The Regional Municipality of Halton

Analytical Averages of Distribution System Water - 2018

Schedule 1 - Microbiological Parameters

Analysis	Unit	MECP MAC Standard	MECP Aesthetic Objective	MECP Operational Guideline	Detection Limit	Acton Dsitribution	Burlington Distribution	Campbellville Distribution	Georgetown Distribution	Milton Distribution Well Based	Milton Distribution Lake Based	Oakville Distribution	Bridgeview Distribution	North Aldershot Distribution	Snake Road Distribution
E. coli	CFU/100 mL	0			0	0	0	0	0	0	0	0	0	0	0
Total Coliform	CFU/100 mL	0			0	0	0	0	0	0	0	0	0	0	0
Total Coliform Bkg.	CFU/100 mL			200 [1]	0	0	2	0	1	0	1	3	1	0	1
Presence/Absence	P/A/100mL	Absent			NA	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Heterotrophic Plate Count	CFU/1 mL			500 [2]	0	2	2	15	1	2	1	3	1	1	1
Chlorine - Free	mg/L	0.05 - 4.0		0.2	0.01	1.10	0.94	0.98	1.14	1.07	1.05	1.05			
Chlorine - Total	mg/L				0.01	1.23	1.12	1.10	1.27	1.20	1.21	1.24	1.37	1.07	1.50
Chlorine - Combined	mg/L	0.25 - 3.0		1.0	0.01								1.29*	1.01*	1.42*
Table 4 - Chemical / Physical Parameters															
Alkalinity	mg/L			30 - 500	2.0	264	90.8	297	264	246	94.0	89.9	85.8	87.6	88.6
Ammonia Nitrogen	mg/L				0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.30	0.26	0.31
Calcium	mg/L				0.05/0.5	87.1	34.8	82.9	91.0	69.8	34.8	35.0	32.4	33.6	33.4
Chloride	mg/L		250		0.05/1.0	58.6	30.4	266	99	83.6	31.4	34.9	29.6	30.3	30.3
Colour	TCU		5		1	1	1	1	1	1	1	1	<1	<1	1
Conductivity	µS/cm				0.5	710	334	1430	863	741	345	343	339	341	339
Dissolved Organic Carbon	mg/L		5		0.20	1.1	1.5	0.8	0.80	0.88	1.5	1.5	1.7	1.6	1.7
Magnesium	mg/L				0.05	24.9	8.85	29.5	27.4	31.6	8.82	8.92	8.64	8.50	8.53
pH				6.5 - 8.5	1.00	7.39	7.75	7.50	7.54	7.58	7.93	7.72	7.71	7.90	7.77
Potassium	mg/L				0.05	1.47	1.61	1.29	1.85	1.54	1.64	1.64	1.56	1.58	1.57
Sulphate	mg/L		500		0.10/10	22.2	25.0	27.2	42.2	35.3	24.7	25.2	23.6	23.8	23.8
TKN (Total Kjeldhal Nitrogen)	mg/L				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.6	0.6
Total Dissolved Solids	mg/L		500		25	408	189	757	496	423	194	189	179	185	193
Total Hardness	mg/L			80 - 100	1.5	312	122	328	335	302	126	124	118	120	120
(for Dishwashers)	grains/gal					21.9	8.6	23.0	23.5	21.2	8.8	8.7	8.3	8.4	8.4
Aluminum	mg/L			0.1	0.001	0.001	0.096	0.001	0.001	0.004	0.068	0.106	0.171	0.118	0.158
Cobalt	mg/L				0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Copper	mg/L		1		0.001	0.041	0.004	0.012	0.005	0.016	0.003	0.003	0.002	0.012	0.010
Iron	mg/L		0.3		0.001	0.005	0.005	0.015	0.005	0.047	0.002	0.007	0.012	0.026	0.067
Manganese	mg/L		0.05		0.0005	<0.0005	0.0006	0.0005	0.0005	0.0015	0.0005	0.0015	0.0009	0.0010	0.0027
Molybdenum	mg/L				0.0005	0.0006	0.0014	0.0005	0.0005	0.0012	0.0014	0.0013	0.0014	0.0014	0.0013
Nickel	mg/L				0.0005	0.0010	0.0008	0.0014	0.0007	0.0057	0.0008	0.0008	<0.0005	<0.0005	<0.0005
Zinc	mg/L		5		0.0005	0.0205	0.0015	0.0040	0.0018	0.0013	0.0011	0.0016	<0.0005	<0.0005	<0.0005
Schedule 13 - Chemical Parameters															
Fluoride	mg/L	1.5		0.5 - 0.8 [3]	0.03/0.02	0.70	0.70	0.08	0.70	0.11	0.62	0.56	0.58	0.56	0.58
Nitrate Nitrogen	mg/L	10			0.01/0.04	1.98	0.36	0.89	2.24	0.30	0.39	0.36	0.37	0.39	0.21
Nitrite Nitrogen	mg/L	1			0.02/0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Sodium	mg/L	20 [4]	200 [5]		0.05/1.0	26.8	16.1	164	51.6	40.8	16.9	19.0	14.5	14.7	14.7
Turbidity	NTU	1 [6]	5 [7]		0.05	0.09	0.09	0.13	0.18	0.14	0.11	0.11	0.13	0.21	0.23
Bromodichloromethane [9]	µg/L				0.10	6.0	8.2	4.6	5.0	5.4	11.6	8.6	8.6	8.1	7.7
Bromoform [9]	µg/L				0.20	0.3	0.7	1.2	3.1	5.5	1.0	0.7	0.5	0.5	0.4
Chloroform [9]	µg/L				0.10	12.6	13.0	4.6	2.1	2.1	20.0	13.0	9.9	9.8	9.4
Dibromochloromethane [9]	µg/L				0.20	2.6	4.9	4.9	7.7	10.0	6.9	5.3	4.7	4.5	4.3
Total THMs	µg/L	100 [8]			0.20	25.9	29.8 [10]	15.6	20.2	25.1	29.8 [10]	29.8 [10]	22.0	21.4	20.3
Dibromoacetic Acid [9]	µg/L				5.0		<5.0				<5.0	<5.0	<5.0	<5.0	<5.0
Dichloroacetic Acid [9]	µg/L				5.0		6.0				12.0	6.4	<5.0	6.1	<5.0
Monobromoacetic Acid [9]	µg/L				5.0		<5.0				<5.0	<5.0	<5.0	<5.0	<5.0
Monochloroacetic Acid [9]	µg/L				5.0		<5.0				<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroacetic Acid [9]	µg/L				5.0		<5.0				6.8	5.2	<5.0	<5.0	<5.0
Total HAAs	µg/L	80 [11]			5.0		9.1 [10]				9.1 [10]	9.1 [10]	<5.0	4.6	<5.0
Schedule 23 - Inorganic Parameters															
Cadmium	mg/L	0.005			0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chromium	mg/L	0.05			0.001	0.001	<0.001	0.002	0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001

