



Montgomery County Public Schools Lead in Drinking Water Post-Remediation Follow-Up Testing 2019

October 30, 2019

Executive Summary:

Northlake Center

15101 Bauer Drive

Rockville, Maryland 20853

| | |
|----------------------------|----------------------------|
| Round of Testing: | Post-Remediation Follow-up |
| Sample Date | 1/30/2019 |
| # of Outlets Tested: | 4 |
| # of Outlets \geq 5 ppb: | 3 |
| Low Value (ppb): | 1.3 |
| High Value (ppb): | 21.5 |

Project Status

Testing Complete: Post-remediation follow-up testing completed for following rooms:

Classroom 22 - Outlet (LW06822) will be removed from service

Classroom 10 - Outlet (LW06829) will have signage affixed

Work Room Media Center Office - Outlet (LW03749) will be removed from service

Kitchen - Outlet (M26398) will be placed back into service

Classroom 1 - Outlet (M26401) taken out of service



October 30, 2019

Mr. Brian Mullikin, MS
Environmental Team Leader
Montgomery County Public Schools
8301 Turkey Thicket Dr., Bldg A, 1st Floor
Gaithersburg, Maryland 20879

Re: Lead in Water Post-Remediation Follow-up Testing Service

Location: Northlake Center

15101 Bauer Drive
Rockville, Maryland 20853

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of the post-remediation follow-up lead in water testing at Northlake Center, located at 15101 Bauer Drive in Rockville, Maryland 20853.

SCOPE OF SERVICES

Five drinking water outlets were remediated at Northlake Center due to initial lead levels that exceeded the lead action level of 5 parts per billion (ppb). KCI Technologies, Inc. conducted lead in water post-remediation follow-up testing in accordance with the Maryland Code of Regulations (COMAR) 26.16.07 - Lead in Drinking Water - Public and Nonpublic Schools.

KCI Technologies, Inc. visited the site on 1/30/2019 to collect post-remediation follow-up samples from 4 drinking water outlets that had been replaced. Samples were submitted to a laboratory for lead in water analysis using current US EPA methodology. The laboratory has been certified by the Maryland Department of the Environment to analyze drinking water for lead.

RESULTS

The initial, flush, and post-remediation follow-up results are highlighted in the summary table below:

| Barcode ID | Room Number | Location | Notes | Equipment Type | Initial (ppb) | Flush (ppb) | Post-Remediation Follow-up (ppb) | Post-Remediation Follow-up Pass/Fail | Status |
|-------------------------------|-------------|-------------------------------|-------|------------------|---------------|-------------|----------------------------------|--------------------------------------|--|
| LW06822 | 22 | Classroom | | Bubbler - Indoor | 26.6 | 23.4 | 9.8 | Fail | Post-remediation follow-up testing complete. Outlet will be removed from service |
| LW06829 | 10 | Classroom | | Faucet | 27.5 | 1.8 | 8.3 | Fail | Post-remediation follow-up testing complete. Outlet will have signage affixed |
| LW03749 | | Work Room Media Center Office | | Faucet | 74.3 | 10.5 | 21.5 | Fail | Post-remediation follow-up testing complete. Outlet will be removed from service |
| M26393 | | Kitchen | | Faucet | 20.9 | 11.1 | 1.3 | Pass | Post-remediation follow-up testing complete. Outlet will be placed back into service |
| M26401 | 1 | Classroom | | Bubbler - Indoor | 356 | 43.7 | N/A* | N/A* | Taken out of service |
| *Fixture taken out of service | | | | | | | | | |

DISCUSSION

Lead is a naturally occurring element that can be harmful to humans when ingested or inhaled, particularly to children under the age of six. Lead can adversely affect the development of children's brain potentially leading to detrimental alterations in intelligence and behavior. Lead has been historically used in plumbing, paint and other building materials. Lead is released into the environment from industrial sources and fuel combustion. Lead may also be found in consumer products (imported candy, medicines, toys, dishes, etc.).

