

# TOWN OF HAWKESBURY

# WATERWORKS QUARTERLY REPORT

January 1, 2005 to March 31, 2005

## prepared by:

Technical Services Department TOWN OF HAWKESBURY 600 Higginson Street Hawkesbury, Ontario K6A 1H1 Tel. (613) 632-0106, ext. 2237 Fax (613) 636-2094

Prepared on: April 28, 2005

# WATERWORKS QUARTERLY REPORT FOR THE TOWN OF HAWKESBURY

## Reporting Period: January 1, 2005 – March 31, 2005

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# WATERWORKS QUARTERLY REPORT for the Town of Hawkesbury

Reporting Period: January 1, 2005 to March 31, 2005

#### **OUR REPORT**

The Town of Hawkesbury water system is presenting to the citizens of the Town of Hawkesbury its quarterly report for the period from January 1, 2005 to March 31, 2005. The province's Drinking Water Protection Regulation requires that we publish this report for your information. Here you will find the water quality data and other information that we were required to collect for the first quarter of 2005.

Our waterworks currently serves a population of 10,154 in Hawkesbury and a population of approximately 3,000 in the Township of Champlain. In accordance with its Official Plan, all development in the Town has been provided with municipal water and sewer services. Water is supplied by the Water Filtration Plant, which is owned and operated by the municipality, and sewage is treated at the Water Pollution Control Plant which is owned by the municipality and operated by the Ontario Clean Water Agency.

Our Water Filtration Plant is located at 670 Main Street West in Hawkesbury, Ontario. The plant was constructed in 1953 and upgraded and expanded in 1996. The system's upgrade and expansion consisted mainly of the following works:

- Construction and integration of a second clarifier unit in the treatment process complete with related piping, controls, etc...
- Construction and integration of a second 2,760 m<sup>3</sup> potable water underground storage complete with related piping, controls, etc...
- Construction of new settling and decanting tanks for clarifier sludge and backwash wastewater.
- Supply and installation of new high lift pumping equipment.
- Supply and installation of a new SCADA control system.
- Replacement and/or relocation of yard piping.

We also have a 5,454 cubic metre elevated storage reservoir in our distribution system located on Spence Avenue. The 1996 upgrade means that we comply with Ministry of the Environment minimum treatment guidelines for waterworks using a surface water source.

If you have a question about the Town of Hawkesbury water system or this report, you may contact Mr. Martin Bonhomme, P.Eng., Director of Technical Services, at (613) 632-0106, extension 2236 or Mr. Richard Guertin, Waterworks Superintendent, at (613) 632-3112, during business hours. All of our plant staff members are licensed operators and members of the Ontario Municipal Water Association, the Eastern Ontario Water Works Association and the American Water Works Association.

#### WHERE YOUR WATER COMES FROM

Have you ever really thought about where your water comes from? In the Town of Hawkesbury, our source is the Ottawa River, a fairly large body of water. Our intake is located 90 metres from the river shore and is 4.5 metres in depth from the normal water level.

Because of the location and depth of the intake, the water quality does not change quickly. This makes it easier for waterworks staff to produce a consistently safe water. The outfall of the sewage plant discharges downstream from the water intake, and therefore has no impact on our water supply.

The source of water has to be treated to eliminate bacteria, turbidity, organic substances and colour (the natural colour in our water is elevated) in order to produce the best drinking water quality possible and having the lowest levels of aluminium, trihalomethanes (THMs), etc.... THMs are a byproduct of the chlorination of water with organic substances and colour content. By removing most of the organic substances and colour during treatment and monitoring our chlorine addition, we can control the formation of THMs.

#### **WHAT IS IN YOUR WATER?**

Some parameters may be present in source water before we treat it. Here is a description of the various groups of parameters.

Microbiological parameters such as bacteria may come from sewage plants, livestock operations, septic systems and wildlife. Microbiological quality is the most important aspect of drinking water quality because of its association with dangerous water-borne diseases which can strike quickly.

Inorganic parameters such as salts and metals can be naturally occurring or a result of urban storm runoff, industrial or domestic wastewater discharge, mining or agriculture. Some may be a result of treatment and distribution of water (for example, lead from old solder in pipes).

