

In addition to the 2,266 m³ of storage at Gilbert, storage in the distribution system is provided via the 2,000 m³ North Paris elevated storage tank located at 67 Woodslee Ave, the Sharpe Reservoir in-ground storage located at 11 Chapel St., consisting of two cells each with an operating capacity of 2,700 m³, and the 3,700m³ Oak Park elevated storage tank located at 557 Paris Road.

There are approximately 7704 residential and 644 industrial/commercial/institutional connections to the Paris water system.

GILBERT WATER SUPPLY FACILITIES

The Gilbert Water Supply Facility consists of:

- a) Eight drilled wells. Two wells (P28 & P29) are completed in the bedrock and are equipped with submersible pumps capable of pumping 37.9 l/s each. The other six wells (P210, P211, P212, P213, P214 & P215) are completed in the overburden and are equipped with submersible pumps with a total overburden well capacity of 50 l/s. (PTTW limits production to 35 l/s on a 7 day running average.);
- b) Two ultra violet reactors (1 duty and 1 standby) for primary disinfection of water from the overburden wells;
- c) A sodium hypochlorite dosing system to provide primary and secondary disinfection via chlorination;
- d) A hydrofluorosilicic acid dosing system to provide fluoridation;
- e) One 880 m³ and one 1,386 m³ in-ground baffled storage reservoirs and two 124 m³ clear wells;
- f) Three 85.4 l/s high lift booster pumps (two duty and one standby) that pump the water to the distribution system; and
- g) A maximum rated capacity of 10,870 m³/day

Emergency standby power capable of powering full capacity of the facility is provided by a 600 kw diesel motor driven generator.

The wellfield is in a rural location surrounded by green space and agricultural lands. There are some institutional, commercial, residential and light industrial land uses nearby and an aggregate mine immediately east of the farm field east of the water plant area.

List all water treatment chemicals used over this reporting period

12 % sodium hypochlorite solution used for disinfection

25 % hydrofluorosilicic acid solution used for fluoridation

Were any significant expenses incurred to?

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

Brief description and a breakdown of monetary expenses incurred:

Inspection, cleaning and repair, P210 – \$14K

Inspection, cleaning and repair, P211 – \$14K

Replacement of P28 motor – \$10K

Replacement, UVT analyzer – \$20K

PLC Upgrade (shared cost between all Brant water systems) – \$100K

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
None					

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	# of Samples	Range of E.Coli or Fecal Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)	# of HPC Samples	Range of HPC Results (cfu/1ml)
Raw Well P28	56	0-0	0-4	0-53	56	0-40
Raw Well P29	52	0-0	0-0	0-1	52	0-40
Raw Well P210	50	0-0	0-0	0-5	50	0-30
Raw Well P211	52	0-0	0-0	0-2	52	0-280
Raw Well P212	52	0-0	0-0	0-420	52	0-10
Raw Well P213	52	0-0	0-1	0-1	52	0-1750
Raw Well P214	52	0-0	0-2	0-20	52	0-10
Raw Well P215	52	0-0	0-0	0-2	52	0-30
Treated	52	0-0	0-0	0-1	52	0-90

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
Turbidity –Raw Manual Well P28	12	0.06-0.19 NTU
Turbidity –Raw Manual Well P29	12	0.05-0.19 NTU
Turbidity –Raw Manual Well P210	12	0.05-0.15 NTU
Turbidity –Raw Manual Well P211	12	0.05-0.15 NTU
Turbidity –Raw Manual Well P212	12	0.04-0.15 NTU
Turbidity –Raw Manual Well P213	12	0.05-0.11 NTU
Turbidity –Raw Manual Well P214	12	0.06-0.19 NTU
Turbidity –Raw Manual Well P215	12	0.07-0.19 NTU

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Atrazine + Desethyl atrazine	01/05/21	<1.0	µg/l	5	-	No
Benzene	01/05/21	<0.10	µg/l	1	-	No
Benzo(a)pyrene	01/05/21	<0.0090	µg/l	0.01	-	No
Bromoxynil	01/05/21	<0.50	µg/l	5	-	No
Carbaryl	01/05/21	<5.0	µg/l	90	-	No
Carbofuran	01/05/21	<5.0	µg/l	90	-	No
Carbon Tetrachloride	01/05/21	<0.10	µg/l	2	-	No
Chlorobenzene	01/05/21	<0.10	µg/l	80	-	No
Chlorpyrifos	01/05/21	<1.0	µg/l	90	-	No
Desethyl atrazine	01/05/21	<0.50	µg/l	-	-	No
Diazinon	01/05/21	<1.0	µg/l	20	-	No
Dicamba	01/05/21	<1.0	µg/l	120	-	No
Diclofop-methyl	01/05/21	<0.90	µg/l	9	-	No
Dimethoate	01/05/21	<2.5	µg/l	20	-	No
Diquat	01/05/21	<7.0	µg/l	70	-	No
Diuron	01/05/21	<10	µg/l	150	-	No
Ethylbenzene	01/05/21	<0.10	µg/l	140	2.4	No
Glyphosate	01/05/21	<10	µg/l	280	-	No
Guthion	01/05/21	<2.0	µg/l	20	-	No
Malathion	01/05/21	<5.0	µg/l	190	-	No
MCPA	01/05/21	<10	µg/l	100	-	No
Methylene Chloride	01/05/21	<0.50	µg/l	50	-	No
Metolachlor	01/05/21	<0.50	µg/l	50	-	No
Metribuzin	01/05/21	<5.0	µg/l	80	-	No
Paraquat	01/05/21	<1.0	µg/l	10	-	No
Pentachlorophenol	01/05/21	<0.50	µg/l	60	-	No
Phorate	01/05/21	<0.50	µg/l	2	-	No
Picloram	01/05/21	<5.0	µg/l	190	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Total PCB	01/05/21	<0.05	µg/l	3	-	No
Prometryne	01/05/21	<0.25	µg/l	1	-	No
Simazine	01/05/21	<1.0	µg/l	10	-	No
Terbufos	01/05/21	<0.50	µg/l	1	-	No
Tetrachloroethylene	01/05/21	<0.10	µg/l	10	-	No
Toluene	01/05/21	<0.20	µg/l	60	24	No
Triallate	01/05/21	<1.0	µg/l	230	-	No
Trichloroethylene	01/05/21	<0.10	µg/l	5	-	No
Trifluralin	01/05/21	<1.0	µg/l	45	-	No
Vinyl Chloride	01/05/21	<0.20	µg/l	1	-	No
o-Xylene	01/05/21	<0.10	µg/l	-	-	No
P+m-Xylene	01/05/21	<0.10	µg/l	-	-	No

Non regulatory RAW WATER samples were taken from Gilbert Wells P28, P29, P210, P211, P213, P214 and P215 to gain operational information and were analyzed for the parameters listed in the table below. Unless otherwise stated, results are reported in mg/l.

Parameter	Sample Date (mm/dd/yy)	P210	P211	P212	P213	P214	P215	P28	P29
Chloride	02/03/21	29	30	32	33	37	44	36	28
	05/04/21		29	34	34	39	46	41	29
	05/12/21	29							
	08/03/21	31	31	34	34	39	43	39	22
	11/01/21	30	30	33	33	38	40	38	25
Nitrate	02/03/21	11.2	9.05	8.44	8.87	8.32	6.94	<0.10	0.34
	05/04/21		9.41	7.81	8.13	7.64	6.31	<0.10	0.26
	05/12/21	11.1							
	08/03/21	9.97	8.52	7.52	7.61	6.82	6.19	<0.10	<0.10
	11/01/21	10.3	8.64	7.76	7.92	7.40	6.14	<0.10	0.26
Sulphate	02/03/21	29	30	29	29	26	24	340	480
	05/04/21		30	28	28	25	23	350	510
	05/12/21	30							
	08/03/21	31	29	29	29	26	23	360	640

Parameter	Sample Date (mm/dd/yy)	P210	P211	P212	P213	P214	P215	P28	P29
	11/01/21	30	30	28	28	25	23	330	530
pH	02/03/21	7.47	7.45	7.43	7.49	7.43	7.40	7.33	7.39
	05/04/21		7.47	7.47	7.47	7.50	7.45	7.36	7.48
	05/12/21	7.66							
	08/03/21	7.35	7.43	7.55	7.49	7.52	7.27	7.27	7.25
	11/01/21	7.47	7.45	7.47	7.46	7.41	7.40	7.33	7.30
Hardness	02/03/21	330	320	330	330	340	340	610	800
	05/04/21		330	330	330	330	340	620	830
	05/12/21	340							
	08/03/21	320	320	310	310	320	320	640	900
	11/01/21	330	330	320	320	330	330	640	860
Calcium	02/03/21	90	87	89	88	92	90	180	250
	05/04/21		91	89	90	91	92	190	260
	05/12/21	93							
	08/03/21	86	86	85	85	85	87	190	280
	11/01/21	89	89	87	87	89	90	190	270
Magnesium	02/03/21	27	26	27	26	28	27	39	44
	05/04/21		26	26	26	26	26	38	44
	05/12/21	27							
	08/03/21	25	25	25	25	25	25	40	47
	11/01/21	25	25	25	25	26	26	40	44

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample (mm/dd/yy)
None			

TELFER WATER SUPPLY FACILITY

The Telfer Water Supply Facility consists of:

- a) Two drilled wells. One well (P31) is completed in the overburden and one well (P32) is completed in the bedrock. Both wells are equipped with submersible pumps capable of pumping 39.7 l/s each;
- b) A sodium hypochlorite dosing system to provide primary and secondary disinfection via chlorination;
- c) A hydrofluorosilicic acid dosing system to provide fluoridation;
- d) Two 52.11 m³ chlorine contact tanks; and
- e) A maximum rated capacity of 6,550 m³/day.

