



Monroe County Water Authority

2016 Water Quality Monitoring Program Summary

Parameter	EPA/NYS MCL	EPA/NYS MCLG	UNITS	Shoremont WTP Lake Ontario			Webster WTP Lake Ontario			Corfu WTP Well			Hemlock WTP Hemlock Lake			ECWA Lake Erie		
				Average	Range	Samples in 2016	Average	Range	Samples in 2016	Average	Range	Samples in 2016	Average	Range	Samples in 2016	Average	Range	Samples in 2016
Inorganics, Metals, Physical Parameters																		
Aluminum	NS	NS	ug/L	84	32-180	4	68	39-120	4	ND		4	ND		4	169	45-320	4
Antimony	6	6	ug/L	ND		4	ND		4	ND		4	ND		4	ND		2
Arsenic	10	0	ug/L	ND		4	ND		4	ND		4	ND		4	ND		4
Barium	2	2	mg/L	0.023	0.020-0.027	4	0.020	0.018-0.022	4	0.125	0.12-0.14	4	0.015		1	0.02		1
Beryllium	4	4	ug/L	ND		4	ND		4	ND		4	ND		4	ND		1
Cadmium	5	5	ug/L	ND		4	ND		4	ND		4	ND		4	ND		1
Calcium	NS	NS	mg/L	34	33-36	4	35	33-36	4	60	57-64	4	26	25-28	4	33	32-34	4
Chromium	100	100	ug/L	ND		4	ND		4	ND		4	ND		4	ND		4
Copper (Distribution System)	NS	NS	ug/L	ND		4	ND		4	ND		4	ND		3	ND		1
Copper (Customer Tap Samples)	AL* = 1300	1300	ug/L	94	5-500	53(2015)	94	5-500	53(2015)	119	7-550	20(2015)	94	5-500	53(2015)	119	7-550	20(2015)
Cyanide	200	200	ug/l	ND		4	ND		4	ND		4	ND		4	ND		4
Fluoride	2.2	NA	mg/L	0.70	0.2-2.1	2095	0.70	0.2-1.2	2031	NR		NR	0.7	0.1-0.9	322	0.6	0.1-0.7	49
Iron	300	NA	ug/L	ND		4	ND		4	ND		4	ND		4	ND		2
Lead (Distribution System)	NS	NS	ug/L	ND		4	ND		4	ND		4	ND		4	ND		4
Lead (Customer Tap Samples)	AL* = 15	0	ug/L	6	ND-63	53(2015)	6	ND-63	53(2-15)	ND	ND-3.8	20(2015)	5.9	ND-63	53(2015)	ND	ND-3.8	20(2015)
Magnesium	NS	NS	mg/L	9.2	8.8-10	4	9.4	9.1-9.9	4	24	22-26	4	6.8	6.6-7.1	4	8.9		1
Manganese	300	NA	ug/L	ND		4	ND		4	ND		4	ND		2	ND		1
Mercury	2	2	ug/L	ND		4	ND		4	ND		4	ND		2	ND		2
Nickel	100	NA	ug/L	ND		4	ND		4	ND		4	ND		2	ND		1
Nitrate	10	10	mg/L	0.28	0.21-0.36	4	0.29	0.21-0.36	4	ND		4	0.17		1	0.16		1
Nitrite	1	1	mg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Potassium	NS	NS	mg/L	1.5		1	1.6		1	1.1		1	1.4		1	1.4		1
Selenium	50	50	ug/L	ND		4	ND		4	ND		4	ND		4	ND		1
Silica	NS	NS	mg/L	0.52	0.28-0.86	4	0.54	0.21-0.79	4	9.4	8.8-10.0	4	1	0.3-1.6	4	0.48	0.27-0.81	4
Silver	100	NA	ug/L	ND		4	ND		4	ND		4	ND		2	ND		1
Sodium	NS	NS	mg/L	15	14-15	4	17	16-17	4	62	51-68	4	20		2	12		1
Sulfate	250	NA	mg/L	27	26-28	4	28	27-30	4	51		1	13.0		4	21		1
Thallium	2	0.5	ug/L	ND		4	ND		4	ND		4	ND		4	ND		1
Zinc	5	NA	mg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Alkalinity	NS	NA	mg/L	88	85-92	4	88	86-89	4	238	230-240	4	68	67-69	4	89	84-95	4
Chlorides	250	NA	mg/L	26	25-26	4	28	26-29	4	54	37-67	4	37	36-38	4	23	21-24	4

