

POST-FIXTURE REPLACEMENT SAMPLING RESULTS REPORT

Mott Early Childhood Learning



September 21, 2016

INTRODUCTION

During the week of April 18, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at Mott Early Childhood Learning. These fixture replacements were required because testing results indicated that the older fixtures at most schools were imparting lead to the drinking water. After the fixtures were replaced, a more thorough flushing of the plumbing lines was completed to remove any remaining material from the building's water supply system.

On Saturday, June 4, 2016, the Department of Environmental Quality conducted a post-fixture sampling assessment of the plumbing system at the facility.

For the protection of public health, DLARA started offering the installation of filters on drinking water fixtures at daycare facilities and schools. This work began in July, 2016.

Water Main Description

Inspection from the building interior yielded a two inch galvanized water main.

SAMPLING METHODS

Fixture Sampling

There are 15 drinking water fixtures that were identified at the facility. After a minimum six-hour stagnation period, four samples were collected at each of the fixtures identified. Two initial samples were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third sample was collected. Finally, the water was flushed for another two minutes, and the fourth sample was collected. These samples were used to determine the impact of any lead sources in and around each specific fixture and its connecting plumbing.

Deep Plumbing Sampling

A different sampling method is used to determine the impact of any lead sources located deep in the supply plumbing of the building. During this method, ten bottles are collected in a row (consecutively). These bottles are one liter in size, which is larger than those used for the fixture sampling method.

Sampling Notes

- One of the identified fixtures, fixture number 004, was a portable sink that was not connected to plumbing. The sink was not sampled.
- Location contact did not flush each classroom prior to sampling.
- Fifty-six samples from 14 fixtures were collected and sent to the lab for analysis.
- Thirty samples from three specific fixtures were collected and sent to the lab for analysis for deeper plumbing assessment.

SAMPLING RESULTS

Post-Fixture Replacement

June 4, 2016
Of the 86 samples:

- Lead Range: Non-Detected (ND) to 381 parts per billion (ppb)
- Copper Range: ND to 1,300 ppb

* Where the result is non-detected for lead it means that the amount of lead in the water was less than 1 ppb.

* Where the result is non-detected for copper it means that the amount of copper in the water was less than 50 ppb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	107	01CF001 ROOM 101	P1	Copper	450
Lead	381	01CF001 ROOM 101	P2	Copper	1300
Lead	16	01CF001 ROOM 101	F01	Copper	340
Lead	ND	01CF001 ROOM 101	F02	Copper	90
Lead	4	01CF002 ROOM 103	P1	Copper	60
Lead	5	01CF002 ROOM 103	P2	Copper	210
Lead	1	01CF002 ROOM 103	F01	Copper	170
Lead	ND	01CF002 ROOM 103	F02	Copper	80
Lead	2	01CF003 ROOM 102	P1	Copper	260
Lead	1	01CF003 ROOM 102	P2	Copper	270
Lead	ND	01CF003 ROOM 102	F01	Copper	180
Lead	ND	01CF003 ROOM 102	F02	Copper	90
Lead	2	01CF005 ROOM 104	P1	Copper	130
Lead	7	01CF005 ROOM 104	P2	Copper	440
Lead	2	01CF005 ROOM 104	F01	Copper	190
Lead	ND	01CF005 ROOM 104	F02	Copper	80
Lead	ND	01BF006 BETWEEN ROOM 107 AND 105	P1	Copper	80
Lead	3	01BF006 BETWEEN ROOM 107 AND 105	P2	Copper	120
Lead	ND	01BF006 BETWEEN ROOM 107 AND 105	F01	Copper	90
Lead	ND	01BF006 BETWEEN ROOM 107 AND 105	F02	Copper	70
Lead	9	01CF007 ROOM 105	P1	Copper	400
Lead	1	01CF007 ROOM 105	P2	Copper	1220
Lead	1	01CF007 ROOM 105	F01	Copper	180
Lead	ND	01CF007 ROOM 105	F02	Copper	150
Lead	ND	01CF008 ROOM 107	P1	Copper	80
Lead	1	01CF008 ROOM 107	P2	Copper	230
Lead	ND	01CF008 ROOM 107	F01	Copper	160
Lead	ND	01CF008 ROOM 107	F02	Copper	80
Lead	ND	01BF009 BETWEEN ROOM 106 AND 108	P1	Copper	100
Lead	2	01BF009 BETWEEN ROOM 106 AND 108	P2	Copper	80
Lead	ND	01BF009 BETWEEN ROOM 106 AND 108	F01	Copper	70
Lead	ND	01BF009 BETWEEN ROOM 106 AND 108	F02	Copper	70
Lead	ND	01CF010 ROOM 106	P1	Copper	70
Lead	ND	01CF010 ROOM 106	P2	Copper	150
Lead	ND	01CF010 ROOM 106	F01	Copper	110
Lead	ND	01CF010 ROOM 106	F02	Copper	80
Lead	ND	01CF011 ROOM 108	P1	Copper	100
Lead	2	01CF011 ROOM 108	P2	Copper	80
Lead	1	01CF011 ROOM 108	F01	Copper	70
Lead	ND	01CF011 ROOM 108	F02	Copper	60
Lead	7	01KC012 ROOM 109	P1	Copper	140
Lead	1	01KC012 ROOM 109	P2	Copper	80
Lead	ND	01KC012 ROOM 109	F01	Copper	70
Lead	ND	01KC012 ROOM 109	F02	Copper	70
Lead	13	01WC013 OUTSIDE ROOM 109	P1	Copper	370
Lead	78	01WC013 OUTSIDE ROOM 109	P2	Copper	590

