

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing		mg/L	
Distribution		mg/L	

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)	2017	0.0198	mg/L	No

WELL A - DESCHENE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/12	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/12	0.0005	mg/L	No
Azinphos-methyl	2017/12/12	0.0002	mg/L	No
Benzene	2017/12/12	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/12	0.000005	mg/L	No
Bromoxynil	2017/12/12	0.00009	mg/L	No
Carbaryl	2017/12/12	0.001	mg/L	No
Carbofuran	2017/12/12	0.001	mg/L	No
Carbon Tetrachloride	2017/12/12	0.0002	mg/L	No
Chlorpyrifos	2017/12/12	0.0002	mg/L	No
Diazinon	2017/12/12	0.0002	mg/L	No
Dicamba	2017/12/12	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/12	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/12	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/12	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/12	0.0003	mg/L	No
Dichloromethane	2017/12/12	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/12	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/12	0.00008	mg/L	No
Diclofop-methyl	2017/12/12	0.00008	mg/L	No
Dimethoate	2017/12/12	0.0002	mg/L	No
Diquat	2017/12/12	0.0007	mg/L	No
Diuron	2017/12/12	0.005	mg/L	No
Glyphosate	2017/12/12	0.02	mg/L	No
Malathion	2017/12/12	0.0002	mg/L	No
Metolachlor	2017/12/12	0.0001	mg/L	No
Metribuzin	2017/12/12	0.0001	mg/L	No
Monochlorobenzene	2017/12/12	0.0005	mg/L	No
Paraquat	2017/12/12	0.0003	mg/L	No
Pentachlorophenol	2017/12/12	0.0003	mg/L	No
Phorate	2017/12/12	0.0001	mg/L	No

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Picloram	2017/12/12	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/12	0.00006	mg/L	No
Prometryne	2017/12/12	0.00006	mg/L	No
Simazine	2017/12/12	0.0002	mg/L	No
Terbufos	2017/12/12	0.0001	mg/L	No
Tetrachloroethylene	2017/12/12	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/12	0.0002	mg/L	No
Triallate	2017/12/12	0.0001	mg/L	No
Trichloroethylene	2017/12/12	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/12	0.0002	mg/L	No
Trifluralin	2017/12/12	0.0001	mg/L	No
Vinyl Chloride	2017/12/12	0.0001	mg/L	No
MCPA	2017/12/12	0.01	mg/L	No

WELL B - KENNETH WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/12	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/12	0.0005	mg/L	No
Azinphos-methyl	2017/12/12	0.0002	mg/L	No
Benzene	2017/12/12	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/12	0.000005	mg/L	No
Bromoxynil	2017/12/12	0.00009	mg/L	No
Carbaryl	2017/12/12	0.001	mg/L	No
Carbofuran	2017/12/12	0.001	mg/L	No
Carbon Tetrachloride	2017/12/12	0.0002	mg/L	No
Chlorpyrifos	2017/12/12	0.0002	mg/L	No
Diazinon	2017/12/12	0.0002	mg/L	No
Dicamba	2017/12/12	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/12	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/12	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/12	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/12	0.0003	mg/L	No
Dichloromethane	2017/12/12	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/12	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/12	0.00008	mg/L	No
Diclofop-methyl	2017/12/12	0.00008	mg/L	No
Dimethoate	2017/12/12	0.0002	mg/L	No
Diquat	2017/12/12	0.0007	mg/L	No
Diuron	2017/12/12	0.006	mg/L	No
Glyphosate	2017/12/12	0.02	mg/L	No
Malathion	2017/12/12	0.0002	mg/L	No
Metolachlor	2017/12/12	0.0001	mg/L	No
Metribuzin	2017/12/12	0.0001	mg/L	No
Monochlorobenzene	2017/12/12	0.0005	mg/L	No
Paraquat	2017/12/12	0.0003	mg/L	No
Pentachlorophenol	2017/12/12	0.0003	mg/L	No
Phorate	2017/12/12	0.0001	mg/L	No
Picloram	2017/12/12	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/12	0.00006	mg/L	No
Prometryne	2017/12/12	0.00006	mg/L	No
Simazine	2017/12/12	0.0002	mg/L	No

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Terbufos	2017/12/12	0.0001	mg/L	No
Tetrachloroethylene	2017/12/12	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/12	0.0002	mg/L	No
Triallate	2017/12/12	0.0001	mg/L	No
Trichloroethylene	2017/12/12	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/12	0.0002	mg/L	No
Trifluralin	2017/12/12	0.0001	mg/L	No
Vinyl Chloride	2017/12/12	0.0001	mg/L	No
MCPA	2017/12/12	0.01	mg/L	No

