



# Monroe County Water Authority

## 2007 Water Quality Monitoring Program Summary

If you have any questions on this report, please call our Customer Service Department at (585) 442-7200.

Parameter				Shoremont WTP Lake Ontario			Corfu WTP Well			Hemlock WTP Hemlock Lake			ECWA Lake Erie			City of Batavia WTP Ground Water			Town of Ontario WTP Lake Ontario			1
	EPA/NYS MCL	EPA/NYS MCLG	UNITS	Average	Range	Samples in 2007	Average	Range	Samples in 2007	Average	Range	Samples in 2007	Average	Range	Samples in 2007	Average	Range	Samples in 2007	Average	Range	Samples in 2007	
<b>Inorganics, Metals, Physical Parameters</b>																						
Aluminum	NS	NS	ug/L	57	31-97	4	ND		4		56	38-80	4	177	49-350	4	NR				NR	
Antimony	6	6	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Arsenic	10	NA	ug/L	ND	ND-1.1	4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Barium	2	2	mg/L	0.020	0.020-0.021	4	0.069	0.041-0.140	4	0.016	4	0.02	0.019-0.020	4	0.015	4	0.015	1	0.019		1	1
Beryllium	4	4	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Cadmium	5	5	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Calcium	NS	NS	mg/L	36	34-37	4	37	22-78	4	26	24-29	4	35	34-35	3	12		1	NR		NR	
Chromium	100	100	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Copper (Distribution System)	NS	NS	mg/L	ND		4	0.041	0.033-0.046	4	ND	ND-0.002	4	ND	ND-0.002	4	ND		1	ND		ND	1
Copper (Customer Tap Samples)	AL* = 1.3	1.3	mg/L	54	.008-0.270	50(2006)	0.142	0.1 - 0.69	20(2006)	0.054	0.008-0.270	50(2006)	0.142	0.1 - 0.69	20(2006)	0.036	ND-0.061	30	0.106	0.008-0.119	11(2005)	
Cyanide	200	200	ug/l	ND		4	ND		3	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Fluoride	2.2	NA	mg/L	0.85	0.2-1.2	2159	0.7	0.1 - 1.1	174	0.8	0.14-1.2	146	0.7	0.1 - 1.1	174	1.00	ND-1.46	365	1	0.9 - 1.0	365	
Iron	300	NA	ug/L	ND		4	ND	ND-38	4	ND	4	ND	4	ND	4	ND		1	NR		NR	
Lead (Distribution System)	NS	NS	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Lead (Customer Tap Samples)	AL* = 15	15	ug/L	1.8	ND-9	50(2006)	ND	ND-4.8	ND	1.8	ND-9	50(2006)	ND	ND-4.8	ND	3.8	ND-26	30	6	3.5-6.3	11(2005)	
Magnesium	NS	NS	mg/L	9.3	8.8-9.7	3	22.0	12-31	2	7.0	6.5-7.1	3	NA	NA	20			1	NR		NR	
Manganese	300	NA	ug/L	ND		4	6.2	3.2-13	4	ND	4	ND	1	4.8	ND-11	4	ND	1	NR		NR	1(2005)
Mercury	2	2	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Nickel	100	NA	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	2		2	1
Nitrate	10	10	mg/L	0.34	0.28-0.40	4	ND	ND-0.10	4	0.20	0.1-0.31	4	0.19	0.11-0.33	4	0.65		1	0.47		0.47	1
Nitrite	1	1	mg/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	NR		NR	
Potassium	NS	NS	mg/L	1.6		1	2.1	ND-2.9	4	0.8	ND-1.5	2	1.5		1	NR		1	NR		NR	
Selenium	50	50	ug/L	ND		4	ND		4	ND	2	ND	4	ND	4	ND		1	ND		ND	1
Silica	NS	NS	mg/L	1.2	0.72-1.6	4	18		4	2.2	1.7-2.7	4	1.0	0.52-1.8	4	NR			NR		NR	
Silver	100	NA	ug/L	ND	ND-0.75	4	ND		4	ND	4	ND	4	ND	4	ND		1	NR		NR	
Sodium	NS	NS	mg/L	14	13-14	3	99	27-130	4	19	18-20	3	14.0	13-15	2	39		1	NR		NR	
Sulfate	250	NA	mg/L	29		2	61		1	15		2	23		1	29		1	NR		NR	
Thallium	2	0.5	ug/L	ND		4	ND		4	ND	4	ND	4	ND	4	ND		1	ND		ND	1
Zinc	5	NA	mg/L	ND		4	ND		4	ND	4	ND	4	ND-0.008	4	ND		1	NR		NR	
Alkalinity	NS	NA	mg/L	86	84-90	4	241	234-245	4	64	62-66	4	94	88-100	4	48	42-125	365	90		90	1
Chlorides	250	NA	mg/L	25	21-26	4	44	39-49	4	32	30-34	4	22	21-24	4	80		1	NR		NR	
Color	15	NA	Color Units	ND		4	ND		4	ND	4	ND	4	ND-3	4	ND		1	NR		NR	
Conductivity	NS	NS	umhos/cm	300	290-320	44	660	600 - 750	35	260	220-330	1408	290	280-300	44	NR			NR		NR	
pH	NS	NS	pH units	7.4	7.0-7.7	365	7.5	7.3 - 8.5	141	7.5	6.9-8.1	360	7.9		1	9.2	8.3-10.1	2190	NR		NR	
