

POST-FIXTURE REPLACEMENT SAMPLING RESULTS REPORT

New Hope Behavioral Services I and II



August 30, 2016

INTRODUCTION

During the week of April 18, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at New Hope Behavioral Services I and II. 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, May 14, 2016, the Department of Environmental Quality and DLARA conducted a post-fixture sampling assessment of the plumbing system at the facility.

Water Main Description

An inspection from inside the building yielded a two inch galvanized to meter, then one and one-half inch copper from meter to facility.

SAMPLING METHODS

Fixture Sampling

There are 32 fixtures 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

- The standard 'Fixture Sampling Method' with a minimum six-hour stagnation period was not possible for this facility due to the residents' consistent water use needs. Sampling is representative of usual water use at the facility.
- Thirty two fixtures, 128 samples, were collected and sent to the lab for analysis.
- Four fixtures were selected to test the deeper part of the plumbing system. For this method 40 samples, ten samples from each fixture, were collected and sent to the lab for analysis.

SAMPLING RESULTS

Post-Fixture Replacement

May 14, 2016
Of the 168 samples:

- Lead Range: Non-Detected (ND) to 110 parts per billion (ppb)
- Copper Range: ND to 3,070 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.

New Hope Behavioral Service I and II

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| Lead | Result (ppb) | Sample Description | Site Code | Copper | Result (ppb) |
|------|--------------|-----------------------------|-----------|--------|--------------|
| Lead | ND | 01KC001 KITCHEN PREP SINK | P1 | Copper | 140 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | P2 | Copper | 160 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | F01 | Copper | 130 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | F02 | Copper | 70 |
| Lead | 68 | 01WC002 DINING WATER COOLER | P1 | Copper | 3070 |
| Lead | 110 | 01WC002 DINING WATER COOLER | P2 | Copper | 1490 |
| Lead | 11 | 01WC002 DINING WATER COOLER | F01 | Copper | 190 |
| Lead | 1 | 01WC002 DINING WATER COOLER | F02 | Copper | 110 |
| Lead | ND | 02KC003 KITCHEN | P1 | Copper | 140 |
| Lead | ND | 02KC003 KITCHEN | P2 | Copper | 120 |
| Lead | ND | 02KC003 KITCHEN | F01 | Copper | ND |
| Lead | ND | 02KC003 KITCHEN | F02 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | P1 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | P2 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | F01 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | F02 | Copper | ND |
| Lead | ND | 01KC005 KITCHEN | P1 | Copper | 60 |
| Lead | ND | 01KC005 KITCHEN | P2 | Copper | ND |
| Lead | ND | 01KC005 KITCHEN | F01 | Copper | ND |
| Lead | ND | 01KC005 KITCHEN | F02 | Copper | ND |
| Lead | ND | 01KC006 KITCHEN | P1 | Copper | ND |
| Lead | ND | 01KC006 KITCHEN | P2 | Copper | ND |
| Lead | ND | 01KC006 KITCHEN | F01 | Copper | ND |
| Lead | ND | 01KC006 KITCHEN | F02 | Copper | ND |
| Lead | 3 | 01BF007 MEDS OFFICE | P1 | Copper | 110 |
| Lead | ND | 01BF007 MEDS OFFICE | P2 | Copper | 90 |
| Lead | ND | 01BF007 MEDS OFFICE | F01 | Copper | ND |
| Lead | ND | 01BF007 MEDS OFFICE | F02 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | P1 | Copper | 120 |
| Lead | ND | 01BF008 MEDS OFFICE | P2 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | F01 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | F02 | Copper | ND |
| Lead | ND | 02BF009 MEDS OFFICE | P1 | Copper | ND |
| Lead | 5 | 02BF009 MEDS OFFICE | P2 | Copper | 90 |
| Lead | ND | 02BF009 MEDS OFFICE | F01 | Copper | ND |
| Lead | ND | 02BF009 MEDS OFFICE | F02 | Copper | ND |
| Lead | ND | 02BF010 MEDS OFFICE | P1 | Copper | 90 |
| Lead | ND | 02BF010 MEDS OFFICE | P2 | Copper | 50 |
| Lead | ND | 02BF010 MEDS OFFICE | F01 | Copper | ND |
| Lead | ND | 02BF010 MEDS OFFICE | F02 | Copper | ND |
| Lead | 10 | 01BF011 BEDROOM 4 | P1 | Copper | 110 |
| Lead | 1 | 01BF011 BEDROOM 4 | P2 | Copper | 60 |
| Lead | ND | 01BF011 BEDROOM 4 | F01 | Copper | ND |