Organic parameters can be naturally occurring but most organics of concern are synthetic. They originate from industrial discharges, urban storm runoff and other sources. Included in this group are pesticides that originate from both rural and urban areas. Some may originate from treatment of drinking water (for example, chlorination byproducts such as trihalomethanes).

Our certificate of approval from the Ministry of the Environment sets monitoring requirements. The enclosed reports of analysis summarize all the detectable results from monitoring we were required to do from January 1, 2005 through March 31, 2005. The presence of these substances in drinking water does not necessarily mean that the water poses a health risk.

The municipality participates in the Drinking Water Surveillance Program for Ontario which is a monitoring program providing immediate, reliable, current information on drinking water quality. Laboratory analysis are conducted to detect the presence of over 120 parameters in the source water. The municipality is immediately advised when a problem is detected.

#### TYPES OF TREATMENT

The conventional treatment used consists of the following:

- Coagulation-floculation-decantation: This process eliminates approximately 99 % of all organic substances, bacteria, color, etc...
- **Filtration:** This process eliminates the small particles not treated in above process.
- **Disinfection and fluoridation:** This process is carried out before the water is stored in the water tank. This chlorine disinfection ensures the elimination of all bacteria. A fluoridation is carried out simultaneously (the main purpose of the fluoridation is to prevent tooth decay in children). The disinfection process is a prime necessity to ensure that the quality of drinking water meets the Ontario Ministry of Environment regulations. Afterwards, the drinking water is pumped into the municipal water distribution system.
- **Distribution :** The distribution is the final stage where the drinking water is distributed to residences, businesses, institutions and industries.

#### TERMS YOU NEED TO KNOW

Here are some terms you should know about before reading the information on the report of analysis.

#### **DEFINITIONS:**

#### MAC

Maximum Acceptable Concentration. This is a health-related Ontario drinking water standard established for contaminants that have known or suspected adverse health effects when above a certain concentration. The length of time the MAC can be exceeded without injury to health will depend on the nature and concentration of the parameter.

#### **IMAC**

Interim Maximum Acceptable Concentration. This is a health-related Ontario drinking water standard established for contaminants when there are insufficient toxicological data to establish a MAC with reasonable certainty, or when it is not practical to establish a MAC at the desired level.

#### Parameter

This is a substance that we sample and analyze for in the water.

milligrams per litre. This is a measure of the concentration of a parameter in water, sometimes called parts per million (ppm).

#### $\mu g/l$

micrograms per litre. This is a measure of the concentration of a parameter in water.

## ANALYSIS AND TESTING

The water treatment at the Water Filtration Plant undergoes continuous monitoring. In fact, sophisticated and precise equipment ensures a quality of water that is conforming to the Ontario Ministry of Environment regulations. Furthermore, the equipment at the Water Filtration Plant is verified daily to ascertain its proper functioning by conducting laboratory testing.

Once a week, water bacterial analysis are carried out by an independent laboratory, certified by the Canadian Association of Environmental Analytical Laboratories and the Standard Council of Canada. The operator takes 8 samples at different areas throughout the municipality and one sample of raw water. These samples are then sent to the laboratory for analysis.

The following analysis are carried out: - total coliform bacteria

- E-Coli

background colonies

It is to be noted that all written results are obtained within a delay of 48 hours. However, if a problem arises, the municipality is advised within a delay of 24 hours, being the incubation period.

Samples from the distribution water, decanted water, filtered water and raw water are analysed for total coliform bacteria once a week by the personnel of the Waterworks Department of the Town of Hawkesbury. Various testing is also conducted daily, such as pH, turbidity, alkaline, hardness, chlorine, etc...).

During the reporting period of January 1, 2005 to March 31, 2005, the weekly analysis results for the samples collected for Raw Water met the requirements as defined under the provisions of the Ontario Drinking Water Standards as for total coliforms, E-coli and background colonies.

