

WATER QUALITY DATA

A summary of test results is provided in the table below. The majority of data in this table are from 2009. If after reading this report you need additional information or service, please feel free to call the City's water quality experts at 428-3647, or you may contact the Monroe County Health Department at 753-5469 during normal business hours.

Terms and abbreviations used below:

☐ **Maximum Contaminant Level (MCL):** the highest level of a contaminant set that is allowed in drinking water. EPA sets MCLs as close to the MCLGs as feasible using the best available treatment technology.

☐ **Action Level (AL):** the concentration of a contaminant prescribed by the EPA, which when exceeded, triggers treatment or other requirements that a water system must follow.

☐ **NTU:** nephelometric turbidity units ☐ **ppm:** parts per million or milligrams per liter ☐ **pCi/L:** picocuries per liter (a measure of radiation) ☐ **NA:** not applicable ☐ **ND:** not detected at testing limit

Contaminant	MCL	Hemlock Lake			Lake Ontario		
		# Tests	avg	range	# Tests	avg	range
Inorganic contaminants							
Aluminum (ppb)	NA	3	ND		4	58	27-110
Antimony (ppb)	6	1	ND		4	ND	
Arsenic (ppb)	50	1	ND		4	ND	
Barium (ppm)	2	1	0.017		4	0.022	0.021-0.023
Beryllium (ppb)	4	1	ND		4	ND	
Cadmium (ppb)	5	1	ND		4	ND	
Calcium (ppm)	NA	12	25	24-27	4	35	32-36
Chromium (ppb)	100	1	ND		4	ND-2.1	
Copper(ppb)	AL=1300	55	88 (=90%tile)	ND-200	51	0.055	ND-0.37
Cyanide (ppb)	200	1	ND		4	ND	
Fluoride (ppm)	2.2	1078	0.83	0.58-1.01	2136	0.8	0.1-1.1
Iron (ppb)	300	1	ND		4	ND	
Lead (ppb)	AL=15	55	15 (=90%tile)	ND-42 (6 samples >15)	51	1.3	ND-8
Magnesium (ppm)	NA	1	6.3		4	9.1	8.4-9.4
Manganese (ppb)	300	1	ND		4	ND	
Mercury	2	1	ND		4	ND	
Nickel (ppb)+++++++	100	1	ND		4	ND	
Nitrate (ppm)	10	12	0.18	0.06-0.29	4	0.34	0.28-0.4
Nitrite (ppm)	1	1	ND		4	ND	
Potassium (ppm)	NA	1	1.6		1	1.6	
Selenium (ppb)	50	1	ND		4	ND	
Silver (ppb)	100	1	ND		4	ND	ND-4.1
Sodium (ppm)	NA	1	19		3	14	13-15

Contaminant	MCL	Hemlock Lake			Lake Ontario		
		# Tests	avg	range	# Tests	avg	range
Sulfate (ppm)	250	12	15	14-17	1	25	
Thallium (ppb)	2	1	ND		4	ND	
Zinc (ppb)	5000	1	ND		4	ND	
Alkalinity (ppm)	NA	23	64	58-69	4	85	83-88
Chlorides (ppm)	250	12	34	33-36	4	25	24-27
Color (Pt color unit)	15	12	ND		4	ND	
Specific Conductance (us/cm)	NA	12	270	256-283	47	310	290-340
Dissolved solids (mg/L)	NA				4	164	156-180
pH (pH unit)	NA	361	7.7	7.4-8.2	360	7.4	7.1-7.6
Total Hardness (ppm)	NA	1	86		4	122	110-129
Total Organic Carbon (ppm)	NA	4	2.1	2.0-2.2	4	1.9	1.4-2.3
Surfactants (mg/L)	NA	1	0.033		4	ND	
Turbidity – entry point (NTU)	**	2188	0.07	0.04-0.23	2190	0.05	0.04-0.12
Turbidity distribution system (NTU)	***	2176	0.18	0.04-2.4	4372	0.12	0.04-7.0
Chlorine residual – entry point (ppm)	****	2188	0.82	0.4-1.1	2190	1.1	0.8-1.5
Chlorine residual – distribution (ppm)	*****	2186	0.7	ND-2.1	8760	0.5	ND-1.9
Odor (threshold odor unit)	NA	2	ND				
Coliform – entry point (% positive)	NA	361	0%				
Coliform – distribution system (% pos) ¹	5%	2186	0.2%	0-2.1%	4376	0.30%	
Asbestos (million fibers/L)	7	1	ND		1(2007)	ND	
<i>Giardia</i> (cysts/L)	NA	4	ND		2	ND	
<i>Cryptosporidium</i> (oocysts/L)	NA	4	ND		2	ND	
Volatile Organics (ppb)							
Benzene	5	1	ND		4	ND	
Bromobenzene	5	1	ND		4	ND	
Bromochloromethane	5	1	ND		4	ND	
Bromomethane	5	1	ND		4	ND	
n-Butylbenzene	5	1	ND		4	ND	
Carbon tetrachloride	5	1	ND		4	ND	
Chlorobenzene	5	1	ND		4	ND	
Chloroethane	5	1	ND		4	ND	
Chloromethane	5	1	ND		4	ND	
2-Chlorotoluene	5	1	ND		4	ND	
4-Chlorotoluene	5	1	ND		4	ND	
Dibromomethane	5	1	ND		4	ND	

