



**Meaford**  
**Water Treatment Plant**  
**Summary & Annual Reports**  
**2021**



# 2021 Summary report

## Safe Drinking Water Act

Following the Walkerton tragedy in 2000, the Ontario Government developed a new, comprehensive legislative paradigm based on a source to tap, multi-barrier approach to the protection of drinking water. The Safe Drinking Water Act (SDWA), 2002, and its Regulations, contain requirements for Municipalities that provide potable water to their residents.

Under Section 19 Standard of Care of the SDWA, owners of a Drinking Water System are required to:

- a) Exercise the level of care, diligence and skill in respect of a Municipal Drinking Water System that a reasonable prudent person would be expected to exercise in a similar situation; and
  - b) Act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the Municipal Drinking Water System.
- 2002, c.32, s. 19(1)

## Summary Report

Schedule 22 of Ontario Regulation 170/03 requires, for Large Municipal Residential Systems, that a Summary Report be prepared for distribution to Council by March 31, 2022 for the period from January 1 to December 31, 2021.

This regulation also requires the owner produce a Summary Report that includes the following:

- The requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water license, and any orders applicable to the system that were not met at any time during the period covered by the report and specify the duration of the failure and describe the measures taken to correct the situation.

- A summary of quantities and flow rates of the water supplied during the period covered by the report including monthly average and maximum daily flows
- The summary report must be presented and accepted by Council by March 31<sup>st</sup> of each year.

A hard copy of the Annual and Summary reports will be made available free of charge at the Meaford Water Plant after March 31<sup>st</sup> 2022. It will also be available for viewing on the Municipal website [www.meaford.ca](http://www.meaford.ca).

## System Information – Meaford Drinking Water System

Municipal Drinking Water Licence – 089-101

Municipal Drinking Water Permit – 089-201

Permit to Take Water – 7605-74TJ9N

Financial Plan – 089-301A

Accredited Operational Plan – 089-401

**Meaford Water Treatment Plant  
Waterloss**

<b>Plant</b>	<b>518,442 m3</b>	Bulkwater	9273
<b>Metered</b>	<b>403,632 m3</b>	Backwash	15641
<b>Difference</b>	<b>114,810.00 m3</b>	Flushing	20713.6
		Swimming Pool	611.5
		Main Breaks/ Construction	4471.7
		Analyzers Cl2	525.6
		Turbidimeters	372
		<b>Total</b>	<b>51607.6</b>

**Difference- Total**  
63202

<b>Water Loss</b>	<u>63202</u>	<b>12.2%</b>
	518442	

**MUNICIPALITY OF MEAFORD**

**WATER DEPARTMENT STATISTICS FOR YEAR ENDING DECEMBER 31, 2021**

ROUTE	DESCRIPTION	WATER	SEWAGE
20	COMMERCIAL - MONTHLY	810	253
1	RESIDENTIAL - BI MONTHLY	1223	1091
2	RESIDENTIAL - BI MONTHLY	967	702
11	RESIDENTIAL - MONTHLY (VICTORIA VILLAGE)	64	64
	LEITH RESIDENTIAL - FLAT RATE BI-MONTHLY	15	
10	LEITH RESIDENTIAL - BI MONTHLY	136	
	<b>TOTAL CUSTOMERS</b>	<b>3215</b>	<b>2110</b>
<b>WATER</b>		<b>SEWAGE</b>	
URBAN RESIDENTIAL	2254	RESIDENTIAL	1857
COMMERCIAL SERVICE	810	COMM SERVICE	253
LEITH RESIDENTIAL	136		
<b>TOTAL WATER</b>	<b>3200</b>	<b>TOTAL SEWAGE</b>	<b>2110</b>

TOTAL WATER PUMPED AT WTP FOR YEAR	518442
TOTAL METERED WATER CONSUMPTION FOR YEAR	403632
FLUSHING	21325.14
WATER MAIN BREAKS/LEAKS/CONSTRUCTION	4471.7
TOTAL BULK WATER SALES	9273
OTHER (SP/NON MTR/BCKWSH/TURBIDI/CHL)	16538
UNACCOUNTED WATER FOR YEAR	63202
RESIDENTIAL URBAN MONTHLY AVERAGE	10.11761
TOTAL RESIDENTIAL CONSUMPTION	273661
TOTAL RESIDENTIAL CUSTOMERS	2254
COMMERCIAL SERVICE MONTHLY AVERAGE	13.3715
TOTAL COMMERCIAL SERVICE CONSUMPTION	129971
TOTAL COMMERCIAL SERVICE CUSTOMERS	810
OVERALL CONSUMPTION AVERAGE	14.10036
OVERALL CONSUMPTION	518442
TOTAL CUSTOMERS (less Leith)	3064
TOTAL LEITH CONSUMPTION	15854

January-21

	Filtered Cl2 Low	Filtered Cl2 High	Plant Cl2 Low	Plant Cl2 High	Filter Turb. Avg.	Filter Turb. Max	Filter Performance 95% target both filters	Discharge Turb. Avg.	Raw Flow	Treated Flow	UV Dose	Initials
1	1.26	1.51	1.06	1.61	0.06	0.10	100.0%	0.09	1031	1310	>40mj/cm <sup>3</sup>	JA
2	1.27	1.50	1.08	1.59	0.09	0.19	100.0%	0.09	1521	1300	>40mj/cm <sup>3</sup>	JA
3	1.27	1.49	1.16	1.59	0.09	0.18	100.0%	0.10	1518	1306	>40mj/cm <sup>3</sup>	JA
4	1.23	1.52	1.18	1.59	0.05	0.07	100.0%	0.10	1118	1241	>40mj/cm <sup>3</sup>	BR
5	1.23	1.49	1.19	1.60	0.05	0.06	100.0%	0.09	1490	1275	>40mj/cm <sup>3</sup>	BR
6	1.27	1.51	1.19	1.57	0.07	0.14	100.0%	0.08	1569	1270	>40mj/cm <sup>3</sup>	BR
7	1.12	1.48	1.28	1.50	0.06	0.10	100.0%	0.08	1211	1223	>40mj/cm <sup>3</sup>	BR
8	1.26	1.51	1.26	1.45	0.05	0.07	100.0%	0.09	1202	1263	>40mj/cm <sup>3</sup>	BR
9	1.27	1.48	1.32	1.46	0.05	0.08	100.0%	0.08	1518	1314	>40mj/cm <sup>3</sup>	CN
10	1.26	1.37	1.30	1.44	0.05	0.06	100.0%	0.07	1531	1322	>40mj/cm <sup>3</sup>	CN
11	1.22	1.48	1.31	1.45	0.05	0.06	100.0%	0.07	119	1235	>40mj/cm <sup>3</sup>	BR
12	1.23	1.62	1.30	1.43	0.05	0.06	100.0%	0.07	1103	1271	>40mj/cm <sup>3</sup>	BR
13	1.28	1.53	1.21	1.59	0.04	0.06	100.0%	0.10	1375	1122	>40mj/cm <sup>3</sup>	JA
14	1.25	1.48	1.18	1.63	0.05	0.07	100.0%	0.07	1515	1291	>40mj/cm <sup>3</sup>	BR
15	1.07	1.56	1.01	1.73	0.05	0.07	100.0%	0.07	1065	1180	>40mj/cm <sup>3</sup>	BR
16	1.25	1.49	1.10	1.64	0.05	0.07	100.0%	0.08	1671	1453	>40mj/cm <sup>3</sup>	KH
17	1.23	1.48	1.14	1.64	0.05	0.07	100.0%	0.07	1022	1359	>40mj/cm <sup>3</sup>	KH
18	1.27	1.51	1.17	1.63	0.05	0.07	100.0%	0.07	1485	1352	>40mj/cm <sup>3</sup>	BR
19	1.24	1.54	1.21	1.58	0.06	0.09	100.0%	0.07	1541	1157	>40mj/cm <sup>3</sup>	JA
20	1.28	1.47	1.17	1.64	0.05	0.07	100.0%	0.08	995	1278	>40mj/cm <sup>3</sup>	BR
21	1.28	1.46	1.15	1.63	0.07	0.14	100.0%	0.08	1897	1103	>40mj/cm <sup>3</sup>	BR
22	1.27	1.51	1.15	1.72	0.06	0.09	100.0%	0.08	995	1280	>40mj/cm <sup>3</sup>	BR
23	1.23	1.50	1.12	1.66	0.05	0.07	100.0%	0.08	1633	1573	>40mj/cm <sup>3</sup>	JA
24	1.30	1.49	1.13	1.68	0.05	0.06	100.0%	0.08	1532	1316	>40mj/cm <sup>3</sup>	JA
25	1.26	1.51	1.16	1.67	0.05	0.06	100.0%	0.08	1350	1150	>40mj/cm <sup>3</sup>	BR
26	1.23	1.46	1.12	1.69	0.07	0.16	100.0%	0.08	1384	1383	>40mj/cm <sup>3</sup>	BR
27	1.28	1.47	1.13	1.75	0.08	0.23	100.0%	0.08	881	1184	>40mj/cm <sup>3</sup>	BR
28	1.24	1.49	1.14	1.75	0.05	0.08	100.0%	0.09	1648	1360	>40mj/cm <sup>3</sup>	BR
29	1.22	1.53	1.16	1.68	0.05	0.06	100.0%	0.08	948	1133	>40mj/cm <sup>3</sup>	BR
30	1.29	1.48	1.18	1.67	0.04	0.06	100.0%	0.08	1524	1310	>40mj/cm <sup>3</sup>	BR
31	1.26	1.48	1.17	1.66	0.04	0.06	100.0%	0.07	1553	1475	>40mj/cm <sup>3</sup>	BR
<b>Overall Avg.</b>	<b>1.37</b>			<b>1.39</b>			<b>Monthly Avg.</b>	<b>Total</b>	40945	39789		
<b>Average</b>	<b>1.25</b>	<b>1.50</b>	<b>1.18</b>	<b>1.61</b>	<b>0.06</b>	<b>0.09</b>	<b>100.0%</b>	<b>0.08</b>	<b>1321</b>	<b>1284</b>		
<b>Max</b>		<b>1.62</b>		<b>1.75</b>	<b>Max</b>	<b>0.23</b>		<b>0.10</b>	<b>1897</b>	1573		
<b>Min</b>	<b>1.07</b>		<b>1.01</b>			<b>0.06</b>		<b>Min</b>	<b>119</b>	1103		

Chlorine Turbidity

February-21

	Filtered Cl2 Low	Filtered Cl2 High	Plant Cl2 Low	Plant Cl2 High	Filter Turb. Avg.	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb. Avg.	Raw Flow	Treated Flow	UV Dose	Initials
1	1.25	1.50	1.19	1.66	0.06	0.11	100.0%	0.07	1006	1152	>40mj/cm <sup>3</sup>	JA
2	1.28	1.56	1.16	1.69	0.06	0.12	100.0%	0.08	1730	1342	>40mj/cm <sup>3</sup>	JA
3	1.26	1.50	1.16	1.65	0.10	0.27	100.0%	0.08	1669	1316	>40mj/cm <sup>3</sup>	BR
4	1.27	1.46	1.17	1.63	0.05	0.08	100.0%	0.10	1009	1239	>40mj/cm <sup>3</sup>	BR
5	1.27	1.49	1.17	1.62	0.06	0.14	100.0%	0.09	1513	1185	>40mj/cm <sup>3</sup>	JA
6	1.22	1.55	1.17	1.64	0.04	0.07	100.0%	0.08	1504	1298	>40mj/cm <sup>3</sup>	CN
7	1.29	1.49	1.16	1.64	0.04	0.05	100.0%	0.07	1018	1310	>40mj/cm <sup>3</sup>	CN
8	1.28	1.50	1.16	1.64	0.04	0.05	100.0%	0.07	1497	1268	>40mj/cm <sup>3</sup>	BR
9	1.14	1.52	1.13	1.66	0.05	0.06	100.0%	0.07	1458	1252	>40mj/cm <sup>3</sup>	BR
10	1.26	1.51	1.22	1.64	0.05	0.06	100.0%	0.06	1002	1123	>40mj/cm <sup>3</sup>	JA
11	1.26	1.48	1.21	1.64	0.05	0.06	100.0%	0.06	1488	1279	>40mj/cm <sup>3</sup>	JA
12	1.26	1.49	1.19	1.63	0.05	0.06	100.0%	0.07	992	1264	>40mj/cm <sup>3</sup>	BR
13	1.29	1.48	1.22	1.66	0.05	0.08	100.0%	0.07	1504	1440	>40mj/cm <sup>3</sup>	KH
14	1.30	1.46	1.26	1.50	0.05	0.07	100.0%	0.07	1488	1278	>40mj/cm <sup>3</sup>	KH
15	1.27	1.47	1.23	1.61	0.04	0.06	100.0%	0.07	1495	1434	>40mj/cm <sup>3</sup>	KH
16	1.26	1.49	1.22	1.62	0.09	0.25	100.0%	0.07	1264	1241	>40mj/cm <sup>3</sup>	JA
17	1.28	1.50	1.19	1.62	0.05	0.07	100.0%	0.08	1259	1268	>40mj/cm <sup>3</sup>	JA
18	1.22	1.51	1.17	1.62	0.07	0.13	100.0%	0.08	2049	1278	>40mj/cm <sup>3</sup>	JA
19	1.26	1.48	1.13	1.69	0.06	0.08	100.0%	0.08	1015	1300	>40mj/cm <sup>3</sup>	JA
20	1.27	1.47	1.12	1.73	0.06	0.09	100.0%	0.09	1523	1466	>40mj/cm <sup>3</sup>	JA
21	1.23	1.49	1.18	1.71	0.05	0.07	100.0%	0.08	1536	1475	>40mj/cm <sup>3</sup>	JA
22	1.30	1.47	1.19	1.72	0.06	0.12	100.0%	0.10	1501	1285	>40mj/cm <sup>3</sup>	BR
23	1.24	1.52	1.17	1.66	0.05	0.08	100.0%	0.06	1462	1308	>40mj/cm <sup>3</sup>	BR
24	1.29	1.47	1.17	1.71	0.06	0.07	100.0%	0.06	1082	1313	>40mj/cm <sup>3</sup>	BR
25	1.28	1.47	1.16	1.79	0.07	0.10	100.0%	0.07	1535	1314	>40mj/cm <sup>3</sup>	JA
26	1.28	1.48	1.17	1.68	0.08	0.24	100.0%	0.07	1424	1215	>40mj/cm <sup>3</sup>	BR
27	1.29	1.50	1.17	1.65	0.05	0.07	100.0%	0.09	1016	1305	>40mj/cm <sup>3</sup>	BR
28	1.27	1.49	1.14	1.70	0.05	0.07	100.0%	0.08	1520	1378	>40mj/cm <sup>3</sup>	BR
				<b>1.42</b>			<b>Monthly Avg.</b>	<b>Total</b>	38559	36326		
<b>Average</b>	<b>1.26</b>	<b>1.49</b>	<b>1.18</b>	<b>1.66</b>	<b>0.06</b>	<b>0.10</b>	<b>100.0%</b>	<b>0.08</b>	<b>1462</b>	<b>1297</b>		
<b>Max</b>		<b>1.56</b>		<b>1.79</b>	<b>Max</b>	<b>0.27</b>		<b>0.10</b>	<b>1082</b>	1475		
<b>Min</b>	<b>1.14</b>		<b>1.12</b>			<b>0.05</b>		<b>Min</b>	<b>1006</b>	1123		