2005 First		RAW WATER	PLANT TREATED	DISTRIBUTION		
Quarter	Units	Minimum-maximum	Minimum-maximum	Minimum-maximum		
Date		Jan. 12 – Mar. 30	Jan. 6 – Mar. 30	Jan. 6 – Mar. 30		
Total coliform	cts/100mL	430 – 3400	<1 – <1	<1 – <1		
Date		Jan. 12 – Mar. 30	Jan. 6 – Mar. 30	Jan. 6 – Mar. 30		
E. coli	cts/100mL	10 - 72	<1 – <1	<1 – <1		
Date		Jan. 12 – Mar. 30	Jan. 6 – Mar. 30	Jan. 6 – Mar. 30		
Background	cts/100mL	420 - 3800	<1 – <1	<1 – <1		
Date		Jan. 6 – Mar. 30	Jan. 6 – Mar. 30	Jan. 6 – Mar. 30		
Chlorine free	mg/L	0.75	0.54 - 1.12	0.15 - 1.02		
Date		Jan. 6 – Mar. 30	Jan. 6 – Mar. 30	Jan. 6 – Mar. 30		
Chlorine total	mg/L	1.01	0.66 - 1.30	0.28 - 1.19		

Furthermore, the composite Total Suspended Solid for the reporting period met the requirement to not exceed 25 mg/L as an annual average concentration. The effluent discharge to the Ottawa River for this period is 14.0 mg/L. The annual composite Total Suspended Solid average is 13.58 mg/L.

#### **DID WE EXCEED THE STANDARDS?**

#### **Trihalomethanes (THMs):**

The Maximum Acceptable Concentration (MAC) objective for the trihalomethanes (THMs) is 100 µg/L or 0.1 mg/L. This standard is expressed as a running annual average of quarterly samples measured at a point reflecting the maximum residence time in the distribution system.

The running annual average for treated water at the Water Filtration Plant will not be available for this period. We have been advised by the laboratory, Caduceon Environmental Laboratories, that they did not perform said testing as, in their opinion, it is not required.

The running annual average in the distribution system for this period, being April 1, 2004 to March 31, 2005 is 62.78 µg/L or 0.0628 mg/L.

## **ADVERSE WATER QUALITY NOTIFICATIONS:**

There has been no report of adverse water quality results for this reporting period.

## MEASURES TAKEN TO COMPLY WITH THE REGULATIONS

#### **Upgrading Requirements:**

Minor deficiencies remain to be addressed and are currently being addressed by the contractor. The deficiencies should be corrected by the next reporting period.

#### **M.O.E.** Inspection of Hawkesbury Waterworks:

On July 23, 2004, a Provincial Officer of the Ministry of the Environment carried out an unannounced inspection of the Hawkesbury Waterworks under the Drinking Water Inspections Program. The Compliance Inspection Report was received on November 26, 2004 from the Ministry of the Environment.

Further to the inspection report, an Action Plan was prepared by the municipality describing how the Town of Hawkesbury will be addressing the issues enumerated under the sections entitled "Actions Required" and "Recommended Actions" of the report. The Action Plan is attached hereto as Appendix "A". On February 3, 2005, the Ministry of the Environment confirmed that the action plan from the municipality was satisfactory and appropriate for each of the report recommendations.

#### **LABORATORY SERVICES**

1. Caduceon Environmental Laboratories 40 Camelot Drive Nepean, Ontario K2G 5X8 Tel. (613) 228-1145 Fax (613) 228-1148

2. Caduceon Environmental Laboratories 2378 Holly Lane Ottawa, Ontario K1V 7P1 Tel. (613) 526-1023 Fax (613) 526-1244

3. Caduceon Environmental Laboratories 285 Dalton Avenue Kingston, Ontario K7M 6Z1 Tel. (613) 544-2001 Fax (613) 544-2770

**RPC** 4. 921 College Hill Road Fredericton, New Brunswick E3B 6Z9 Tel. (506) 452-1212 Fax (506) 452-0594

5. BECQUEREL INC. 3790 Kitimat Road – Unit #4 Mississauga, Ontario L5N 5L9 Tel. (905) 826-3080 Fax (905) 826-4151

#### **SUMMARY OF RESULTS**

Attached hereto are the results of the analysis for the samples collected on February 16, 2005. These analysis results cover the period from January 1, 2005 to March 31, 2005. The weekly analysis results are available to the public, upon request, from the Technical Services Department.