Contaminant	MCL	Hemlock Lake			Lake Ontario		
		# Tests	avg	range	# Tests	avg	range
1,2-Dichlorobenzene	5	1	ND		4	ND	
1,3-Dichlorobenzene	5	1	ND		4	ND	
1,4-Dichlorobenzene	5	1	ND		4	ND	
Dichlorodifluoromethane	5	1	ND		4	ND	
1,1-Dichloroethane	5	1	ND		4	ND	
1,2-Dichloroethane	5	1	ND		4	ND	
1,1-Dichloroethene	5	1	ND		4	ND	
Cis-1,2-Dichloroethene	5	1	ND		4	ND	
Trans-1,2-Dichloroethene	5	1	ND		4	ND	
1,2-Dichloropropane	5	1	ND		4	ND	
1,3-Dichloropropane	5	1	ND		4	ND	
2,2-Dichloropropane	5	1	ND		4	ND	
1,1-Dichloropropene	5	1	ND		4	ND	
Cis-1,3-Dichloropropene	5	1	ND				
Trans-1,3-Dichloropropene	5	1	ND		4	ND	
Ethyl benzene	5	1	ND		4	ND	
Hexachlorobutadiene	5	1	ND		4	ND	
Isopropylbenzene	5	1	ND		4	ND	
p-Isopropyltoluene	5	1	ND		4	ND	
Methylene chloride	5	1	ND		4	ND	
Naphthalene	NA	NA			4	ND	
n-Propylbenzene	5	1	ND		4	ND	
Styrene	5	1	ND		4	ND	
1,1,1,2-tetrachloroethane	5	1	ND		4	ND	
1,1,2,2-tetrachloroethane	5	1	ND		4	ND	
Tetrachloroethene	5	1	ND		4	ND	
Toluene	5	1	ND		4	ND	
1,2,3-Trichlorobenzene	5	1	ND		4	ND	
1,2,4-Trichlorobenzene	5	1	ND		4	ND	
1,1,1-Trichloroethane	5	1	ND		4	ND	
1,1,2-Trichloroethane	5	1	ND		4	ND	
Trichloroethene	5	1	ND		4	ND	
Trichlorofluoromethane	5	1	ND		4	ND	
1,2,3-Trichloropropane	5	1	ND		4	ND	
1,2,4-trimethylbenzene	5	1	ND		4	ND	
1,3,5-trimethylbenzene	5	1	ND		4	ND	

