



Report to: General Committee

Date Report Authored: October 20, 2011

SUBJECT: Community Lead Testing Program – Status Report (8)
PREPARED BY: Helena Frantzke, Ext. 2449
Water Quality Coordinator, Waterworks

RECOMMENDATION:

- 1) THAT the report titled “Community Lead Testing Program – Status Report (8)” be received;
- 2) AND THAT staff report back to Council with the findings of the Community Lead Testing Program after completion of sampling period #9;
- 3) AND FURTHER THAT staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

Not Applicable

PURPOSE:

The purpose of this report is to inform Council of the findings from the Community Lead Testing Program, for sampling period #8 (June 15, 2011 to October 15, 2011).

BACKGROUND:

On July 26, 2007, the Drinking Water Systems Regulation O.Reg. 170/03 (Schedule 15.1) was amended, requiring mandatory community lead testing for lead (Pb) in drinking water at the tap level. Sampling is required semi-annually, between December 15 to April 15 and June 15 to October 15. Currently, Markham is required to sample as a minimum:

- 50 sampling locations from plumbing that serves private residences;
- 5 sampling locations that do not serve private residences (i.e. an industrial, commercial or institutional property (ICI)), and
- 10 sampling locations from the distribution system during each sampling period to verify system conditions in relation to the residential results.

The Waterworks department has presented the results of each of the seven previous sampling periods of the Community Lead Test Program. All test results have been below the Ministry of Environment Drinking Water Quality Standard (DWQS) as required by regulation.

OPTIONS/ DISCUSSION:

Reduction in Sampling:

When the Community Lead Testing Program was introduced in 2007, it included a provision for large municipalities to qualify for a reduction of sample location numbers by half. A large municipality would qualify for this reduction after it had successfully completed 4 consecutive rounds of lead testing in which less than 10% of the residential

samples collected exceeded the DWQS of 0.0100 mg/L. As a result of the Town's acceptable lead testing results, Markham was able to institute a reduction in the amount of sampling starting with the fifth period of sampling.

Sampling Locations:

During this round of lead testing, Waterworks collected samples from 55 residences, 10 ICI locations and 36 distribution system locations.

Markham has had tremendous support and interest from its residents from the beginning of the Community Lead Testing Program. Currently, after volunteers have completed four rounds of sampling, without detection of elevated lead levels, the residence is removed from the roster and the program is opened up to new participants. The new participants are taken from the original volunteer database. Since the Community Lead Testing Program is conducted on a volunteer basis, a resident can request to be removed from the program at anytime.

In this round, Waterworks sampled a total of 55 residential locations, 29 of which were maintained in the program from the previous round of sampling. There were 26 new homes enrolled in the program. In order to obtain the 26 new volunteers a total of 63 customers had to be solicited. Approximately 60% of customers contacted were no longer interested to be part of the program. We continue to see a trend indicating a lack of interest from residents who are willing to participate in the program.

O. Reg. 170/03 Compliance:

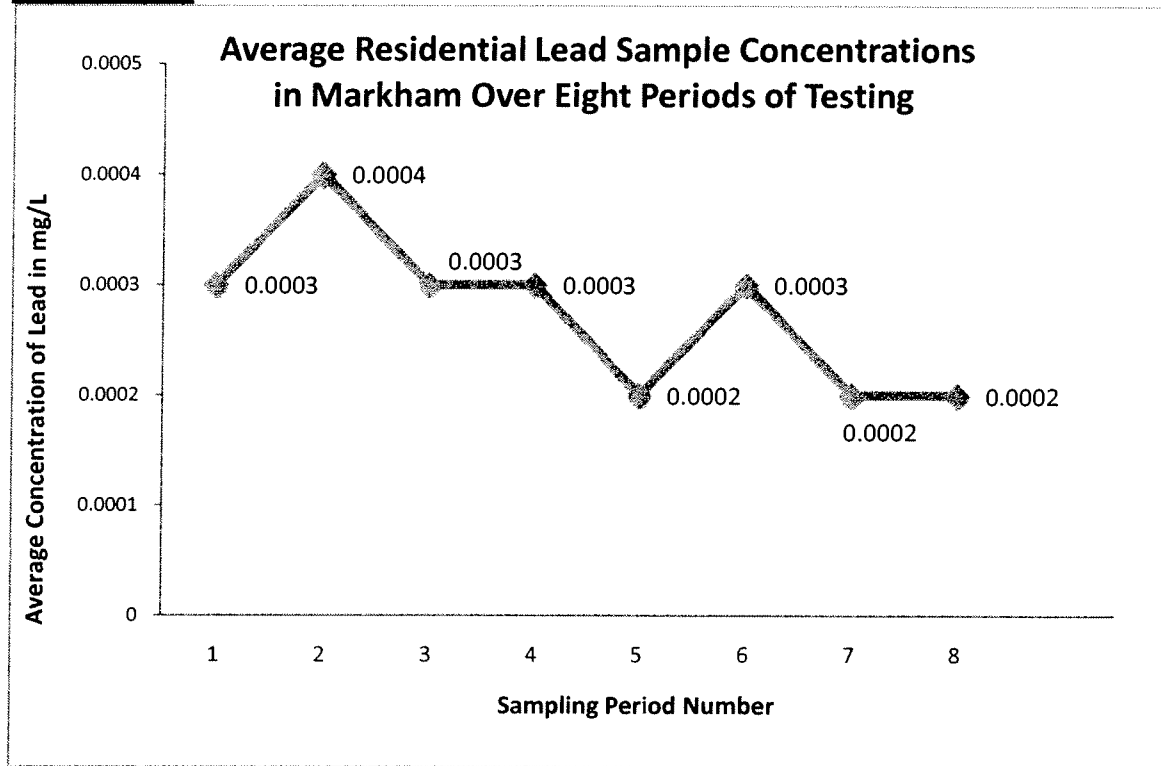
The Town of Markham has met and exceeded all of the testing requirements for lead prescribed by Schedule 15.1 of O. Reg. 170/03 for the eighth period of sampling (June 15, 2011 to October 15, 2011). In addition, as required, the results have been forwarded to the Ministry of the Environment (MOE).