#### AVAILABILITY OF REPORT

Copies of this Waterworks Quarterly Report can be obtained from:

#### 1. Technical Services Department

Town of Hawkesbury 600 Higginson Street Hawkesbury, Ontario K6A 1H1 Tel. (613) 632-0106, ext. 2237

## Availability of Report .....(cont'd):

- Hawkesbury Public Library
   550 Higginson Street
   Hawkesbury, Ontario
   K6A 1H1
- 3. Town's website www.hawkesbury.ca

## **ONTARIO REGULATION 170/03:**

As per Ontario Regulation 170/03, quarterly reports have been replaced with annual reporting to the Ministry of the Environment. Therefore, quarterly reports are no longer submitted to the Ministry of the Environment as per said regulation. However, internal quarterly reports are prepared by the Town of Hawkesbury and posted on its web site for reference by the public and the Ministry of the Environment, if so desired. These internal reports are also submitted to the Municipal Council of the Corporation of the Town of Hawkesbury for approval.

PREPARED BY:

Martin Bonhomme, P.Eng., CMA, M.B.A. Chief Administrative Officer/ Director of Technical Services

April 28, 2005

MB/mb

## APPENDIX "A"

File No.: E05-33

January 17, 2005

Ministry of the Environment 113 Amelia Street Cornwall, Ontario K6H 3P1

Attention: Mr. Don Munro

Inspector / Provincial Officer Safe Drinking Water Branch

> Re: M.O.E. Drinking Water Inspection – 2004 Hawkesbury Drinking Water System.

Dear Sir:

Further to your letter dated November 23, 2004, please find below our Action Plan describing how the municipality plans to address the issues enumerated under the sections entitled "Actions Required" and "Recommended Actions" of the report.

## **Actions Required**

- 1. Our understanding of the training requirement is that the training must be received within a calendar year, meaning January 1<sup>st</sup> to December 31<sup>st</sup>. As per our Policy no. ST-P-2003-02, the Waterworks Superintendent must provide by January 31<sup>st</sup> of each year, the annual training program for each operator and for the Superintendent. In case this information is not submitted to the Director of Technical Services by January 31<sup>st</sup>, the Director of Technical Services shall make necessary arrangements to comply with the regulation.
- 2. The Town of Hawkesbury will mandate J.L. Richards & Associates to incorporate all upgrades up to 2004 in the Operations Manual.

Furthermore, the mandatory water sampling plan will be included in the updated Operations Manual.

The Contingency/Emergency Plan will be placed in the Plant Control Room and the instructions as to its placement will be included in the Operations Manual.

Annually, the Director of Technical Services will make proper arrangements to provide training of operators on the contents of the Operations Manual and Contingency/Emergency Plan. This item will be included in the Operations Manual and will be incorporated in the training records.

## Recommended Actions:

- 1. See no. 1 under Actions Required above.
- 2. See no. 2 under Actions Required above.
- 3. The monitoring and measurement records will be incorporated in the plant operations log book. The Superintendent will be responsible to ensure that the OIC has certified that the procedures outlined in the Operations Manual have been complied with on a daily basis.

In addition, please be advised that the policy on adverse drinking water conditions, including prescribed notification and corrective actions, will be included in the Operations Manual as mentioned in the section entitled "Summary of Best Practice Issues".

Should you require any additional information or have any questions with respect to the foregoing, please do not hesitate to contact the undersigned.