March-21

	Filtered Cl2 Low	Filtered Cl2 High	Plant Cl2 Low	Plant Cl2 High	Filter Turb. Avg.	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.23	1.46	1.15	1.72	0.05	0.08	100.0%	0.07	1418	1371	>40mj/cm <sup>3</sup>	JA
2	1.27	1.48	1.15	1.71	0.05	0.08	100.0%	0.07	1149	1185	>40mj/cm <sup>3</sup>	JA
3	1.26	1.52	1.15	1.71	0.05	0.07	100.0%	0.07	2206	1813	>40mj/cm <sup>3</sup>	JA
4	1.26	1.49	1.16	1.71	0.06	0.10	100.0%	0.05	1789	1200	>40mj/cm <sup>3</sup>	KH
5	1.30	1.50	1.17	1.66	0.05	0.07	100.0%	0.07	1514	1295	>40mj/cm <sup>3</sup>	KH
6	1.28	1.49	1.22	1.66	0.06	0.09	100.0%	0.07	1025	1310	>40mj/cm <sup>3</sup>	CN
7	1.26	1.51	1.18	1.66	0.07	0.14	100.0%	0.07	1528	1309	>40mj/cm <sup>3</sup>	CN
8	1.28	1.49	1.19	1.66	0.05	0.09	100.0%	0.07	1520	1305	>40mj/cm <sup>3</sup>	KH
9	1.26	1.51	1.19	1.69	0.05	0.06	100.0%	0.07	1008	1291	>40mj/cm <sup>3</sup>	KH
10	1.27	1.50	1.09	1.68	0.05	0.06	100.0%	0.06	1521	1284	>40mj/cm <sup>3</sup>	KH
11	1.24	1.51	1.05	1.74	0.05	0.09	100.0%	0.06	1270	1221	>40mj/cm <sup>3</sup>	KH
12	1.23	1.55	1.06	1.81	0.09	0.71	99.8%	0.09	1615	1345	>40mj/cm <sup>3</sup>	KH
13	1.29	1.47	1.07	1.75	0.05	0.07	99.8%	0.03	1355	1315	>40mj/cm <sup>3</sup>	KH
14	1.22	1.51	1.07	1.77	0.06	0.18	99.8%	0.10	1979	1265	>40mj/cm <sup>3</sup>	KH
15	1.23	1.51	1.11	1.75	0.05	0.12	99.8%	0.08	1979	1281	>40mj/cm <sup>3</sup>	JA
16	1.24	1.52	1.12	1.61	0.09	0.41	99.7%	0.08	1565	1233	>40mj/cm <sup>3</sup>	JA
17	1.27	1.49	1.14	1.61	0.04	0.08	99.7%	0.09	1840	1465	>40mj/cm <sup>3</sup>	JA
18	1.28	1.50	1.19	1.56	0.07	0.19	99.7%	0.07	1666	1666	>40mj/cm <sup>3</sup>	JA
19	1.28	1.49	1.22	1.53	0.04	0.07	99.7%	0.07	1383	1323	>40mj/cm <sup>3</sup>	JA
20	1.29	1.49	1.21	1.55	0.05	0.11	99.7%	0.06	2003	1690	>40mj/cm <sup>3</sup>	KH
21	1.25	1.52	1.19	1.55	0.05	0.07	99.8%	0.05	1487	1465	>40mj/cm <sup>3</sup>	KH
22	2.25	1.49	1.18	1.57	0.05	0.07	99.8%	0.05	1134	1218	>40mj/cm <sup>3</sup>	JA
23	1.24	1.51	1.18	1.57	0.05	0.07	99.8%	0.04	1002	1131	>40mj/cm <sup>3</sup>	KH
24	1.27	1.51	1.16	1.70	0.06	0.13	99.8%	0.04	2075	1232	>40mj/cm <sup>3</sup>	KH
25	1.13	1.90	1.10	1.80	0.08	0.13	99.8%	0.05	844	1265	>40mj/cm <sup>3</sup>	BR
26	1.22	1.51	1.17	1.68	0.06	0.13	99.8%	0.07	1616	1087	>40mj/cm <sup>3</sup>	BR
27	1.26	1.49	1.23	1.63	0.08	0.17	99.8%	0.06	1008	1293	>40mj/cm <sup>3</sup>	BR
28	1.26	1.53	1.29	2.59	0.05	0.08	99.8%	0.07	1508	1296	>40mj/cm <sup>3</sup>	BR
29	1.22	1.55	1.16	1.68	0.06	0.15	99.8%	0.07	1488	1275	>40mj/cm <sup>3</sup>	BR
30	1.24	1.49	1.10	1.85	0.06	0.10	99.8%	0.07	996	1267	>40mj/cm <sup>3</sup>	JA
31	1.00	1.57	1.10	1.85	0.07	0.13	99.8%	0.07	1481	1125	>40mj/cm <sup>3</sup>	JA
				<b>1.43</b>			<b>Monthly Avg.</b>	<b>Total</b>	45972	40821		
<b>Average</b>	<b>1.28</b>	<b>1.52</b>	<b>1.15</b>	<b>1.71</b>	<b>0.06</b>		<b>99.80</b>	<b>0.07</b>	<b>1483</b>	<b>1317</b>		
<b>Max</b>		<b>1.90</b>		<b>2.59</b>	<b>Max</b>	<b>0.71</b>		<b>0.10</b>	<b>2206</b>	1813		
<b>Min</b>	<b>1.00</b>		<b>1.05</b>			<b>0.06</b>		<b>Min</b>	<b>844</b>	1087		



April-21	Filter C12	Filter C12	Plant C12	Plant C12	Filter	Filter	Filter	Plant	Raw Flow	Treated	UV Dose	Initials
	Low	High	Low	High	Turb. Avg	Turb. Max	Performance 95% target both filters	Turb,		Flow		
1	1.20	1.55	1.13	1.93	0.05	0.10	100.0%	0.07	1015	1280	>40mj/cm <sup>3</sup>	CN
2	1.21	1.52	1.21	1.64	0.08	0.23	100.0%	0.07	1509	1292	>40mj/cm <sup>3</sup>	CN
3	1.23	1.49	1.30	1.57	0.08	0.19	100.0%	0.09	1384	1309	>40mj/cm <sup>3</sup>	CN
4	1.27	1.49	1.27	1.66	0.05	0.08	100.0%	0.09	1156	1318	>40mj/cm <sup>3</sup>	CN
5	1.20	1.63	1.29	1.52	0.05	0.08	100.0%	0.09	1513	1283	>40mj/cm <sup>3</sup>	BM
6	1.29	1.47	1.25	1.72	0.06	0.12	100.0%	0.07	1640	1196	>40mj/cm <sup>3</sup>	BR
7	1.27	1.50	1.21	1.82	0.05	0.07	100.0%	0.07	1210	1273	>40mj/cm <sup>3</sup>	BR
8	1.25	1.55	1.21	1.81	0.06	0.10	100.0%	0.08	1273	1129	>40mj/cm <sup>3</sup>	BR
9	0.82	1.66	1.15	2.80	0.07	0.11	100.0%	0.07	1082	1211	>40mj/cm <sup>3</sup>	BR
10	1.19	1.57	1.19	2.02	0.06	0.08	100.0%	0.07	1543	1331	>40mj/cm <sup>3</sup>	BR
11	1.21	1.61	1.16	2.06	0.05	0.11	100.0%	0.08	1393	1345	>40mj/cm <sup>3</sup>	BR
12	1.24	1.49	1.07	1.90	0.07	0.14	100.0%	0.11	1171	1114	>40mj/cm <sup>3</sup>	BR
13	1.20	1.61	1.05	1.59	0.09	0.25	100.0%	0.08	1619	1292	>40mj/cm <sup>3</sup>	JA
14	1.17	1.50	1.07	1.55	0.05	0.07	100.0%	0.10	1506	1277	>40mj/cm <sup>3</sup>	BM
15	1.21	1.52	1.05	1.57	0.05	0.07	100.0%	0.09	995	1134	>40mj/cm <sup>3</sup>	JA
16	1.23	1.62	1.13	1.57	0.05	0.07	100.0%	0.09	1487	1259	>40mj/cm <sup>3</sup>	JA
17	1.21	1.51	1.16	1.53	0.06	0.08	100.0%	0.08	1185	1298	>40mj/cm <sup>3</sup>	JA
18	1.21	1.57	1.14	1.53	0.07	0.10	100.0%	0.08	1338	1300	>40mj/cm <sup>3</sup>	JA
19	1.19	1.62	0.99	1.24	0.07	0.09	100.0%	0.08	1485	1126	>40mj/cm <sup>3</sup>	JA
20	1.11	1.56	1.12	1.57	0.06	0.08	100.0%	0.08	1000	1122	>40mj/cm <sup>3</sup>	BM
21	1.21	1.56	1.12	1.57	0.06	0.07	100.0%	0.07	1516	1302	>40mj/cm <sup>3</sup>	BM
22	1.22	1.52	1.11	1.57	0.06	0.07	100.0%	0.07	1002	1289	>40mj/cm <sup>3</sup>	BM
23	1.26	1.52	1.11	1.57	0.05	0.09	100.0%	0.05	1539	1302	>40mj/cm <sup>3</sup>	CH
24	1.08	1.66	1.16	1.54	0.05	0.07	100.0%	0.05	1555	1485	>40mj/cm <sup>3</sup>	CH
25	1.29	1.56	1.16	1.54	0.05	0.08	100.0%	0.06	1352	1316	>40mj/cm <sup>3</sup>	CH
26	1.19	1.52	1.16	1.55	0.05	0.08	100.0%	0.06	1495	1288	>40mj/cm <sup>3</sup>	JA
27	1.20	1.53	1.14	1.56	0.07	0.10	100.0%	0.07	981	1265	>40mj/cm <sup>3</sup>	JA
28	1.16	1.50	1.11	1.61	0.16	0.44	99.8%	0.08	1659	1210	>40mj/cm <sup>3</sup>	JA
29	1.12	1.63	1.01	1.64	0.06	0.11	99.8%	0.13	1483	1119	>40mj/cm <sup>3</sup>	JA
30	1.26	1.52	1.05	1.61	0.05	0.05	99.8%	0.11	1002	1290	>40mj/cm <sup>3</sup>	JA
Overall Avg.		<b>1.37</b>		<b>1.41</b>			<b>Monthly Avg.</b>	<b>Total</b>	40088	37755		
<b>Average</b>	<b>1.20</b>	<b>1.55</b>	<b>1.14</b>	<b>1.68</b>	<b>0.06</b>		<b>99.80</b>	<b>0.08</b>	<b>1336</b>	<b>1259</b>		
<b>Max</b>				<b>2.80</b>	<b>Max</b>	<b>0.44</b>		<b>0.13</b>	<b>1659</b>	1485		
<b>Min</b>	<b>0.82</b>		<b>0.99</b>			<b>0.05</b>		<b>Min</b>	<b>981</b>	1114		