Emergency standby power capable of powering full capacity of the facility is provided by a 350 kw diesel motor driven generator.

The wellfield is located in a rural setting. Surrounding land uses include agriculture and green space as well as a nearby aggregate mine.

List all water treatment chemicals used over this reporting period

12 % sodium hypochlorite solution used for disinfection

25 % hydrofluorosilicic acid solution used for fluoridation

Were any significant expenses incurred to?

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

Brief description and a breakdown of monetary expenses incurred:

Contact tank inspection – \$12K

Roof repair – \$20K

PLC Upgrade (shared cost between all Brant water systems) – \$100K

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
None					

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	# of Samples	Range of E.Coli or Fecal Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)	# of HPC Samples	Range of HPC Results (cfu/1ml)
Raw Well P31	52	0-0	0-0	0-1	52	0-30

	# of Samples	Range of E.Coli or Fecal Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)	# of HPC Samples	Range of HPC Results (cfu/1ml)
Raw Well P32	52	0-0	0-0	0-0	52	0-30
Treated	52	0-0	0-0	0-0	52	0-30

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
Turbidity-Raw Manual Well P31	12	0.05-0.17 NTU
Turbidity-Raw Manual Well P32	12	0.05-0.19 NTU
Free Chlorine Treated Online	8760	0.03* - 1.29
Fluoride (If the DWS provides fluoridation)	8760	0.40-0.83

*During period of low chlorine residual no water from Telfer was distributed to any customers. Disinfection was restored to proper levels. Bacti samples confirmed contact tanks remained disinfected.

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

For continuous monitors use 8760 as the number of samples.

Summary of additional testing and sampling carried out in accordance with the requirements of an approval, order or other legal instrument

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
None				

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

MAC refers to 'Maximum Acceptable Concentration' as listed in O.Reg 169/03 Schedule 1, 2 or 3. **A/O** is the Aesthetic Objective as listed in table 4 of Technical Support Document for Ontario Drinking-water Quality Standards, Objectives and Guidelines. A '-' indicates the chemical has not been assigned a **MAC** or an **A/O** by the Ministry of Environment, Conservation and Parks.

Schedule 23 (Telfer POE)

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Antimony	01/05/21	<0.60	ug/l	6	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Arsenic	01/05/21	<1.0	ug/l	10	-	No
Barium	01/05/21	82	ug/l	1000	-	No
Boron	01/05/21	<50	ug/l	5000	-	No
Cadmium	01/05/21	<0.10	ug/l	5	-	No
Chromium	01/05/21	<1.0	ug/l	50	-	No
Mercury	01/05/21	<0.10	ug/l	1	-	No
Selenium	01/05/21	<5.0	ug/l	50	-	No
Uranium	01/05/21	<5.0	ug/l	20	-	No

General Chemistry (Telfer POE)

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Conductivity	01/05/21	776	umhos/cm	-	-	-
Computed Conductivity	01/05/21	765	uS/cm	-	-	-
Conductivity % Difference	01/05/21	-1	%	-	-	-
pH	01/05/21	7.94	pH	-	6.5-8.5	-
Saturation pH	01/05/21	7.00	pH	-	-	-
Langelier Index	01/05/21	1	No unit	-	-	-
Fluoride (F)	01/05/21	<0.50	mg/l	1.5	-	No
	03/01/21	0.38	mg/l	1.5	-	No
Hardness (as CaCO ₃)	01/05/21	419	mg/l	-	80-100	-
Total Suspended Solids (TSS)	01/05/21	<3.0	mg/l	-	-	-
Total Dissolved Solids	01/05/21	474	mg/l	-	500	-
TDS (Calculated)	01/05/21	477	mg/l	-	-	-
Total Alkalinity (as CaCO ₃)	01/05/21	249	mg/l	-	30-500	-
Total Ammonia (as N)	01/05/21	<0.010	mg/l	-	-	-
Nitrate-N	01/05/21	6.58	mg/l	10	-	No
	02/11/21	6.14	mg/l	10	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
	05/06/21	6.25	mg/l	10	-	No
	08/04/21	4.86	mg/l	10	-	No
	11/02/21	6.20	mg/l	10	-	No
Nitrite-N	01/05/21	<0.050	mg/l	1	-	No
	02/11/21	<0.010	mg/l	1	-	No
	05/06/21	<0.010	mg/l	1	-	No
	08/04/21	<0.010	mg/l	1	-	No
	11/02/21	<0.010	mg/l	1	-	No
Nitrate & Nitrite (as N)	01/05/21	6.58	mg/l	10	-	No
	02/11/21	6.14	mg/l	10	-	No
	05/06/21	6.25	mg/l	10	-	No
	08/04/21	4.86	mg/l	10	-	No
	11/02/21	6.20	mg/l	10	-	No
Phosphate-P (ortho)	01/05/21	<0.0030	mg/l	-	-	-
Sulphate	01/05/21	114	mg/l	-	500	-
Anion Sum	01/05/21	7.64	me/l	-	-	-
Cation Sum	01/05/21	8.81	me/l	-	-	-
Ion Balance	01/05/21	115	%	-	-	-
Cation Anion Balance	01/05/21	7	%	-	-	-
Dissolved Organic Carbon	01/05/21	1.97	mg/l	-	5	-
Total Organic Carbon	01/05/21	2.94	mg/l	-	-	-
Turbidity	01/05/21	0.16	NTU	-	5	-

Dissolved Metals (Telfer POE)

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Aluminium	01/05/21	<0.0050	mg/l	-	0.1	-
Beryllium	01/05/21	<0.00010	mg/l	-	-	-
Bismuth	01/05/21	<0.000050	mg/l	-	-	-
Calcium	01/05/21	121	mg/l	-	-	-
Cobalt	01/05/21	<0.00010	mg/l	-	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Chloride	01/05/21	24.3	mg/l	-	250	-
Copper	01/05/21	0.00537	mg/l	-	1	-
Iron	01/05/21	<0.010	mg/l	-	0.3	-
Lead	01/05/21	<0.000050	mg/l	0.01	-	No
Lithium	01/05/21	0.0045	mg/l	-	-	-
Magnesium	01/05/21	28.4	mg/l	-	-	-
Manganese	01/05/21	<0.00050	mg/l	-	0.05	-
Molybdenum	01/05/21	0.00419	mg/l	-	-	-
Nickel	01/05/21	<0.00050	mg/l	-	-	-
Phosphorus	01/05/21	<0.050	mg/l	-	-	-
Potassium	01/05/21	1.35	mg/l	-	-	-
Silicon (total)	01/05/21	5400	ug/l	-	-	-
Silicon (dissolved)	01/05/21	5.72	mg/l	-	-	-
Silicon (as SiO ₂) dissolved	01/05/21	12.2	mg/l	-	-	-
Silver	01/05/21	<0.000050	mg/l	-	-	-
Sodium	01/05/21	9.11	mg/l	20	200	No
Strontium	01/05/21	1.52	mg/l	-	-	-
Thallium	01/05/21	0.000011	mg/l	-	-	-
Tin	01/05/21	<0.00010	mg/l	-	-	-
Titanium	01/05/21	<0.00030	mg/l	-	-	-
Tungsten	01/05/21	<0.00010	mg/l	-	-	-
Vanadium	01/05/21	<0.00050	mg/l	-	-	-
Zinc	01/05/21	0.0016	<mg/l	-	5	-
Zirconium	01/05/21	<0.00030	mg/l	-	-	-

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

Pesticides (Telfer POE)

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Aldrin	01/05/21	<0.0080	ug/L	-	-	-
alpha-BHC	01/05/21	<0.0080	ug/L	-	-	-
beta-BHC	01/05/21	<0.10	ug/L	-	-	-
delta-BHC	01/05/21	<0.10	ug/L	-	-	-
a-chlordane	01/05/21	<0.0080	ug/L	-	-	-
g-chlordane	01/05/21	<0.0080	ug/L	-	-	-
Gamma-hexachlorocyclohexane	01/05/21	<0.0080	ug/L	-	-	-
o,p-DDD	01/05/21	<0.10	ug/L	-	-	-
pp-DDD	01/05/21	<0.10	ug/L	-	-	-
o,p-DDE	01/05/21	<0.0040	ug/L	-	-	-
pp-DDE	01/05/21	<0.10	ug/L	-	-	-
op-DDT	01/05/21	<0.0040	ug/L	-	-	-
pp-DDT	01/05/21	<0.0040	ug/L	-	-	-
Dieldrin	01/05/21	<0.10	ug/L	-	-	-
alpha-Endosulfan	01/05/21	<0.0070	ug/L	-	-	-
beta-Endosulfan	01/05/21	<0.0070	ug/L	-	-	-
Endosulfan Sulfate	01/05/21	<0.0070	ug/L	-	-	-
Endrin	01/05/21	<0.010	ug/L	-	-	-
Endrin Aldehyde	01/05/21	<0.10	ug/L	-	-	-
Heptachlor	01/05/21	<0.0080	ug/L	-	-	-
Heptachlor Epoxide	01/05/21	<0.0080	ug/L	-	-	-
Hexachlorobenzene	01/05/21	<0.0080	ug/L	-	-	-
Methoxychlor	01/05/21	<0.0080	ug/L	900	-	No
Mirex	01/05/21	<0.0080	ug/L	-	-	-
Oxychlordane	01/05/21	<0.0080	ug/L	-	-	-
2,4-DP	01/05/21	<5.0	ug/L	-	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Dinoseb	01/05/21	<5.0	ug/L	10	-	No
Mecoprop	01/05/21	<5.0	ug/L	-	-	-
2,4,5-T	01/05/21	<5.0	ug/L	280	20	No
2,4,5-TP	01/05/21	<5.0	ug/L	-	-	-
Ametryn	01/05/21	<0.10	ug/L	-	-	-
Atrazine	01/05/21	<0.10	ug/L	-	-	-
Bendiocarb	01/05/21	<0.50	ug/L	40	-	No
Cyanazine	01/05/21	<0.10	ug/L	10	-	No
Atrazine Desethyl	01/05/21	<0.10	ug/L	-	-	-
Parathion	01/05/21	<0.10	ug/L	50	-	No
Methyl Parathion	01/05/21	<0.10	ug/L	-	-	-
Temephos	01/05/21	<1.0	ug/L	280	-	No
Terbutryn	01/05/21	<0.10	ug/L	-	-	-