Yours very truly,

(original signed by)

Martin Bonhomme, P.Eng., CMA, M.B.A. Chief Administrative Officer/ Director of Technical Services

MB/mb

c.c.: R. Guertin, Waterworks Superintendent



# **CERTIFICATE OF ANALYSIS**

**Final Report** 

C.O.C.: DW04024

**REPORT No. B05-4180** 

Report To:

Hawkesbury, Town of 670 Main St. West

Hawkesbury Ontario K6A 2J3

Attention: Richard Guertin

DATE RECEIVED: 17-Feb-05

DATE REPORTED: 02-Mar-05

SAMPLE MATRIX: Drinking Water

Caduceon Environmental Laboratories

40 Camelot Drive

Ottawa Ontario K2G 5X8

Tel: 613-228-1145 Fax 613-228-1148

JOB/PROJECT NO.: Hawkesbury WTP

P.O. NUMBER:

WATERWORKS NO. 220002832

			Client I.D.:		Raw	Treated	Distribution	
			Sample I.D.:		B05-4180-1	B05-4180-2	B05-4180-3	
			Date Collect	ed:	16-Feb-2005	16-Feb-2005	16-Feb-2005	
Parameter	Units	M.D.L.	Reference Method	Date Analyzed				
Conductivity	µmho/cm	1	SM 2510	18-Feb-2005	94	132	136	
Fluoride	mg/L	0.1	EPA 300.0	17-Feb-2005		0.6	0.6	
Chloride	mg/L	0.5	EPA 300.0	17-Feb-2005	5.3	7.0	7.1	***************************************
Nitrite (N)	mg/L	0.1	EPA 300.0	17-Feb-2005	< 0.1	< 0.1	< 0.1	***************************************
Nitrate (N)	mg/L	0.1	EPA 300.0	17-Feb-2005	0.3	0.3	0.3	************
Sulphate	mg/L	1	EPA 300.0	17-Feb-2005	7	22	22	
Aluminum	mg/L	0.01	SM 3120	18-Feb-2005	0.19	0.03	0.03	
Arsenic	mg/L	0.001	SM 3114	18-Feb-2005	0.001	< 0.001	0.001	
alcium	mg/L	0.02	SM 3120	18-Feb-2005	10.3	16.4	17.1	
Copper	mg/L	0.002	SM 3120	18-Feb-2005	0.002	< 0.002	< 0.002	
Iron	mg/L	0.005	SM 3120	18-Feb-2005	0.253	0.020	0.018	*******
Lead	mg/L	0.0002	SM 3113	18-Feb-2005	< 0.0002	< 0.0002	< 0.0002	
Manganese	mg/L	0.001	SM 3120	18-Feb-2005	0.015	0.012	0.007	************
Mercury	mg/L	0.00006	SM 3112	17-Feb-2005	< 0.00006	< 0.00006	< 0.00006	*** *** *****
Sodium	mg/L	0.2	SM 3120	18-Feb-2005	5.1	5.4	5.3	
Zinc	mg/L	0.005	SM 3120	18-Feb-2005	< 0.005	< 0.005	< 0.005	
Ammonia (N)-Total	mg/L	0.01	EPA 350.2	18-Feb-2005	0.04	< 0.01	< 0.01	
Total Kjeldahl Nitrogen	mg/L	0.05	EPA 351.2	18-Feb-2005	0.35	0.12	0.15	**** **********
Dissolved Organic Carbon	mg/L	0.5	EPA 415.1	18-Feb-2005	5.7	2.2	2.4	
Phenol	mg/L	0.001	EPA 420.2	17-Feb-2005	< 0.001			***************************************
Benzene	μg/L	0.5	EPA 8260	17-Feb-2005		< 0.5		-4
Carbon Tetrachloride	μg/L	0.2	EPA 8260	17-Feb-2005		< 0.2		
Dichlorobenzene,1,2-	μg/L	0.1	EPA 8260	17-Feb-2005		< 0.1		
Dichlorobenzene,1,4-	μg/L	0.2	EPA 8260	17-Feb-2005		< 0.2		
Dichloroethane,1,2-	μg/L	0.1	EPA 8260	17-Feb-2005		< 0.1		
Dichloroethene, 1,1-	µg/L	0.1	EPA 8260	17-Feb-2005		< 0.1		
Dichloromethane (Methylene Chloride)	µg/L	0.3	EPA 8260	17-Feb-2005		< 0.3		-101-