May-21

	Filter CI2 Low	Filter CI2 High	Plant CI2 Low	Plant CI2 High	Filter Turb. Avg.	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb.	Raw Flow	Treated Flow	UV Dose	Initials
1	1.24	1.59	1.11	1.56	0.04	0.08	100.0%	0.08	1509	1301	>40mj/cm <sup>3</sup>	CN
2	1.26	1.53	1.15	1.56	0.04	0.08	100.0%	0.08	1502	1288	>40mj/cm <sup>3</sup>	CN
3	1.19	1.54	1.17	1.53	0.06	0.08	100.0%	0.075	1006	1287	>40mj/cm <sup>3</sup>	JA
4	1.23	1.53	1.16	1.97	0.13	0.24	100.0%	0.077	1347	1287	>40mj/cm <sup>3</sup>	JA
5	1.19	1.59	1.11	1.62	0.08	0.16	100.0%	0.109	1521	1300	>40mj/cm <sup>3</sup>	JA
6	1.09	1.61	1.08	1.61	0.06	0.10	100.0%	0.107	1595	1221	>40mj/cm <sup>3</sup>	JA
7	1.18	1.67	1.10	1.25	0.05	0.10	100.0%	0.111	3128	1608	>40mj/cm <sup>3</sup>	JA
8	1.25	1.49	1.14	1.57	0.05	0.08	100.0%	0.088	1560	1267	>40mj/cm <sup>3</sup>	JA
9	1.24	1.52	1.14	1.55	0.06	0.12	100.0%	0.086	2090	1440	>40mj/cm <sup>3</sup>	JA
10	1.24	1.50	1.17	1.54	0.05	0.08	100.0%	0.081	1396	1306	>40mj/cm <sup>3</sup>	BR
11	1.24	1.48	1.17	1.54	0.06	0.08	100.0%	0.075	1104	1113	>40mj/cm <sup>3</sup>	BR
12	1.23	1.53	1.14	1.54	0.06	0.07	100.0%	0.07	1525	1468	>40mj/cm <sup>3</sup>	BR
13	1.28	2.51	1.13	1.55	0.06	0.07	100.0%	0.082	1544	1465	>40mj/cm <sup>3</sup>	BR
14	1.22	1.54	1.14	1.57	0.06	0.07	100.0%	0.073	1549	1341	>40mj/cm <sup>3</sup>	BR
15	1.22	1.51	1.14	1.59	0.06	0.09	100.0%	0.062	1557	1504	>40mj/cm <sup>3</sup>	BR
16	1.23	1.52	1.16	1.58	0.06	0.09	100.0%	0.062	1537	1628	>40mj/cm <sup>3</sup>	BR
17	1.2	1.57	1.19	1.55	0.06	0.09	100.0%	0.059	1543	1339	>40mj/cm <sup>3</sup>	JA
18	1.26	1.52	1.26	1.49	0.06	0.15	100.0%	0.059	1571	1659	>40mj/cm <sup>3</sup>	JA
19	2.22	1.51	1.27	1.44	0.08	0.13	100.0%	0.067	2128	1508	>40mj/cm <sup>3</sup>	BR
20	1.21	1.66	1.14	1.52	0.07	0.17	100.0%	0.089	1572	1661	>40mj/cm <sup>3</sup>	JA
21	1.22	1.51	1.16	1.52	0.05	0.08	100.0%	0.1	1579	1096	>40mj/cm <sup>3</sup>	JA
22	1.22	1.52	1.12	1.55	0.05	0.08	100.0%	0.1	2078	1502	>40mj/cm <sup>3</sup>	CN
23	1.18	1.61	1.14	1.55	0.07	0.12	100.0%	0.09	1560.4	1508	>40mj/cm <sup>3</sup>	CN
24	1.21	1.52	1.09	1.60	0.07	0.09	100.0%	0.102	1602	1864	>40mj/cm <sup>3</sup>	CN
25	1.05	1.56	0.98	1.66	0.06	0.14	100.0%	0.114	2478	2292	>40mj/cm <sup>3</sup>	JA
26	1.21	1.67	1.12	1.54	0.06	0.11	100.0%	0.118	1907	1687	>40mj/cm <sup>3</sup>	JA
27	1.13	1.54	1.06	1.64	0.06	0.10	100.0%	0.091	2169	1943	>40mj/cm <sup>3</sup>	JA
28	1.11	1.43	1.01	1.47	0.06	0.09	100.0%	0.081	1008	1289	>40mj/cm <sup>3</sup>	BR
29	1.15	1.42	0.96	1.52	0.12	0.23	100.0%	0.084	1803	1683	>40mj/cm <sup>3</sup>	JA
30	1.16	1.41	0.96	1.49	0.06	0.11	100.0%	0.106	1924	1705	>40mj/cm <sup>3</sup>	JA
31	1.12	1.41	1.00	1.53	0.07	0.12	100.0%	0.094	1537	1773	>40mj/cm <sup>3</sup>	BR
Overall Avg.		<b>1.40</b>		<b>1.34</b>			<b>Monthly Avg.</b>	<b>Total</b>	51929	46333		
<b>Average</b>	<b>1.24</b>	<b>1.57</b>	<b>1.12</b>	<b>1.55</b>	<b>0.06</b>		<b>100%</b>	<b>0.09</b>	<b>1675</b>	<b>1495</b>		
MAX				<b>1.97</b>	<b>Max</b>	<b>0.24</b>		<b>0.118</b>	<b>3128</b>	2292		
Min	<b>1.09</b>		<b>0.96</b>			<b>0.07</b>		<b>Min</b>	<b>1006</b>	1096		

June-21

	Filter C12 Low	Filter C12 High	Plant C12 Low	Plant C12 High	Filter Turb. Avg	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.1	1.44	0.93	1.56	0.064	0.12	100%	0.097	2556	2116	>40mj/cm <sup>3</sup>	JA
2	1.11	1.62	0.95	1.65	0.059	0.12	100%	0.1	2987	1768	>40mj/cm <sup>3</sup>	BR
3	1.24	1.57	1.01	1.63	0.057	0.11	100%	0.113	1515	1462	>40mj/cm <sup>3</sup>	BR
4	1.24	1.55	1.13	1.61	0.061	0.12	100%	0.118	1611	1858	>40mj/cm <sup>3</sup>	BR
5	1.3	1.57	1.19	1.55	0.06	0.12	100%	0.117	2236	1999	>40mj/cm <sup>3</sup>	BR
6	1.24	1.53	1.18	1.54	0.059	0.12	100%	0.107	2267	2190	>40mj/cm <sup>3</sup>	BR
7	1.24	1.53	1.18	1.57	0.061	0.12	100%	0.099	1876	2021	>40mj/cm <sup>3</sup>	BR
8	1.22	1.59	1.1	1.59	0.078	0.21	100%	0.101	3059	2132	>40mj/cm <sup>3</sup>	BR
9	1.22	1.53	1.14	1.6	0.07	0.13	100%	0.114	2110	2210	>40mj/cm <sup>3</sup>	BR
10	1.16	1.59	1.05	1.68	0.07	0.09	100%	0.11	2139	2309	>40mj/cm <sup>3</sup>	BR
11	1.24	1.61	1.05	1.57	0.06	0.09	100%	0.12	2240	1862	>40mj/cm <sup>3</sup>	BM
12	1.3	1.52	1.13	1.57	0.07	0.11	100%	0.12	2090	1991	>40mj/cm <sup>3</sup>	CN
13	1.27	1.54	1.14	1.53	0.066	0.09	100%	0.152	2065	2162	>40mj/cm <sup>3</sup>	CN
14	1.15	1.57	1.16	1.54	0.07	0.09	100%	0.15	1938	1701	>40mj/cm <sup>3</sup>	JA
15	1.24	1.55	1.14	1.54	0.07	0.1	100%	0.1	2113	1903	>40mj/cm <sup>3</sup>	BM
16	1.22	1.6	1.23	1.5	0.06	0.09	100%	0.08	2280	1891	>40mj/cm <sup>3</sup>	BM
17	1.27	1.57	1.23	1.52	0.04	0.31	100%	0.08	2620	2032	>40mj/cm <sup>3</sup>	BM
18	1.07	1.56	1.18	1.56	0.07	0.11	100%	0.09	1704	1914	>40mj/cm <sup>3</sup>	BM
19	1.28	1.5	1.15	1.58	0.07	0.1	100%	0.11	3764	3286	>40mj/cm <sup>3</sup>	BM
20	1.23	1.57	1.1	1.61	0.07	0.1	100%	0.09	1684	2142	>40mj/cm <sup>3</sup>	BM
21	1.2	1.56	1.03	1.6	0.07	0.11	100%	0.09	1963	1664	>40mj/cm <sup>3</sup>	BM
22	1.23	1.54	1.05	1.59	0.07	0.09	100%	0.08	2077	1959	>40mj/cm <sup>3</sup>	BM
23	1.2	1.61	1.06	1.59	0.06	0.09	100%	0.08	2158	1826	>40mj/cm <sup>3</sup>	BM
24	1.24	1.54	1.1	1.58	0.06	0.08	100%	0.08	1666	1760	>40mj/cm <sup>3</sup>	BM
25	0.75	1.51	1.09	1.55	0.058	0.08	100%	0.072	1631	1548	>40mj/cm <sup>3</sup>	EH
26	1.21	1.59	1.07	1.57	0.062	0.08	100%	0.078	1591	1463	>40mj/cm <sup>3</sup>	BR
27	1.2	1.53	1.06	1.57	0.09	0.072	100%	0.08	1462	1484	>40mj/cm <sup>3</sup>	BR
28	1.17	1.59	1.06	1.65	0.12	0.078	100%	0.09	1852	1445	>40mj/cm <sup>3</sup>	BM
29	1.06	1.53	1.03	1.59	0.1	0.08	99.1%	0.12	1734	1748	>40mj/cm <sup>3</sup>	BM
30	1.15	1.56	1.05	1.59	0.09	0.09	97.7%	0.11	1173	1466	>40mj/cm <sup>3</sup>	BM
Overall Avg.		<b>1.37</b>		<b>1.34</b>		0.12	<b>Monthly Avg.</b>	<b>Total</b>	62161	57312		
<b>Average</b>	<b>1.19</b>	<b>1.56</b>	<b>1.10</b>	<b>1.58</b>	<b>0.07</b>	<b>0.11</b>	<b>97.7%</b>	<b>0.10</b>	<b>2072</b>	<b>1910</b>		
<b>Max</b>				<b>1.68</b>	<b>Max</b>	<b>0.31</b>		<b>0.15</b>	<b>3764</b>	3286		
<b>Min</b>	<b>0.75</b>		<b>0.93</b>			<b>0.07</b>		<b>Min</b>	<b>1173</b>	1445		

July-21	Filter CI2 Low	Filter CI2 High	Plant CI2 Low	Plant CI2 High	Filter Turb. Avg	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.21	1.53	1.12	1.55	0.10	0.17	100%	0.11	1683	1468	>40mj/cm <sup>3</sup>	CN
2	1.17	1.64	1.02	1.58	0.12	0.27	100%	0.11	2291	1637	>40mj/cm <sup>3</sup>	BM
3	1.25	1.51	1.14	1.53	0.11	0.19	100%	0.13	1749	1679	>40mj/cm <sup>3</sup>	CN
4	1.19	1.56	1.16	1.52	0.10	0.14	100%	0.12	1755	1695	>40mj/cm <sup>3</sup>	CN
5	1.21	1.62	1.18	1.53	0.10	0.14	100%	0.11	1632	1579	>40mj/cm <sup>3</sup>	BM
6	1.08	2.00	1.12	1.54	0.14	0.21	100%	0.11	1473	1605	>40mj/cm <sup>3</sup>	BM
7	1.22	1.58	1.20	1.60	0.20	0.42	100%	0.12	1806	1553	>40mj/cm <sup>3</sup>	BM
8	1.13	1.53	1.26	1.57	0.12	0.33	100%	0.16	1168	1458	>40mj/cm <sup>3</sup>	BM
9	1.19	1.53	1.21	1.46	0.10	0.21	100%	0.14	1881	1330	>40mj/cm <sup>3</sup>	EH
10	1.21	1.53	1.19	1.48	0.07	0.13	100%	0.12	1178	1616	>40mj/cm <sup>3</sup>	BR
11	1.25	1.51	1.21	1.50	0.07	0.10	100%	0.10	1700	1488	>40mj/cm <sup>3</sup>	BR
12	1.22	1.64	1.14	1.50	0.12	0.90	100%	0.09	2149	1635	>40mj/cm <sup>3</sup>	EH
13	1.21	1.56	1.11	1.52	0.09	0.19	100%	0.11	1712	1343	>40mj/cm <sup>3</sup>	BM
14	1.14	1.50	1.09	1.64	0.17	0.56	100%	0.10	1897	1563	>40mj/cm <sup>3</sup>	BM
15	0.99	1.80	1.08	1.57	0.09	0.19	100%	0.14	1550	1540	>40mj/cm <sup>3</sup>	BM
16	1.05	1.61	1.09	1.57	0.07	0.10	100%	0.13	1907	1498	>40mj/cm <sup>3</sup>	BM
17	1.19	1.49	1.04	1.61	0.06	0.09	100%	0.09	1715	1642	>40mj/cm <sup>3</sup>	BR
18	1.15	1.53	1.03	1.63	0.06	0.12	100%	0.07	1742	1510	>40mj/cm <sup>3</sup>	BR
19	1.11	1.58	1.02	1.63	0.06	0.09	100%	0.07	1554	1655	>40mj/cm <sup>3</sup>	EH
20	1.17	1.52	1.07	1.57	0.07	0.52	100%	0.06	1660	1673	>40mj/cm <sup>3</sup>	EH
21	1.21	1.52	1.09	1.54	0.07	0.14	100%	0.07	1715	1478	>40mj/cm <sup>3</sup>	CN
22	1.23	1.56	1.14	1.52	0.05	0.10	100%	0.07	1173	1598	>40mj/cm <sup>3</sup>	CN
23	1.21	1.48	1.11	1.54	0.05	0.79	100%	0.06	1744	1652	>40mj/cm <sup>3</sup>	CN
24	1.23	1.50	1.07	1.56	0.06	0.09	100%	0.05	1735	1463	>40mj/cm <sup>3</sup>	CN
25	1.18	1.48	1.05	1.54	0.09	0.22	100%	0.06	2039	1573	>40mj/cm <sup>3</sup>	CN
26	1.16	1.61	1.10	2.08	0.07	0.13	100%	0.09	1653	1181	>40mj/cm <sup>3</sup>	BM
27	1.20	1.58	1.00	1.55	0.12	0.23	100%	0.09	2266	1545	>40mj/cm <sup>3</sup>	BM
28	1.17	1.57	1.03	1.57	0.10	0.12	100%	0.11	1799	1488	>40mj/cm <sup>3</sup>	BM
29	1.12	1.58	1.05	1.61	0.18	0.25	100%	0.10	1847	1642	>40mj/cm <sup>3</sup>	BM
30	1.23	1.51	1.03	1.59	0.13	0.42	98.9%	0.13	1817	1829	>40mj/cm <sup>3</sup>	BM
31	1.21	1.51	1.03	1.70	0.15	0.36	98.6%	0.12	1768	1671	>40mj/cm <sup>3</sup>	BM
<b>Overall Avg.</b>		<b>1.37</b>		<b>1.34</b>			<b>Monthly Avg.</b>	<b>Total</b>	53758	48287		
<b>Average</b>	<b>1.18</b>	<b>1.57</b>	<b>1.10</b>	<b>1.58</b>	<b>0.10</b>		<b>98.6%</b>	<b>0.10</b>	<b>1734</b>	<b>1558</b>		
Max				<b>2.08</b>	<b>Max</b>	<b>0.90</b>		<b>Max</b>	<b>2291</b>	1829		
Min	<b>0.99</b>		<b>1.00</b>			<b>0.09</b>		<b>Min</b>	<b>1168</b>	1181		