Schedule 24 (Telfer POE)

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
1,1-Dichloroethylene (vinylidene chloride)	01/05/21	<0.50	ug/L	14	-	No
1,2-Dichlorobenzene	01/05/21	<0.50	ug/L	200	3	No
1,2-Dichloroethane	01/05/21	<0.50	ug/L	5	-	No
1,4-Dichlorobenzene	01/05/21	<0.50	ug/L	5	1	No
2,3,4,6-Tetrachlorophenol	01/05/21	<0.50	ug/L	100	1	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	01/05/21	<5.0	ug/L	280	20	No
2,4,6-Trichlorophenol	01/05/21	<0.50	ug/L	5	2	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	01/05/21	<0.0010	ug/L	0.1	-	No
2-4 Dichlorophenol	01/05/21	<0.30	ug/L	900	0.3	No
AMPA	01/05/21	<0.50	ug/L	-	-	-
Alachlor	01/05/21	<0.10	ug/L	5	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Aroclor 1242	01/05/21	<0.020	ug/L	-	-	-
Aroclor 1254	01/05/21	<0.020	ug/L	-	-	-
Aroclor 1260	01/05/21	<0.020	ug/L	-	-	-
Atrazine	01/05/21	<0.10	ug/L	-	-	-
Atrazine + N-dealkylated metabolites (Atrazine+Desethyl-atrazine)	01/05/21	<0.20	ug/L	5	-	No
Benzene	01/05/21	<0.50	ug/L	1	-	No
Benzo(a)pyrene	01/05/21	<0.0050	ug/L	0.01	-	No
Bromoxynil	01/05/21	<0.0010	ug/L	0.005	-	No
Carbaryl	01/05/21	<0.50	ug/L	90	-	No
Carbofuran	01/05/21	<0.50	ug/L	90	-	No
Carbon Tetrachloride	01/05/21	<0.20	ug/L	2	-	No
Chlorobenzene (Monochlorobenzene)	01/05/21	<0.50	ug/L	80	30	No
Chlorpyrifos	01/05/21	<0.10	ug/L	90	-	No
Diazinon	01/05/21	<0.10	ug/L	20	-	No
Desethyl-atrazine	01/05/21	<0.10	ug/L	-	-	-
Dicamba	01/05/21	<0.0010	ug/L	0.12	-	No
Diclofop-methyl	01/05/21	<0.10	ug/L	9	-	No
Dimethoate	01/05/21	<0.10	ug/L	20	-	No
Diquat	01/05/21	<1.0	ug/L	70	-	No
Diuron	01/05/21	<1.0	ug/L	150	-	No
Ethylbenzene	01/05/21	<0.50	ug/L	140	2.4	No
Glyphosate	01/05/21	<5.0	ug/L	280	-	No
Guthion (Azinphos-methyl)	01/05/21	<0.10	ug/L	20	-	No
Malathion	01/05/21	<0.10	ug/L	-	-	-
MCPA	01/05/21	<0.0010	ug/L	0.1	-	No
Methylene Chloride (Dichloromethane)	01/05/21	<5.0	ug/L	50	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Metolachlor	01/05/21	<0.10	ug/L	50	-	No
Metribuzin	01/05/21	<1.0	ug/L	80	-	No
Paraquat	01/05/21	<1.0	ug/L	10	-	No
Pentachlorophenol	01/05/21	<0.50	ug/L	60	30	No
Phorate	01/05/21	<0.10	ug/L	2	-	No
Picloram	01/05/21	<0.0010	ug/L	0.19	-	No
Polychlorinated Biphenyls (PCB) total	01/05/21	<0.035	ug/L	3	-	No
Prometryne	01/05/21	<0.10	ug/L	1	-	No
Prometon	01/05/21	<0.10	ug/L	-	-	-
Propazine	01/05/21	<0.10	ug/L	-	-	-
Simazine	01/05/21	<0.10	ug/L	10	-	No
Temephos	01/05/21	<1.0	ug/L	280	-	No
Terbufos	01/05/21	<0.10	ug/L	1	-	No
Tetrachloroethylene	01/05/21	<0.50	ug/L	10	-	No
Triallate	01/05/21	<0.10	ug/L	230	-	No
Trichloroethylene	01/05/21	<0.50	ug/L	5	-	No
Toluene	01/05/21	<0.50	ug/L	60	24	No
Trifluralin	01/05/21	<0.10	ug/L	45	-	No
Vinyl Chloride	01/05/21	<0.20	ug/L	1	-	No
m/p-xylene	01/05/21	<1.0	ug/L	-	-	-
o-xylene	01/05/21	<0.50	ug/L	-	-	-
Xylenes (Total)	01/05/21	<1.5	ug/L	90	300	No

Non regulatory RAW WATER samples were taken from wells P31 and P32. The samples were taken to gain operational information and were analyzed for the parameters listed in the table below:

Parameter	Sample Date (mm/dd/yy)	Results P31	Results P32	Unit of Measure
Chloride	02/03/21	22	24	mg/l
	05/04/21	22	25	mg/l
	08/03/21	23	25	mg/l
	11/01/21	21	24	mg/l

Parameter	Sample Date (mm/dd/yy)	Results P31	Results P32	Unit of Measure
Nitrate	02/03/21	7.96	5.33	mg/l
	05/04/21	7.92	5.43	mg/l
	08/03/21	6.66	4.55	mg/l
	11/01/21	7.75	5.19	mg/l
Sulphate	02/03/21	37	200	mg/l
	05/04/21	38	180	mg/l
	08/03/21	62	280	mg/l
	11/01/21	42	230	mg/l
pH	02/03/21	7.55	7.39	pH
	05/04/21	7.68	7.33	pH
	08/03/21	7.51	7.39	pH
	11/01/21	7.53	7.51	pH
Hardness	02/03/21	330	490	mg/l
	05/04/21	320	470	mg/l
	08/03/21	340	530	mg/l
	11/01/21	330	500	mg/l
Calcium	02/03/21	87	140	mg/l
	05/04/21	88	140	mg/l
	08/03/21	91	160	mg/l
	11/01/21	88	150	mg/l
Magnesium	02/03/21	27	31	mg/l
	05/04/21	26	29	mg/l
	08/04/21	27	32	mg/l
	11/01/21	26	31	mg/l

List any Inorganic or Organic (treated water) parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Date of Sample (mm/dd/yy)	Result	Unit of Measure
Nitrate*	01/05/21	6.58	mg/l
	02/11/21	6.14	mg/l
	05/06/21	6.25	mg/l
	11/02/21	6.20	mg/l

*The Technical Support Document for Ontario Drinking Water Quality Standards, Objectives and Guidelines describes the following regarding nitrates:

“The maximum acceptable concentration of nitrates in drinking water is 10 mg/L as nitrogen. Nitrates are present in water (particularly ground water) as a result of decay of plant or animal material, the use of agricultural fertilizers, domestic sewage or treated wastewater contamination, or geological formations containing soluble nitrogen compounds. There is a risk that babies and small children may suffer blood related problems (methaemoglobinaemia) with excess nitrate intake. The nitrate ion is not directly responsible for this condition, but must first be reduced to the nitrite ion by intestinal bacteria. The nitrite reacts with the iron of the haemoglobin in red blood cells which are then prevented from carrying oxygen to the body tissues.

Nitrate poisoning, in terms of methaemoglobinaemia, from drinking water appears to be restricted to susceptible infants. Older children and adults drinking the same water are unaffected. Most water-related cases of methaemoglobinaemia have been associated with the use of water containing more than 10 mg/L nitrate as nitrogen. In Canada, no cases of the condition have been reported where the nitrate concentration was consistently less than the maximum acceptable concentration. Where both nitrate and nitrite are present, the total nitrate plus nitrite-nitrogen concentration should not exceed 10 mg/L. In areas where the nitrate content of water is known to exceed the maximum acceptable concentration the public should be informed by the appropriate health authority of the potential dangers of using water for infants.”