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		# Tests	avg	range	# Tests	avg	range
Xylenes	5	1	ND		4	ND	
Vinyl chloride	5	1	ND		4	ND	
MTBE	NA	1	ND				
Organics, Pesticides, PCBs (ppb)							
1,2-Dibromo-3-Chloropropane	0.05	1	ND		4	ND	
1,2-Dibromoethane (EDB)	0.05	1	ND		4	ND	
2,4,5-TP (Silvex)	10	1	ND		4	ND	
2,4-D	50	1	ND		4	ND	
3-Hydroxycarbofuran	50	1	ND		1	ND	
Alachlor	2	1	ND		1	ND	
Aldicarb	3	1	ND		1	ND	
Aldicarb Sulfoxide	4	1	ND		1	ND	
Aldrin	50	1	ND		4	ND	
Atrazine	3	1	ND		1	ND	
Benzo(a)pyrene	0.2	1	ND		1	ND	
Bis(2-Ethylhexyl)Phthalate	6	1	ND		1	ND	
Butachlor	50	1	ND		1	ND	
Carbaryl	50	1	ND		1	ND	
Carbofuran	40	1	ND		1	ND	
Dalapon	50	1	ND		1	ND	
Bis(2-Ethylhexyl) Adipate	50	1	ND		1	ND	
Dicamba	50	1	ND		1	ND	
Dieldrin	50	1	ND		4	ND	
Dinoseb	7	1	ND		1	ND	
Dioxin	0.03	1	ND		1	ND	
Diquat	20	1	ND		1	ND	
Endothall	50	1	ND		1	ND	
Endrin	2	1	ND		4	ND	
Glyphosate	50	1	ND		4	ND	
Heptachlor	0.4	1	ND		4	ND	
Heptachlor Epoxide	0.2	1	ND		4	ND	
Hexachlorobenzene	1	1	ND		1	ND	
Hexachlorocyclopentadiene	50	1	ND		1	ND	
Lindane	0.2	1	ND		4	ND	
Methomyl	50	1	ND		1	ND	
Methoxychlor	40	1	ND		4	ND	

Contaminant	MCL	Hemlock Lake			Lake Ontario		
		# Tests	avg	range	# Tests	avg	range
Metolachlor	50	1	ND		1	ND	
Metribuzin	50	1	ND				
Oxamyl	50	1	ND				
PCB's Total	0.5	1	ND				
Pentachlorophenol	1	1	ND				
Pichloram	50	1	ND				
Propachlor	50	1	ND				
Simazine	4	1	ND				
Total Chlordane	2	1	ND				
Propylene glycol (2005)	1000	1	ND				
Toxaphene	3	1	ND				
4,4'-DDT	NA	1	ND				
Mirex	NA	1	ND				
Disinfectant Byproducts (ppb)							
Total THMs	80	16	42	15-52	16	33	17-52
Total HAAs	60	16	32	15-50	16	11	4-28
TOX(2007)	NA	1	280				
Unregulated Contaminants Monitoring (ppb)(2002 data)							
2,4-dinitrotoluene	NA	3	ND				
2,6-dinitrotoluene	NA	3	ND				
Acetochlor	NA	3	ND				
DCPA mono-acid degradate	NA	3	ND				
DCPA di-acid degradate	NA	3	ND				
4,4'-DDE	NA	3	ND				
EPTC	NA	3	ND				
Molinate	NA	3	ND				
Nitrobenzene	NA	3	ND				
Perchlorate	NA	3	ND				
Terbacil	NA	3	ND				
Radionuclides (pCi/L)							
Gross alpha	15	2	ND				
Total Uranium	NA	2	ND				
Radium 226 & 228	50	2	ND				
Taste and Odor Compounds (2008 data)							
Geosmin (ng/L*****)	NA	1	4.3				
MIB (ng/L)	NA	1	ND				

Table footnotes:

1) In 1993, the New York State Department of health granted the city what is known as a biofilm variance to the total coliform bacteria MCL. Biofilm refers to a layer of bacteria that can be found on water pipe surfaces. A biofilm variance is only allowed where the coliform bacteria recovered from a water system are identified as non-disease causing environmental strains originating from the pipeline biofilm and not from an external source of contamination. The city of Rochester is one of several large suppliers nationwide holding a biofilm variance.

** = 95% of measurements within a given month must be less than 0.5 ntu.

*** = Average of monthly distribution system samples must be less than 5.0 ntu.

****=Water entering the distribution must have a chlorine residual greater than 0.2 and less than 4 ppm.

*****=95% of monthly distribution system samples must have a measureable chlorine residual.

*****=nanograms/liter or parts per trillion

Note: Total Hardness is also expressed in grains per gallon. The grains of hardness in the Ontario and Hemlock supplies are 7.6 & 5.6 respectively.