August-21	Filter C12 Low	Filter C12 High	Plant C12 Low	Plant C12 High	Filter Turb. Avg	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.19	1.50	1.07	1.67	0.06	0.12	100.0%	0.12	1773	1747	>40mj/cm <sup>3</sup>	BM
2	1.22	1.51	1.04	1.76	0.07	0.12	100.0%	0.09	1778	1718	>40mj/cm <sup>3</sup>	BM
3	1.20	1.53	1.03	1.75	0.06	0.09	100.0%	0.07	1989	1886	>40mj/cm <sup>3</sup>	BM
4	1.19	1.49	1.07	1.77	0.05	0.07	100.0%	0.07	2014	1852	>40mj/cm <sup>3</sup>	BM
5	1.12	1.58	1.08	1.73	0.06	0.13	100.0%	0.06	3117	1818	>40mj/cm <sup>3</sup>	BM
6	1.26	1.51	1.05	1.72	0.05	0.06	100.0%	0.06	1213	1630	>40mj/cm <sup>3</sup>	BR
7	1.16	1.57	1.10	1.73	0.05	0.06	100.0%	0.06	1748	1484	>40mj/cm <sup>3</sup>	BR
8	1.21	1.53	1.11	1.73	0.05	0.07	100.0%	0.05	1890	1491	>40mj/cm <sup>3</sup>	BR
9	1.15	1.51	1.07	1.73	0.05	0.06	99.5%	0.06	1015	1459	>40mj/cm <sup>3</sup>	DL
10	1.21	1.52	1.08	1.80	0.08	0.12	99.6%	0.07	2550	1562	>40mj/cm <sup>3</sup>	DL
11	1.24	1.49	1.02	1.73	0.07	0.10	99.6%	0.07	1189	1556	>40mj/cm <sup>3</sup>	BM
12	1.22	1.56	1.05	1.73	0.08	0.11	99.6%	0.08	1671	1571	>40mj/cm <sup>3</sup>	DL
13	1.18	1.54	1.05	1.69	0.06	0.09	99.7%	0.07	1728	1591	>40mj/cm <sup>3</sup>	DL
14	1.21	1.51	1.03	1.73	0.06	0.10	99.7%	0.06	1731	1536	>40mj/cm <sup>3</sup>	CN
15	1.20	1.51	0.98	1.80	0.06	0.08	99.7%	0.07	1739	1610	>40mj/cm <sup>3</sup>	CN
16	1.17	1.51	0.98	1.77	0.06	0.08	99.7%	0.06	1670	1524	>40mj/cm <sup>3</sup>	DL
17	1.20	1.52	1.03	1.73	0.05	0.07	99.8%	0.05	1542	1455	>40mj/cm <sup>3</sup>	DL
18	1.20	1.49	1.06	1.70	0.07	0.11	99.8%	0.07	1755	1633	>40mj/cm <sup>3</sup>	BM
19	1.18	1.50	1.08	1.72	0.06	0.10	99.8%	0.07	2279	1671	>40mj/cm <sup>3</sup>	DL
20	1.15	1.52	1.08	1.74	0.08	0.10	99.8%	0.07	2340	1673	>40mj/cm <sup>3</sup>	BM
21	1.18	1.51	1.05	1.77	0.07	0.10	99.8%	0.08	1907	1808	>40mj/cm <sup>3</sup>	BR
22	1.13	1.50	1.05	1.78	0.07	0.09	99.8%	0.08	1785	1699	>40mj/cm <sup>3</sup>	BR
23	1.17	1.53	1.00	1.78	0.07	0.09	99.8%	0.08	1835	1732	>40mj/cm <sup>3</sup>	JA
24	1.15	1.53	0.97	1.80	0.07	0.09	99.8%	0.09	1765	1812	>40mj/cm <sup>3</sup>	JA
25	1.14	1.68	0.95	1.84	0.07	0.09	99.8%	0.09	1729	1668	>40mj/cm <sup>3</sup>	JA
26	1.21	1.72	0.92	1.75	0.08	0.09	99.8%	0.08	2229	1738	>40mj/cm <sup>3</sup>	JA
27	1.28	1.62	1.02	1.65	0.90	0.05	99.8%	0.11	1580	1659	>40mj/cm <sup>3</sup>	JA
28	1.26	1.62	1.06	1.66	0.08	0.14	99.8%	0.09	1815	1707	>40mj/cm <sup>3</sup>	JA
29	1.30	1.65	1.18	1.63	0.08	0.10	99.8%	0.10	1714	1625	>40mj/cm <sup>3</sup>	JA
30	1.30	1.71	1.21	1.65	0.09	0.10	99.8%	0.10	2154	1617	>40mj/cm <sup>3</sup>	DL
31	1.30	1.63	1.11	1.62	0.09	0.12	99.8%	0.10	1727	1597	>40mj/cm <sup>3</sup>	DL
<b>Overall Avg.</b>		<b>1.38</b>		<b>1.39</b>			<b>Monthly Avg.</b>	<b>Total</b>	56971	51129		
<b>Average</b>	<b>1.20</b>	<b>1.55</b>	<b>1.05</b>	<b>1.73</b>	<b>0.09</b>		<b>99.8%</b>	<b>0.08</b>	<b>1838</b>	<b>1649</b>		
<b>Max</b>				<b>1.84</b>	<b>Max</b>	<b>0.14</b>		<b>Max</b>	<b>3117</b>	1886		
<b>Min</b>	<b>1.12</b>		<b>0.92</b>			<b>0.05</b>		<b>Min</b>	<b>1015</b>	1455		

September-21	Filter Cl2 Low	Filter Cl2 High	Plant Cl2 Low	Plant Cl2 High	Filter Turb. Avg.	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.14	1.65	1.09	1.66	0.10	0.16	100.0%	0.10	1758	1658	>40mj/cm <sup>3</sup>	DL
2	1.32	1.61	1.03	1.66	0.10	0.16	100.0%	0.10	1378	1477	>40mj/cm <sup>3</sup>	DL
3	1.23	1.67	1.00	1.65	0.08	0.11	100.0%	0.09	1767	1647	>40mj/cm <sup>3</sup>	EH
4	1.32	1.61	1.03	1.69	0.08	0.10	100.0%	0.09	1579	1481	>40mj/cm <sup>3</sup>	BR
5	1.29	1.61	1.02	1.67	0.08	0.11	100.0%	0.08	1683	1588	>40mj/cm <sup>3</sup>	BR
6	1.26	1.62	0.99	1.69	0.09	0.11	100.0%	0.08	1182	1455	>40mj/cm <sup>3</sup>	BR
7	1.21	1.72	0.99	1.68	0.12	0.16	100.0%	0.09	2213	1305	>40mj/cm <sup>3</sup>	JA
8	1.04	1.64	1.07	1.63	0.01	0.14	100.0%	0.10	1331	1412	>40mj/cm <sup>3</sup>	DL
9	1.25	1.64	1.15	1.64	0.08	0.12	100.0%	0.10	1322	1270	>40mj/cm <sup>3</sup>	JA
10	1.24	1.78	1.19	1.62	0.10	0.19	100.0%	0.10	1316	1431	>40mj/cm <sup>3</sup>	DL
11	1.3	1.61	1.09	1.64	0.07	0.09	100.0%	0.10	1897	1295	>40mj/cm <sup>3</sup>	JA
12	1.21	1.64	1.08	1.67	0.08	0.11	100.0%	0.08	1358	1444	>40mj/cm <sup>3</sup>	JA
13	1.26	1.62	1.10	1.64	0.08	0.11	100.0%	0.09	1035	1305	>40mj/cm <sup>3</sup>	DL
14	1.26	1.6	1.07	1.65	0.08	0.13	100.0%	0.09	1844	1415	>40mj/cm <sup>3</sup>	DL
15	1.14	1.69	1.03	1.65	0.08	0.10	100.0%	0.08	1369	1327	>40mj/cm <sup>3</sup>	JA
16	1.29	1.6	1.16	1.61	0.08	0.09	100.0%	0.08	1190	1434	>40mj/cm <sup>3</sup>	DL
17	1.26	1.65	1.17	1.61	0.07	0.10	100.0%	0.08	1311	1243	>40mj/cm <sup>3</sup>	DL
18	1.25	1.62	1.08	1.63	0.08	0.10	100.0%	0.08	1993	1432	>40mj/cm <sup>3</sup>	BR
19	1.28	1.6	1.07	1.66	0.09	0.11	100.0%	0.08	1373	1449	>40mj/cm <sup>3</sup>	BR
20	1.31	1.63	1.05	1.64	0.08	0.22	100.0%	0.09	1687	1384	>40mj/cm <sup>3</sup>	JA
21	1.22	1.64	1.01	1.67	0.09	0.41	99.9%	0.09	1800	1315	>40mj/cm <sup>3</sup>	JA
22	1.05	1.62	1.09	1.66	0.07	0.15	99.9%	0.08	1199	1234	>40mj/cm <sup>3</sup>	JA
23	1.3	1.61	1.05	1.65	0.09	0.27	99.9%	0.08	1259	1251	>40mj/cm <sup>3</sup>	DL
24	1.25	1.7	0.98	1.69	0.05	0.13	99.9%	0.08	1651	1263	>40mj/cm <sup>3</sup>	DL
25	1.35	1.6	1.01	1.66	0.09	0.20	99.9%	0.08	1005	1261	>40mj/cm <sup>3</sup>	JA
26	1.3	1.62	1.03	1.74	0.05	0.09	99.9%	0.08	2169	1438	>40mj/cm <sup>3</sup>	JA
27	1.31	1.62	1.16	1.62	0.06	0.08	99.9%	0.07	1144	1254	>40mj/cm <sup>3</sup>	DL
28	1.27	1.62	1.14	1.63	0.06	0.09	99.9%	0.07	1652	1257	>40mj/cm <sup>3</sup>	DL
29	1.16	1.65	1.00	1.88	0.05	0.08	99.9%	0.07	1109	1366	>40mj/cm <sup>3</sup>	DL
30	1.34	1.63	1.21	1.61	0.05	0.08	99.9%	0.06	1650	1246	>40mj/cm <sup>3</sup>	DL
<b>Overall Avg.</b>		<b>1.44</b>		<b>1.37</b>			<b>Monthly Avg.</b>	<b>Total</b>	45224	41337		
<b>Average</b>	<b>1.25</b>	<b>1.64</b>	<b>1.07</b>	<b>1.66</b>	<b>0.08</b>		<b>99.9%</b>	<b>0.08</b>	<b>1507</b>	<b>1378</b>		
<b>Max</b>				<b>1.88</b>	<b>Max</b>	<b>0.41</b>		<b>Max</b>	<b>2213</b>	1658		
<b>Min</b>	<b>1.04</b>		<b>0.98</b>			<b>0.08</b>		<b>Min</b>	<b>1005</b>	1234		

October-21

	Filter C12 Low	Filter C12 High	Plant C12 Low	Plant C12 High	Filter Turb. Avg	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.31	1.63	1.27	1.64	0.06	0.07	100%	0.06	999	1411	>40mj/cm <sup>3</sup>	DL
2	1.25	1.62	1.3	1.59	0.06	0.08	100%	0.07	1684	1290	>40mj/cm <sup>3</sup>	DL
3	1.32	1.63	1.21	1.64	0.06	0.2	100%	0.07	1619	1431	>40mj/cm <sup>3</sup>	DL
4	1.33	1.65	1.21	1.69	0.11	0.16	100%	0.09	2082	1258	>40mj/cm <sup>3</sup>	BR
5	1.35	1.6	1.12	1.72	0.08	0.15	100%	0.1	1103	1205	>40mj/cm <sup>3</sup>	JA
6	1.31	1.61	1.1	1.63	0.09	0.12	100%	0.1	1157	1271	>40mj/cm <sup>3</sup>	JA
7	1.29	1.63	1.29	1.63	0.08	0.12	100%	0.09	1806	1390	>40mj/cm <sup>3</sup>	JA
8	1.33	1.61	1.16	1.68	0.07	0.08	100%	0.08	1196	1291	>40mj/cm <sup>3</sup>	BR
9	1.34	1.62	1.15	1.68	0.06	0.08	100%	0.08	1220	1303	>40mj/cm <sup>3</sup>	JA
10	1.28	1.73	1.18	1.65	0.07	0.11	100%	0.07	1695	1444	>40mj/cm <sup>3</sup>	JA
11	1.36	1.57	1.12	1.64	0.07	0.09	100%	0.08	1057	1302	>40mj/cm <sup>3</sup>	JA
12	1.28	1.63	1.09	1.72	0.07	0.08	100%	0.08	1967	1372	>40mj/cm <sup>3</sup>	BR
13	1.16	1.66	1.07	1.66	0.09	0.12	100%	0.09	2151	1273	>40mj/cm <sup>3</sup>	BR
14	1.34	1.64	1.05	1.73	0.08	0.11	100%	0.1	991	1250	>40mj/cm <sup>3</sup>	BR
15	1.31	1.64	1.05	1.66	0.07	0.09	100%	0.09	1675	1278	>40mj/cm <sup>3</sup>	BR
16	1.32	1.61	1.07	1.72	0.08	0.1	100%	0.09	1059	1312	>40mj/cm <sup>3</sup>	BR
17	1.29	1.64	1.09	1.70	0.12	0.18	100%	0.09	1691	1440	>40mj/cm <sup>3</sup>	BR
18	1.3	1.65	1.12	1.72	0.09	0.12	100%	0.1	1402	1178	>40mj/cm <sup>3</sup>	CH
19	1.21	2	0.87	1.75	0.1	0.2	100%	0.1	1167	1262	>40mj/cm <sup>3</sup>	CH
20	1.34	1.63	1	1.88	0.07	0.09	100%	0.1	1438	1352	>40mj/cm <sup>3</sup>	DL
21	1.32	1.61	0.94	1.87	0.12	0.83	99.9%	0.09	1755	1601	>40mj/cm <sup>3</sup>	DL
22	1.3	1.65	1.14	1.69	0.08	0.12	99.9%	0.08	1659	1519	>40mj/cm <sup>3</sup>	CH
23	1.31	1.6	1.09	1.67	0.08	0.16	99.9%	0.08	1202	1433	>40mj/cm <sup>3</sup>	CH
24	1.31	1.58	1.14	1.65	0.06	0.07	99.9%	0.08	1691	1305	>40mj/cm <sup>3</sup>	CH
25	1.33	1.62	1.15	1.65	0.08	0.12	99.9%	0.08	1487	1258	>40mj/cm <sup>3</sup>	DL
26	1.36	1.62	1.18	1.66	0.23	0.32	99.8%	0.08	1422	1258	>40mj/cm <sup>3</sup>	DL
27	1.4	1.57	1.19	1.63	0.07	0.16	99.8%	0.09	1155	1107	>40mj/cm <sup>3</sup>	BR
28	1.35	1.64	1.23	1.69	0.06	0.08	99.8%	0.09	1912	1658	>40mj/cm <sup>3</sup>	DL
29	1.4	1.58	1.21	1.70	0.07	0.15	99.8%	0.07	947	1326	>40mj/cm <sup>3</sup>	DL
30	1.35	1.61	1.19	1.64	0.06	0.08	99.8%	0.07	1647	1291	>40mj/cm <sup>3</sup>	DL
31	1.35	1.59	1.2	1.60	0.05	0.06	99.9%	0.07	1179	1288	>40mj/cm <sup>3</sup>	DL
<b>Overall Avg.</b>		<b>1.48</b>		<b>1.41</b>			<b>Monthly Avg.</b>	<b>Total</b>	45215	41357		
<b>Average</b>	<b>1.32</b>	<b>1.63</b>	<b>1.13</b>	<b>1.68</b>	<b>0.08</b>		<b>99.90</b>	<b>0.08</b>	<b>1459</b>	<b>1334</b>		
<b>Max</b>				<b>1.88</b>	<b>Max</b>	<b>0.83</b>		<b>Max</b>	<b>2151</b>	1658		
<b>Min</b>	<b>1.16</b>		<b>0.87</b>			<b>0.06</b>		<b>Min</b>	<b>947</b>	1107		