WELL C - PHILIPPE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/29	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/29	0.0005	mg/L	No
Azinphos-methyl	2017/12/29	0.0002	mg/L	No
Benzene	2017/12/29	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/29	0.000005	mg/L	No
Bromoxynil	2017/12/29	0.00009	mg/L	No
Carbaryl	2017/12/29	0.001	mg/L	No
Carbofuran	2017/12/29	0.001	mg/L	No
Carbon Tetrachloride	2017/12/29	0.0002	mg/L	No
Chlorpyrifos	2017/12/29	0.0002	mg/L	No
Diazinon	2017/12/29	0.0002	mg/L	No
Dicamba	2017/12/29	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/29	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/29	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/29	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/29	0.0003	mg/L	No
Dichloromethane	2017/12/29	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/29	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/29	0.00008	mg/L	No
Diclofop-methyl	2017/12/29	0.00008	mg/L	No
Dimethoate	2017/12/29	0.0002	mg/L	No
Diquat	2017/12/29	0.0006	mg/L	No
Diuron	2017/12/29	0.005	mg/L	No
Glyphosate	2017/12/29	0.02	mg/L	No
Malathion	2017/12/29	0.0002	mg/L	No
Metolachlor	2017/12/29	0.0001	mg/L	No
Metribuzin	2017/12/29	0.0001	mg/L	No
Monochlorobenzene	2017/12/29	0.0005	mg/L	No
Paraquat	2017/12/29	0.0003	mg/L	No
Pentachlorophenol	2017/12/29	0.0003	mg/L	No
Phorate	2017/12/29	0.0001	mg/L	No
Picloram	2017/12/29	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/29	0.00007	mg/L	No
Prometryne	2017/12/29	0.00006	mg/L	No
Simazine	2017/12/29	0.0002	mg/L	No
Terbufos	2017/12/29	0.0001	mg/L	No
Tetrachloroethylene	2017/12/29	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/29	0.0003	mg/L	No
Triallate	2017/12/29	0.0001	mg/L	No

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Trichloroethylene	2017/12/29	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/29	0.0002	mg/L	No
Trifluralin	2017/12/29	0.0001	mg/L	No
Vinyl Chloride	2017/12/29	0.0001	mg/L	No
MCPA	2017/12/29	0.01	mg/L	No

WELL D - FROST WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/18	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/18	0.0005	mg/L	No
Azinphos-methyl	2017/12/18	0.0002	mg/L	No
Benzene	2017/12/18	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/18	0.000005	mg/L	No
Bromoxynil	2017/12/18	0.00009	mg/L	No
Carbaryl	2017/12/18	0.001	mg/L	No
Carbofuran	2017/12/18	0.001	mg/L	No
Carbon Tetrachloride	2017/12/18	0.0002	mg/L	No
Chlorpyrifos	2017/12/18	0.0002	mg/L	No
Diazinon	2017/12/18	0.0002	mg/L	No
Dicamba	2017/12/18	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/18	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/18	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/18	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/18	0.0003	mg/L	No
Dichloromethane	2017/12/18	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/18	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/18	0.00008	mg/L	No
Diclofop-methyl	2017/12/18	0.00008	mg/L	No
Dimethoate	2017/12/18	0.0002	mg/L	No
Diquat	2017/12/18	0.0007	mg/L	No
Diuron	2017/12/18	0.005	mg/L	No
Glyphosate	2017/12/18	0.02	mg/L	No
Malathion	2017/12/18	0.0002	mg/L	No
Metolachlor	2017/12/18	0.0001	mg/L	No
Metribuzin	2017/12/18	0.0001	mg/L	No
Monochlorobenzene	2017/12/18	0.0005	mg/L	No
Paraquat	2017/12/18	0.0003	mg/L	No
Pentachlorophenol	2017/12/18	0.0003	mg/L	No
Phorate	2017/12/18	0.0001	mg/L	No
Picloram	2017/12/18	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/18	0.00006	mg/L	No
Prometryne	2017/12/18	0.00006	mg/L	No
Simazine	2017/12/18	0.0002	mg/L	No
Terbufos	2017/12/18	0.0001	mg/L	No
Tetrachloroethylene	2017/12/18	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/18	0.0003	mg/L	No
Triallate	2017/12/18	0.0001	mg/L	No
Trichloroethylene	2017/12/18	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/18	0.0002	mg/L	No
Trifluralin	2017/12/18	0.0001	mg/L	No
Vinyl Chloride	2017/12/18	0.0001	mg/L	No

