## INTRODUCTION

During the week of April 25, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at Kiddie Time Childcare 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 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 in Flint. This work began in July, 2016.

#### **SAMPLING METHODS**

#### **Fixture Sampling**

There are eight 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**

 Thirty-two samples from eight fixtures were collected and sent to the lab for analysis.  Twenty samples were collected from two specific fixtures and sent to the lab for analysis for deeper plumbing assessment.

## SAMPLING RESULTS

#### **Post-Fixture Replacement**

June 4, 2016 Of the 52 samples:

- ➤ Lead Range: Non-Detected (ND) to 3 parts per billion (ppb)
- Copper Range: ND to 210 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.

# Kiddie Time Childcare Center Suite H June 4, 2016

	Lead Result				Copper Result
Lead	(ppb)	Sample Description	Site Code	Copper	(ppb)
Lead	ND	001KC001	P1	Copper	90
Lead	ND	001KC001	P2	Copper	ND
Lead	ND	001KC001	F01	Copper	ND
Lead	ND	001KC001	F02	Copper	ND
Lead	ND	001BF002 H	P1	Copper	100
Lead	ND	001BF002 H	P2	Copper	120
Lead	ND	001BF002 H	F01	Copper	ND
Lead	ND	001BF002 H	F02	Copper	ND
Lead	ND	001CF003	P1	Copper	110
Lead	ND	001CF003	P2	Copper	70
Lead	ND	001CF003	F01	Copper	ND
Lead	ND	001CF003	F02	Copper	ND
Lead	ND	001CF004	P1	Copper	ND
Lead	ND	001CF004	P2	Copper	ND
Lead	ND	001CF004	F01	Copper	ND
Lead	ND	001CF004	F02	Copper	ND
Lead	ND	001CF005	P1	Copper	ND
Lead	ND	001CF005	P2	Copper	ND
Lead	ND	001CF005	F01	Copper	ND
Lead	ND	001CF005	F02	Copper	ND
Lead	ND	001KC001	A1	Copper	ND
Lead	ND	001KC001	A2	Copper	ND
Lead	ND	001KC001	A3	Copper	ND
Lead	ND	001KC001	A4	Copper	ND
Lead	ND	001KC001	A5	Copper	ND
Lead	ND	001KC001	A6	Copper	ND
Lead	ND	001KC001	A7	Copper	ND
Lead	ND	001KC001	A8	Copper	ND
Lead	ND	001KC001	A9	Copper	ND
Lead	ND	001KC001	A10	Copper	ND

<sup>\*</sup> Non-detected (ND) means for lead the amount in water is less than 1 pbb, and for copper the amount in water is less than 50 pbb.

# Kiddie Time Childcare Center Suite K June 4, 2016

Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	001BF001	P1	Copper	110
Lead	2	001BF001	P2	Copper	180
Lead	ND	001BF001	F01	Copper	ND
Lead	ND	001BF001	F02	Copper	ND
Lead	ND	001BF002 K	P1	Copper	150
Lead	ND	001BF002 K	P2	Copper	110
Lead	ND	001BF002 K	F01	Copper	ND
Lead	ND	001BF002 K	F02	Copper	ND
Lead	3	001KC003	P1	Copper	190
Lead	ND	001KC003	P2	Copper	210
Lead	ND	001KC003	F01	Copper	ND
Lead	ND	001KC003	F02	Copper	ND
Lead	ND	001KC003	B1	Copper	ND
Lead	ND	001KC003	B2	Copper	ND
Lead	ND	001KC003	B3	Copper	ND
Lead	ND	001KC003	B4	Copper	ND
Lead	ND	001KC003	B5	Copper	ND
Lead	ND	001KC003	B6	Copper	ND
Lead	ND	001KC003	B7	Copper	ND
Lead	ND	001KC003	B8	Copper	ND
Lead	ND	001KC003	B9	Copper	ND
Lead	ND	001KC003	B10	Copper	ND

<sup>\*</sup> Non-detected (ND) means for lead the amount in water is less than 1 pbb, and for copper the amount in water is less than 50 pbb.