November-21

	Filter C12 Low	Filter C12 High	Plant C12 Low	Plant C12 High	Filter Turb. Avg	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	0.67	1.61	1.23	1.64	0.05	0.07	100.0%	0.06	1670	1383	>40mj/cm <sup>3</sup>	JA
2	1.39	1.73	1.19	1.67	0.07	0.15	100.0%	0.06	1537	1216	>40mj/cm <sup>3</sup>	JA
3	0.86	1.61	1.3	1.61	0.06	0.08	100.0%	0.07	1856	1236	>40mj/cm <sup>3</sup>	JA
4	1.38	1.6	1.18	1.63	0.06	0.08	100.0%	0.07	998	1111	>40mj/cm <sup>3</sup>	JA
5	1.37	1.6	1.12	1.64	0.06	0.07	100.0%	0.07	1165	1257	>40mj/cm <sup>3</sup>	JA
6	1.36	1.6	1.16	1.66	0.06	0.07	100.0%	0.07	1659	1275	>40mj/cm <sup>3</sup>	JA
7	1.38	1.59	1.18	1.64	0.05	0.06	100.0%	0.07	1218	1448	>40mj/cm <sup>3</sup>	JA
8	1.38	1.59	1.16	1.64	0.06	0.06	100.0%	0.06	1001	1267	>40mj/cm <sup>3</sup>	BR
9	1.38	1.58	1.18	1.65	0.06	0.07	100.0%	0.07	1152	1103	>40mj/cm <sup>3</sup>	BR
10	1.35	1.6	1.21	1.63	0.09	0.11	100.0%	0.09	1706	1241	>40mj/cm <sup>3</sup>	BR
11	1.37	1.59	1.14	1.63	0.08	0.10	100.0%	0.08	976	1238	>40mj/cm <sup>3</sup>	BR
12	1.33	1.58	1.2	1.63	0.07	0.12	100.0%	0.09	2214	1309	>40mj/cm <sup>3</sup>	BR
13	1.40	1.6	1.2	1.61	0.05	0.08	100.0%	0.09	1228	1279	>40mj/cm <sup>3</sup>	BR
14	1.32	1.72	1.26	1.69	0.06	0.08	100.0%	0.08	1672	1282	>40mj/cm <sup>3</sup>	BR
15	1.20	1.58	1.25	1.63	0.06	0.08	100.0%	0.08	1101	1198	>40mj/cm <sup>3</sup>	JA
16	1.03	1.69	1.13	1.6	0.06	0.08	100.0%	0.07	998	1114	>40mj/cm <sup>3</sup>	DL
17	1.28	1.5	1.12	1.56	0.05	0.07	100.0%	0.07	1045	1262	>40mj/cm <sup>3</sup>	JA
18	1.23	2	1.21	1.64	0.11	0.32	100.0%	0.07	1764	1213	>40mj/cm <sup>3</sup>	BM
19	1.25	1.49	1.32	1.59	0.07	0.11	99.3%	0.09	1168	1261	>40mj/cm <sup>3</sup>	BM
20	1.26	1.55	1.15	1.52	0.06	0.09	99.4%	0.10	1346	1284	>40mj/cm <sup>3</sup>	BM
21	1.18	1.49	1.09	1.52	0.05	0.08	99.4%	0.09	1695	1305	>40mj/cm <sup>3</sup>	BM
22	1.27	1.49	1.09	1.53	0.06	0.07	99.4%	0.08	1196	1141	>40mj/cm <sup>3</sup>	DL
23	0.91	1.5	1.03	1.59	0.07	0.11	99.4%	0.07	1279	1218	>40mj/cm <sup>3</sup>	DL
24	1.26	1.5	1.08	1.54	0.05	0.08	99.5%	0.07	1317	2039	>40mj/cm <sup>3</sup>	DL
25	1.28	1.47	0.98	2.2	0.05	0.08	99.5%	0.13	1302	1430	>40mj/cm <sup>3</sup>	EH/DL
26	1.26	1.48	1.03	1.55	0.10	0.36	99.5%	0.08	1685	1229	>40mj/cm <sup>3</sup>	DL
27	1.27	1.49	1.05	1.54	0.07	0.11	99.5%	0.07	1308	1236	>40mj/cm <sup>3</sup>	DL
28	1.27	1.49	1.1	1.52	0.06	0.09	99.5%	0.08	1337	1261	>40mj/cm <sup>3</sup>	DL
29	1.29	1.48	1.1	1.52	0.07	0.09	99.5%	0.07	1160	1242	>40mj/cm <sup>3</sup>	JA
30	1.27	1.49	1.12	1.52	0.07	0.09	99.5%	0.07	1437	1219	>40mj/cm <sup>3</sup>	BR
<b>Overall Avg.</b>		1.41		1.39			<b>Monthly Avg.</b>	<b>Total</b>	41190	38297		
<b>Average</b>	<b>1.25</b>	<b>1.58</b>	<b>1.15</b>	<b>1.62</b>	<b>0.06</b>		<b>99.5%</b>	<b>0.08</b>	<b>1373</b>	<b>1277</b>		
<b>Max</b>				<b>2.20</b>	<b>Max</b>	<b>0.36</b>		<b>Max</b>	<b>2214</b>	2039		
<b>Min</b>	<b>0.67</b>		<b>0.98</b>			<b>0.06</b>		<b>Min</b>	<b>976</b>	1103		



December-21	Filter C12 Low	Filter C12 High	Plant C12 Low	Plant C12 High	Filter Turb. Avg	Filter Turb. Max	Filter Performance 95% target both filters	Plant Turb,	Raw Flow	Treated Flow	UV Dose	Initials
1	1.30	1.47	1.09	1.52	0.07	0.09	100.0%	0.07	998	1263	>40mj/cm <sup>3</sup>	JA
2	1.28	1.48	1.12	1.50	0.06	0.10	100.0%	0.07	1162	1107	>40mj/cm <sup>3</sup>	JA
3	1.28	1.48	1.24	1.48	0.07	0.11	100.0%	0.07	1660	1252	>40mj/cm <sup>3</sup>	DL
4	1.27	1.49	1.22	1.46	0.07	0.10	100.0%	0.07	1039	1295	>40mj/cm <sup>3</sup>	JA
5	1.27	1.47	1.20	1.50	0.07	0.12	100.0%	0.07	1680	1269	>40mj/cm <sup>3</sup>	JA
6	0.79	1.48	1.12	1.52	0.07	0.12	100.0%	0.07	1132	1220	>40mj/cm <sup>3</sup>	JA
7	1.28	1.47	1.24	1.48	0.07	0.12	100.0%	0.07	1152	1188	>40mj/cm <sup>3</sup>	CH
8	1.28	1.48	1.23	1.44	0.07	0.12	100.0%	0.07	1149	1171	>40mj/cm <sup>3</sup>	BR
9	1.27	1.50	1.27	1.47	0.06	0.12	100.0%	0.07	1493	1261	>40mj/cm <sup>3</sup>	BR
10	1.04	1.48	1.26	1.44	0.06	0.12	100.0%	0.07	1421	1316	>40mj/cm <sup>3</sup>	BR
11	1.30	1.47	1.24	1.44	0.14	0.70	99.3%	0.08	1174	1284	>40mj/cm <sup>3</sup>	BR
12	1.21	1.48	1.23	1.48	0.06	0.27	99.3%	0.10	1624	1228	>40mj/cm <sup>3</sup>	BR
13	1.24	1.64	1.27	1.48	0.06	0.10	99.4%	0.10	1114	1211	>40mj/cm <sup>3</sup>	BM
14	1.17	1.52	1.23	1.47	0.06	0.13	99.4%	0.08	1496	1257	>40mj/cm <sup>3</sup>	DL
15	1.28	1.49	1.12	1.55	0.13	0.09	99.4%	0.09	4077	1307	>40mj/cm <sup>3</sup>	CH
16	1.18	1.48	1.10	1.56	0.07	0.10	99.4%	0.08	1343	1084	>40mj/cm <sup>3</sup>	DL
17	1.04	1.56	1.09	1.59	0.11	0.12	99.5%	0.08	975	1382	>40mj/cm <sup>3</sup>	CH
18	0.98	1.84	1.17	1.56	0.09	0.19	99.5%	0.09	1498	1266	>40mj/cm <sup>3</sup>	CH
19	1.27	1.46	1.21	1.59	0.10	0.18	99.5%	0.09	1220	1286	>40mj/cm <sup>3</sup>	CH
20	1.27	1.50	1.18	1.57	0.07	0.12	99.5%	0.09	1182	1308	>40mj/cm <sup>3</sup>	JA
21	1.28	1.45	1.16	1.58	0.06	0.08	99.6%	0.08	1187	1358	>40mj/cm <sup>3</sup>	JA
22	1.27	1.47	1.18	1.59	0.06	0.19	99.6%	0.07	1721	1365	>40mj/cm <sup>3</sup>	JA
23	1.26	1.47	1.21	1.58	0.06	0.09	99.6%	0.06	1209	1283	>40mj/cm <sup>3</sup>	DL
24	1.30	1.48	1.21	1.57	0.06	0.08	99.6%	0.06	1607	1317	>40mj/cm <sup>3</sup>	JA
25	1.29	1.48	1.20	1.57	0.08	0.11	99.6%	0.07	1531	1284	>40mj/cm <sup>3</sup>	JA
26	1.25	1.52	1.25	1.53	0.06	0.09	99.6%	0.07	1532	1295	>40mj/cm <sup>3</sup>	JA
27	1.25	1.46	1.22	1.59	0.07	0.10	99.7%	0.07	1373	1317	>40mj/cm <sup>3</sup>	JA
28	1.25	1.55	1.23	1.67	0.08	0.24	99.7%	0.08	1501	1423	>40mj/cm <sup>3</sup>	JA
29	1.28	1.48	1.19	1.59	0.05	0.07	99.7%	0.08	1661	1419	>40mj/cm <sup>3</sup>	DL
30	1.27	1.47	1.19	1.60	0.04	0.07	99.7%	0.06	1429	1373	>40mj/cm <sup>3</sup>	DL
31	1.27	1.46	1.20	1.61	0.04	0.07	99.7%	0.06	1550	1310	>40mj/cm <sup>3</sup>	DL
<b>Overall Avg.</b>		1.36		1.37			<b>Monthly Avg.</b>	<b>Total</b>	44890	39699		
<b>Average</b>	<b>1.22</b>	<b>1.50</b>	<b>1.20</b>	<b>1.53</b>	<b>0.07</b>		<b>99.7%</b>	<b>0.08</b>	1448	<b>1281</b>		
Max				<b>1.67</b>	<b>Max</b>	<b>0.70</b>		<b>Max</b>	<b>4077</b>	1423		
Min	<b>0.79</b>		<b>1.09</b>			<b>0.07</b>		<b>Min</b>	<b>975</b>	1084		

**Chlorine****Discharge Flow**

	<b>Monthly Total (KG)</b>	<b>Daily Average (KG)</b>	<b>Monthly Total (M3)</b>	<b>Daily Average (M3)</b>	<b>Dosage (mg/l)</b>
<b>JANUARY</b>	94.7	3.05	39789	1284	<b>2.38</b>
<b>FEBRUARY</b>	80.6	2.88	36326	1297	<b>2.22</b>
<b>MARCH</b>	94.5	3.05	40821	1317	<b>2.31</b>
<b>APRIL</b>	73.2	2.44	37755	1259	<b>1.94</b>
<b>MAY</b>	108.2	3.49	46333	1495	<b>2.34</b>
<b>JUNE</b>	138.3	4.61	57312	1910	<b>2.41</b>
<b>JULY</b>	141.9	4.58	48287	1558	<b>2.94</b>
<b>AUGUST</b>	151.5	4.89	51129	1649	<b>2.96</b>
<b>SEPTEMBER</b>	130.1	4.34	41337	1378	<b>3.15</b>
<b>OCTOBER</b>	118.8	3.83	41357	1334	<b>2.87</b>
<b>NOVEMBER</b>	97.4	3.25	38297	1277	<b>2.54</b>
<b>DECEMBER</b>	92.9	3.00	39699	1281	<b>2.34</b>

Annual Summary-Treated Water Bacteriological Data (From Water Treatment Plant)

WATER WORKS NAME:

Municipality of Meaford

YEAR

2021

SERVICE POPULATION

7008

LABORATORIES WHICH PERFORMED ANALYSES

SGS Laboratory

MONTH	TOTAL COLIFORM			ESCHERICHIA COLI. (E. Coli)			H.P.C.		
	# of samples collected	# of samples safe	# of samples unsafe	# of samples collected	# of samples safe	# of samples unsafe	# of samples collected	# of samples safe	# of samples unsafe
JAN.	4	4	0	4	4	0	4	4	0
FEB.	4	4	0	4	4	0	4	4	0
MAR.	5	5	0	5	5	0	5	5	0
APR.	4	4	0	4	4	0	4	4	0
MAY	4	4	0	4	4	0	4	4	0
JUN.	4	4	0	4	4	0	4	4	0
JUL.	4	4	0	4	4	0	4	4	0
AUG.	5	5	0	5	5	0	5	5	0
SEPT.	4	4	0	4	4	0	4	4	0
OCT.	4	4	0	4	4	0	4	4	0
NOV.	5	5	0	5	5	0	5	5	0
DEC.	4	4	0	4	4	0	4	4	0
TOTAL	51	51	0	51	51	0	51	51	0

Indicators of adverse water quality

If any of the following conditions exist,the drinking water is judged unsafe:

1. Eschericia coli and/or fecal coliforms are detected in any required sample other than raw water sample.
2. Total coliforms are detected in any required sample other than raw water sample.
3. Unchlorinated water is directed to the distribution system,where chlorination is used or required.

This includes water in the distribution system,which has less than 0.05 mg/l of free chlorine residual when tested.

If the water containing indicators of unsafe water quality for any of the reasons listed above, the laboratory will immediately notify the M.O.E. District Officer, M.O.E. Spills Action Centre, the local Medical Officer of Health and the owner / operator to initiate collection of special samples and or corrective action. In addition the owner / operator must notify the M.O.E. Spills Action Centre and the local Medical Officer of Health when they become aware of an adverse water quality condition.