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MCPA	2017/12/18	0.01	mg/L	No
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WELL E - NOTRE DAME WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No
Bromoxynil	2017/12/13	0.00009	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/13	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No
Diclofop-methyl	2017/12/13	0.00017	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.0007	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0003	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0003	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	mg/L	No

WELL F - LINDEN WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
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Alachlor	2017/12/12	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/12	0.0005	mg/L	No
Azinphos-methyl	2017/12/12	0.0002	mg/L	No
Benzene	2017/12/12	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/12	0.000005	mg/L	No
Bromoxynil	2017/12/12	0.00009	mg/L	No
Carbaryl	2017/12/12	0.001	mg/L	No
Carbofuran	2017/12/12	0.001	mg/L	No
Carbon Tetrachloride	2017/12/12	0.0002	mg/L	No
Chlorpyrifos	2017/12/12	0.0002	mg/L	No
Diazinon	2017/12/12	0.0002	mg/L	No
Dicamba	2017/12/12	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/12	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/12	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/12	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/12	0.0003	mg/L	No
Dichloromethane	2017/12/12	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/12	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/12	0.00008	mg/L	No
Diclofop-methyl	2017/12/12	0.00008	mg/L	No
Dimethoate	2017/12/12	0.0002	mg/L	No
Diquat	2017/12/12	0.0008	mg/L	No
Diuron	2017/12/12	0.005	mg/L	No
Glyphosate	2017/12/12	0.02	mg/L	No
Malathion	2017/12/12	0.0002	mg/L	No
Metolachlor	2017/12/12	0.0001	mg/L	No
Metribuzin	2017/12/12	0.0001	mg/L	No
Monochlorobenzene	2017/12/12	0.0005	mg/L	No
Paraquat	2017/12/12	0.0004	mg/L	No
Pentachlorophenol	2017/12/12	0.0003	mg/L	No
Phorate	2017/12/12	0.0001	mg/L	No
Picloram	2017/12/12	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/12	0.00006	mg/L	No
Prometryne	2017/12/12	0.00006	mg/L	No
Simazine	2017/12/12	0.0002	mg/L	No
Terbufos	2017/12/12	0.0001	mg/L	No
Tetrachloroethylene	2017/12/12	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/12	0.0003	mg/L	No
Triallate	2017/12/12	0.0001	mg/L	No
Trichloroethylene	2017/12/12	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/12	0.0002	mg/L	No
Trifluralin	2017/12/12	0.0001	mg/L	No
Vinyl Chloride	2017/12/12	0.0001	mg/L	No
MCPA	2017/12/12	0.01	mg/L	No

WELL G - PHARAND WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/12	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/12	0.0005	mg/L	No
Azinphos-methyl	2017/12/12	0.0002	mg/L	No
Benzene	2017/12/12	0.0001	mg/L	No

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Benzo(a)pyrene	2017/12/12	0.000005	mg/L	No
Bromoxynil	2017/12/12	0.00009	mg/L	No
Carbaryl	2017/12/12	0.001	mg/L	No
Carbofuran	2017/12/12	0.001	mg/L	No
Carbon Tetrachloride	2017/12/12	0.0002	mg/L	No
Chlorpyrifos	2017/12/12	0.0002	mg/L	No
Diazinon	2017/12/12	0.0002	mg/L	No
Dicamba	2017/12/12	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/12	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/12	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/12	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/12	0.0003	mg/L	No
Dichloromethane	2017/12/12	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/12	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/12	0.00008	mg/L	No
Diclofop-methyl	2017/12/12	0.00008	mg/L	No
Dimethoate	2017/12/12	0.0002	mg/L	No
Diquat	2017/12/12	0.0007	mg/L	No
Diuron	2017/12/12	0.005	mg/L	No
Glyphosate	2017/12/12	0.02	mg/L	No
Malathion	2017/12/12	0.0002	mg/L	No
Metolachlor	2017/12/12	0.0001	mg/L	No
Metribuzin	2017/12/12	0.0001	mg/L	No
Monochlorobenzene	2017/12/12	0.0005	mg/L	No
Paraquat	2017/12/12	0.0004	mg/L	No
Pentachlorophenol	2017/12/12	0.0003	mg/L	No
Phorate	2017/12/12	0.0001	mg/L	No
Picloram	2017/12/12	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/12	0.00006	mg/L	No
Prometryne	2017/12/12	0.00006	mg/L	No
Simazine	2017/12/12	0.0002	mg/L	No
Terbufos	2017/12/12	0.0001	mg/L	No
Tetrachloroethylene	2017/12/12	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/12	0.0003	mg/L	No
Triallate	2017/12/12	0.0001	mg/L	No
Trichloroethylene	2017/12/12	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/12	0.0002	mg/L	No
Trifluralin	2017/12/12	0.0001	mg/L	No
Vinyl Chloride	2017/12/12	0.0001	mg/L	No
MCPA	2017/12/12	0.01	mg/L	No