Sampling Results:

The eighth period of sampling began on July 12, 2011 and was completed on September 30, 2011. Results of all tests taken during the eighth period of sampling continue to be below the safe standard for lead of 0.0100 mg/L as set out in the Drinking-Water Systems Regulation (170/03).

The following is a summary of all lead results taken for period #8:

Sampling Period	Type of Sample	# Samples Taken by Markham	# of Samples required by O. Reg. 170/03	Drinking Water Quality Standard (mg/L)	Average (mg/L)	Lowest Value (mg/L)	Highest Value (mg/L)
Period #8, June 15, 2011 to October 15, 2011	Non-Residential ICI (tap)	10	5	0.0100	0.0010	0.0001	0.0050
	Residential (tap)	55	50	0.0100	0.0002	<0.0001	0.0014
	Distribution	36	10	0.0100	0.0003	0.0002	0.0007

Observations:

The Town of Markham lead test results for all eight (8) sampling periods undertaken to date show that the average of lead concentration from all homes in Markham are consistently well below the DWQS of 0.0100 mg/L. A review of the last eight sampling periods indicates minimum variance of the average of lead at the homes of our residents, ranging between 0.0002 mg/L to 0.0004 mg/L. The average pH for this period of testing was 7.16. This neutral pH indicates Markham has a well buffered system. This along with the absence of lead services has helped to keep Markham from experiencing any issue with lead in the drinking water.

Notification of Results:

All participants who took part in the eighth period of testing have been mailed a copy of their sample report accompanied by a letter explaining the results. A summary of the results from the eighth period of testing has been posted on Markham's Website, providing general information for all of Markham residents. The Ministry of the Environment has been provided with a summary of all results for the eighth period of sampling.

Program Next Steps:

The requirement to undertake community wide sampling is a permanent requirement under O. Reg. 170/03. The next sampling period is December 15, 2011 to April 15, 2012.

Waterworks has submitted a request to the MOE for a further reduction in required sampling numbers and/or relief from the requirements of the community lead testing program. The MOE is currently reviewing our request and have communicated a decision will be provided in advance of the next sampling period.

FINANCIAL CONSIDERATIONS AND TEMPLATE: (external link)

Not Applicable

HUMAN RESOURCES CONSIDERATIONS

Not Applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

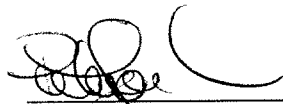
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BUSINESS UNITS CONSULTED AND AFFECTED:

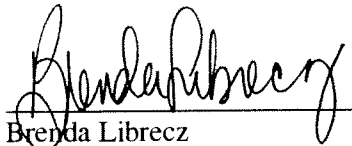
Not Applicable

The report presented herein, communicates the results of the Community Lead Testing Program – Sampling Period #8 (June 15, 2011 to October 15, 2011) to the Drinking Water System Owner.

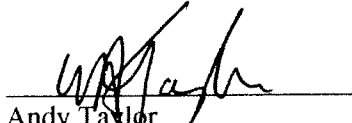
The undersigned represent the Top Management of Town of Markham's Drinking Water Distribution System and by signing below the Top Management of the Operating Authority have reviewed the Community Lead Testing – Sampling Period #8 results identified by Waterworks.

RECOMMENDED**BY:**

Peter Loukes, P.Eng.
Director, Environmental Services



Brenda Librecz
Commissioner, Community and Fire Services



Andy Taylor
Chief Administrative Officer

ATTACHMENTS: None