Total Dissolved Solids	NS	NS	mg/L	173	138-204	4	412	380-444	4	155	138-180	4	175	126-210	4	260		1	NR		NR	
Total Hardness	NS	NS	mg/L	127	120-130	3	215	110-320	2	93	89-100	3	122		1	118	90 - 188	2190	NR		NR	
Total Organic Carbon	NS	NS	mg/L	1.7	1.0-1.8	4	1	ND-1.7	4	2.3	2.2-2.3	4	2	1.9-2.2	4	1.0	ND-1.5	12	1.6	ND - 2.3	4	
Surfactants	NS	NS	mg/L	ND		4	ND		4	ND	4	ND	4	NR	4	NR			NR		NR	
Turbidity - Entry Point	TT **	NA	NTUs	0.06	0.03-0.10	8760	0.28	0.05 - 4.0	35	0.08	0.05-0.22	8760	0.11	0.05-0.35	8760	0.02	0.02-0.04	2190	0.05	0.028 - 0.071	8760	
Turbidity - Distribution System	TT ***	NA	NTUs	0.12	0.3-6.5	3443	0.13	0.04 - 1.1	174	0.13	0.05-7.6	1410	0.11	0.07-0.30	52	0.43	.02-.43	263	NA		NA	
Chlorine Residual - Entry Point	NA	NA	mg/L	1.0	0.6-1.3	8760	0.7	0.2 - 1.2	165	0.87	0.31-1.1	8760	1	0.4-1.4	52	0.95	0.6-1.44	8760	0.8	0.7 - 1.0	8760	
Chlorine Residual - Retail Dist.Sy	TT ****	NA	mg/L	0.6	ND-2.1	3616	0.6	ND - 1.4	175	0.5	ND-2.1	1543	1.0	0.4-1.0	52	0.74	0.10-1.10	263	NA		NA	
Coliform - Retail Dist.System	TT *****	0	%Positive	0.15%		3416	0.6%		174	0.0		1409	ND		52	ND	0.0% Pos.	263	NA		NA	
Cryptosporidium	NS	NS	#Positive	ND		6	NR		ND	1	ND	1	ND	24	NR			24	NR		NR	1
Giardia	NS	NS	#Positive	ND		6	NR		ND	1	ND	1	ND	24	NR			24	NR		NR	1
Asbestos (Distribution System)	7	7	MFL	ND		1	ND		1	ND	1	ND	1	NR					NR		NR	

Radionuclides																				
Gross Alpha	15	0	pCi/L	ND	1(2003)	ND	1(2003)	ND	1(2005)	NR	1(2004)	0.029	1(2000)	ND					1	
Gross Beta	50	0	pCi/L	ND	1(2003)	ND	1(2003)	ND	1(2005)	NR	1(2004)	1.2	1(2000)	ND					1	
Tritium	NS	NS	pCi/L	ND	1(2003)	ND	1(2003)	NR		NR	NR	NR	NR	NR					NR	
Combined Radium226/228	5	0	pCi/L	ND	1(2003)	ND	1(2003)	NR		NR	1(2004)	0.15	1(2000)	NR					NR	
Uranium	30	0	ug/L	ND	4(2004)	ND	3(2003)	NR		NR	1(2004)	NR	NR	NR					NR	
Volatile Organics																				
Benzene	5	0	ug/L	Not Detected	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	
Bromobenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Bromochloromethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Bromomethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
n-Butylbenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
sec-Butylbenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
tert-Butylbenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Carbon Tetrachloride	5	0	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Chlorobenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Chloroethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Chloromethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
2-Chlorotoluene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
4-Chlorotoluene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Dibromomethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,2-Dichlorobenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,3-Dichlorobenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,4-Dichlorobenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Dichlorodifluoromethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,1 Dichloroethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,2-Dichloroethane	5	0	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,1-Dichloroethene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
cis-1,2-Dichloroethene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
trans-1,2-Dichloroethene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,2-Dichloropropane	5	0	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,3-Dichloropropane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