Additional Non Regulatory Raw Water Sampling Performed

Note: Testing reflects that imposed on Dufferin for the aggregate washing operation of their Paris Pit.

Schedule 23 (Telfer Raw Water) Note: MAC and A/O apply only to treated water. They are added for reference.

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Antimony	05/04/21	<0.60	<0.60	ug/L	6	-
	08/03/21	<0.60	<0.60	ug/L	6	-
	12/06/21	<0.60	<0.60	ug/L	6	-
Arsenic	05/04/21	<1.0	<1.0	ug/L	10	-
	08/03/21	<1.0	<1.0	ug/L	10	-
	12/06/21	<1.0	<1.0	ug/L	10	-
Barium	05/04/21	122	37	ug/L	1000	-
	08/03/21	106	38	ug/L	1000	-
	12/06/21	112	36	ug/L	1000	-
Boron	05/04/21	<50	<50	ug/L	5000	-
	08/03/21	<50	<50	ug/L	5000	-
	12/06/21	<50	<50	ug/L	5000	-
Cadmium	05/04/21	<0.10	<0.10	ug/L	5	-
	08/03/21	<0.10	<0.10	ug/L	5	-
	12/06/21	<0.10	<0.10	ug/L	5	-
Chromium	05/04/21	<1.0	<1.0	ug/L	50	-
	08/03/21	<1.0	<1.0	ug/L	50	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	12/06/21	<1.0	<1.0	ug/L	50	-
Mercury	05/04/21	<0.10	<0.10	ug/L	1	-
	08/03/21	<0.10	<0.10	ug/L	1	-
	12/06/21	<0.10	<0.10	ug/L	1	-
Selenium	05/04/21	<5.0	<5.0	ug/L	50	-
	08/03/21	<5.0	<5.0	ug/L	50	-
	12/06/21	<5.0	<5.0	ug/L	50	-
Uranium	05/04/21	<5.0	<5.0	ug/L	20	-
	08/03/21	<5.0	<5.0	ug/L	20	-
	12/06/21	<5.0	<5.0	ug/L	20	-

General Chemistry (Telfer Raw Water) Note: MAC and A/O apply only to treated water. They are added for reference.

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Conductivity	05/04/21	589	801	umhos/cm	-	-
	08/03/21	680	1010	umhos/cm	-	-
	12/06/21	677	951	umhos/cm	-	-
Computed Conductivity	05/04/21	596	861	uS/cm	-	-
	08/03/21	619	1020	uS/cm	-	-
	12/06/21	609	930	uS/cm	-	-
Conductivity % Difference	05/04/21	1	7	%	-	-
	08/03/21	-9	1	%	-	-
	12/06/21	-11	-2	%	-	-
pH	05/04/21	8.21	8.00	pH	-	6.5-8.5
	08/03/21	8.21	8.01	pH	-	6.5-8.5
	12/06/21	8.15	8.03	pH	-	6.5-8.5
Saturation pH	05/04/21	7.14	7.05	pH	-	-
	08/03/21	7.16	6.93	pH	-	-
	12/06/21	7.13	6.98	pH	-	-
Fluoride	05/04/21	0.10	0.26	mg/l	1.5	-
	08/03/21	0.11	0.18	mg/l	1.5	-
	12/06/21	<0.10	0.25	mg/l	1.5	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Hardness (as CaCO ₃)	05/04/21	352	481	mg/l	-	80-100
	08/03/21	346	539	mg/l	-	80-100
	12/06/21	325	478	mg/l	-	80-100
Total Suspended Solids (TSS)	05/04/21	<3.0	<3.0	mg/l	-	-
	08/03/21	<3.0	<3.0	mg/l	-	-
	12/06/21	<3.0	<3.0	mg/l	-	-
Total Dissolved Solids	05/04/21	359	576	mg/l	-	500
	08/03/21	400	686	mg/l	-	500
	12/06/21	373	619	mg/l	-	500
TDS (Calculated)	05/04/21	354	529	mg/l	-	-
	08/03/21	374	649	mg/l	-	-
	12/06/21	378	595	mg/l	-	-
Total Alkalinity (as CaCO ₃)	05/04/21	216	197	mg/l	-	30-500
	08/03/21	216	240	mg/l	-	30-500
	12/06/21	251	243	mg/l	-	30-500
Total Ammonia (as N)	05/04/21	<0.010	<0.010	mg/l	-	-
	08/03/21	<0.010	<0.010	mg/l	-	-
	12/06/21	<0.010	<0.010	mg/l	-	-
Nitrate-N	05/04/21	7.82	5.52	mg/l	10	-
	08/03/21	6.88	4.74	mg/l	10	-
	12/06/21	7.46	5.22	mg/l	10	-
Nitrite-N	05/04/21	<0.010	<0.010	mg/l	1	-
	08/03/21	<0.010	<0.010	mg/l	1	-
	12/06/21	<0.010	<0.010	mg/l	1	-
Nitrate & Nitrite (as N)	05/04/21	7.82	5.52	mg/l	10	-
	08/03/21	6.88	4.74	mg/l	10	-
	12/06/21	7.46	5.22	mg/l	10	-
Phosphate-P (ortho)	05/04/21	<0.0030	<0.0030	mg/l	-	-
	08/03/21	<0.0030	<0.0030	mg/l	-	-
	12/06/21	<0.0030	<0.0030	mg/l	-	-
Sulphate	05/04/21	36.4	179	mg/l	-	500
	08/03/21	62.4	256	mg/l	-	500
	12/06/21	49.9	220	mg/l	-	500
Anion Sum	05/04/21	5.53	8.09	me/l	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	08/03/21	6.00	10.3	me/l	-	-
	12/06/21	6.38	9.69	me/l	-	-
Cation Sum	05/04/21	7.40	10.0	me/l	-	-
	08/03/21	7.30	11.2	me/l	-	-
	12/06/21	6.88	9.96	me/l	-	-
Ion Balance	05/04/21	134	124	%	-	-
	08/03/21	122	109	%	-	-
	12/06/21	108	103	%	-	-
Cation Anion Balance	05/04/21	14	11	%	-	-
	08/03/21	10	4	%	-	-
	12/06/21	4	1	%	-	-
Dissolved Organic Carbon	05/04/21	1.00	1.03	mg/l	-	5
	08/03/21	0.82	0.74	mg/l	-	5
	12/06/21	0.74	1.05	mg/l	-	5
Total Organic Carbon	05/04/21	1.72	1.02	mg/l	-	-
	08/03/21	0.79	0.81	mg/l	-	-
	12/06/21	2.01	1.29	mg/l	-	-
Langelier Index	05/04/21	1	1	n/a	-	-
	08/03/21	1	1	n/a	-	-
	12/06/21	1	1	n/a	-	-
Turbidity	05/04/21	0.06	0.08	NTU	-	5
	08/03/21	0.09	0.18	NTU	-	5
	12/06/21	0.09	0.13	NTU	-	5

Dissolved Metals (Telfer Raw Water) Note: MAC and A/O apply only to treated water. They are added for reference.