Parameter				Shoremont WTP Lake Ontario			Webster WTP Lake Ontario			Corfu WTP Well			Hemlock WTP Hemlock Lake			ECWA Lake Erie		
	EPA/NYS MCL	EPA/NYS MCLG	UNITS	Average	Range	Samples in 2016	Average	Range	Samples in 2016	Average	Range	Samples in 2016	Average	Range	Samples in 2016	Average	Range	Samples in 2016
Color	15	NA	Color Units	ND		4	ND		4	ND		4	ND		4	ND		4
Conductivity	NS	NS	umhos/cm	300	290-300	35	310	300-330	41	700	310-790	42	287	280-293	17	300	290-310	4
pH	NS	NS	pH units	7.5	7.9	363	7.50	7.1-7.8	354	7.5	7.3-8.2	184	7.8	7.3-8.4	366	7.9	7.6-8.2	4380
Total Dissolved Solids	NS	NS	mg/L	188	170-210	4	190	170-210	4	418	390-460	4	173	160-180	4	175	160-190	4
Total Hardness	NS	NS	mg/L	123	230-130	4	125	120-130	4	250	230-270	4	94	90-99	4	120		1
Total Organic Carbon	NS	NS	mg/L	1.7	1.5-1.8	4	1.8	1.7-1.9	4	0.9	0.5-1.0	4	2.3	2.1-2.4	4	1.9	1.8-2.0	4
Surfactants	NS	NS	mg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Turbidity - Entry Point	TT **	NA	NTUs	0.05	0.03-0.08	2196	0.04	0.03-0.08	2135	NR		NR	0.07	0.05-0.23	2186	0.06	0.04-0.19	4380
Turbidity - Distribution System	TT ***	NA	NTUs	0.1	0.02-2.1	4206	0.1	0.02-2.1	4206	0.21	0.05-8.0	377	0.10	0.02-2.1	4206	0.12	0.05	54
Chlorine Residual - Entry Point	NA	NA	mg/L	1.2	0.6-1.6	2196	1.0	0.5-1.6	2122	0.8	0.3-1.8	185	0.9	0.7-1.8	2178	1.4	0.7-2.0	4380
Chlorine Residual - Retail Dist.System	TT ****	NA	mg/L	0.6	ND-1.6	4206	0.6	ND-1.6	4206	0.4	ND-1.3	377	0.6	ND-1.6	4206	0.8	0.2-1.3	54
Coliform - Retail Dist.System	TT *****	0	%Positive	0.07%		4206	0.07%		4206	0.5%		377	0.07%		4206	0.5%		377
Cryptosporidium (in source water prior to treatment)	NS	NS	Cysts/L	ND		12	ND		12	NR		NR	ND		12	ND		12
Giardia (in source water prior to treatment)	NS	NS	Cysts/L	ND	ND-0.05	12	ND		12	NR		NR	ND		12	ND		12
Asbestos (Distribution System)	7	7	MF/L	ND		1	ND		1	ND		1	ND		1	ND (2015)		30
Radionuclides																		
Gross Alpha	15	0	pCi/L	ND		1 (2012)	ND		3(2015)	ND		1 (2012)	ND		1 (2012)	ND		1 (2013)
Gross Beta	50	0	pCi/L	ND		1 (2012)	ND		3(2015)	ND		1 (2012)	ND		1 (2012)	ND		1 (2013)
Combined Radium 226/228	5	0	pCi/L	ND		1 (2012)	ND		3(2015)	ND		1 (2012)	ND		1 (2012)	ND		1 (2013)
Uranium	30	0	pCi/L	ND		1 (2012)	ND		3(2015)	ND		1 (2012)	ND		1 (2012)	NR		
Volatile Organics																		
Benzene	5	0	ug/L			4			4			4			4			3
Bromobenzene	5	NA	ug/L			4			4			4			4			3
Bromochloromethane	5	NA	ug/L			4			4			4			4			3
Bromomethane	5	NA	ug/L			4			4			4			4			3
n-Butylbenzene	5	NA	ug/L			4			4			4			4			3
sec-Butylbenzene	5	NA	ug/L			4			4			4			4			3
tert-Butylbenzene	5	NA	ug/L			4			4			4			4			3
Carbon Tetrachloride	5	0	ug/L			4			4			4			4			3
Chlorobenzene	5	NA	ug/L			4			4			4			4			3
Chloroethane	5	NA	ug/L			4			4			4			4			3
Chloromethane	5	NA	ug/L			4			4			4			4			3
2-Chlorotoluene	5	NA	ug/L			4			4			4			4			3
4-Chlorotoluene	5	NA	ug/L			4			4			4			4			3
Dibromomethane	5	NA	ug/L			4			4			4			4			3
1,2-Dichlorobenzene	5	NA	ug/L			4			4			4			4			3
1,3-Dichlorobenzene	5	NA	ug/L			4			4			4			4			3