2,2-Dichloropropane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,1-Dichloropropene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,3-Dichloropropene(Cis)	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,3-Dichloropropene(Trans)	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Ethylbenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Hexachlorobutadiene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Isopropylbenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
p-Isopropyltoluene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Methyl Tert-butyl ether (MTBE)	50	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Methylene Chloride (Dichloromet)	5	0	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
n-Propylbenzene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Styrene	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,1,1,2-Tetrachloroethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
1,1,2,2-Tetrachloroethane	5	NA	ug/L		4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1
Tetrachloroethene	5	0	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
Toluene	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,2,3-Trichlorobenzene	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,2,4-Trichlorobenzene	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,1,1-Trichloroethane	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,1,2-Trichloroethane	5	3	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
Trichloroethene	5	0	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
Trichlorofluoromethane	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,2,3-Trichloropropane	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,2,4-Trimethylbenzene	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
1,3,5-Trimethylbenzene	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
Xylenes	5	NA	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	
Vinyl chloride	2	0	ug/L	4	1	4	1	4	1	1	1	1	1	1	1	1	1	1	1	

Parameter	Shoremont WTP			Corfu WTP			Purchased Water			ECWA			City of Batavia WTP			Town of Ontario WTP			
	Lake Ontario			Well			Hemlock Lake			Lake Erie			Ground Water			Lake Ontario			
	Average	Range	Samples in 2006	Average	Range	Samples in 2006	Average	Range	Samples in 2006	Average	Range	Samples in 2006	Average	Range	Samples in 2006	Average	Range	Samples in 2006	
<b>Organics, Pesticides, Herbicides</b>																			
Atrazine	3		3	ug/L			4			1			ND	ND-0.1	2			1	
1, 2-Dibromo-3-Chloropropane	200	0	0	ng/L			1			1					1			1	
1, 2-Dibromoethane (EDB)	50	0	0	ng/L			1			1					1			1	
2, 4, 5-TP (Silvex)	10	NA	NA	ug/L			1			1					1			1	
2, 4-D	50	NA	NA	ug/L			1			1					1			1	
3-Hydroxycarbofuran	50	NS	NS	ug/L			1			1					1			1	
Alachlor	2	0	0	ug/L			4			4					2			1	
Aldicarb	3	1	1	ug/L			1			1					1			1	
Aldicarb Sulfone	2	1	1	ug/L			1			1					1			1	
Aldicarb Sulfoxide	4	1	1	ug/L			1			1					1			1	
Aldrin	5	NA	NA	ug/L			4			1					2			1	
Benzo(a)pyrene	200	0	0	ng/L			4			1					2			1	
Bis(2-Ethylhexyl)Phthalate	6	0	0	ug/L			4			4					2			1	
Butachlor	50	NA	NA	ug/L			4			1					2			1	
Carbaryl	50	NA	NA	ug/L			1			1					2			1	
Carbofuran	40	40	40	ug/L			1			1					1			1	
Dalapon	50	NA	NA	ug/L			1			1					1			1	
DCPA, Mono & Di-Acid Degradat	50	NS	NS	ug/L			4			1					1			NR	
Di(2-Ethylhexyl) Adipate	50	NA	NA	ug/L			4			1					1			1	
Dicamba	50	NA	NA	ug/L			1			1					1			1	
Dieldrin	5	NA	NA	ug/L			4			1					1			1	
Dinoseb	7	7	7	ug/L			1			1					1			1	