Most lead leaches into drinking water from contact with plumbing components such as faucets and valves made of brass or lead-containing solder. The physical and chemical interaction that occurs between the plumbing and water directly contributes to the amount of lead that is released into the water. Although plumbing components installed prior to the 1990's could contain more lead than newer materials, the amount of lead in the drinking water cannot be predicted by the age of building. The purpose of this regulation is to establish a program to minimize the risk of exposure to lead in drinking water outlets at schools. The Environmental Protection Agency (EPA) developed the 3T's (Training, Testing, and Telling) to assist schools in reducing the lead concentrations in their drinking water. More information about 3T's can be found on the EPA website.

Simple steps like keeping your home clean and well-maintained will go a long way in preventing lead exposure. These steps include inspecting and maintaining all painted surfaces to prevent paint deterioration, using only cold water to prepare food and drinks, flushing water outlets used for drinking or food preparation, and cleaning around painted areas where friction can generate dust, such as doors, windows, and drawers. Wipe these areas with a wet sponge or rag to remove paint chips or dust, and wash children's hands, bottles, pacifiers and toys often.

Respectfully Submitted,
KCI Technologies, Inc.



Kamau McAbee
MDE Certified Water Sampler #8281KM
KCI Job #1214634186



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 10, 2018

Executive Summary:

Lucy V. Barnsley Elementary School at North Lake Center

15101 Bauer Drive,
Rockville, MD 20853

| | |
|--|---|
| Round of Testing: | Initial |
| # of Outlets Tested: | 38 |
| # of Outlets \geq 20 ppb: | 5 |
| Low Value (ppb): | 3.0 |
| High Value (ppb): | 356.0 |
| Follow-Up Testing Required (Samples \geq 20 ppb): | Classroom 22 (26.6 ppb) Classroom 10 (27.5 ppb) Media Center Workroom (74.3 ppb) Kitchen (20.9 ppb) Classroom 1 (356.0 ppb) |

| | |
|----------------------|-------------------------|
| Round of Testing: | Follow-Up – 30 sec draw |
| # of Outlets Tested: | 5 |

Project Status

Testing Complete: Remediation Plan

- Classroom 22 – Replace fixture (LW06822), in addition to supply line and valve located under sink
- Classroom 10 – Replace fixture (LW06829), in addition to supply line and valve located under sink
- Media Center Workroom – Replace fixture (M26389), in addition to supply line and valve located under sink
- Kitchen – Replace fixture (M26398), in addition to supply line and valve located under sink
- Classroom 1 – Replace fixture (M26401), in addition to supply line and valve located under sink



May 10, 2018

Mr. Brian Mullikin
Environmental Team Leader
Montgomery County Public Schools
8301 Turkey Thicket Drive
Building A, First Floor
Gaithersburg, Maryland 20879

Re: Lead in Water Testing Service

Location: Lucy V. Barnsley Elementary School
15101 Bauer Drive,
Rockville, MD 20853

Dear Mr. Mullikin:

Professional Services Industries (PSI), Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of initial lead in water testing at Lucy V. Barnsley Elementary School at Northlake Center, located at 15101 Bauer Drive, Rockville, MD 20853.

Scope of Services:

PSI conducted lead in water testing at Lucy V. Barnsley Elementary School in accordance with the Environmental Protection Agency (EPA) and Maryland House Bill (HB) 270. State regulation established an action level of 20 parts per billion (ppb) to evaluate lead levels in school buildings, a concentration EPA recommends that schools take action to reduce lead below this action level. Maryland requires periodic testing for the presence of lead in drinking water in occupied public and nonpublic school buildings. EPA developed the 3T's (Training, Testing, and Telling) to assist schools in reducing the lead concentrations in their drinking water. More information about 3T's can be found on the EPA website.

PSI visited the site on 2/27/18 and 2/28/18 to collect samples from 38 drinking water outlets in accordance with current criteria described by the Maryland Department of the Environment (MDE) Draft Lead in Drinking Water—Public and Nonpublic Schools, Title 26, Subtitle 16 Lead, Chapter 07. Five 30 second follow-up samples were collected on 4/13/18.

Samples were submitted to a laboratory for lead in water analysis using current US EPA methodology. The laboratory has been certified by the Maryland Department of the Environment to analyze drinking water for lead.