M.D.L. = Method Detection Limit

Greg Claring SSC. C. Chem ab Manager - Ottawa District



# **CERTIFICATE OF ANALYSIS**

Final Report

ENVIRONMENTAL LABORATORIES

C.O.C.: DW04024 REPORT No. B05-4180

Report To:

Hawkesbury, Town of 670 Main St. West

Hawkesbury Ontario K6A 2J3
Attention: Richard Guertin

DATE RECEIVED: 17-Feb-05

DATE REPORTED: 02-Mar-05

SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

40 Camelot Drive

Ottawa Ontario K2G 5X8

Tel: 613-228-1145 Fax 613-228-1148

JOB/PROJECT NO.: Hawkesbury WTP

P.O. NUMBER:

WATERWORKS NO. 220002832

			Client I.D.:		Raw	Treated	Distribution	
			Sample I.D.:		B05-4180-1	B05-4180-2	B05-4180-3	
			Date Collect	ed:	16-Feb-2005	16-Feb-2005	16-Feb-2005	
Parameter	Units	M.D.L.	Reference Method	Date Analyzed				
Monochlorobenzene (Chlorobenzene)	µg/L	0.2	EPA 8260	17-Feb-2005		< 0.2	-	
Tetrachloroethylene	μg/L	0.2	EPA 8260	17-Feb-2005		< 0.2		
Trichloroethylene	μg/L	0.1	EPA 8260	17-Feb-2005		< 0.1		
Vinyl Chloride	μg/L	0.2	EPA 8260	17-Feb-2005		< 0.2		
Chloroform	μg/L	0.3	EPA 8260	17-Feb-2005			41.8	
Bromodichloromethane	μg/L	0.1	EPA 8260	17-Feb-2005			3.1	
Dibromochloromethane	μg/L	0.1	EPA 8260	17-Feb-2005			< 0.1	
romoform	μg/L	0.1	EPA 8260	17-Feb-2005			< 0.1	
Total Trihalomethanes	μg/L	0.3	EPA 8260	17-Feb-2005			44.9	
Alachlor	μg/L	0.3	EPA 8270	24-Feb-2005		< 0.3		
Aldicarb	μg/L	3	EPA 8270	24-Feb-2005		< 3		
Aldrin + Dieldrin	μg/L	0.02	Calc.	23-Feb-2005		< 0.02		
Atrazine + Metabolites	μg/L	0.5	Calc.	24-Feb-2005	4.5	< 0.5		***************************************
Azinphos-methyl	μg/L	0.21	Subcontract	02-Mar-2005		< 0.21 1		
Bendiocarb	μg/L	3	EPA 8270	24-Feb-2005		< 3		
Benzo(a)pyrene	μg/L	0.005	EPA 8270	24-Feb-2005		< 0.005		
Bromoxynil	μg/L	0.094	Subcontract	01-Mar-2005		< 0.094 1		
Carbaryl	μg/L	3	EPA 8270	24-Feb-2005		< 3		
Carbofuran	µg/L	1	EPA 8270	24-Feb-2005		< 1		
Chlordane (Total)	μg/L	0.04	Calc.	23-Feb-2005		< 0.04		
Chlorpyrifos	μg/L	0.5	EPA 8270	24-Feb-2005		< 0.5		
Cyanazine	μg/L	0.5	EPA 8270	24-Feb-2005	==	< 0.5		
DDT + Metabolites	μg/L	0.14	Subcontract	02-Mar-2005		< 0.14 1		
Diazinon	μg/L	1	EPA 8270	24-Feb-2005		< 1		
Dicamba	μg/L	5	EPA 8270	24-Feb-2005		< 5		
Dichlorophenol, 2,4-	μg/L	0.1	EPA 8270	24-Feb-2005		< 0.1		
Dichlorophenoxy acetic acid, 2,4- (2,4-D)	µg/L	5	EPA 8270	24-Feb-2005		< 5		