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Aluminium	05/04/21	<0.0050	<0.0050	mg/l	-	0.1
	08/03/21	<0.0050	<0.0050	mg/l	-	0.1
	12/06/21	<0.0050	<0.0050	mg/l	-	0.1
Beryllium	05/04/21	<0.00010	<0.00010	mg/l	-	-
	08/03/21	<0.00010	<0.00010	mg/l	-	-
	12/06/21	<0.00010	<0.00010	mg/l	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Bismuth	05/04/21	<0.000050	<0.000050	mg/l	-	-
	08/03/21	<0.000050	<0.000050	mg/l	-	-
	12/06/21	<0.000050	<0.000050	mg/l	-	-
Calcium	05/04/21	94.3	142	mg/l	-	-
	08/03/21	91.9	160	mg/l	-	-
	12/06/21	84.6	138	mg/l	-	-
Cobalt	05/04/21	<0.00010	<0.00010	mg/l	-	-
	08/03/21	<0.00010	<0.00010	mg/l	-	-
	12/06/21	<0.00010	<0.00010	mg/l	-	-
Chloride	05/04/21	21.8	24.4	mg/l	-	250
	08/03/21	21.4	23.8	mg/l	-	250
	12/06/21	22.4	24.6	mg/l	-	250
Copper	05/04/21	0.00026	<0.00020	mg/l	-	-
	08/03/21	0.00023	<0.00020	mg/l	-	-
	12/06/21	0.00024	<0.00020	mg/l	-	-
Iron	05/04/21	<0.010	<0.010	mg/l	-	0.3
	08/03/21	<0.010	<0.010	mg/l	-	0.3
	12/06/21	<0.010	<0.010	mg/l	-	0.3
Lead	05/04/21	<0.000050	<0.000050	mg/l	0.01	-
	08/03/21	<0.000050	<0.000050	mg/l	0.01	-
	12/06/21	<0.000050	<0.000050	mg/l	0.01	-
Lithium	05/04/21	0.0034	0.0058	mg/l	-	-
	08/03/21	0.0032	0.0053	mg/l	-	-
	12/06/21	0.0036	0.0054	mg/l	-	-
Magnesium	05/04/21	28.2	30.4	mg/l	-	-
	08/03/21	28.3	33.9	mg/l	-	-
	12/06/21	27.8	32.4	mg/l	-	-
Manganese	05/04/21	<0.00050	<0.00050	mg/l	-	0.05
	08/03/21	<0.00050	<0.00050	mg/l	-	0.05
	12/06/21	<0.00050	<0.00050	mg/l	-	0.05
Molybdenum	05/04/21	0.00120	0.00649	mg/l	-	-
	08/03/21	0.00121	0.00614	mg/l	-	-
	12/06/21	0.00118	0.00633	mg/l	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Nickel	05/04/21	<0.00050	<0.00050	mg/l	-	-
	08/03/21	<0.00050	<0.00050	mg/l	-	-
	12/06/21	<0.00050	<0.00050	mg/l	-	-
Phosphorus	05/04/21	<0.050	<0.050	mg/l	-	-
	08/03/21	<0.050	<0.050	mg/l	-	-
	12/06/21	<0.050	<0.050	mg/l	-	-
Potassium	05/04/21	1.14	1.40	mg/l	-	-
	08/03/21	1.22	1.60	mg/l	-	-
	12/06/21	1.17	1.53	mg/l	-	-
Silicon (total)	05/04/21	5900	5700	ug/L	-	-
	08/03/21	11700	11100	ug/L	-	-
	12/06/21	12000	11600	ug/L	-	-
Silicon (dissolved)	05/04/21	5.54	5.16	mg/l	-	-
	08/03/21	5.64	5.49	mg/l	-	-
	12/06/21	5.68	5.41	mg/l	-	-
Silicon (as SiO ₂)-Dissolved	05/04/21	11.8	11.00	mg/l	-	-
	08/03/21	12.1	11.7	mg/l	-	-
	12/06/21	12.1	11.6	mg/l	-	-
Silver	05/04/21	<0.000050	<0.000050	mg/l	-	-
	08/03/21	<0.000050	<0.000050	mg/l	-	-
	12/06/21	<0.000050	<0.000050	mg/l	-	-
Sodium	05/04/21	7.84	8.65	mg/l	20	200
	08/03/21	8.19	9.10	mg/l	20	200
	12/06/21	7.95	8.60	mg/l	20	200
Strontium	05/04/21	0.878	2.09	mg/l	-	-
	08/03/21	1.02	2.50	mg/l	-	-
	12/06/21	0.926	2.26	mg/l	-	-
Thallium	05/04/21	<0.000010	0.000016	mg/l	-	-
	08/03/21	<0.000010	0.000018	mg/l	-	-
	12/06/21	<0.000010	0.000015	mg/l	-	-
Tin	05/04/21	<0.00010	<0.00010	mg/l	-	-
	08/03/21	<0.00010	<0.00010	mg/l	-	-
	12/06/21	<0.00010	<0.00010	mg/l	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Titanium	05/04/21	<0.00030	<0.00030	mg/l	-	-
	08/03/21	<0.00030	<0.00030	mg/l	-	-
	12/06/21	<0.00030	<0.00030	mg/l	-	-
Tungsten	05/04/21	<0.00010	<0.00010	mg/l	-	-
	08/03/21	<0.00010	<0.00010	mg/l	-	-
	12/06/21	<0.00010	<0.00010	mg/l	-	-
Vanadium	05/04/21	<0.00050	<0.00050	mg/l	-	-
	08/03/21	<0.00050	<0.00050	mg/l	-	-
	12/06/21	<0.00050	<0.00050	mg/l	-	-
Zinc	05/04/21	0.0019	0.0018	mg/l	-	5
	08/03/21	0.0020	0.0022	mg/l	-	5
	12/06/21	0.0015	0.0018	mg/l	-	5
Zirconium	05/04/21	<0.00030	<0.00030	mg/l	-	-
	08/03/21	<0.00030	<0.00030	mg/l	-	-
	12/06/21	<0.00030	<0.00030	mg/l	-	-

Pesticides (Telfer Raw Water) Note: MAC and A/O apply only to treated water. They are added for reference.

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Aldrin	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
alpha-BHC	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
beta-BHC	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
delta-BHC	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
a-chlordane	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	12/06/21	<0.0080	<0.0080	ug/L	-	-
g-chlordane	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
Gamma-hexachlorocyclohexane	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
o,p-DDD	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
pp-DDD	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
o,p-DDE	05/04/21	<0.0040	<0.0040	ug/L	-	-
	08/03/21	<0.0040	<0.0040	ug/L	-	-
	12/06/21	<0.0040	<0.0040	ug/L	-	-
pp-DDE	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
op-DDT	05/04/21	<0.0040	<0.0040	ug/L	-	-
	08/03/21	<0.0040	<0.0040	ug/L	-	-
	12/06/21	<0.0040	<0.0040	ug/L	-	-
pp-DDT	05/04/21	<0.0040	<0.0040	ug/L	-	-
	08/03/21	<0.0040	<0.0040	ug/L	-	-
	12/06/21	<0.0040	<0.0040	ug/L	-	-
Dieldrin	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
alpha-Endosulfan	05/04/21	<0.0070	<0.0070	ug/L	-	-
	08/03/21	<0.0070	<0.0070	ug/L	-	-
	12/06/21	<0.0070	<0.0070	ug/L	-	-
beta-Endosulfan	05/04/21	<0.0070	<0.0070	ug/L	-	-
	08/03/21	<0.0070	<0.0070	ug/L	-	-
	12/06/21	<0.0070	<0.0070	ug/L	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Endosulfan Sulfate	05/04/21	<0.0070	<0.0070	ug/L	-	-
	08/03/21	<0.0070	<0.0070	ug/L	-	-
	12/06/21	<0.0070	<0.0070	ug/L	-	-
Endrin	05/04/21	<0.010	<0.010	ug/L	-	-
	08/03/21	<0.010	<0.010	ug/L	-	-
	12/06/21	<0.010	<0.010	ug/L	-	-
Endrin Aldehyde	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Heptachlor	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
Heptachlor Epoxide	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
Hexachlorobenzene	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
Methoxychlor	05/04/21	<0.0080	<0.0080	ug/L	900	-
	08/03/21	<0.0080	<0.0080	ug/L	900	-
	12/06/21	<0.0080	<0.0080	ug/L	900	-
Mirex	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
Oxychlorane	05/04/21	<0.0080	<0.0080	ug/L	-	-
	08/03/21	<0.0080	<0.0080	ug/L	-	-
	12/06/21	<0.0080	<0.0080	ug/L	-	-
2,4-DP	05/04/21	<0.00010	<0.00010	ug/L	-	-
	08/03/21	<0.00010	<0.00010	ug/L	-	-
	12/06/21	<0.00010	<0.00010	ug/L	-	-
Dinoseb	05/04/21	<0.00010	<0.00010	ug/L	10	-
	08/03/21	<0.00010	<0.00010	ug/L	10	-
	12/06/21	<0.00010	<0.00010	ug/L	10	-
Mecoprop	05/04/21	<0.00010	<0.00010	ug/L	-	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	08/03/21	<0.00010	<0.00010	ug/L	-	-
	12/06/21	<0.00010	<0.00010	ug/L	-	-
2,4,5-T	05/04/21	<0.00010	<0.00010	ug/L	280	20
	08/03/21	<0.00010	<0.00010	ug/L	280	20
	12/06/21	<0.00010	<0.00010	ug/L	280	20
2,4,5-TP	05/04/21	<0.00010	<0.00010	ug/L	-	-
	08/03/21	<0.00010	<0.00010	ug/L	-	-
	12/06/21	<0.00010	<0.00010	ug/L	-	-
Ametryn	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Atrazine	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Atrazine & Metabolites	05/04/21	<0.20	<0.20	ug/L	5	-
	08/03/21	<0.20	<0.20	ug/L	5	-
	12/06/21	<0.20	<0.20	ug/L	5	-
Bendiocarb	05/04/21	<0.50	<0.50	ug/L	40	-
	08/03/21	<0.50	<0.50	ug/L	40	-
	12/06/21	<0.50	<0.50	ug/L	40	-
Cyanazine	05/04/21	<0.10	<0.10	ug/L	10	-
	08/03/21	<0.10	<0.10	ug/L	10	-
	12/06/21	<0.10	<0.10	ug/L	10	-
Atrazine Desethyl	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Methyl Parathion	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Parathion	05/04/21	<0.10	<0.10	ug/L	50	-
	08/03/21	<0.10	<0.10	ug/L	50	-
	12/06/21	<0.10	<0.10	ug/L	50	-
Temephos	05/04/21	<1.0	<1.0	ug/L	280	-
	08/03/21	<1.0	<1.0	ug/L	280	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	12/06/21	<1.0	<1.0	ug/L	280	-
Terbutryn	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-

Schedule 24 (Telfer Raw Water) Note: MAC and A/O apply only to treated water. They are shown here for reference only.