Non-detected (ND) means for lead the amount in water is less than 1 ppb,
and for copper the amount in water is less than 50 ppb.

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	2	01WC013 OUTSIDE ROOM 109	F01	Copper	90
Lead	ND	01WC013 OUTSIDE ROOM 109	F02	Copper	100
Lead	3	01WC014 OUTSIDE ROOM 109	P1	Copper	190
Lead	4	01WC014 OUTSIDE ROOM 109	P2	Copper	140
Lead	1	01WC014 OUTSIDE ROOM 109	F01	Copper	100
Lead	ND	01WC014 OUTSIDE ROOM 109	F02	Copper	110
Lead	1	01CF015 ROOM 110	P1	Copper	120
Lead	2	01CF015 ROOM 110	P2	Copper	180
Lead	2	01CF015 ROOM 110	F01	Copper	90
Lead	ND	01CF015 ROOM 110	F02	Copper	70
Lead	15	01CF001 ROOM 101	CA1	Copper	230
Lead	1	01CF001 ROOM 101	CA2	Copper	100
Lead	ND	01CF001 ROOM 101	CA3	Copper	90
Lead	ND	01CF001 ROOM 101	CA4	Copper	90
Lead	ND	01CF001 ROOM 101	CA5	Copper	90
Lead	ND	01CF001 ROOM 101	CA6	Copper	90
Lead	ND	01CF001 ROOM 101	CA7	Copper	90
Lead	ND	01CF001 ROOM 101	CA8	Copper	90
Lead	ND	01CF001 ROOM 101	CA9	Copper	90
Lead	ND	01CF001 ROOM 101	CA10	Copper	90
Lead	ND	01CF010 ROOM 106	CB1	Copper	110
Lead	ND	01CF010 ROOM 106	CB2	Copper	80
Lead	ND	01CF010 ROOM 106	CB3	Copper	80
Lead	ND	01CF010 ROOM 106	CB4	Copper	80
Lead	ND	01CF010 ROOM 106	CB5	Copper	80
Lead	ND	01CF010 ROOM 106	CB6	Copper	80
Lead	ND	01CF010 ROOM 106	CB7	Copper	80
Lead	ND	01CF010 ROOM 106	CB8	Copper	80
Lead	ND	01CF010 ROOM 106	CB9	Copper	80
Lead	ND	01CF010 ROOM 106	CB10	Copper	80
Lead	ND	01CF015 ROOM 110	CC1	Copper	100
Lead	ND	01CF015 ROOM 110	CC2	Copper	80
Lead	ND	01CF015 ROOM 110	CC3	Copper	80
Lead	ND	01CF015 ROOM 110	CC4	Copper	80
Lead	ND	01CF015 ROOM 110	CC5	Copper	80
Lead	ND	01CF015 ROOM 110	CC6	Copper	80
Lead	ND	01CF015 ROOM 110	CC7	Copper	80
Lead	ND	01CF015 ROOM 110	CC8	Copper	80
Lead	ND	01CF015 ROOM 110	CC9	Copper	80
Lead	ND	01CF015 ROOM 110	CC10	Copper	80

Non-detected (ND) means for lead the amount in water is less than 1 ppb,
and for copper the amount in water is less than 50 ppb.