WELL H - MICHELLE WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/19	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/19	0.0005	mg/L	No
Azinphos-methyl	2017/12/19	0.0002	mg/L	No
Benzene	2017/12/19	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/19	0.000005	mg/L	No
Bromoxynil	2017/12/19	0.00009	mg/L	No
Carbaryl	2017/12/19	0.001	mg/L	No
Carbofuran	2017/12/19	0.001	mg/L	No

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Carbon Tetrachloride	2017/12/19	0.0002	mg/L	No
Chlorpyrifos	2017/12/19	0.0002	mg/L	No
Diazinon	2017/12/19	0.0002	mg/L	No
Dicamba	2017/12/19	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/19	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/19	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/19	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/19	0.0003	mg/L	No
Dichloromethane	2017/12/19	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/19	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/19	0.00008	mg/L	No
Diclofop-methyl	2017/12/19	0.00008	mg/L	No
Dimethoate	2017/12/19	0.0002	mg/L	No
Diquat	2017/12/19	0.0007	mg/L	No
Diuron	2017/12/19	0.006	mg/L	No
Glyphosate	2017/12/19	0.02	mg/L	No
Malathion	2017/12/19	0.0002	mg/L	No
Metolachlor	2017/12/19	0.0001	mg/L	No
Metribuzin	2017/12/19	0.0001	mg/L	No
Monochlorobenzene	2017/12/19	0.0005	mg/L	No
Paraquat	2017/12/19	0.0003	mg/L	No
Pentachlorophenol	2017/12/19	0.0003	mg/L	No
Phorate	2017/12/19	0.0001	mg/L	No
Picloram	2017/12/19	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/19	0.00006	mg/L	No
Prometryne	2017/12/19	0.00005	mg/L	No
Simazine	2017/12/19	0.0002	mg/L	No
Terbufos	2017/12/19	0.0001	mg/L	No
Tetrachloroethylene	2017/12/19	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/19	0.0003	mg/L	No
Triallate	2017/12/19	0.0001	mg/L	No
Trichloroethylene	2017/12/19	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/19	0.0002	mg/L	No
Trifluralin	2017/12/19	0.0001	mg/L	No
Vinyl Chloride	2017/12/19	0.0001	mg/L	No
MCPA	2017/12/19	0.01	mg/L	No

WELL I - I WELL

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Atrazine + N-dealkylated metabolites				
Azinphos-methyl				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlorpyrifos				
Diazinon				
Dicamba				

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1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Diquat				
Diuron				
Glyphosate				
Malathion				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
Trifluralin				
Vinyl Chloride				
MCPA				

WELL M - Capreol

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No
Bromoxynil	2017/12/13	0.0001	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No

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1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2,4 Dichlorophenol	2017/12/13	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No
Diclofop-methyl	2017/12/13	0.00017	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.0008	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0004	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0003	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	mg/L	No

WELL J - Capreol

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/13	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/13	0.0005	mg/L	No
Azinphos-methyl	2017/12/13	0.0002	mg/L	No
Benzene	2017/12/13	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/13	0.000005	mg/L	No
Bromoxynil	2017/12/13	0.0001	mg/L	No
Carbaryl	2017/12/13	0.001	mg/L	No
Carbofuran	2017/12/13	0.001	mg/L	No
Carbon Tetrachloride	2017/12/13	0.0002	mg/L	No
Chlorpyrifos	2017/12/13	0.0002	mg/L	No
Diazinon	2017/12/13	0.0002	mg/L	No
Dicamba	2017/12/13	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/13	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/13	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/13	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/13	0.0003	mg/L	No
Dichloromethane	2017/12/13	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/13	0.0002	mg/L	No