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
1,1-Dichloroethylene (vinylidene chloride)	05/04/21	<0.50	<0.50	ug/L	14	-
	08/03/21	<0.50	<0.50	ug/L	14	-
	12/06/21	<0.50	<0.50	ug/L	14	-
1,2-Dichlorobenzene	05/04/21	<0.50	<0.50	ug/L	200	3
	08/03/21	<0.50	<0.50	ug/L	200	3
	12/06/21	<0.50	<0.50	ug/L	200	3
1,2-Dichloroethane	05/04/21	<0.50	<0.50	ug/L	5	-
	08/03/21	<0.50	<0.50	ug/L	5	-
	12/06/21	<0.50	<0.50	ug/L	5	-
1,4-Dichlorobenzene	05/04/21	<0.50	<0.50	ug/L	5	1
	08/03/21	<0.50	<0.50	ug/L	5	1
	12/06/21	<0.50	<0.50	ug/L	5	1
2,3,4,6-Tetrachlorophenol	05/04/21	<0.50	<0.50	ug/L	100	1
	08/03/21	<0.50	<0.50	ug/L	100	1
	12/06/21	<0.50	<0.50	ug/L	100	1
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	05/04/21	<0.00010	<0.00010	ug/L	280	20
	08/03/21	<0.00010	<0.00010	ug/L	280	20
	12/06/21	<0.00010	<0.00010	ug/L	280	20
2,4,6-Trichlorophenol	05/04/21	<0.50	<0.50	ug/L	5	2
	08/03/21	<0.50	<0.50	ug/L	5	2
	12/06/21	<0.50	<0.50	ug/L	5	2
2,4-Dichlorophenoxy acetic acid (2,4-D)	05/04/21	<0.00010	<0.00010	ug/L	0.1	-
	08/03/21	<0.00010	<0.00010	ug/L	0.1	-
	12/06/21	<0.00010	<0.00010	ug/L	0.1	-
2-4 Dichlorophenol	05/04/21	<0.30	<0.30	ug/L	900	0.3

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	08/03/21	<0.30	<0.30	ug/L	900	0.3
	12/06/21	<0.30	<0.30	ug/L	900	0.3
AMPA	05/04/21	<0.50	<0.50	ug/L	-	-
	08/03/21	<0.50	<0.50	ug/L	-	-
	12/06/21	<0.50	<0.50	ug/L	-	-
Alachlor	05/04/21	<0.10	<0.10	ug/L	5	-
	08/03/21	<0.10	<0.10	ug/L	5	-
	12/06/21	<0.10	<0.10	ug/L	5	-
Aroclor 1242	05/04/21	<0.020	<0.020	ug/L	-	-
	08/03/21	<0.020	<0.020	ug/L	-	-
	12/06/21	<0.020	<0.020	ug/L	-	-
Aroclor 1254	05/04/21	<0.020	<0.020	ug/L	-	-
	08/03/21	<0.020	<0.020	ug/L	-	-
	12/06/21	<0.020	<0.020	ug/L	-	-
Aroclor 1260	05/04/21	<0.020	<0.020	ug/L	-	-
	08/03/21	<0.020	<0.020	ug/L	-	-
	12/06/21	<0.020	<0.020	ug/L	-	-
Atrazine	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Atrazine + N-dealkylated metabolites (Atrazine+Desethyl-atrazine)	05/04/21	<0.20	<0.20	ug/L	5	-
	08/03/21	<0.20	<0.20	ug/L	5	-
	12/06/21	<0.20	<0.20	ug/L	5	-
Benzene	05/04/21	<0.50	<0.50	ug/L	1	-
	08/03/21	<0.50	<0.50	ug/L	1	-
	12/06/21	<0.50	<0.50	ug/L	1	-
Benzo(a)pyrene	05/04/21	<0.0050	<0.0050	ug/L	0.01	-
	08/03/21	<0.0050	<0.0050	ug/L	0.01	-
	12/06/21	<0.0050	<0.0050	ug/L	0.01	-
Bromoxynil	05/04/21	<0.00010	<0.00010	ug/L	0.005	-
	08/03/21	<0.00010	<0.00010	ug/L	0.005	-
	12/06/21	<0.00010	<0.00010	ug/L	0.005	-
Carbaryl	05/04/21	<0.20	<0.20	ug/L	90	-
	08/03/21	<0.20	<0.20	ug/L	90	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	12/06/21	<0.20	<0.20	ug/L	90	-
Carbofuran	05/04/21	<0.20	<0.20	ug/L	90	-
	08/03/21	<0.20	<0.20	ug/L	90	-
	12/06/21	<0.20	<0.20	ug/L	90	-
Carbon Tetrachloride	05/04/21	<0.20	<0.20	ug/L	2	-
	08/03/21	<0.20	<0.20	ug/L	2	-
	12/06/21	<0.20	<0.20	ug/L	2	-
Chlorobenzene (Monochlorobenzene)	05/04/21	<0.50	<0.50	ug/L	80	30
	08/03/21	<0.50	<0.50	ug/L	80	30
	12/06/21	<0.50	<0.50	ug/L	80	30
Chlorpyrifos	05/04/21	<0.10	<0.10	ug/L	90	-
	08/03/21	<0.10	<0.10	ug/L	90	-
	12/06/21	<0.10	<0.10	ug/L	90	-
Diazinon	05/04/21	<0.10	<0.10	ug/L	20	-
	08/03/21	<0.10	<0.10	ug/L	20	-
	12/06/21	<0.10	<0.10	ug/L	20	-
Desethyl-atrazine	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Dicamba	05/04/21	<0.00010	<0.00010	ug/L	0.12	-
	08/03/21	<0.00010	<0.00010	ug/L	0.12	-
	12/06/21	<0.00010	<0.00010	ug/L	0.12	-
Diclofop-methyl	05/04/21	<0.10	<0.10	ug/L	9	-
	08/03/21	<0.10	<0.10	ug/L	9	-
	12/06/21	<0.10	<0.10	ug/L	9	-
Dimethoate	05/04/21	<0.10	<0.10	ug/L	20	-
	08/03/21	<0.10	<0.10	ug/L	20	-
	12/06/21	<0.10	<0.10	ug/L	20	-
Diquat	05/04/21	<1.0	<1.0	ug/L	70	-
	08/03/21	<1.0	<1.0	ug/L	70	-
	12/06/21	<1.0	<1.0	ug/L	70	-
Diuron	05/04/21	<0.10	<0.10	ug/L	150	-
	08/03/21	<0.10	<0.10	ug/L	150	-
	12/06/21	<0.10	<0.10	ug/L	150	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
Ethylbenzene	05/04/21	<0.50	<0.50	ug/L	140	2.4
	08/03/21	<0.50	<0.50	ug/L	140	2.4
	12/06/21	<0.50	<0.50	ug/L	140	2.4
Glyphosate	05/04/21	<5.0	<5.0	ug/L	280	-
	08/03/21	<5.0	<5.0	ug/L	280	-
	12/06/21	<5.0	<5.0	ug/L	280	-
Guthion (Azinphos-methyl)	05/04/21	<0.10	<0.10	ug/L	20	20
	08/03/21	<0.10	<0.10	ug/L	20	20
	12/06/21	<0.10	<0.10	ug/L	20	20
Malathion	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
MCPA	05/04/21	<0.00010	<0.00010	ug/L	0.1	-
	08/03/21	<0.00010	<0.00010	ug/L	0.1	-
	12/06/21	<0.00010	<0.00010	ug/L	0.1	-
Methylene Chloride (Dichloromethane)	05/04/21	<5.0	<5.0	ug/L	50	-
	08/03/21	<5.0	<5.0	ug/L	50	-
	12/06/21	<5.0	<5.0	ug/L	50	-
Metolachlor	05/04/21	<0.10	<0.10	ug/L	50	-
	08/03/21	<0.10	<0.10	ug/L	50	-
	12/06/21	<0.10	<0.10	ug/L	50	-
Metribuzin	05/04/21	<0.10	<0.10	ug/L	80	-
	08/03/21	<0.10	<0.10	ug/L	80	-
	12/06/21	<0.10	<0.10	ug/L	80	-
Paraquat	05/04/21	<1.0	<1.0	ug/L	10	-
	08/03/21	<1.0	<1.0	ug/L	10	-
	12/06/21	<1.0	<1.0	ug/L	10	-
Pentachlorophenol	05/04/21	<0.50	<0.50	ug/L	60	30
	08/03/21	<0.50	<0.50	ug/L	60	30
	12/06/21	<0.50	<0.50	ug/L	60	30
Phorate	05/04/21	<0.10	<0.10	ug/L	2	-
	08/03/21	<0.10	<0.10	ug/L	2	-
	12/06/21	<0.10	<0.10	ug/L	2	-
Picloram	05/04/21	<0.00010	<0.00010	ug/L	0.19	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	08/03/21	<0.00010	<0.00010	ug/L	0.19	-
	12/06/21	<0.00010	<0.00010	ug/L	0.19	-
Polychlorinated Biphenyls (PCB) total	05/04/21	<0.035	<0.035	ug/L	3	-
	08/03/21	<0.035	<0.035	ug/L	3	-
	12/06/21	<0.035	<0.035	ug/L	3	-
Prometryne	05/04/21	<0.10	<0.10	ug/L	1	-
	08/03/21	<0.10	<0.10	ug/L	1	-
	12/06/21	<0.10	<0.10	ug/L	1	-
Prometon	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Propazine	05/04/21	<0.10	<0.10	ug/L	-	-
	08/03/21	<0.10	<0.10	ug/L	-	-
	12/06/21	<0.10	<0.10	ug/L	-	-
Simazine	05/04/21	<0.10	<0.10	ug/L	10	-
	08/03/21	<0.10	<0.10	ug/L	10	-
	12/06/21	<0.10	<0.10	ug/L	10	-
Temephos	05/04/21	<1.0	<1.0	ug/L	280	-
	08/03/21	<1.0	<1.0	ug/L	280	-
	12/06/21	<1.0	<1.0	ug/L	280	-
Terbufos	05/04/21	<0.10	<0.10	ug/L	1	-
	08/03/21	<0.10	<0.10	ug/L	1	-
	12/06/21	<0.10	<0.10	ug/L	1	-
Tetrachloroethylene	05/04/21	<0.50	<0.50	ug/L	10	-
	08/03/21	<0.50	<0.50	ug/L	10	-
	12/06/21	<0.50	<0.50	ug/L	10	-
Toluene	05/04/21	<0.50	<0.50	ug/L	60	24
	08/03/21	<0.50	<0.50	ug/L	60	24
	12/06/21	<0.50	<0.50	ug/L	60	24
Triallate	05/04/21	<0.10	<0.10	ug/L	230	-
	08/03/21	<0.10	<0.10	ug/L	230	-
	12/06/21	<0.10	<0.10	ug/L	230	-
Trichloroethylene	05/04/21	<0.50	<0.50	ug/L	5	-
	08/03/21	<0.50	<0.50	ug/L	5	-