Annual Summary -Raw Water Bacteriological Data

WATER WORKS NAME:

Municipality of Meaford

YEAR

2021

SERVICE POPULATION

7008

LABORATORIES WHICH PERFORMED ANALYSES

SGS Laboratory

MONTH	TOTAL COLIFORM				ESCHERICHIA COLI (E. Coli)			
	# of samples collected	# of samples 0-100 ORG./100ml	# of samples 101-5000 ORG./100ml	# of samples >5000 ORG./100ml	# of samples collected	# of samples 0-10 ORG./100ml	# of samples 11-500 ORG./100ml	# of samples >500 ORG./100ml
JAN.	4	4	0	0	4	4	0	0
FEB.	4	4	0	0	4	4	0	0
MAR.	5	5	0	0	5	5	0	0
APR.	4	4	0	0	4	4	0	0
MAY	4	4	0	0	4	4	0	0
JUN.	4	3	1	0	4	3	1	0
JUL.	5	5	0	0	5	5	0	0
AUG.	5	5	0	0	5	5	0	0
SEPT.	4	4	0	0	4	4	0	0
OCT.	4	3	0	1	4	3	0	1
NOV.	5	5	0	0	5	5	0	0
DEC.	4	4	0	0	4	4	0	0
TOTAL	52	50	1	1	52	50	1	1

In systems treating surface water or ground water, samples should be taken from the raw water source and from the point at which treated water enters the distribution system. In these systems sampling is done weekly in systems serving populations up to 100,000 and more often in larger systems. In addition, the operator must ensure that the disinfection process is functioning properly at all times.

Annual Summary-Distribution Bacteriological Data

WATER WORKS NAME:

Municipality of Meaford

YEAR

2021

SERVICE POPULATION

7008

LABORATORIES WHICH PERFORMED ANALYSES

SGS Laboratory

MONTH	TOTAL COLIFORM			ESCHERICHIA COLI. (E. Coli)			H.P.C.		
	# of samples collected	# of samples safe	# of samples unsafe	# of samples collected	# of samples safe	# of samples unsafe	# of samples collected	# of samples safe	# of samples unsafe
JAN.	13	13	0	13	13	0	4	4	0
FEB.	13	13	0	13	13	0	4	4	0
MAR.	16	16	0	16	16	0	5	5	0
APR.	18	18	0	18	18	0	6	6	0
MAY	14	14	0	14	14	0	4	4	0
JUN.	13	13	0	13	13	0	4	4	0
JUL.	13	13	0	13	13	0	4	4	0
AUG.	16	16	0	16	16	0	5	5	0
SEPT.	14	14	0	14	14	0	4	4	0
OCT.	13	13	0	13	13	0	4	4	0
NOV.	16	16	0	16	16	0	5	5	0
DEC.	13	13	0	13	13	0	4	4	0
TOTAL	172	172	0	172	172	0	53	53	0

Indicators of adverse water quality

If any of the following conditions exist, the drinking water is judged unsafe:

1. Eschericia coli and/or fecal coliforms are detected in any required sample other than raw water sample.
2. Total coliforms are detected in any required sample other than raw water sample.
3. Unchlorinated water is directed to the distribution system, where chlorination is used or required.

**HPC %= 31%**

This includes water in the distribution system, which has less than 0.05 mg/l of free chlorine residual when tested.

If the water containing indicators of unsafe water quality for any of the reasons listed above, the laboratory will immediately notify the M.O.E. District Officer M.O.E. Spills Action Centre, the local Medical Officer of Health and the owner / operator to initiate collection of special samples and or corrective action. In addition the owner / operator must notify the M.O.E. Spills Action Centre and the local Medical Officer of Health when they become aware of an adverse water quality condition.

Annual Summary- Nitrite, Nitrate , THM's

WATER WORKS NAME:  
 YEAR  
 SERVICE POPULATION  
 LABORATORIES WHICH PERFORMED ANALYSES

Municipality of Meaford  
 2021  
 7008  
 SGS Laboratory

	TREATED WATER Nitrates				DISTRIBUTION WATER			
	NO. OF SAMPLES COLLECTED	NITRITE (mg/l)	NITRATE (mg/L)		RAA	NO. OF SAMPLES COLLECTED	THM's (ug/L)	HAA's (ug/L)
JAN.								
FEB.	1	<0.003	0.277	(Feb 2021)	A	1	26	5.3
MAR.								
APR.								
MAY	1	<0.003	0.260	(May 2021)	B	1	31	5.3
JUN.								
JUL.								
AUG.	1	<0.003	0.235	(Aug 2021)	C	1	35	22.7
SEPT.								
OCT.								
NOV.	1	0.003	0.251	(Nov 2021)	D	1	39	16.1
DEC.								
AVG.		< 0.005	0.256				32.75	12.35
						mg/L	0.0328	0.01235
MAC		1	10			MAC	100	80

Where nitrite and nitrate are present, the total of the two shall not exceed 10mg/L.  
 MAC = Maximum Acceptable Concentration

Annual Summary- Total Suspended Solids (TSS)

WATER WORKS NAME:

Municipality of Meaford

YEAR

2021

SERVICE POPULATION

7008

LABORATORIES WHICH PERFORMED ANALYSES

SGS Laboratory

MONTH	Backwash Waste Water (TSS)	
	NO. OF SAMPLES COLLECTED	TSS (mg/l)
JAN.	0	
FEB.	1	18
MAR.	1	12
APR.	1	13
MAY	1	17
JUN.	1	18
JUL.	1	6
AUG.	1	10
SEPT.	1	12
OCT.	1	4
NOV.	1	11
DEC.	1	11
AVG.		12
MAC		25

MAC = Maximum Acceptable Concentration

Annual Summary- Sodium and Flouride

WATER WORKS NAME:

YEAR

SERVICE POPULATION

LABORATORIES WHICH PERFORMED ANALYSES

Municipality of Meaford

2021

7008

SGS Laboratory

	Month	No. of Samples	Sample Results
Sodium	Sep-17	1	4.38
Flouride	Sep-17	1	0.08

Month	Lead	pH	Alkalinity
22-Mar-21	0.3	8.57	74
	4.13	8.15	78
	0.09	7.95	77
20-Sep-21	0.27	7.38	68
	0.19	7.46	72
	0.25	7.44	68



Annual Summary- Treated Water and Wastewater Flows, Turbidity and Disinfectant Residuals

WATER WORKS NAME:

Municipality of Meaford

YEAR

2021

SERVICE POPULATION

7008

LABORATORIES WHICH PERFORMED ANALYSES

OPERATORS/CONTINUOUS MONITOR

MONTH	TREATED WATER FLOW			BACKWASH WATER	FILTERED WATER TURBIDITY			TREATED DISINFECTANT		DIST. SYSTEM DISINFECTANT	
	AVERAGE DAY (m3)	MAX. DAY (m3)	MONTHLY TOTAL (m3)	MONTHLY TOTAL (m3)	NO. OF SAMPLES COLLECTED	NO. OF SAMPLES (> 1 NTU)	AVERAGE TURBIDITY (NTU)	NO. OF SAMPLES COLLECTED	AVERAGE RESIDUAL (mg/l)	NO. OF SAMPLES COLLECTED	NO. WITH DETECTABLE RESIDUAL
JAN.	1284	1573	39789	696	8760	0	0.06	8760	1.39	8760	8760
FEB.	1297	1475	36326	690	8760	0	0.06	8760	1.66	8760	8760
MAR.	1317	1813	40821	1150	8760	0	0.06	8760	1.43	8760	8760
APR.	1259	1485	37755	1043	8760	0	0.06	8760	1.41	8760	8760
MAY	1495	2292	46333	3528	8760	0	0.06	8760	1.34	8760	8760
JUN.	1910	3286	57312	1195	8760	0	0.07	8760	1.34	8760	8760
JUL.	1558	1829	48287	1908	8760	0	0.10	8760	1.34	8760	8760
AUG.	1649	1886	51129	1498	8760	0	0.09	8760	1.39	8760	8760
SEPT.	1378	1658	41337	457	8760	0	0.08	8760	1.37	8760	8760
OCT.	1334	1658	41357	994	8760	0	0.08	8760	1.41	8760	8760
NOV.	1277	2039	38297	1272	8760	0	0.06	8760	1.39	8760	8760
DEC.	1281	1423	39699	690	8760	0	0.07	8760	1.37	8760	8760
TOTAL			518,442	15,121							
AVG.	1,420	1,868		1260			0.07		1.40		
MAX.	1910	3286	57312	3528			0.10		1.66		

DISINFECTANT COMPOUND USED

CHLORINE GAS

FORM OF RESIDUAL DISPLAYED ON ABOVE TABLE

QUANTITY OF DISINFECTANT USED DURING YEAR

(kg)

1332.4

DISTRIBUTION SYSTEM TARGET RESIDUAL

(mg/l)

> .20 mg/l



## DISTRIBUTION SYSTEM CHLORINE RESIDUALS (WATER TOWER)

Date	Free Chlorine Residual	Free Chlorine Residual
<b>January</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	1.13	1.46
2	1.13	1.48
3	1.16	1.36
4	1.12	1.38
5	1.1	1.35
6	1.06	1.35
7	1.04	1.28
8	1.01	1.26
9	1.01	1.29
10	0.99	1.28
11	1.03	1.26
12	1	1.25
13	0.99	1.22
14	0.98	1.23
15	0.98	1.44
16	1.06	1.40
17	1.08	1.35
18	1.06	1.32
19	1.05	1.28
20	1.03	1.30
21	1.02	1.30
22	1.04	1.60
23	1.36	1.81
24	1.41	1.14
25	1.13	1.71
26	1.11	1.37
27	1.07	1.49
28	1	1.48
29	0.99	1.28
30	1.02	1.26
31	1.02	1.25
<b>Average</b>	<b>1.07</b>	<b>1.36</b>

Date	Free Chlorine Residual	Free Chlorine Residual
<b>February</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.98	1.25
2	1.03	1.32
3	0.99	1.27
4	0.95	1.39
5	1.08	1.33
6	1.03	1.27
7	1.02	1.22
8	1.00	1.20
9	0.98	1.29
10	1.00	1.21
11	0.99	1.19
12	0.96	1.23
13	0.95	1.20
14	0.95	1.18
15	0.93	1.17
16	0.92	1.18
17	0.90	1.14
18	0.85	1.11
19	0.91	1.44
20	1.09	1.33
21	1.11	1.31
22	1.07	1.25
23	1.07	1.28
24	1.05	1.25
25	1.02	1.34
26	1.09	1.33
27	1.09	1.30
28	1.05	1.32
<b>Average</b>	<b>1.00</b>	<b>1.26</b>

# DISTRIBUTION SYSTEM CHLORINE RESIDUALS

## (St. Vincent St. Booster Station)

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>Jan</b>		
<b>2021</b>		
1	0.94	1.08
2	0.94	1.07
3	0.95	1.07
4	0.95	1.05
5	0.92	1.03
6	0.91	0.99
7	0.89	1.02
8	0.94	1.01
9	0.95	1.00
10	0.84	0.98
11	0.98	1.05
12	1.08	1.02
13	1.03	0.99
14	1.03	0.98
15	0.97	0.98
16	1.02	1.07
17	1.05	1.08
18	1.05	1.11
19	1.03	1.08
20	1.05	1.07
21	1.30	0.98
22	1.38	1.00
23	1.08	0.98
24	1.03	1.02
25	0.97	0.99
26	0.95	0.97
27	0.91	0.95
28	1.06	0.93
29	0.90	0.90
30	0.90	0.91
31	0.89	0.91
<b>Average</b>	1.00	1.01

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>Feb</b>		
<b>2021</b>		
1	0.87	0.92
2	1.01	1.13
3	0.96	1.09
4	0.99	1.12
5	1.01	1.14
6	1.03	1.11
7	1.07	1.09
8	1.03	1.11
9	1.05	1.05
10	0.98	1.05
11	0.96	1.00
12	0.96	0.98
13	0.96	1.00
14	1.01	1.03
15	0.99	1.03
16	0.98	1.02
17	0.98	1.01
18	0.96	1.03
19	0.96	1.06
20	1.06	1.06
21	1.06	1.03
22	1.07	1.00
23	1.05	1.02
24	1.01	0.98
25	1.11	1.05
26	1.09	1.14
27	1.01	1.08
28	1.01	1.11
<b>Average</b>	1.01	1.05

## DISTRIBUTION SYSTEM CHLORINE RESIDUALS (WATER TOWER)

Date	Free Chlorine Residual	Free Chlorine Residual
March	MIN (mg/L)	MAX (mg/L)
<b>2021</b>		
1	1.01	1.24
2	0.98	1.22
3	1.02	1.24
4	1.00	1.21
5	0.99	1.31
6	1.09	1.31
7	1.11	1.34
8	1.10	1.39
9	1.13	1.41
10	1.12	1.45
11	1.08	1.46
12	1.03	1.30
13	1.02	1.28
14	1.06	1.33
15	1.06	1.26
16	1.04	1.22
17	1.03	1.16
18	1.00	1.73
19	1.42	1.72
20	1.43	1.74
21	1.45	1.74
22	1.15	1.66
23	1.16	1.37
24	1.14	1.37
25	1.02	1.28
26	1.00	1.22
27	1.00	1.22
28	0.99	1.18
29	0.96	1.25
30	0.98	1.31
31		
<b>Average</b>	<b>1.09</b>	<b>1.36</b>

Date	Free Chlorine Residual	Free Chlorine Residual
April	MIN (mg/L)	MAX (mg/L)
<b>2021</b>		
1	1.06	1.34
2	1.02	1.45
3	1.05	1.45
4	1.18	1.47
5	1.22	1.52
6	1.24	1.52
7	1.21	1.42
8	1.21	1.44
9	1.21	1.50
10	1.22	1.44
11	1.21	1.49
12	1.20	1.54
13	1.18	1.56
14	1.22	1.57
15	1.24	1.55
16	1.09	1.38
17	1.08	1.31
18	1.08	1.30
19	0.99	1.24
20	0.94	1.15
21	0.93	1.19
22	0.94	1.12
23	0.90	1.15
24	0.93	1.13
25	0.91	1.08
26	0.91	1.13
27	0.91	1.10
28	0.90	1.10
29	0.90	1.11
30	0.91	1.53
<b>Average</b>	<b>1.07</b>	<b>1.34</b>

