

**April - June 2002 Water Quarterly Report**

Parameters Related to Microbiological Quality	MAC, IMAC or Minimum	Number of Samples	Number of Detectable Results	Sampling Date	Range	Adverse Results?	Typical Source of Contaminant
Turbidity Filter # 1 Filter # 2 Filter # 3 Filter # 4 Plant Effluent Online Plant Effluent Lab.	Mac 1.0 NTU	Continuous Continuous Continuous Continuous Continuous	Continuous Continuous Continuous Continuous Continuous	April 1/02 June 30/02	0.028-0.270 NTU 0.029-0.291 NTU 0.029-0.257 NTU 0.037-0.908 NTU 0.019-0.291 NTU 0.023-0.059 NTU	No No No No No No	Indicates presence of particles in water due to process difficulties.
Free Chlorine Entering Distribution System Plant Effluent Online Plant Effluent Lab.	Indicator of adverse water quality if below 0.05mg/L	Continuous 91	Continuous 91	April 1/02 June 30/02	1.193-2.325 mg/L 1.31-1.86 mg/L	No No	Free chlorine entering distribution system must be high enough to maintain a minimum of 0.20 mg/L in all parts of the distribution system.
Free Chlorine @ Sites Throughout Distribution System	Indicator of adverse water quality if below 0.05mg/L	322	322	April 1/02 June 30/02	0.07-1.71 mg/L	No	
Microbiological Parameters	MAC , IMAC or Aesthetic Objective	Number of Samples	Number of Detectable Results	Sampling Date	Range	Adverse Results?	Typical Source of Contaminant
Total Coliforms	MAC = 0 *See Note	118	1	April 1/02 June 30/02	N/A	Yes. See summary.	Inadequate filtration/disinfection.
Fecal Coliforms	MAC = 0 *See Note		0	April 1/02 June 30/02	N/A	No	Sewage Contamination.
E . Coli	MAC = 0 *See Note		0	April 1/02 June 30/02	N/A	No	Sewage Contamination.
Deterioration Indicators	MAC = 0 *See Note		0	April 1/02 June 30/02	N/A	No	Inadequate filtration/disinfection.
Heterotrophic Plate Count Colonies / mL	MAC 500 Colonies/mL	19	5	April 1/02 June 30/02	0-3 colonies	No	Used to monitor disinfection efficiency at plant or water quality deterioration in system.

Note \* Indicator of Adverse Water Quality if present in treated water.

Volatile Organics	MAC , IMAC or Aesthetic Objective	Detection Limit	Number of Samples	Sampling Date	Result	Exceedance ?	Typical Source of Contaminant
Benzene	MAC 5 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Petroleum products, vehicle emissions, cigarette smoke.
CarbonTetrachloride	MAC 5 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Industrial waste.
1,2-Dichlorobenzene	MAC 200 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Used in specialty chemical blends (degreasing agents, dye carriers).
1,4-Dichlorobenzene	MAC 5 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Synthetic material widely used in toilet pucks & moth balls.
1,2-Dichloroethane	IMAC 5 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Used in production of vinyl chloride also as a solvent and fumigant.
1,1-Dichloroethylene	MAC 14 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Used in food packaging industry and textile industry.
Dichloromethane (Methylene Chloride)	MAC 50 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Industrial paint stripper and degreasing agent.
Ethylbenzene	Aesthetic Objective 2.4 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Component of gas octane booster also used in solvent based paint.
Monochlorobenzene (Chlorobenzene)	MAC 0.08 mg/L Aesthetic Objective/ 30 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Used to produce ingredients for waxes, paints, polishes, rubber,
Tetrachloroethylene	MAC 30 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Solvent for dry cleaning and the metal cleaning industries.
Toluene	Aesthetic Objective 24 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Petroleum products, and benzene derived products.
Total Trihalomethanes (current quarter)	See running average of four quarters below	1.0 ug/L	1	May 14/02	100 ug/L	N/A	Trihalomethanes are the most widely occurring synthetic organics found in chlorinated drinking water. They are caused by the action of chlorine with naturally occurring organics.
Total Trihalomethanes (Running Average)	MAC 100 ug/L *Based on a four quarter moving annual average	1.0 ug/L	Average of last four quarterly samples	May 14/02 Feb. 12/02 Nov. 28/02 Aug. 15/02	147 ug/L	Yes. See summary.	
Trichloroethylene (Trichloroethene)	MAC 50 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Dry cleaning, metal degreasing, tetrachloroethylene production.
Vinyl Chloride	MAC 2 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Used in making PVC.
m+p-Xylene	Aesthetic Objective 300 ug/L	1.0 ug/L	1	May 14/02	<1.0 ug/L	No	Industrial solvents, intermediate for dyes and organic synthesis, compound of paints, paint cleaners, and petroleum products.
o-Xylene	Aesthetic Objective 300 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	

