

# POST-FIXTURE REPLACEMENT SAMPLING RESULTS REPORT

Kingdom Kampus



September 22, 2016

## INTRODUCTION

During the month of April, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at Kingdom Kampus. 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.

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

On Monday, August 1<sup>st</sup>, 2016, the Department of Environmental Quality conducted a post-fixture sampling assessment of the plumbing system at the facility.

### Water Main Description

An inspection from inside the building yielded a three quarter inch copper line to the meter, and a three quarter inch PEX line through the building distribution system.

## SAMPLING METHODS

### Fixture Sampling

There are two 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

- Eight samples from two fixtures were collected and sent to the lab for analysis.
- Ten samples from one specific fixture were collected and sent to the lab for analysis for deeper plumbing assessment.

## SAMPLING RESULTS

### Post-Fixture Replacement

August 1, 2016

Of the 18 samples:

- Lead Range: All samples were Non-Detected (ND)
- Copper Range: ND to 70 parts per billion (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.

# Kingdom Kampus

August 1, 2016

Lead	Result (ppb)	Sample Description	Site Code	Copper	Result (ppb)
Lead	ND	001BF001 1ST FLOOR BATH	P1	Copper	70
Lead	ND	001BF001 1ST FLOOR BATH	P2	Copper	ND
Lead	ND	001BF001 1ST FLOOR BATH	F01	Copper	ND
Lead	ND	001BF001 1ST FLOOR BATH	F02	Copper	ND
Lead	ND	001KC002 KITCHEN	P1	Copper	ND
Lead	ND	001KC002 KITCHEN	P2	Copper	ND
Lead	ND	001KC002 KITCHEN	F01	Copper	ND
Lead	ND	001KC002 KITCHEN	F02	Copper	ND
Lead	ND	001KC002 KITCHEN	CA1	Copper	ND
Lead	ND	001KC002 KITCHEN	CA2	Copper	ND
Lead	ND	001KC002 KITCHEN	CA3	Copper	ND
Lead	ND	001KC002 KITCHEN	CA4	Copper	ND
Lead	ND	001KC002 KITCHEN	CA5	Copper	ND
Lead	ND	001KC002 KITCHEN	CA6	Copper	ND
Lead	ND	001KC002 KITCHEN	CA7	Copper	ND
Lead	ND	001KC002 KITCHEN	CA8	Copper	ND
Lead	ND	001KC002 KITCHEN	CA9	Copper	ND
Lead	ND	001KC002 KITCHEN	CA10	Copper	ND

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.