The result of non-detected (ND) means; for lead the amount in water is less than 1 ppb, 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 | ND | 01BF011 BEDROOM 4 | F02 | Copper | ND |
| Lead | ND | 02BF012 BEDROOM 4 | P1 | Copper | 80 |
| Lead | ND | 02BF012 BEDROOM 4 | P2 | Copper | ND |
| Lead | ND | 02BF012 BEDROOM 4 | F01 | Copper | ND |
| Lead | ND | 02BF012 BEDROOM 4 | F02 | Copper | ND |
| Lead | 1 | 02BF013 BEDROOM 14 | P1 | Copper | 110 |
| Lead | ND | 02BF013 BEDROOM 14 | P2 | Copper | 90 |
| Lead | ND | 02BF013 BEDROOM 14 | F01 | Copper | ND |
| Lead | ND | 02BF013 BEDROOM 14 | F02 | Copper | ND |
| Lead | ND | 02BF014 BEDROOM 14 | P1 | Copper | 120 |
| Lead | 1 | 02BF014 BEDROOM 14 | P2 | Copper | 110 |
| Lead | ND | 02BF014 BEDROOM 14 | F01 | Copper | ND |
| Lead | ND | 02BF014 BEDROOM 14 | F02 | Copper | ND |
| Lead | ND | 02BF015 BEDROOM 11 | P1 | Copper | 90 |
| Lead | ND | 02BF015 BEDROOM 11 | P2 | Copper | 80 |
| Lead | ND | 02BF015 BEDROOM 11 | F01 | Copper | ND |
| Lead | ND | 02BF015 BEDROOM 11 | F02 | Copper | ND |
| Lead | ND | 02BF016 BEDROOM 11 | P1 | Copper | 110 |
| Lead | ND | 02BF016 BEDROOM 11 | P2 | Copper | 70 |
| Lead | ND | 02BF016 BEDROOM 11 | F01 | Copper | ND |
| Lead | ND | 02BF016 BEDROOM 11 | F02 | Copper | ND |
| Lead | ND | 01BF017 BEDROOM 6 | P1 | Copper | 130 |
| Lead | ND | 01BF017 BEDROOM 6 | P2 | Copper | 70 |
| Lead | ND | 01BF017 BEDROOM 6 | F01 | Copper | 80 |
| Lead | ND | 01BF017 BEDROOM 6 | F02 | Copper | ND |
| Lead | ND | 01BF018 BEDROOM 6 | P1 | Copper | 110 |
| Lead | ND | 01BF018 BEDROOM 6 | P2 | Copper | ND |
| Lead | ND | 01BF018 BEDROOM 6 | F01 | Copper | ND |
| Lead | ND | 01BF018 BEDROOM 6 | F02 | Copper | ND |
| Lead | ND | 01BF019 BEDROOM 5 | P1 | Copper | 100 |
| Lead | ND | 01BF019 BEDROOM 5 | P2 | Copper | 140 |
| Lead | ND | 01BF019 BEDROOM 5 | F01 | Copper | ND |
| Lead | ND | 01BF019 BEDROOM 5 | F02 | Copper | ND |
| Lead | ND | 01BF020 BEDROOM 5 | P1 | Copper | 140 |
| Lead | ND | 01BF020 BEDROOM 5 | P2 | Copper | ND |
| Lead | ND | 01BF020 BEDROOM 5 | F01 | Copper | ND |
| Lead | ND | 01BF020 BEDROOM 5 | F02 | Copper | ND |
| Lead | ND | 02BF021 BEDROOM 16 | P1 | Copper | 150 |
| Lead | ND | 02BF021 BEDROOM 16 | P2 | Copper | 80 |
| Lead | ND | 02BF021 BEDROOM 16 | F01 | Copper | ND |
| Lead | ND | 02BF021 BEDROOM 16 | F02 | Copper | ND |
| Lead | 2 | 02BF022 BEDROOM 16 | P1 | Copper | 130 |
| Lead | 3 | 02BF022 BEDROOM 16 | P2 | Copper | 140 |