Parameter	Sample Date (mm/dd/yy)	Result Value P31	Result Value P32	Unit of Measure	MAC	A/O
	12/06/21	<0.50	<0.50	ug/L	5	-
Trifluralin	05/04/21	<0.10	<0.10	ug/L	45	-
	08/03/21	<0.10	<0.10	ug/L	45	-
	12/06/21	<0.10	<0.10	ug/L	45	-
Vinyl Chloride	05/04/21	<0.20	<0.20	ug/L	1	-
	08/03/21	<0.20	<0.20	ug/L	1	-
	12/06/21	<0.20	<0.20	ug/L	1	-
o-xylene	05/04/21	<0.50	<0.50	ug/L	-	-
	08/03/21	<0.50	<0.50	ug/L	-	-
	12/06/21	<0.50	<0.50	ug/L	-	-
m/p-xylene	05/04/21	<1.0	<1.0	ug/L	-	-
	08/03/21	<1.0	<1.0	ug/L	-	-
	12/06/21	<1.0	<1.0	ug/L	-	-
Xylenes (Total)	05/04/21	<1.5	<1.5	ug/L	90	300
	08/03/21	<1.5	<1.5	ug/L	90	300
	12/06/21	<1.5	<1.5	ug/L	90	300

BETHEL WATER SUPPLY FACILITY

The Bethel Water Supply Facility consists of:

- a) Four drilled wells completed in the overburden, each equipped with submersible pumps capable of pumping 15 l/s each except for P52 which has an 11 l/s pump;
- b) Three ion exchange vessels (2 duty and 1 standby) for nitrate removal (standby);
- c) Two ultra violet reactors (1 duty and 1 standby) for primary disinfection;
- d) A sodium hypochlorite dosing system to provide primary and secondary disinfection via chlorination;
- e) A hydrofluorosilicic acid dosing system to provide fluoridation;
- f) Two chlorine contact tanks with a total volume of 293m³;
- g) Three 25L/s (two duty and one standby) high lift booster pumps that pump the water to the distribution system; and
- h) A maximum rated capacity of 4,320 m³/day.

Emergency stand-by power capable of powering full capacity of the facility is provided by a 250 kw diesel motor driven generator.

The wellfield is in a rural location surrounded by mostly agricultural lands. A new business park is immediately north of the facility. A new aggregate mine is immediately south of the facility.

List all water treatment chemicals used over this reporting period

- 12 % sodium hypochlorite solution used for disinfection
- 25 % hydrofluorosilicic acid solution used for fluoridation

Were any significant expenses incurred to?

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

Brief description and a breakdown of monetary expenses incurred:

PLC Upgrade (shared cost between all Brant water systems) – \$100K

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
None					

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	# of Samples	Range of E.Coli or Fecal Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)	# of HPC Samples	Range of HPC Results (cfu/1 ml)
P51 (PW 1/12)	52	0-0	0-2	0-4	52	0-10
P52 (TW 1/05)	52	0-0	0-6	0-61	52	0-20
P53 (PW 2/12)	52	0-0	0-1	0-42	52	0-10
P54 (PW4/12)	52	0-0	0-1	0-1	52	0-20
Treated	54	0-0	0-0	0-60	54	0-20

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
Turbidity P51 – Raw Manual	12	0.05-0.18 NTU
Turbidity P52 – Raw Manual	12	0.05-0.17 NTU
Turbidity P53 – Raw Manual	12	0.05-0.15 NTU
Turbidity P54 – Raw Manual	12	0.06-0.19 NTU
Free Chlorine – Treated Online	8760	0.66-1.24
Turbidity Online (combined raw water)	8760	0.024-0.920 NTU
Fluoride (If the DWS provides fluoridation)	8760	0.49-0.85

NOTE: Record the unit of measure if it is not milligrams per litre.
For continuous monitors use 8760 as the number of samples.

Summary of additional testing and sampling carried out in accordance with Municipal Drinking Water License 062-105 – Issue Number 5 *Issue Number 7, dated August 21, 2021, has rescinded monthly raw water nitrate testing.

RAW Water (monthly) *Monthly nitrate testing from Schedule C of the Paris MDWL no longer required as of August 16, 2021. Testing will continue quarterly for information purposes only.

Date of legal instrument issued	Parameter	Date Sampled	P51 (PW 1/12)	P52 (TW 1/05)	P53 (PW 2/12)	P54 (PW 4/12)	Unit of Measure
October 30, 2012, revoked	Nitrate	01/05/21	0.33	0.12	0.52	0.32	mg/l
		02/03/21	0.35	<0.10	0.56	0.34	mg/l

Date of legal instrument issued	Parameter	Date Sampled	P51 (PW 1/12)	P52 (TW 1/05)	P53 (PW 2/12)	P54 (PW 4/12)	Unit of Measure
August 16, 2021		03/01/21	0.39	0.11	0.54	0.46	mg/l
		04/08/21	0.34	0.11	0.57	0.51	mg/l
		05/04/21	0.34	0.14	0.60	0.41	mg/l
		06/01/21	0.42	0.14	0.64	0.40	mg/l
		07/05/21	0.44	0.15	0.58	0.36	mg/l
		08/03/21	0.43	0.11	0.53	0.32	mg/l
		09/01/21	0.44	0.19	0.55	0.26	mg/l
		11/01/21	0.34	0.20	0.55	0.31	mg/l

RAW Water (quarterly)

Date of legal instrument issued	Parameter	Date Sampled	P51 (PW 1/12)	P52 (TW 1/05)	P53 (PW 2/12)	P54 (PW 4/12)	Unit of Measure
October 30, 2012	DOC	02/03/21	0.59	0.64	0.54	0.53	mg/l
		05/04/21	0.59	0.77	0.57	0.54	mg/l
		08/03/21	0.46	<0.40	0.46	0.55	mg/l
		11/01/21	0.40	<0.40	0.43	0.40	mg/l

Summary of Inorganic parameters tested during this reporting period or the most recent sample results (Bethel POE)

MAC refers to 'Maximum Acceptable Concentration' as listed in O.Reg 169/03 Schedule 1, 2 or 3. **A/O** is the Aesthetic Objective as listed in table 4 of Technical Support Document for Ontario Drinking-water Quality Standards, Objectives and Guidelines. A '-' indicates the chemical has not been assigned a **MAC** or an **A/O** by the Ministry of Environment, Conservation and Parks.

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Antimony	01/05/21	<0.00050	mg/l	0.006	-	No
Arsenic	01/05/21	<0.0010	mg/l	0.01	-	No
Barium	01/05/21	0.092	mg/l	1.0	-	No
Boron	01/05/21	<0.010	mg/l	5.0	-	No
Cadmium	01/05/21	<0.00010	mg/l	0.005	-	No
Chromium	01/05/21	<0.0050	mg/l	0.05	-	No
Mercury	01/05/21	<0.00010	mg/l	0.001	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Selenium	01/05/21	<0.0020	mg/l	0.05	-	No
Uranium	01/05/21	0.00031	mg/l	0.02	-	No
Fluoride	01/05/21	0.54	mg/l	1.5	-	No
Sodium	01/05/21	73	mg/l	20	200	Yes
Nitrite	02/11/21	<0.010	mg/l	1.0	-	No
	05/06/21	<0.010	mg/l	1.0	-	No
	08/04/21	<0.010	mg/l	1.0	-	No
	11/02/21	<0.010	mg/l	1.0	-	No
Nitrate	02/11/21	0.43	mg/l	10.0	-	No
	05/06/21	0.41	mg/l	10.0	-	No
	08/04/21	0.41	mg/l	10.0	-	No
	11/02/21	0.36	mg/l	10.0	-	No
Nitrate + Nitrite	02/11/21	0.43	mg/l	10.0	-	No
	05/06/21	0.41	mg/l	10.0	-	No
	08/04/21	0.41	mg/l	10.0	-	No
	11/02/21	0.36	mg/l	10.0	-	No

Summary of Organic parameters sampled during this reporting period or the most recent sample results (Bethel POE)