Results:

There were five results of the initial lead in water analysis at or above 20 parts per billion (ppb) and subsequent follow up 30 second results are highlighted in the summary table below:



| Barcode ID | Sample Location | Date Collected | Initial Sample Result (ppb) | Date Collected | 30 Second Follow Up Sample Result (ppb) |
|------------|-----------------------|----------------|-----------------------------|----------------|---|
| LW06822 | Classroom 22 | 2/28/18 | 26.6 | 4/13/18 | 23.4 |
| LW06829 | Classroom 10 | 2/28/18 | 27.5 | 4/13/18 | 1.8 |
| M26389 | Media Center Workroom | 2/28/18 | 74.3 | 4/13/18 | 10.5 |
| M26398 | Kitchen | 2/28/18 | 20.9 | 4/13/18 | 11.1 |
| M26401 | Classroom 1 | 2/28/18 | 356 | 4/13/18 | 43.7 |

The initial lead in water sample results (2/28/18) and 30 second follow up results (4/13/18) are shown in Attachment A.

Discussion:

Lead is a naturally occurring element that can be harmful to humans when ingested or inhaled, particularly to children under the age of six. Lead can adversely affect the development of children’s brain potentially leading to detrimental alterations in intelligence and behavior. Lead has been historically used in plumbing, paint and other building materials. Lead is released into the environment from industrial sources and fuel combustion. Lead may also be found in consumer products (imported candy, medicines, toys, dishes, etc.).

Most lead leaches into drinking water from contact with plumbing components such as faucets and valves made of brass or lead-containing solder. The physical and chemical interaction that occurs between the plumbing and water directly contributes to the amount of lead that is released into the water. Although plumbing components installed prior to the 1990’s could contain more lead than newer materials, the amount of lead in the drinking water cannot be predicted by the age of building. The purpose of this regulation is to establish a program to minimize the risk of exposure to lead in drinking water outlets at schools.

Simple steps like keeping your home clean and well-maintained will go a long way in preventing lead exposure. These steps include inspecting and maintaining all painted surfaces to prevent paint deterioration, using only cold water to prepare food and drinks, flushing water outlets used for drinking or food preparation, and cleaning around painted areas where friction can generate dust, such as doors, windows, and drawers. Wipe these areas with a wet sponge or rag to remove paint chips or dust, and wash children's hands, bottles, pacifiers and toys often.



Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Nand Kaushik, P.E.
Department Manager, Environmental Services
Nand.Kaushik@psiusa.com

Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Lucy V. Barnsley Elementary School Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Lucy V. Barnsley Elementary School (2/28/18)

| Barcode ID | Room # | Location | Location Notes | Equipment Type | Results | Pass/Fail | Status |
|------------|--------|--------------------------|----------------|------------------|---------|-----------|--------------------------|
| LW06700 | | Break Room | Staff Lounge | Faucet | 6.3 | Pass | Testing Complete |
| LW06701 | 18 | Classroom | | Faucet | 9.1 | Pass | Testing Complete |
| LW06702 | 18 | Classroom | | Bubbler - Indoor | 4.0 | Pass | Testing Complete |
| LW06703 | 21 | Classroom | | Faucet | 6.1 | Pass | Testing Complete |
| LW06704 | 21 | Classroom | | Bubbler - Indoor | 19.5 | Pass | Testing Complete |
| LW06706 | 15 | Classroom | | Faucet | 6.1 | Pass | Testing Complete |
| LW06709 | 13 | Classroom | | Faucet | 13.4 | Pass | Testing Complete |
| LW06710 | 8 | Classroom | | Faucet | 12.8 | Pass | Testing Complete |
| LW06712 | 11 | Classroom | | Faucet | 18 | Pass | Testing Complete |
| LW06714 | 4 | Kindergarten | | Faucet | 7.1 | Pass | Testing Complete |
| LW06716 | 6 | Kindergarten | | Faucet | 12.8 | Pass | Testing Complete |
| LW06718 | | Work Room Administration | | Faucet | 12.9 | Pass | Testing Complete |
| LW06719 | 2 | Classroom | | Faucet | 10.8 | Pass | Testing Complete |
| LW06817 | 19 | Classroom | | Faucet | 7.4 | Pass | Testing Complete |
| LW06818 | 19 | Classroom | | Bubbler - Indoor | 12.2 | Pass | Testing Complete |
| LW06819 | 20 | Classroom | | Faucet | 3.7 | Pass | Testing Complete |
| LW06821 | 22 | Classroom | | Faucet | 11.2 | Pass | Testing Complete |
| LW06822 | 22 | Classroom | | Bubbler - Indoor | 26.6 | Fail | Follow-Up Testing Needed |
| LW06823 | 16 | Classroom | | Faucet | 5.7 | Pass | Testing Complete |
| LW06824 | 16 | Classroom | | Bubbler - Indoor | 13.1 | Pass | Testing Complete |
| LW06825 | 14 | Classroom | | Faucet | 14.6 | Pass | Testing Complete |
| LW06826 | 14 | Classroom | | Bubbler - Indoor | 12.2 | Pass | Testing Complete |
| LW06827 | 9 | Classroom | | Faucet | 10.3 | Pass | Testing Complete |
| LW06828 | 9 | Classroom | | Bubbler - Indoor | 12.8 | Pass | Testing Complete |
| LW06829 | 10 | Classroom | | Faucet | 27.5 | Fail | Follow-Up Testing Needed |
| LW06831 | 12 | Classroom | | Faucet | 8.7 | Pass | Testing Complete |
| LW06833 | 3 | Classroom | | Faucet | 3.9 | Pass | Testing Complete |
| LW06834 | 3 | Classroom | | Bubbler - Indoor | 15.9 | Pass | Testing Complete |
| LW06835 | 5 | Classroom | | Faucet | 10.3 | Pass | Testing Complete |
| LW06837 | 7 | Classroom | | Faucet | 12.9 | Pass | Testing Complete |
| LW06839 | 1 | Classroom | | Faucet | 8.2 | Pass | Testing Complete |