The result of non-detected (ND) means; for lead the amount in water is less than 1 ppb, 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 | ND | 02BF022 BEDROOM 16 | F01 | Copper | ND |
| Lead | ND | 02BF022 BEDROOM 16 | F02 | Copper | ND |
| Lead | 2 | 02BF023 BEDROOM 15 | P1 | Copper | 120 |
| Lead | 3 | 02BF023 BEDROOM 15 | P2 | Copper | 90 |
| Lead | ND | 02BF023 BEDROOM 15 | F01 | Copper | ND |
| Lead | ND | 02BF023 BEDROOM 15 | F02 | Copper | ND |
| Lead | ND | 02BF024 BEDROOM 15 | P1 | Copper | 90 |
| Lead | ND | 02BF024 BEDROOM 15 | P2 | Copper | 50 |
| Lead | ND | 02BF024 BEDROOM 15 | F01 | Copper | ND |
| Lead | ND | 02BF024 BEDROOM 15 | F02 | Copper | ND |
| Lead | 3 | 01BF025 ACTIVITY ROOM 8 | P1 | Copper | 110 |
| Lead | 2 | 01BF025 ACTIVITY ROOM 8 | P2 | Copper | 70 |
| Lead | ND | 01BF025 ACTIVITY ROOM 8 | F01 | Copper | 60 |
| Lead | ND | 01BF025 ACTIVITY ROOM 8 | F02 | Copper | ND |
| Lead | ND | 01BF026 ACTIVITY ROOM 8 | P1 | Copper | 110 |
| Lead | ND | 01BF026 ACTIVITY ROOM 8 | P2 | Copper | ND |
| Lead | ND | 01BF026 ACTIVITY ROOM 8 | F01 | Copper | ND |
| Lead | ND | 01BF026 ACTIVITY ROOM 8 | F02 | Copper | ND |
| Lead | 1 | 01BF027 BEDROOM 7 | P1 | Copper | 130 |
| Lead | 2 | 01BF027 BEDROOM 7 | P2 | Copper | 100 |
| Lead | ND | 01BF027 BEDROOM 7 | F01 | Copper | 70 |
| Lead | ND | 01BF027 BEDROOM 7 | F02 | Copper | ND |
| Lead | 1 | 01BF028 BEDROOM 7 | P1 | Copper | 110 |
| Lead | ND | 01BF028 BEDROOM 7 | P2 | Copper | ND |
| Lead | ND | 01BF028 BEDROOM 7 | F01 | Copper | ND |
| Lead | ND | 01BF028 BEDROOM 7 | F02 | Copper | ND |
| Lead | ND | 02BF029 BEDROOM 18 | P1 | Copper | 120 |
| Lead | ND | 02BF029 BEDROOM 18 | P2 | Copper | 70 |
| Lead | ND | 02BF029 BEDROOM 18 | F01 | Copper | ND |
| Lead | ND | 02BF029 BEDROOM 18 | F02 | Copper | ND |
| Lead | 1 | 02BF030 BEDROOM 18 | P1 | Copper | 120 |
| Lead | 3 | 02BF030 BEDROOM 18 | P2 | Copper | 90 |
| Lead | ND | 02BF030 BEDROOM 18 | F01 | Copper | ND |
| Lead | ND | 02BF030 BEDROOM 18 | F02 | Copper | ND |
| Lead | ND | 02BF031 BEDROOM 17 | P1 | Copper | 90 |
| Lead | ND | 02BF031 BEDROOM 17 | P2 | Copper | 80 |
| Lead | ND | 02BF031 BEDROOM 17 | F01 | Copper | ND |
| Lead | ND | 02BF031 BEDROOM 17 | F02 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | P1 | Copper | 120 |
| Lead | ND | 02BF032 BEDROOM 17 | P2 | Copper | 70 |
| Lead | ND | 02BF032 BEDROOM 17 | F01 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | F02 | Copper | ND |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA1 | Copper | 100 |

The result of non-detected (ND) means; for lead the amount in water is less than 1 ppb, for copper the amount in water is less than 50 ppb.

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May 14, 2016

| Lead | Result (ppb) | Sample Description | Site Code | Copper | Result (ppb) |
|------|--------------|---------------------------|-----------|--------|--------------|
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA2 | Copper | 90 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA3 | Copper | 60 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA4 | Copper | 60 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA5 | Copper | 70 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA6 | Copper | 60 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA7 | Copper | 60 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA8 | Copper | 50 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA9 | Copper | 50 |
| Lead | ND | 01KC001 KITCHEN PREP SINK | CA10 | Copper | 50 |
| Lead | ND | 02KC004 KITCHEN | CB1 | Copper | 90 |
| Lead | ND | 02KC004 KITCHEN | CB2 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB3 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB4 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB5 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB6 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB7 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB8 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB9 | Copper | ND |
| Lead | ND | 02KC004 KITCHEN | CB10 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC1 | Copper | 60 |
| Lead | ND | 01BF008 MEDS OFFICE | CC2 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC3 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC4 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC5 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC6 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC7 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC8 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC9 | Copper | ND |
| Lead | ND | 01BF008 MEDS OFFICE | CC10 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD1 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD2 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD3 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD4 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD5 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD6 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD7 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD8 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD9 | Copper | ND |
| Lead | ND | 02BF032 BEDROOM 17 | CD10 | Copper | ND |

The result of non-detected (ND) means; for lead the amount in water is less than 1 ppb, for copper the amount in water is less than 50 ppb.