**DISTRIBUTION SYSTEM CHLORINE RESIDUALS**  
**(St. Vincent St. Booster Station)**

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>March</b>		
<b>2021</b>		
1	1.03	1.11
2	1.03	1.09
3	1.02	1.09
4	0.99	1.07
5	0.99	1.09
6	1.06	1.05
7	1.07	1.10
8	1.02	1.08
9	1.06	1.07
10	1.06	1.05
11	1.10	1.07
12	1.11	1.00
13	1.16	1.02
14	1.10	1.01
15	1.12	1.00
16	1.09	1.01
17	1.04	0.98
18	1.01	0.94
19	1.18	1.07
20	1.17	1.12
21	1.19	1.14
22	1.18	1.18
23	1.14	1.14
24	1.15	1.13
25	1.08	1.14
26	0.98	1.02
27	0.97	1.02
28	0.94	0.98
29	0.98	1.02
30	1.07	0.99
31	1.13	1.09
<b>Average</b>	1.07	1.06

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>April</b>		
<b>2021</b>		
1	1.15	1.07
2	1.11	1.11
3	1.12	1.09
4	1.08	1.10
5	1.22	1.17
6	1.10	1.10
7	1.07	1.06
8	1.08	1.07
9	1.10	1.17
10	1.08	1.20
11	1.08	1.17
12	1.05	1.18
13	1.14	1.15
14	1.12	1.15
15	1.13	1.15
16	1.10	1.12
17	1.10	1.14
18	1.07	1.13
19	1.10	1.14
20	1.02	1.09
21	1.04	1.10
22	1.05	1.12
23	1.07	1.00
24	1.12	1.02
25	1.08	1.00
26	1.05	1.00
27	1.07	0.95
28	0.99	0.96
29	1.00	0.96
30	1.03	
<b>Average</b>	1.08	1.09

## DISTRIBUTION SYSTEM CHLORINE RESIDUALS (WATER TOWER)

Date	Free Chlorine	Free Chlorine
	Residual	Residual
May	MIN (mg/L)	MAX (mg/L)
<b>2021</b>		
1	1.23	1.61
2	1.29	1.62
3	1.29	1.57
4	1.25	1.58
5	1.26	1.50
6	1.25	1.49
7	0.76	1.40
8	1.00	1.29
9	0.98	1.24
10	0.99	1.22
11	0.97	1.18
12	0.94	1.19
13	0.97	1.23
14	0.98	1.24
15	0.98	1.19
16	0.97	1.20
17	0.95	1.22
18	0.97	1.23
19	0.97	1.19
20	0.95	1.23
21	0.98	1.25
22	0.97	1.26
23	0.96	1.24
24	0.99	1.23
25	0.99	1.43
26	1.01	1.45
27	1.06	1.43
28	1.04	1.24
29	1.00	1.20
30	0.97	1.18
31	0.97	1.18
<b>Average</b>	<b>1.03</b>	<b>1.31</b>

Date	Free Chlorine	Free Chlorine
	Residual	Residual
June	MIN (mg/L)	MAX (mg/L)
<b>2021</b>		
1	0.96	1.28
2	0.99	1.42
3	1.00	1.40
4	0.96	1.21
5	0.96	1.26
6	1.01	1.31
7	1.04	1.23
8	0.97	1.22
9	1.04	1.23
10	0.97	1.36
11	1.02	1.31
12	1.03	1.41
13	1.08	1.47
14	1.16	1.40
15	1.09	1.34
16	1.08	1.36
17	1.03	1.33
18	0.95	1.28
19	1.02	1.28
20	1.00	1.20
21	0.97	1.25
22	0.96	1.31
23	0.97	1.32
24	1.05	1.28
25	1.03	1.71
26	0.96	1.31
27	0.95	1.30
28	0.99	1.39
29	0.97	1.33
30	0.95	1.31
<b>Average</b>	<b>1.01</b>	<b>1.33</b>

**DISTRIBUTION SYSTEM CHLORINE RESIDUALS**  
**(St. Vincent St. Booster Station)**

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>May</b>		
<b>2021</b>		
1	1.08	1.00
2	1.10	1.03
3	1.14	1.09
4	1.05	1.00
5	1.11	1.08
6	1.08	1.03
7	1.00	1.01
8	1.04	0.98
9	1.06	1.03
10	1.05	1.05
11	1.00	1.02
12	1.03	1.02
13	1.04	1.01
14	1.01	1.02
15	1.05	1.05
16	1.02	1.04
17	0.99	1.07
18	1.03	1.09
19	1.04	1.10
20	1.12	1.17
21	0.91	1.08
22	1.03	1.20
23	0.96	1.11
24	0.92	1.09
25	0.96	1.09
26	1.09	1.25
27	1.08	1.30
28	1.07	1.26
29	1.01	0.98
30	0.97	0.95
31	0.95	0.91
<b>Average</b>	1.03	1.07

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>June</b>		
<b>2021</b>		
1	0.87	0.93
2	0.99	0.97
3	1.02	1.13
4	1.00	1.09
5	1.03	1.13
6	1.07	1.24
7	1.06	1.20
8	1.03	1.14
9	0.97	1.08
10	1.03	1.10
11	1.03	1.05
12	1.08	1.08
13	1.12	1.11
14	1.16	1.19
15	1.10	1.08
16	1.09	1.08
17	1.03	1.08
18	1.12	1.04
19	1.01	1.10
20	0.94	1.01
21	0.96	1.06
22	0.95	0.98
23	0.98	1.11
24	0.97	1.06
25	0.94	0.96
26	0.94	0.91
27	0.92	0.96
28	0.98	1.00
29	0.99	0.96
30	0.98	0.96
<b>Average</b>	1.01	1.06



## DISTRIBUTION SYSTEM CHLORINE RESIDUALS (WATER TOWER)

Date	Free Chlorine Residual	Free Chlorine Residual
<b>July</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.94	1.20
2	0.91	1.28
3	0.92	1.30
4	0.75	1.34
5	1.00	1.38
6	1.00	1.36
7	1.02	1.33
8	1.01	1.38
9	1.00	1.30
10	1.03	1.39
11	1.11	1.43
12	1.16	1.41
13	1.15	1.37
14	1.13	1.39
15	1.10	1.34
16	1.05	1.26
17	1.03	1.29
18	1.02	1.28
19	1.02	1.28
20	1.00	1.41
21	0.95	1.27
22	0.99	1.27
23	0.97	1.33
24	1.02	1.57
25	1.20	1.62
26	1.10	1.47
27	0.90	1.46
28	1.10	1.49
29	0.98	1.25
30	0.78	1.18
31	0.74	1.15
<b>Average</b>	<b>1.00</b>	<b>1.35</b>

Date	Free Chlorine Residual	Free Chlorine Residual
<b>August</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.75	1.14
2	0.79	1.20
3	0.82	1.22
4	0.84	1.22
5	0.86	1.18
6	0.86	1.18
7	0.87	1.11
8	0.84	1.13
9	0.82	1.30
10	0.84	1.16
11	0.81	1.22
12	0.86	1.97
13	0.84	1.26
14	0.85	1.15
15	0.81	1.11
16	0.84	1.19
17	0.85	1.29
18	0.88	1.25
19	0.93	1.22
20	0.89	1.20
21	0.87	1.11
22	0.84	1.05
23	0.84	1.23
24	0.86	1.35
25	0.82	1.21
26	0.84	1.28
27	0.86	1.31
28	0.90	1.29
29	0.95	1.33
30	0.95	1.27
31		
<b>Average</b>	<b>0.85</b>	<b>1.24</b>

**DISTRIBUTION SYSTEM CHLORINE RESIDUALS**  
**(St. Vincent St. Booster Station)**

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>July</b>		
<b>2021</b>		
1	0.89	0.89
2	0.87	0.88
3	1.02	1.00
4	0.91	0.97
5	1.05	1.05
6	0.93	0.96
7	0.97	1.02
8	1.08	1.11
9	1.08	1.02
10	1.00	0.97
11	0.99	1.05
12	1.03	0.93
13	1.04	0.96
14	0.98	0.91
15	1.01	0.92
16	1.00	0.87
17	0.88	0.89
18	0.88	0.92
19	0.83	0.88
20	0.85	0.84
21	0.86	0.85
22	0.83	0.84
23	0.90	0.88
24	0.92	0.85
25	0.92	0.93
26	0.94	0.98
27	0.92	0.93
28	1.00	0.96
29	0.89	0.88
30	0.80	0.74
31	0.83	0.77
<b>Average</b>	0.94	0.92

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>August</b>		
<b>2021</b>		
1	0.87	0.83
2	0.81	0.80
3	0.82	0.84
4	0.76	0.73
5	0.77	0.86
6	0.77	0.81
7	0.92	0.95
8	0.92	0.90
9	0.88	0.87
10	0.91	0.85
11	0.86	0.87
12	0.84	0.91
13	0.94	0.95
14	1.04	0.96
15	0.93	0.95
16	0.96	0.98
17	0.91	0.87
18	0.93	0.92
19	0.98	0.93
20	0.91	0.91
21	0.88	0.81
22	0.85	0.84
23	0.83	0.84
24	0.87	0.84
25	0.91	0.83
26	0.89	0.82
27	0.98	1.03
28	1.16	1.14
29	1.09	1.09
30	1.17	1.16
31	1.05	1.05
<b>Average</b>	0.92	0.91

## DISTRIBUTION SYSTEM CHLORINE RESIDUALS (WATER TOWER)

Date	Free Chlorine Residual	Free Chlorine Residual
<b>September</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.88	1.13
2	0.85	1.15
3	0.80	1.09
4	0.80	1.20
5	0.84	1.25
6	0.84	1.19
7	0.84	1.18
8	0.75	1.19
9	0.81	1.17
10	0.82	1.12
11	0.80	1.16
12	0.82	1.11
13	0.81	1.06
14	0.78	1.07
15	0.75	1.12
16	0.72	1.08
17	0.75	1.09
18	0.75	1.17
19	0.77	1.19
20	0.81	1.27
21	0.87	1.28
22	0.83	1.28
23	0.82	1.32
24	0.89	1.51
25	1.01	1.60
26	1.08	1.58
27	1.09	1.43
28	1.02	1.35
29	0.87	1.48
30	1.00	1.46
<b>Average</b>	<b>0.85</b>	<b>1.24</b>

Date	Free Chlorine Residual	Free Chlorine Residual
<b>October</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.96	1.24
2	0.93	1.28
3	0.97	1.41
4	0.92	1.37
5	0.92	1.30
6	0.90	1.42
7	0.91	1.37
8	0.93	1.33
9	0.93	1.34
10	0.96	1.34
11	0.94	1.36
12	0.98	1.33
13	0.90	1.43
14	0.94	1.44
15	0.95	1.41
16	0.93	1.34
17	0.93	1.34
18	0.93	1.02
19	0.91	1.29
20	0.89	1.36
21	0.97	1.46
22	0.92	1.23
23	0.88	1.25
24	0.87	1.25
25	0.89	1.21
26	0.85	1.25
27	0.85	1.34
28	0.91	1.29
29	0.93	1.22
30	0.89	1.30
31	0.94	1.30
<b>Average</b>	<b>0.92</b>	<b>1.32</b>

## DISTRIBUTION SYSTEM CHLORINE RESIDUALS

### (St. Vincent St. Booster Station)

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>September</b>		
<b>2021</b>		
1	0.99	0.97
2	0.97	0.92
3	0.92	0.81
4	0.80	0.80
5	0.88	0.87
6	0.76	0.77
7	0.77	0.80
8	0.73	0.73
9	0.83	0.81
10	0.81	0.86
11	0.89	0.86
12	0.82	0.78
13	0.87	0.79
14	0.76	0.71
15	0.87	0.78
16	0.86	0.71
17	0.74	0.70
18	0.79	0.69
19	0.91	0.78
20	0.91	0.78
21	0.89	0.77
22	0.83	0.73
23	0.98	0.83
24	0.97	0.75
25	0.99	0.98
26	0.95	1.00
27	0.95	0.94
28	0.88	0.95
29	0.83	0.89
30	0.94	1.01
<b>Average</b>	0.87	0.83

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>October</b>		
<b>2021</b>		
1	0.91	0.91
2	0.90	0.86
3	0.92	0.86
4	0.98	0.94
5	1.03	1.02
6	1.04	1.00
7	0.98	1.02
8	0.99	1.05
9	0.87	0.95
10	0.90	1.03
11	1.04	1.03
12	1.09	1.10
13	0.96	0.96
14	0.82	0.86
15	0.83	0.82
16	0.78	0.79
17	0.79	0.77
18	0.99	1.00
19	0.96	0.86
20	0.93	0.84
21	1.04	0.96
22	0.90	0.77
23	0.87	0.75
24	0.89	0.75
25	0.91	0.76
26	0.85	0.84
27	1.03	0.85
28	0.98	0.85
29	0.96	0.84
30	0.96	0.91
31	0.92	0.96
<b>Average</b>	0.94	0.90

## DISTRIBUTION SYSTEM CHLORINE RESIDUALS (WATER TOWER)

Date	Free Chlorine Residual	Free Chlorine Residual
<b>November</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.91	1.27
2	0.88	1.32
3	0.87	1.09
4	0.84	1.14
5	0.84	1.29
6	0.91	1.28
7	0.93	1.28
8	0.95	1.33
9	0.97	1.35
10	0.93	1.24
11	0.90	1.28
12	0.94	1.29
13	0.91	1.23
14	0.88	1.27
15	0.89	1.58
16	1.28	1.61
17	1.30	1.60
18	1.23	1.55
19	0.92	1.63
20	0.93	1.26
21	0.91	1.27
22	0.90	1.24
23	0.91	1.25
24	0.92	1.26
25	0.90	1.72
26	0.97	1.31
27	0.96	1.34
28	0.98	1.25
29	0.96	1.28
30	0.93	1.22
<b>Average</b>	<b>0.95</b>	<b>1.33</b>

Date	Free Chlorine Residual	Free Chlorine Residual
<b>December</b>	<b>MIN (mg/L)</b>	<b>MAX (mg/L)</b>
<b>2021</b>		
1	0.89	1.20
2	0.93	1.22
3	0.91	1.16
4	0.89	1.13
5	0.90	1.13
6	0.89	1.12
7	0.86	1.06
8	0.85	1.06
9	0.84	1.01
10	0.82	1.08
11	0.87	1.14
12	0.88	1.09
13	0.90	1.13
14	0.91	1.12
15	0.87	1.08
16	0.89	1.13
17	0.86	1.07
18	0.85	1.15
19	0.85	1.12
20	0.87	1.15
21	0.91	1.20
22	0.93	1.13
23	0.93	1.14
24	0.95	1.32
25	1.09	1.37
26	1.09	1.34
27	1.07	1.26
28	1.05	1.25
29	1.05	1.22
30	1.03	1.25
31	1.02	1.21
<b>Average</b>	<b>0.92</b>	<b>1.16</b>