Pesticides and PCBs	MAC , IMAC or Aesthetic Objective	Detection Limit	Number of Samples	Sampling Date	Result	Exceedance ?	Typical Source of Contaminant
Alachlor	IMAC 5 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide when growing corn and soybeans/banned in 1985.
Aldicarb	MAC 9 ug/L	0.9 ug/L	1	May 14/02	<0.9 ug/L	No	Insecticide.
Aldrin + Dieldrin	MAC .7 ug/L	0.04 ug/L	1	May 14/02	<0.04 ug/L	No	Pesticides partially banned in Ontario in 1969 fully banned in 1994.
Atrazine + N-dealkylated metabolites	IMAC 5 ug/L	0.2 ug/L	1	May 14/02	<0.2 ug/L	No	Herbicide.
Azinphos -methyl	MAC 20 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Bendiocarb	MAC 40 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Bromoxnyl	IMAC 5 ug/L	0.2 ug/l	1	May 14/02	<0.2 ug/l	No	Herbicide.
Carbaryl	MAC 90 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Carbofuran	MAC 90 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Chlordane(Total)	MAC 7 ug/L	0.3 ug/L	1	May 14/02	<0.3 ug/L	No	Insecticide.
Clorpyrifos	MAC 90 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Cyanazine	IMAC 10 ug/l	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
Diazinon	MAC 20 ug/L	0.1ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Dicamba	MAC 120 ug/L	0.2 ug/L	1	May 14/02	<0.2 ug/L	No	Herbicide.
2,4-Dichlorophenol	MAC 900 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	The action of chlorine on phenolic precursors.
DDT & Metabolites	MAC 30 ug/L	0.4 ug/L	1	May 14/02	<0.4 ug/L	No	Insecticide.
2,4-D	IMAC 100 ug/L	0.2 ug/L	1	May 14/02	<0.2 ug/L	No	Herbicide.
Diclofop - methyl	MAC 9 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
Dimethoate	IMAC 20 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Dinoseb	MAC 10 ug/L	0.2 ug/L	1	May 14/02	<0.2 ug/L	No	Herbicide.
Diquat	MAC 70 ug/L	7 ug/L	1	May 14/02	<7 ug/L	No	Herbicide.
Diuron	MAC 150 ug/L	15 ug/L	1	May 14/02	<15 ug/L	No	Herbicide.
Glyphosate	IMAC 280 ug/L	28 ug/L	1	May 14/02	<28 ug/L	No	Herbicide.
Heptachlor	MAC 3 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Heptachlor Epoxide	MAC 3 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Lindane(Total)	MAC 4 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Malathion	MAC 190 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Methoxychlor	MAC 900 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Metolachlor	IMAC 50 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
Metribuzin	MAC 80 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
Paraquat	10 ug/L 10 ug/L	1 ug/L	1	May 14/02	<1 ug/L	No	Herbicide.
Parathion	MAC 50 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Pentachlorophenol	MAC 60 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Pesticides and wood preservatives.
Phorate	IMAC 2 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Picloram	IMAC 190 ug/L	0.2 ug/L	1	May 14/02	<0.2 ug/L	No	Herbicide.
PCBs	IMAC 3 ug/L	0.06 ug/L	1	May 14/02	<0.06 ug/L	No	Transformers.
Prometryne	IMAC 1 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
Simazine	IMAC 10 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
Temephos	IMAC 280 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
Terbufos	IMAC 1 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Insecticide.
2,3,4,6-Tetrachlorophenol	MAC 1 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Wood preservative.
Triallate	MAC 230 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
2,4,6-Trichlorophenol	MAC 5 ug/L	0.5 ug/L	1	May 14/02	<0.5 ug/L	No	Used in the manufacture of pesticides.
Trifluralin	IMAC 45 ug/L	0.1 ug/L	1	May 14/02	<0.1 ug/L	No	Herbicide.
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)	28 ug/L	0.2 ug/L	1	May 14/02	<0.2 ug/L	No	Herbicide.

Inorganics	MAC , IMAC or Aesthetic Objective	Detection Limit	Number of samples	Sampling Date	Result	Exceedance ?	Typical Source of Contaminant
Arsenic	IMAC 25 ug/L	1 ug/L	1	November 28/01	<1 ug/L	No	Mine drainage waters and leachates, also occurs naturally.
Barium	MAC 1000 ug/L	10 ug/L	1	November 28/01	<10 ug/L	No	Limestone and dolomite.
Boron	IMAC 5000 ug/L	50 ug/L	1	November 28/01	<50ug/L	No	Antiseptic agents.
Cadmium	MAC 5 ug/L	0.5 ug/L	1	November 28/01	<0.5 ug/L	No	Electroplating wastes.
Chromium	MAC 50 ug/L	1 ug/L	1	November 28/01	<1 ug/L	No	Chlorination, older yellow paints, and water cooling systems.
Copper	Aesthetic Objective 1000 ug/L	1 ug/L	1	November 28/01	<1 ug/L	No	Plumbing.
Fluoride	Optimum Level 0.5 mg/L-0.8 mg/L	0.03 mg/L	1	May 14/02	0.41 mg/L AIN	No. See summary.	Natural or added to prevent tooth decay
Iron	Aesthetic Objective 300 ug/L	50 ug/L	1	November 28/01	<50 ug/L	No	Anaerobic decay in sediments and complex formations.
Lead	MAC 10 ug/L	1 ug/L	2	November 28/01	<1 ug/L	No	Corrosion of lead solder, some brass fittings or from lead pipes.
Manganese	Aesthetic Objective 50 ug/L	1 ug/L	1	November 28/01	<1 ug/L	No	Anaerobic decay processes in sediments.
Mercury	MAC 1 ug/L	0.1 ug/L	1	November 28/01	<0.1 ug/L	No	Air pollution, metal refining, and natural mineral deposits.
Nitrate	MAC 10 mg/L	0.03 mg/L	1	May 14/02	0.24 mg/L	No	Decayed plants or animals or from sewage,geological formations.
Nitrite	MAC 1.0 mg/L	0.02 mg/L	1	May 14/02	<0.02 mg/L	No	Unoxidized nitrate.
Selenium	MAC 10 ug/L	5 ug/L	1	November 28/01	<5 ug/L	No	Occurs naturally eg. weathering of rocks.
Sodium	Aesthetic Obj. 200.0 mg/L	0.005 mg/L	1	November 28/01	13.8 mg/L	No	Naturally occurring or through the addition of water treatment process
Uranium	MAC 100 ug/L	5 ug/L	1	November 28/01	<5 ug/L	No	Naturally occurring.