Dioxin	30	0	0	pg/L			1			1			1 (2005)		1			1	
Diquat	20	20	20	ug/L			1			1			1 (2005)		1			1	
Endothall	50	NA	NA	ug/L			1			1			1 (2005)		1			1	
Endrin	2	2	2	ug/L			4			1			1 (2005)		1			1	
Glyphosate	50	NA	NA	ug/L			1			1			1 (2005)		1			1	
Heptachlor	400	0	0	ng/L			4			1					1			1	
Heptachlor Epoxide	200	0	0	ng/L			4			1					1			1	
Hexachlorobenzene	1	0	0	ug/L			4			1					1			1	
Hexachlorocyclopentadiene	5	NA	NA	ug/L			4			1					1			1	
Isophorone	50	NA	NA	ug/L			4			1					1			NR	
Lindane (gamma-BHC)	200	200	200	ng/L			4			1					1			1	
Methomyl	50	NA	NA	ug/L			1			1					1			1	
Methoxychlor	40	40	40	ug/L			4			1					1			1	
Metolachlor	50	NA	NA	ug/L			4			1					1			1	
Metribuzin	50	NA	NA	ug/L			4			1					1			1	
Oxamyl	50	NA	NA	ug/L			1			1					1			1	
p,p' DDD	5	NA	NA	ug/L			4			1					2			NR	
p,p' DDE	NS	NS	NS	ug/L			4			1					2			NR	
p,p' DDT	5	NA	NA	ug/L			4			1					2			NR	
PCB's Total	500	0	0	ng/L			4			1					1			1	
Pentachlorophenol	1	0	0	ug/L			3			1					2			1	
Pichloram	50	NA	NA	ug/L			1			1					1			1	
Propachlor	50	NA	NA	ug/L			4			1					1			1	
Simazine	4	4	4	ug/L			4			1					1			1	
Total Chlordane	2	0	0	ug/L			4			1					1			1	
Toxaphene	3	0	0	ug/L			4			1					1			1	
Perchlorate	NS	NS	NS	ug/L			1			1					1			NR	
<b>Disinfectant Byproducts</b>																			
Total THMs	80	NA	NA	ug/L	33	14 - 54	16	40	32 - 47	4	40	23 - 62	16	40	32 - 47	4	46	31 - 57	4
Haloacetic Acids	60	NA	NA	ug/L	9	3 - 23	16	12	7 - 18	4	20	9 - 36	16	12	7 - 18	4	11	8 - 13	4
<b>Key</b>																			
<p><b>MCL</b> = Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as possible.</p> <p><b>MCLG</b> = Maximum Contaminant Level Goal, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.</p> <p><b>TT</b> = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.</p> <p><b>AL</b> = Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.</p> <p><b>Not Detected = ND</b> = absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL.</p> <p><b>NA</b> = Not applicable    <b>NR</b> = Not required    <b>NS</b> = No standard    <b>NT</b> = Not Tested</p> <p><b>mg/l</b> = milligram (1/1,000 of a gram) per liter = <b>ppm</b> = parts per million</p> <p><b>ug/l</b> = microgram (1/1,000,000 of a gram) per liter = <b>ppb</b> = parts per billion</p> <p><b>ng/L</b> = nanogram (1/1,000,000,000 of a gram) per liter = <b>ppt</b> = parts per trillion</p> <p><b>pg/L</b> = picogram (1/1,000,000,000,000 of a gram) per liter = <b>ppq</b> = parts per quadrillion</p> <p><b>pCi/L</b> = picoCuries per liter</p> <p><b>NTU</b> = Nephelometric turbidity Unit, a measure of the clarity of water.</p> <p><b>MF/L</b> = million fibers per liter, a measure of the presence of asbestos fibers longer than 10 (year) = Most recent testing. Monitoring frequency requirements vary depending on</p> <p><b>*Action level:</b> If &gt;10% of results are greater than 15 ug/l for lead or 1.3 mg/L for copper, remedial steps are required. In MCWA's combined retail area, 90% of the samples were less than 7 ug/L for lead and 0.140 mg/L for copper.</p> <p><b>**</b> = 95% of measurements within a given month must be less than &lt;0.3 NTUs.</p> <p><b>***</b> = Average of monthly distribution system turbidity samples must be less than 5.0 NTUs.</p> <p><b>****</b> = 95% of monthly distribution system samples must have a measurable chlorine</p> <p><b>Note:</b> Total Hardness is also expressed in grains per gallon. The Total Hardness of the Ontario and Hemlock supplies are 7.6 and 5.6 grains per gallon respectively.</p>																			