

POST-FIXTURE REPLACEMENT SAMPLING RESULTS REPORT

Flint/Genesee Job Corps Center



September 15, 2016

INTRODUCTION

During the week of April 18, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at Flint/Genesee Job Corps Center. 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 materials from the building's water supply lines.

On Saturday, May 14, 2016, the DLARA and 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 the daycare facilities and schools in Flint. This work began in July, 2016.

Water Main Description

An inspection of the water main from inside the building yielded an eight inch ductile iron main and one inch copper lines for distribution.

SAMPLING METHODS

Fixture Sampling

There are 17 drinking water fixtures that were identified at the school. 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

- The facility was open but the child care area had a separate service line and the water was stagnant for over eight hours.
- All of the filters on the classroom fixtures were removed for flushing and sampling activities.
- Sixty-eight samples from seventeen fixtures were collected and sent to the lab for analysis.
- Four fixtures were selected to test the deeper part of the plumbing system. Forty samples were sent to the lab for analysis.

SAMPLING RESULTS

May 14, 2016

Of the 108 samples:

- Lead Range: Non-Detected (ND) to 8 parts per billion (ppb)
- Copper Range: ND to 340 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	ND	001KC001	P1	Copper	160
Lead	ND	001KC001	P2	Copper	250
Lead	ND	001KC001	F01	Copper	130
Lead	ND	001KC001	F02	Copper	130
Lead	2	001CF002	P1	Copper	190
Lead	2	001CF002	P2	Copper	280
Lead	ND	001CF002	F01	Copper	140
Lead	ND	001CF002	F02	Copper	130
Lead	2	01DW003	P1	Copper	200
Lead	ND	01DW003	P2	Copper	140
Lead	ND	01DW003	F01	Copper	140
Lead	ND	01DW003	F02	Copper	140
Lead	1	01CF004	P1	Copper	200
Lead	ND	01CF004	P2	Copper	310
Lead	ND	01CF004	F01	Copper	240
Lead	ND	01CF004	F02	Copper	130
Lead	ND	01CF005	P1	Copper	120
Lead	ND	01CF005	P2	Copper	190
Lead	ND	01CF005	F01	Copper	130
Lead	ND	01CF005	F02	Copper	120
Lead	3	01DW006	P1	Copper	250
Lead	ND	01DW006	P2	Copper	230
Lead	ND	01DW006	F01	Copper	150
Lead	ND	01DW006	F02	Copper	120
Lead	ND	01CF007	P1	Copper	140
Lead	ND	01CF007	P2	Copper	200
Lead	ND	01CF007	F01	Copper	120
Lead	ND	01CF007	F02	Copper	120
Lead	ND	01KC008	P1	Copper	150
Lead	ND	01KC008	P2	Copper	180
Lead	ND	01KC008	F01	Copper	120
Lead	ND	01KC008	F02	Copper	100
Lead	ND	01CF009	P1	Copper	110
Lead	ND	01CF009	P2	Copper	210
Lead	ND	01CF009	F01	Copper	140
Lead	ND	01CF009	F02	Copper	140
Lead	ND	01CF010	P1	Copper	200
Lead	ND	01CF010	P2	Copper	230
Lead	ND	01CF010	F01	Copper	140
Lead	ND	01CF010	F02	Copper	140
Lead	2	01DW011	P1	Copper	230
Lead	ND	01DW011	P2	Copper	150
Lead	ND	01DW011	F01	Copper	130
Lead	ND	01DW011	F02	Copper	120
Lead	8	01CF012	P1	Copper	170
Lead	2	01CF012	P2	Copper	240
Lead	ND	01CF012	F01	Copper	140

* Non-detected (ND) means; for lead the amount in water is less than 1 ppb

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	01CF012	F02	Copper	150
Lead	1	01DW013	P1	Copper	170
Lead	ND	01DW013	P2	Copper	150
Lead	ND	01DW013	F01	Copper	140
Lead	ND	01DW013	F02	Copper	140
Lead	2	01CF014	P1	Copper	180
Lead	ND	01CF014	P2	Copper	340
Lead	ND	01CF014	F01	Copper	220
Lead	ND	01CF014	F02	Copper	130
Lead	1	01CF015	P1	Copper	170
Lead	ND	01CF015	P2	Copper	180
Lead	ND	01CF015	F01	Copper	160
Lead	ND	01CF015	F02	Copper	130
Lead	6	01DW016	P1	Copper	310
Lead	ND	01DW016	P2	Copper	140
Lead	ND	01DW016	F01	Copper	130
Lead	ND	01DW016	F02	Copper	130
Lead	1	01CF017	P1	Copper	140
Lead	ND	01CF017	P2	Copper	240
Lead	ND	01CF017	F01	Copper	140
Lead	ND	01CF017	F02	Copper	130
Lead	ND	001KC001	CA 1	Copper	140
Lead	ND	001KC001	CA 2	Copper	110
Lead	ND	001KC001	CA 3	Copper	100
Lead	ND	001KC001	CA 4	Copper	100
Lead	ND	001KC001	CA 5	Copper	100
Lead	ND	001KC001	CA 6	Copper	90
Lead	ND	001KC001	CA 7	Copper	100
Lead	ND	001KC001	CA 8	Copper	90
Lead	ND	001KC001	CA 9	Copper	60
Lead	ND	001KC001	CA 10	Copper	ND
Lead	ND	01CF005	CB1	Copper	150
Lead	ND	01CF005	CB2	Copper	150
Lead	ND	01CF005	CB3	Copper	140
Lead	ND	01CF005	CB4	Copper	140
Lead	ND	01CF005	CB5	Copper	140
Lead	ND	01CF005	CB6	Copper	130
Lead	ND	01CF005	CB7	Copper	130
Lead	ND	01CF005	CB8	Copper	130
Lead	ND	01CF005	CB9	Copper	140
Lead	ND	01CF005	CB10	Copper	130
Lead	ND	01KC008	CC1	Copper	140
Lead	ND	01KC008	CC2	Copper	120
Lead	ND	01KC008	CC3	Copper	130
Lead	ND	01KC008	CC4	Copper	120
Lead	ND	01KC008	CC5	Copper	120
Lead	ND	01KC008	CC6	Copper	90

* Non-detected (ND) means; for lead the amount in water is less than 1 ppb

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Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	01KC008	CC7	Copper	60
Lead	ND	01KC008	CC8	Copper	50
Lead	ND	01KC008	CC9	Copper	ND
Lead	ND	01KC008	CC10	Copper	ND
Lead	ND	01CF017	CD1	Copper	140
Lead	ND	01CF017	CD2	Copper	140
Lead	ND	01CF017	CD3	Copper	130
Lead	ND	01CF017	CD4	Copper	130
Lead	ND	01CF017	CD5	Copper	120
Lead	ND	01CF017	CD6	Copper	120
Lead	ND	01CF017	CD7	Copper	120
Lead	ND	01CF017	CD8	Copper	120
Lead	ND	01CF017	CD9	Copper	120
Lead	ND	01CF017	CD10	Copper	110

* 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