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2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/13	0.00008	mg/L	No
Diclofop-methyl	2017/12/13	0.00016	mg/L	No
Dimethoate	2017/12/13	0.0002	mg/L	No
Diquat	2017/12/13	0.0006	mg/L	No
Diuron	2017/12/13	0.006	mg/L	No
Glyphosate	2017/12/13	0.02	mg/L	No
Malathion	2017/12/13	0.0002	mg/L	No
Metolachlor	2017/12/13	0.0001	mg/L	No
Metribuzin	2017/12/13	0.0001	mg/L	No
Monochlorobenzene	2017/12/13	0.0005	mg/L	No
Paraquat	2017/12/13	0.0003	mg/L	No
Pentachlorophenol	2017/12/13	0.0003	mg/L	No
Phorate	2017/12/13	0.0001	mg/L	No
Picloram	2017/12/13	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/13	0.00006	mg/L	No
Prometryne	2017/12/13	0.00006	mg/L	No
Simazine	2017/12/13	0.0002	mg/L	No
Terbufos	2017/12/13	0.0001	mg/L	No
Tetrachloroethylene	2017/12/13	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/13	0.0003	mg/L	No
Triallate	2017/12/13	0.0001	mg/L	No
Trichloroethylene	2017/12/13	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/13	0.0002	mg/L	No
Trifluralin	2017/12/13	0.0001	mg/L	No
Vinyl Chloride	2017/12/13	0.0001	mg/L	No
MCPA	2017/12/13	0.01	mg/L	No

WELL Q- CHENIER

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/12	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/12	0.0005	mg/L	No
Azinphos-methyl	2017/12/12	0.0002	mg/L	No
Benzene	2017/12/12	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/12	0.000005	mg/L	No
Bromoxynil	2017/12/12	0.00009	mg/L	No
Carbaryl	2017/12/12	0.001	mg/L	No
Carbofuran	2017/12/12	0.001	mg/L	No
Carbon Tetrachloride	2017/12/12	0.0002	mg/L	No
Chlorpyrifos	2017/12/12	0.0002	mg/L	No
Diazinon	2017/12/12	0.0002	mg/L	No
Dicamba	2017/12/12	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/12	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/12	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/12	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/12	0.0003	mg/L	No
Dichloromethane	2017/12/12	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/12	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/12	0.00008	mg/L	No
Diclofop-methyl	2017/12/12	0.00008	mg/L	No
Dimethoate	2017/12/12	0.0002	mg/L	No

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Diquat	2017/12/12	0.0006	mg/L	No
Diuron	2017/12/12	0.005	mg/L	No
Glyphosate	2017/12/12	0.02	mg/L	No
Malathion	2017/12/12	0.0002	mg/L	No
Metolachlor	2017/12/12	0.0001	mg/L	No
Metribuzin	2017/12/12	0.0001	mg/L	No
Monochlorobenzene	2017/12/12	0.0005	mg/L	No
Paraquat	2017/12/12	0.0003	mg/L	No
Pentachlorophenol	2017/12/12	0.0003	mg/L	No
Phorate	2017/12/12	0.0001	mg/L	No
Picloram	2017/12/12	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/12	0.00006	mg/L	No
Prometryne	2017/12/12	0.00006	mg/L	No
Simazine	2017/12/12	0.0002	mg/L	No
Terbufos	2017/12/12	0.0001	mg/L	No
Tetrachloroethylene	2017/12/12	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/12	0.0002	mg/L	No
Triallate	2017/12/12	0.0001	mg/L	No
Trichloroethylene	2017/12/12	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/12	0.0002	mg/L	No
Trifluralin	2017/12/12	0.0001	mg/L	No
Vinyl Chloride	2017/12/12	0.0001	mg/L	No
MCPA	2017/12/12	0.01	mg/L	No