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
1,1-Dichloroethylene	01/05/21	<0.10	µg/l	14	-	No
1,2-Dichlorobenzene	01/05/21	<0.20	µg/l	200	-	No
1,2-Dichloroethane	01/05/21	<0.20	µg/l	5	-	No
1,4-Dichlorobenzene	01/05/21	<0.20	µg/l	5	-	No
2,3,4,6-Tetrachlorophenol	01/05/21	<0.50	µg/l	100	-	No
2,4,6-Trichlorophenol	01/05/21	<0.50	µg/l	5	-	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	01/05/21	<1.0	µg/l	100	-	No
2-4 Dichlorophenol	01/05/21	<0.25	µg/l	900	-	No
Alachlor	01/05/21	<0.50	µg/l	5	-	No
Aroclor 1016	01/05/21	<0.05	µg/l	-	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Aroclor 1221	01/05/21	<0.05	µg/l	-	-	No
Aroclor 1232	01/05/21	<0.05	µg/l	-	-	No
Aroclor 1242	01/05/21	<0.05	µg/l	-	-	No
Aroclor 1248	01/05/21	<0.05	µg/l	-	-	No
Aroclor 1254	01/05/21	<0.05	µg/l	-	-	No
Aroclor 1260	01/05/21	<0.05	µg/l	-	-	No
Atrazine	01/05/21	<0.50	µg/l	-	-	No
Atrazine + Desethyl atrazine	01/05/21	<1.0	µg/l	5	-	No
Benzene	01/05/21	<0.10	µg/l	1	-	No
Benzo(a)pyrene	01/05/21	<0.0050	µg/l	0.01	-	No
Bromoxynil	01/05/21	<0.50	µg/l	5	-	No
Carbaryl	01/05/21	<5.0	µg/l	90	-	No
Carbofuran	01/05/21	<5.0	µg/l	90	-	No
Carbon Tetrachloride	01/05/21	<0.10	µg/l	2	-	No
Chlorobenzene	01/05/21	<0.10	µg/l	80	-	No
Chlorpyrifos	01/05/21	<1.0	µg/l	90	-	No
Desethyl atrazine	01/05/21	<0.50	µg/l	-	-	No
Diazinon	01/05/21	<1.0	µg/l	20	-	No
Dicamba	01/05/21	<1.0	µg/l	120	-	No
Diclofop-methyl	01/05/21	<0.90	µg/l	9	-	No
Dimethoate	01/05/21	<2.5	µg/l	20	-	No
Diquat	01/05/21	<7.0	µg/l	70	-	No
Diuron	01/05/21	<10	µg/l	150	-	No
Ethylbenzene	01/05/21	<0.10	µg/l	140	2.4	No
Glyphosate	01/05/21	<10	µg/l	280	-	No
Guthion	01/05/21	<2.0	µg/l	20	-	No
Malathion	01/05/21	<5.0	µg/l	190	-	No
MCPA	01/05/21	<10	µg/l	100	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Methylene Chloride	01/05/21	<0.50	µg/l	50	-	No
Metolachlor	01/05/21	<0.50	µg/l	50	-	No
Metribuzin	01/05/21	<5.0	µg/l	80	-	No
Paraquat	01/05/21	<1.0	µg/l	10	-	No
Pentachlorophenol	01/05/21	<0.50	µg/l	60	-	No
Phorate	01/05/21	<0.50	µg/l	2	-	No
Picloram	01/05/21	<5.0	µg/l	190	-	No
Total PCB	01/05/21	<0.05	µg/l	3	-	No
Prometryne	01/05/21	<0.25	µg/l	1	-	No
Simazine	01/05/21	<1.0	µg/l	10	-	No
Terbufos	01/05/21	<0.50	µg/l	1	-	No
Tetrachloroethylene	01/05/21	<0.10	µg/l	10	-	No
Toluene	01/05/21	<0.20	µg/l	60	24	No
Triallate	01/05/21	<1.0	µg/l	230	-	No
Trichloroethylene	01/05/21	<0.10	µg/l	5	-	No
Trifluralin	01/05/21	<1.0	µg/l	45	-	No
Vinyl Chloride	01/05/21	<0.20	µg/l	1	-	No
o-Xylene	01/05/21	<0.10	µg/l	-	-	No
P+m-Xylene	01/05/21	<0.10	µg/l	-	-	No

Non regulatory RAW WATER samples were taken from Bethel Wells. The samples were taken to gain operational information and were analyzed for the parameters listed in the table below:

Parameter	Sample Date (mm/dd/yy)	P51 (PW 1/12)	P52 (TW 1/05)	P53 (PW 2/12)	P54 (PW 4/12)	Unit of Measure
Chloride	02/03/21	140	110	150	160	mg/l
	05/04/21	150	120	150	150	mg/l
	08/03/21	150	130	140	130	mg/l
	11/01/21	130	130	160	170	mg/l
Nitrate	02/03/21	0.35	<0.10	0.56	0.34	mg/l
	05/04/21	0.39	0.14	0.60	0.41	mg/l

Parameter	Sample Date (mm/dd/yy)	P51 (PW 1/12)	P52 (TW 1/05)	P53 (PW 2/12)	P54 (PW 4/12)	Unit of Measure
	8/03/21	0.43	0.11	0.53	0.32	mg/l
	11/01/21	0.34	0.20	0.55	0.31	mg/l
Sulphate	02/03/21	11	13	15	10	mg/l
	05/04/21	12	13	15	10	mg/l
	08/03/21	12	12	14	9.6	mg/l
	11/01/21	11	14	15	9.4	mg/l
Sodium	02/03/21	66	62	71	82	mg/l
	05/04/21	77	67	82	91	mg/l
	07/05/21	79	70	80	88	mg/l
	08/03/21	81	75	80	84	mg/l
	09/01/21	79	70	79	85	mg/l
	10/01/21	74	71	80	88	mg/l
	11/01/21	73	69	82	86	mg/l
	12/06/21	78	75	88	95	mg/l
pH	02/03/21	7.96	7.95	7.71	8.00	pH
	05/04/21	7.85	7.99	7.79	8.00	pH
	08/03/21	7.71	7.61	7.76	7.86	pH
	11/01/21	7.86	7.92	7.70	7.93	pH
Hardness (CaCO ₃)	02/03/21	200	160	240	200	mg/l
	05/04/21	220	170	220	180	mg/l
	08/03/21	210	190	220	160	mg/l
	11/01/21	170	180	220	190	mg/l
Calcium	02/03/21	55	41	65	54	mg/l
	05/04/21	62	43	59	48	mg/l
	08/03/21	55	48	61	43	mg/l
Magnesium	02/03/21	16	13	19	16	mg/l
	05/04/21	17	14	18	14	mg/l
	08/03/21	17	16	18	13	mg/l

List any Inorganic or Organic (treated water) parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample (mm/dd/yy)
None			

DISTRIBUTION SYSTEM

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
None					

Microbiological testing done under Section 8(2) during this reporting period

	# of Samples	Range of E.Coli or Fecal Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)	# of HPC Samples	Range of HPC Results (cfu/1ml)
Distribution	349	0-0	0-0	0-58	349	0-60

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
Free Chlorine Grab Daily Distribution Grab & Flushing + Bacti sampling	1835	0.23-1.26
Sharpe Reservoir Outlet – online chlorine	8760	0.46-0.96
Sharpe Reservoir Inlet – online chlorine	8760	0.30-1.25

NOTE: Record the unit of measure if it is not milligrams per litre.
For continuous monitors use 8760 as the number of samples.

Summary of lead testing under Schedule 15.1 during this reporting period

(Applicable to the following drinking-water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Date (mm/dd/yy)	Number of Samples	Range of Lead Results (min#) – (max#)	Number of Exceedances
Plumbing	Not required			
Distribution	Not required			

Were any significant expenses incurred to?

Install required equipment

- Repair required equipment
- Replace required equipment

Brief description and a breakdown of monetary expenses incurred:

Sharpe reservoir inspection – \$5K

Parkhill generator install – \$50K

MAC refers to ‘Maximum Acceptable Concentration’ as listed in O.Reg 169/03 Schedule 2. It is expressed as a running average of quarterly sampling results for THM and HAA.

Parameter	Date Sampled (mm/dd/yy)	Unit of Measure	Misner Rd Hyd	Pinehurst Sample STN	HYD @ Willow St. Dead End	HYD 4-027 Powerline Rd	MAC
THM	02/11/21	µg/l	5.51				100
	05/06/21	µg/l		5.98			100
	08/04/21	µg/l			7.14		100
	11/02/21	µg/l				23.4	100

Parameter	Date Sampled (mm/dd/yy)	Unit of Measure	Misner Rd Hyd	Pinehurst Sample STN	HYD @ Willow St. Dead End	HYD 4-027 Powerline Rd	MAC
Total Haloacetic Acids-Gilbert Distribution	02/11/21	µg/l	<5.0				80
	05/06/21	µg/l		<5.0			80
	08/04/21	µg/l			<5.0		80
	11/02/21	µg/l				<5.0	80

Parameter	Date Sampled (mm/dd/yy)	Unit of Measure	HYD 1-173 West River Rd.	MAC
Total Haloacetic Acids-Telfer Distribution	02/11/21	µg/l	<5.0	80
	05/06/21	µg/l	<5.0	80
	08/04/21	µg/l	<5.0	80
	11/02/21	µg/l	<5.0	80

Parameter	Date Sampled (mm/dd/yy)	Unit of Measure	HYD @ 31 Folstetter	MAC
Total Haloacetic Acids-Bethel Distribution	02/11/21	µg/l	<5.0	80
	05/06/21	µg/l	<5.0	80
	08/04/21	µg/l	<5.0	80
	11/02/21	µg/l	<5.0	80

List any Inorganic or Organic (Distribution Water) parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample (mm/dd/yy)
None			