## DISTRIBUTION SYSTEM CHLORINE RESIDUALS

**(St. Vincent St. Booster Station)**

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>November</b>		
<b>2021</b>		
1	1.07	0.97
2	1.01	0.97
3	0.99	0.98
4	0.85	0.89
5	0.92	0.84
6	0.92	0.84
7	0.91	0.92
8	0.87	0.89
9	0.92	0.92
10	0.87	0.88
11	0.94	0.86
12	0.93	0.84
13	0.85	0.89
14	0.94	0.92
15	0.94	0.98
16	1.20	1.24
17	1.09	1.13
18	1.17	1.11
19	1.08	1.14
20	0.87	0.95
21	0.87	0.91
22	0.85	0.90
23	0.85	0.90
24	0.80	0.89
25	0.82	0.95
26	0.93	0.98
27	0.90	1.01
28	0.85	0.95
29	0.89	0.95
30	0.87	0.96
<b>Average</b>	0.93	0.95

Date	Inlet Chlorine Residual	Outlet Chlorine Residual
<b>December</b>		
<b>2021</b>		
1	0.86	0.93
2	0.83	0.96
3	0.96	0.99
4	0.97	1.03
5	0.96	1.02
6	1.01	1.02
7	0.97	0.98
8	0.96	0.99
9	1.01	1.00
10	0.96	1.02
11	0.96	1.00
12	0.96	1.00
13	0.97	1.03
14	0.98	0.98
15	0.98	0.99
16	0.90	0.96
17	0.92	0.96
18	0.90	0.91
19	0.99	1.02
20	0.99	1.02
21	1.01	1.05
22	0.94	1.05
23	0.96	1.06
24	0.96	1.03
25	1.01	1.07
26	1.01	1.08
27	1.02	1.06
28	0.98	1.05
29	0.97	1.03
30	0.97	1.01
31	0.99	1.03
<b>Average</b>	0.96	1.01



# 2021 Annual Compliance Report

## Drinking Water System General Information

This report has been prepared in accordance with the reporting requirements of the Safe Drinking Water Act 2002 O. Reg 170/03, s 11(1), (3), (6), (7), (8), (9.1) and 10 as well as Schedule 22-1 and 22-2.

This annual report is included in the Water Summary Report presented to Council and can be viewed on the Municipal website at [www.meaford.ca](http://www.meaford.ca)

## Drinking Water System Information

Drinking Water System Number	210000176
Drinking Water System Name	The Municipality of Meaford Water Treatment Plant
Drinking Water System Owner	Municipality of Meaford
Drinking Water System Category	Large Municipal Residential
Period being reported	January 1, 2021 to December 31, 2021
Does your Drinking Water System serve more than 10,000 people?	No

## Drinking Water System Description

The Meaford Water System is situated on Georgian Bay in Meaford, Ontario. The treatment plant was originally constructed in 1959/60. In 1975 gas chlorination was added to the treatment plant. The Meaford Water Plant was further upgraded in 1999/2000 by completing the following: increasing the clear water storage, expanding the control building, installing a SCADA system and new low lift and high lift pumping system, backwash waste water treatment.

Another upgrade in 2002 added one more gas chlorinator, ultraviolet disinfection on both filter effluent's, in line booster pump to feed plant and new truck fill station. The plant SCADA system and PLC panels were upgraded during 2013.

The system presently consists of the following:

- An approximately 760mm raw water intake extends into Georgian Bay with chlorination for zebra mussel control

- Two 150 HP low lift pumps
- Injection of poly aluminum chloride prior to inline flash mixer
- Two filter beds with multi-media and backwash troughs
- Ultraviolet disinfection on filter effluent
- Gas chlorine disinfection (3 chlorinators)
- One clearwell comprising of two cells in series
- Three 200 HP high lift pumps
- A filter backwash waste treatment system

The filter backwash wastewater treatment system consists of 2 Backwash pumps, air scour, surge tank, a treatment clarifier, and injection of vitamin D-Chlor for de-chlorination. The treated backwash wastewater is discharged into the storm sewer which ends up in Georgian Bay, the sludge is pumped into the sanitary sewer. The water plant has standby power, provided by a Diesel Generator (including fuel storage tanks replaced in 2019).

The UTM co-ordinates of the plant are: Zone 17 531440E, 494400N

### **Meaford Water Tower**

An elevated storage tank is located on Nelson St. in Meaford and is referred to as the Meaford Water Tower. This Tower has a capacity of 570 cubic meters. The Tower level supplies water pressure to the lower zone as well as the pressure stations in the Municipality.

### **St. Vincent St. Booster Station**

A booster station is located on St. Vincent St. and is known as St. Vincent St. Booster Station. The water pressure at this station is boosted for higher distribution pressures and volume to provide fire flows throughout the upper southern part of the Municipality.

### **Nelson St. Booster Station**

A booster station is located on Nelson St. across from the Water Tower. The water from this station is boosted to supply volume throughout the upper west part of the Municipality. This station is set to be replaced in 2022 with a new Booster Station.

### **Summary of Water Treatment Chemicals Used Over this Reporting Period**

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Chlorine Gas (68 kg cylinders) – used in zebra mussel chlorination (during warmer months >10 degrees), used in chlorination during filtration and post chlorination (treatment after filtration).

PAX XL-1900 – is a coagulant used prior to filtration. A coagulants primary objective is to adhere to suspended particulates, make them bigger in size, so there is a higher removal rate of particulates in the filtration process.

Vita D-Chlor – is a chemical for dechlorinating previously treated water before it is sent to sewer or Georgian Bay after waste processes.

### **Summary of Monetary Expenses Incurred in 2021**

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Filter #1 Media & Underdrain replacement (started in 2020)	\$140,562.79
Backwash Pump #2 Rebuild	\$37,964.19
Roof Unit HVAC	\$32,365.00



## Summary of Adverse Drinking Water Quality Results

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There were no incidents of adverse drinking water quality during 2021.

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

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Parameter	Number of Samples	Range of E. Coli or Fecal Results Min-Max	Range of Total Coliform Results Min-Max	Number of HPC Samples	Results of HPC Results Min # to Max #
Raw	52	0-NDOGT	0-NDOGT	N/A	N/A
Treated	51	0	0	51	0-1
Distribution	172	0	0	53	0-1

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

## Summary of Operational Testing completed under Schedule 7, 8, or 9 of Ontario Regulation 170/03 during this reporting period

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	Number of Grab Samples	Range of Results Min # to Max #	Unit of Measure
<b>Turbidity</b>			
Treated	8760	0.05 - 0.90	NTU
<b>Chlorine</b>			
Treated	8760	0.87-2.80	mg/L

## Summary of additional Testing and Sampling

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Please see attached additional sampling results for Haloacetic Acids, Trihalomethanes, Process Wastewater Suspended Solids, Nitrate, Nitrite, pH and Alkalinity.

## Haloacetic Acid

Quarter	HAA Sample Result ug/L	Sampling Location
A	5.3	574 Grandview
B	5.3	574 Grandview Dr.
C	22.7	56 Stewart St.
D	16.1	574 Grandview Dr.
<b>RAA</b>	<b>12.35</b>	

## Trihalomethanes

Quarter	THM Sample Result ug/L	Sampling Location
A	26	325 St. Vincent St.
B	31	Grey Rd. 7 Yard Hydrant
C	35	325 St. Vincent St.
D	39	197714 Grey Rd. 7
<b>RAA</b>	<b>32.75</b>	

## Process Wastewater Total Suspended Solids

Sample Date	Result Value	Unit of Measure
January, 2021	NA	mg/L
February 23, 2021	18	mg/L
March 14, 2021	12	mg/L
April 13, 2021	13	mg/L
May 20, 2021	17	mg/L
June 18, 2021	18	mg/L
July 16, 2021	6	mg/L

August 19, 2021	10	mg/L
September 21, 2021	12	mg/L
October 13, 2021	4	mg/L
November 13, 2021	11	mg/L
December 15, 2021	11	mg/L
<b>Annual Average</b>	<b>12</b>	<b>mg/L</b>

### Nitrate Results

Sample Date	Location	Results (mg/L)
February 16, 2021	Meaford WTP-Treated Tap	0.277
May 17, 2021	Meaford WTP-Treated Tap	0.260
August 16, 2021	Meaford WTP-Treated Tap	0.235
November 15, 2021	Meaford WTP-Treated Tap	0.251

### Nitrite Results

Sample Date	Location	Results (mg/L)
February 16, 2021	Meaford WTP – Treated Tap	0.003<MDL
May 17, 2021	Meaford WTP-Treated Tap	0.003<MDL
August 16, 2021	Meaford WTP-Treated Tap	0.003<MDL
November 15, 2021	Meaford WTP-Treated Tap	0.003<MDL

### Summary of Lead, pH & Alkalinity Results

Sample Date	Location	Lead	pH	Alkalinity mg/L as CaCo3
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March 22, 2021	223 Nelson St. W	0.30	8.57	74
	197714 Grey Rd. 7 Yard Hyd.	0.09	7.95	77
	158175 7 <sup>th</sup> Line Yard Hyd.	4.13	8.15	78
September 20, 2021	Water Tower	0.27	7.38	68
	Fire Hydrant #085	0.19	7.46	72
	Fire Hydrant # 024	0.25	7.44	68

### Summary of Inorganic Parameters

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Sept 20, 2021	0.9	ug/L	No
Arsenic	Sept 20, 2021	0.3	ug/L	No
Barium	Sept 20, 2021	13.3	ug/L	No
Boron	Sept 20, 2021	13	ug/L	No
Cadmium	Sept 20, 2021	0.003	ug/L	No
Chromium	Sept 20, 2021	0.33	ug/L	No
Mercury	Sept 20, 2021	0.01<MDL	ug/L	No
Sodium	Sept 18, 2017	4.38	mg/L	No
Uranium	Sept 20, 2021	0.157	ug/L	No
Fluoride	Sept 18, 2017	0.08	mg/L	No
Nitrite	Feb 16, 2021 May 17, 2021 Aug 16, 2021 Nov 15, 2021	0.003< MDL 0.003<MDL 0.003<MDL 0.003<MDL	mg/L	No
Nitrate	Feb 16, 2021 May 17, 2021 Aug 16, 2021 Nov 15, 2021	0.277 0.260 0.235 0.251	mg/L	No

## Summary of Organic Parameters

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance (Yes or No)
Alachlor	Sept 20, 2021	0.02<MDL	ug/L	No
Atrazine + N-dealkylated metabolites	Sept 20, 2021	0.01	ug/L	No
Atrazine	Sept 20, 2021	0.01<MDL	ug/L	No
Desethyl atrazine	Sept 20, 2021	0.01	ug/L	No
Azinphos-methyl	Sept 20, 2021	0.05<MDL	ug/L	No
Benzene	Sept 20, 2021	0.32<MDL	ug/L	No
Benzo(a)pyrene	Sept 20, 2021	0.004<MDL	ug/L	No
Bromoxynil	Sept 20, 2021	0.33<MDL	ug/L	No
Carbaryl	Sept 20, 2021	0.05<MDL	ug/L	No
Carbofuran	Sept 20, 2021	0.01<MDL	ug/L	No
Carbon Tetrachloride	Sept 20, 2021	0.17<MDL	ug/L	No
Chlorpyrifos	Sept 20, 2021	0.02<MDL	ug/L	No
Diazinon	Sept 20, 2021	0.02<MDL	ug/L	No
Dicamba	Sept 20, 2021	0.20<MDL	ug/L	No
1,2-Dichlorobenzene	Sept 20, 2021	0.41<MDL	ug/L	No
1,4-Dichlorobenzene	Sept 20, 2021	0.36<MDL	ug/L	No
1,2-Dichloroethane	Sept 20, 2021	0.35<MDL	ug/L	No
1,1-Dichloroethylen	Sept 20, 2021	0.33<MDL	ug/L	No
Dichloromethane	Sept 20, 2021	0.35<MDL	ug/L	No
2-4 Dichlorophenol	Sept 20, 2021	0.15<MDL	ug/L	No
2,4 Dichlorophenoxy acetic acid (2,4-D)	Sept 20, 2021	0.19<MDL	ug/L	No
Diclofop-methyl	Sept 20, 2021	0.40<MDL	ug/L	No
Dimethoate	Sept 20, 2021	0.06<MDL	ug/L	No
Diquat	Sept 20, 2021	1<MDL	ug/L	No
Diuron	Sept 20, 2021	0.03<MDL	ug/L	No
Glyphosate	Sept 20, 2021	1<MDL	ug/L	No
Malathion	Sept 20, 2021	0.02<MDL	ug/L	No
Metolachlor	Sept 20, 2021	0.01<MDL	ug/L	No
Metribuzin	Sept 20, 2021	0.02<MDL	ug/L	No
Monochlorobenzene	Sept 20, 2021	0.30<MDL	ug/L	No
Paraquat	Sept 20, 2021	1<MDL	ug/L	No
Pentachlorophenol	Sept 20, 2021	0.15<MDL	ug/L	No
Phorate	Sept 20, 2021	0.01<MDL	ug/L	No

<b>Parameter</b>	<b>Sample Date</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Exceedance (Yes or No)</b>
Picloram	Sept 20, 2021	1<MDL	ug/L	No
PolychlorinatedBiphenyls (PCB)	Sept 20, 2021	0.04<MDL	ug/L	No
Prometryne	Sept 20, 2021	0.03<MDL	ug/L	No
Simazine	Sept 20, 2021	0.01<MDL	ug/L	No
THM (Note: Latest RAA)	Nov 15, 2021	32.75	ug/L	No
HAA (Note: Latest RAA)	Nov 15, 2021	12.35	ug/L	No
Terbufos	Sept 20, 2021	0.01<MDL	ug/L	No
Tetrachloroethylene	Sept 20, 2021	0.35<MDL	ug/L	No
2,3,4,6-Tetrachlorophenol	Sept 20, 2021	0.20<MDL	ug/L	No
2 methyl-4 chlorophenoxyacetic acid (MCPA)	Sept 20, 2021	0.00012<MDL	mg/L	No
Triallate	Sept 20, 2021	0.001<MDL	ug/L	No
Trichloroethylene	Sept 20, 2021	0.44<MDL	ug/L	No
2,4,6-Trichlorophenol	Sept 20, 2021	0.25<MDL	ug/L	No
Trifluralin	Sept 20, 2021	0.02<MDL	ug/L	No
Vinyl Chloride	Sept 20, 2021	0.17<MDL	ug/L	No