WELL R

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2017/12/19	0.0002	mg/L	No
Atrazine + N-dealkylated metabolites	2017/12/19	0.0005	mg/L	No
Azinphos-methyl	2017/12/19	0.0002	mg/L	No
Benzene	2017/12/19	0.0001	mg/L	No
Benzo(a)pyrene	2017/12/19	0.000005	mg/L	No
Bromoxynil	2017/12/19	0.00009	mg/L	No
Carbaryl	2017/12/19	0.001	mg/L	No
Carbofuran	2017/12/19	0.001	mg/L	No
Carbon Tetrachloride	2017/12/19	0.0002	mg/L	No
Chlorpyrifos	2017/12/19	0.0002	mg/L	No
Diazinon	2017/12/19	0.0002	mg/L	No
Dicamba	2017/12/19	0.00008	mg/L	No
1,2-Dichlorobenzene	2017/12/19	0.0002	mg/L	No
1,4-Dichlorobenzene	2017/12/19	0.0003	mg/L	No
1,2-Dichloroethane	2017/12/19	0.0002	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2017/12/19	0.0003	mg/L	No
Dichloromethane	2017/12/19	0.001	mg/L	No
2-4 Dichlorophenol	2017/12/19	0.0002	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2017/12/19	0.00008	mg/L	No
Diclofop-methyl	2017/12/19	0.00008	mg/L	No
Dimethoate	2017/12/19	0.0002	mg/L	No
Diquat	2017/12/19	0.0008	mg/L	No
Diuron	2017/12/19	0.005	mg/L	No
Glyphosate	2017/12/19	0.02	mg/L	No
Malathion	2017/12/19	0.0002	mg/L	No

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Metolachlor	2017/12/19	0.0001	mg/L	No
Metribuzin	2017/12/19	0.0001	mg/L	No
Monochlorobenzene	2017/12/19	0.0005	mg/L	No
Paraquat	2017/12/19	0.0004	mg/L	No
Pentachlorophenol	2017/12/19	0.0003	mg/L	No
Phorate	2017/12/19	0.0001	mg/L	No
Picloram	2017/12/19	0.00008	mg/L	No
Polychlorinated Biphenyls(PCB)	2017/12/19	0.00006	mg/L	No
Prometryne	2017/12/19	0.00006	mg/L	No
Simazine	2017/12/19	0.0002	mg/L	No
Terbufos	2017/12/19	0.0001	mg/L	No
Tetrachloroethylene	2017/12/19	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2017/12/19	0.0003	mg/L	No
Triallate	2017/12/19	0.0001	mg/L	No
Trichloroethylene	2017/12/19	0.0002	mg/L	No
2,4,6-Trichlorophenol	2017/12/19	0.0002	mg/L	No
Trifluralin	2017/12/19	0.0001	mg/L	No
Vinyl Chloride	2017/12/19	0.0001	mg/L	No
MCPA	2017/12/19	0.01	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	UOM	Date of Sample	Location

(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)

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

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	260006789
Drinking-Water System Name:	Vermilion Distribution System
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2017-01-01 To 2017-12-31

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u> Does your Drinking-Water System serve more than 10,000 people? Yes ☐ No ☒ Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐ Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. www.greatersudbury.ca TDS-Engineering Department	<u>Complete for all other Categories.</u> Number of Designated Facilities served: 0 Did you provide a copy of your annual report to all Designated Facilities you serve? Yes ☐ No ☒ Number of Interested Authorities you report to: 0 Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes ☐ No ☒
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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
Atikameksheng Anishnawbek	

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 ☐

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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

The City of Greater Sudbury purchases water from Vale to supply the Vermilion Distribution System. The City owned distribution system supplies the communities of Lively, Naughton, Whitefish and Copper Cliff. Additional service was provided in 2005 to supply Atikameksheng Anishnawbek, formerly known as the Whitefish First Nations Reserve. Water is treated by Vale at the Vermillion Water Treatment Plant to comply with O. Reg. 170/03. The City of Greater Sudbury has the responsibility of water quality monitoring within the Vermilion Distribution. The system includes the Walden water storage tank and Walden metering chamber; both located in the Walden Industrial Park and includes an online continuous chlorine analyzer.

List all water treatment chemicals used over this reporting period

No chemical addition. Distribution system only.

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

1) Watermain lining \$150,316.20

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

AWQI #	Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action
132242	2017/01/17	Chlorine Residual	<0.05	mg/L	Disinfectant restored/increased;	2017/01/18

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 #)
Distribution	275	0 to 0	0 to 0	65	10 to 80

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	0.00 - 4.99

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

NOTE: Record the unit of measure if it is **not** milligrams per litre.

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

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
Mercury				
Selenium				
Uranium				
Nitrite				
Nitrate				
Sodium				

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing		mg/L	
Distribution		mg/L	

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)	2017	0.0876	mg/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Atrazine + N-dealkylated metabolites				
Azinphos-methyl				

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Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlorpyrifos				
Diazinon				
Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Diquat				
Diuron				
Glyphosate				
Malathion				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
Trifluralin				
Vinyl Chloride				
MCPA				

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	UOM	Date of Sample	Location

(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)