M.D.L. = Method Detection Limit

Greg Clarkin, BSc., C. Chem Lab Manager - Ottawa District



ENVIRONMENTAL LABORATORIES

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670 Main St. West

Hawkesbury Ontario K6A 2J3

Attention: Richard Guertin

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DATE REPORTED: 02-Mar-05

SAMPLE MATRIX: Drinking Water

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40 Camelot Drive

Ottawa Ontario K2G 5X8

Tel: 613-228-1145

Fax 613-228-1148

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			Sample I.D.:		B05-4180-1	B05-4180-2	B05-4180-3
			Date Collect	ed:	16-Feb-2005	16-Feb-2005	16-Feb-2005
Parameter	Units	M.D.L.	Reference Method	Date Analyzed			
Diclofop-methyl	μg/L	0.4	EPA 8270	24-Feb-2005		< 0.4	
Dimethoate	μg/L	1	EPA 8270	24-Feb-2005	••	< 1	
Dinoseb	μg/L	0.5	EPA 8270	24-Feb-2005		< 0.5	
Diquat	μg/L	5	EPA 549.1	23-Feb-2005		< 5	••
Diuron	μg/L	5	EPA 8270	24-Feb-2005		< 5	
Glyphosate	μg/L	25	EPA 547	23-Feb-2005		< 25	
Heptachlor + Heptachlor Epoxide	μg/L	0.1	Calc.	23-Feb-2005		< 0.1	
indane (total)	μg/L	0.1	EPA 8080	23-Feb-2005		< 0.1	
Malathion	μg/L	5	EPA 8270	24-Feb-2005		< 5	
Methoxychlor	μg/L	0.1	EPA 8080	23-Feb-2005	**	< 0.1	
Metolachlor	μg/L	3	EPA 8270	24-Feb-2005		< 3	
Metribuzin	μg/L	3	EPA 8270	24-Feb-2005		< 3	
Paraquat	μg/L	1	EPA 549.1	23-Feb-2005		< 1	
Parathion	μg/L	3	EPA 8270	24-Feb-2005		< 3	
Pentachlorophenol	μg/L	0.1	EPA 8270	24-Feb-2005		< 0.1	
Phorate	μg/L	0.3	EPA 8270	24-Feb-2005		< 0.3	
Picloram	μg/L	5	EPA 8270	24-Feb-2005		< 5	
Poly-Chlorinated Biphenyls (PCB's)	μg/L	0.05	EPA 8080	23-Feb-2005		< 0.05	
Prometryne	μg/L	0.1	EPA 8270	24-Feb-2005		< 0.1	
Simazine	μg/L	0.5	EPA 8270	24-Feb-2005		< 0.5	
Temephos	μg/L	10	EPA 8270	24-Feb-2005		< 10	*-
Terbufos	μg/L	0.3	EPA 8270	24-Feb-2005		< 0.3	
Tetrachlorophenol, 2,3,4,6-	μg/L	0.1	EPA 8270	24-Feb-2005		< 0.1	
Triallate	μg/L	10	EPA 8270	24-Feb-2005		< 10	
Trichlorophenol 2,4,6-	μg/L	0.1	EPA 8270	24-Feb-2005		< 0.1	Ma ma
Trichlorophenoxy acetic acid, 2,4,5-	μg/L	10	EPA 8270	24-Feb-2005		< 10	-

M.D.L. = Method Detection Limit

Greg Clarkin, BSc., C. Chem Lab Manager - Ottawa District

Accredited by the Standards Council of Canada and CAEAL for specific tests.



# **CERTIFICATE OF ANALYSIS**

**Final Report** 

C.O.C.: DW04024

**REPORT No. B05-4180** 

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Hawkesbury, Town of

670 Main St. West

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Attention: Richard Guertin

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Tel: 613-228-1145

Fax 613-228-1148

JOB/PROJECT NO.: Hawkesbury WTP

P.O. NUMBER:

WATERWORKS NO. 220002832

			Client I.D.:		Raw	Treated	Distribution	
			Sample I.D.:		B05-4180-1	B05-4180-2	B05-4180-3	
			Date Collect	ed:	16-Feb-2005	16-Feb-2005	16-Feb-2005	
Parameter	Units	M.D.L.	Reference Date Method Analyzed					
Trifluralin	µg/L	0.5	EPA 8270	24-Feb-2005		< 0.5		

<sup>1</sup> Subcontracted to SGS Lakefield