NOTES:

[1] This is an internal Halton Region guideline and is not reportable to the Ministry of the Environment, Conservation and Parks (MECP) if adverse.

[2] This is an internal Halton Region guideline and is not reportable to the MECP if adverse. Increases in HPC concentrations above baseline levels are considered undesirable.

[3] This guideline applies only when Fluoride is added. Campbellville and well based Milton do not have Fluoride added to the water supply.

[4] Defined as adverse under Reg. 170/03. At 20 mg/L, the Medical Officer of Health is to be notified, who in turn notifies local physicians so that patients on sodium restricted diets can be informed.

[5] At 200 mg/L, MECP Aesthetic Objective.

[6] This standard applies to treated water entering the distribution system.

[7] This objective applies to water in the distribution system.

[8] This standard applies to a running annual average for all distribution sites, as per MECP calculation.

[9] This result is based on an annual average.

[10] This is a running average for the South Halton Water Distribution System (Oakville, Burlington, Milton Lake Based) as per MECP calculation.

[11] This standard applies to a running annual average of all sites after chlorination or re-chlorination, as per MECP calculation. The standard for HAA will come into effect January 1, 2020.

* This system operates under chloramination.

MAC = Maximum Acceptable Concentration

Schedule 23 and 24 from the Ontario Drinking Water Quality Standards Reg. 169/03 and 170/03 have been analyzed for all treated waters entering the distribution system, where required, and were found to be below the MAC health standard or aesthetic objective required.

To convert mg/L to grains/gallon: mg/L x 0.07016 = grains/imperial gallon