| Barcode ID | Room # | Location | Location Notes | Equipment Type | Results | Pass/Fail | Status |
|------------|--------|-------------------------------|----------------|------------------|---------|-----------|--------------------------|
| LW06840 | 1 | Classroom | | Bubbler - Indoor | 8.2 | Pass | Testing Complete |
| LW06841 | | Kitchen | | Faucet | 6.4 | Pass | Testing Complete |
| M26389 | | Work Room Media Center Office | | Faucet | 74.3 | Fail | Follow-Up Testing Needed |
| M26394 | | Kitchen | | Faucet | 16.8 | Pass | Testing Complete |
| M26395 | | Kitchen | | Faucet | 12.6 | Pass | Testing Complete |
| M26398 | | Kitchen | | Faucet | 20.9 | Fail | Follow-Up Testing Needed |
| M26401 | 1 | Classroom | | Bubbler - Indoor | 356 | Fail | Follow-Up Testing Needed |

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.
Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Sample Results for Lucy V. Barnsley Elementary School (4/13/18)

| Barcode ID | Room Number | Location | Equipment Type | Initial draw (2 nd) (PPB) | Initial draw (3 rd) (PPB) | 30 Second Draw (PPB) | Status |
|------------|-------------|-----------------------|------------------|---------------------------------------|---------------------------------------|----------------------|---|
| LW06822 | 22 | Classroom | Bubbler - Indoor | 31.1 | 39.1 | 23.4 | Remediation required – replace fixture, in addition to supply line and valve located under sink |
| LW06829 | 10 | Classroom | Faucet | 27.4 | 23.7 | 1.8 | Remediation required – replace fixture, in addition to supply line and valve located under sink |
| M26389 | | Media Center Workroom | Faucet | 51.6 | 56.6 | 10.5 | Remediation required – replace fixture, in addition to supply line and valve located under sink |
| M26398 | | Kitchen | Faucet | 21.6 | 17.3 | 11.1 | Remediation required – replace fixture, in addition to supply line and valve located under sink |
| M26401 | 1 | Classroom | Bubbler - Indoor | 136.0 | 124 | 43.7 | Remediation required – replace fixture, in addition to supply line and valve located under sink |

*ppb = parts per billion

Note: Fixture(s) with elevated test results were immediately removed from service. Subsequent 2nd and 3rd round testing was performed on these fixture(s) for further diagnostics for remediation. Because the fixture was shut off after the first test, the subsequent test results may not be representative of an in-use fixture because of stagnant water in the supply line and the operation of shut off valves prior to the tests. All fixtures with elevated test results are to be remediated. After remediation, post remediation testing will be conducted before the fixture is returned to service.