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1,4-Dichlorobenzene	5	NA	ug/L	Not Detected		4	Not Detected		4	Not Detected		4	Not Detected		4	Not Detected		3
Dichlorodifluoromethane	5	NA	ug/L			4			4			3						
1,1-Dichloroethane	5	NA	ug/L			4			4			3						
1,2-Dichloroethane	5	0	ug/L			4			4			3						
1,1-Dichloroethene	5	NA	ug/L			4			4			3						
cis-1,2-Dichloroethene	5	NA	ug/L			4			4			3						
trans-1,2-Dichloroethene	5	NA	ug/L			4			4			3						
1,2-Dichloropropane	5	0	ug/L			4			4			3						
1,3-Dichloropropane	5	NA	ug/L			4			4			3						
2,2-Dichloropropane	5	NA	ug/L			4			4			3						
1,1-Dichloropropene	5	NA	ug/L			4			4			3						
1,3-Dichloropropene(Cis)	5	NA	ug/L			4			4			3						
1,3-Dichloropropene(Trans)	5	NA	ug/L			4			4			3						
Ethylbenzene	5	NA	ug/L			4			4			3						
Hexachlorobutadiene	5	NA	ug/L			4			4			3						
Isopropylbenzene	5	NA	ug/L			4			4			3						
p-Isopropyltoluene	5	NA	ug/L			4			4			3						
Methyl Tert-butyl ether (MTBE)	10	NA	ug/L			4			4			3						
Methylene Chloride (Dichloromethane)	5	0	ug/L			4			4			3						
n-Propylbenzene	5	NA	ug/L			4			4			3						
Styrene	5	NA	ug/L			4			4			3						
1,1,1,2-Tetrachloroethane	5	NA	ug/L			4			4			3						
1,1,1,2,2-Tetrachloroethane	5	NA	ug/L			4			4			3						
Tetrachloroethene	5	0	ug/L			4			4			3						
Toluene	5	NA	ug/L			4			4			3						
1,2,3-Trichlorobenzene	5	NA	ug/L			4			4			3						
1,2,4-Trichlorobenzene	5	NA	ug/L			4			4			3						
1,1,1-Trichloroethane	5	NA	ug/L			4			4			3						
1,1,1,2-Trichloroethane	5	3	ug/L	4	4	3												
Trichloroethene	5	0	ug/L	4	4	3												
Trichlorofluoromethane	5	NA	ug/L	4	4	3												
1,2,3-Trichloropropane	5	NA	ug/L	4	4	3												
1,2,4-Trimethylbenzene	5	NA	ug/L	4	4	3												
1,3,5-Trimethylbenzene	5	NA	ug/L	4	4	3												
Vinyl Chloride	2	0	ug/L	4	4	3												
Xylenes	5	NA	ug/L	4	4	3												