

# Montgomery County Public Schools Lead in Drinking Water Testing Report

Darnestown Elementary School  
15030 Turkey Foot Rd.  
Gaithersburg, MD 20878

Report Date: May 23<sup>rd</sup>, 2024

## LEAD IN DRINKING WATER SAMPLE RESULTS SUMMARY

All Maryland public and nonpublic schools are required to sample all drinking water outlets for the presence of lead pursuant to the Code of Maryland Regulations (COMAR). Montgomery County Public Schools (MCPS) is required to remediate outlets where lead in drinking water concentrations exceed the State Action Level (AL) of 5 parts per billion (ppb). A summary of the lead in water initial samples collected by Inspection Experts Inc. is presented in the table below.

Sampling Date	3/21/2024
# of Outlets Tested	40
# of Outlets $\geq$ 5 ppb	2

## NEXT STEPS

If an initial sample exceeds the AL (5 ppb), the outlet will be shut-down within 24 hours, a follow-up sample collected, and a remedial plan of action developed for this outlet. No additional sampling or remedial actions are required for schools where all initial samples are below the AL.

## HEALTH EFFECTS OF LEAD

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead is stored in the bones and it can be released later in life. During pregnancy, the fetus receives lead from the mother's bones, which may affect brain development. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.

## **SOURCES OF HUMAN EXPOSURE TO LEAD**

There are many different sources of human exposure to lead. These include: lead-based paint, lead-contaminated dust or soil, some plumbing materials, certain types of pottery, pewter, brass outlets, food, cosmetics, exposure in the work place and from certain hobbies. According to the Environmental Protection Agency (EPA), 10 to 20 percent of a person's potential exposure to lead may come from drinking water, while for an infant consuming formula mixed with lead-containing water this may increase to 40 to 60 percent.

## **TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER:**

1. Run your water to flush out lead: If water hasn't been used for several hours, run water for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
2. Use cold water for cooking and preparing baby formula: Lead from the plumbing dissolves more easily into hot water.

*\*Please note that boiling the water will not reduce lead levels.*

## **ADDITIONAL INFORMATION**

1. For additional information, please contact Brian Mullikin, Environmental Team Leader, at 240.740.2324 or [brian\\_a\\_mullikin@mcpsmd.org](mailto:brian_a_mullikin@mcpsmd.org).
2. For additional information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead).
3. If you are concerned about exposure; contact your local health department or healthcare provider to find out how you can get your child tested for lead.

*Please refer to the attachment(s) for additional water sampling information.*

**Attachment(s) A** – Lead in Water Sample Results Table

**ATTACHMENT A**

**Lead in Water Sample Results Table**

## Sampling Results for Darnestown ES

Outlet Barcode	Outlet Location	Outlet Type	Initial Results (ppb)	Pass/Fail	Status
LW10604	In hallway adjacent to 111	Bottle Refill Dispenser/Water Refill Station	<1.0	Pass	Testing Complete
M16454	In kitchen	Faucet, Cold	2.2	Pass	Testing Complete
LW10605	In hallway adjacent to 111	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
LW10497	In hallway adjacent to 8	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M16423	In hallway adjacent to media center	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M16455	In kitchen	Faucet, Cold	1.0	Pass	Testing Complete
M31034	In break room 123	Faucet, Cold	<1.0	Pass	Testing Complete
M31037	In hallway adjacent to 154	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M31038	In hallway adjacent to 154	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M31046	In classroom 164	Drinking Water fountain - Bubbler Style	<1.0	Pass	Testing Complete
M31064	In classroom 137	Drinking Water fountain - Bubbler Style	<1.0	Pass	Testing Complete

<b>Outlet Barcode</b>	<b>Outlet Location</b>	<b>Outlet Type</b>	<b>Initial Results (ppb)</b>	<b>Pass/Fail</b>	<b>Status</b>
M31032	In classroom 150	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31048	In classroom 166	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31062	In classroom 190	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31053	In classroom 135	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31066	In classroom 141	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31050	In classroom 131	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31056	In art room 182	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31060	In inst music room 188	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31070	In classroom 8	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete
M31079	In hallway adjacent to 018	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M31080	In hallway adjacent to 018	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M31082	In classroom 22	Drinking Water fountain - Bubblers Style	<1.0	Pass	Testing Complete

<b>Outlet Barcode</b>	<b>Outlet Location</b>	<b>Outlet Type</b>	<b>Initial Results (ppb)</b>	<b>Pass/Fail</b>	<b>Status</b>
M31084	In classroom 26	Drinking Water fountain - Bubbler Style	<1.0	Pass	Testing Complete
M31447	In admin work room 100D	Drinking Water fountain - Bubbler Style	<1.0	Pass	Testing Complete
M31450	In health room 100C	Faucet, Cold	<1.0	Pass	Testing Complete
LW09927	In classroom 117	Drinking Water fountain - Bubbler Style	1.4	Pass	Testing Complete
LW10491	In classroom 138	Drinking Water fountain - Bubbler Style	15.0	Fail	Remediation Action Plan
LW09923	In classroom 115	Drinking Water fountain - Bubbler Style	2.3	Pass	Testing Complete
LW09931	In classroom 136	Drinking Water Fountain - Cooler/Chiller Style	1.6	Pass	Testing Complete
LW09930	In classroom 132	Drinking Water Fountain - Cooler/Chiller Style	2.2	Pass	Testing Complete
LW09920	In classroom 113	Drinking Water Fountain - Bubbler Style	12.5	Fail	Remediation Action Plan
LW09921	In classroom 102	Drinking Water Fountain - Cooler/Chiller Style	1.7	Pass	Testing Complete
M31036	In classroom 154	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
M31030	In classroom 146	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete

<b>Outlet Barcode</b>	<b>Outlet Location</b>	<b>Outlet Type</b>	<b>Initial Results (ppb)</b>	<b>Pass/Fail</b>	<b>Status</b>
LW10493	In hallway adjacent to gym	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
LW01368	In hallway next to 142	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
LW13070	In hallway adjacent to gym	Drinking Water Fountain - Cooler/Chiller Style	<1.0	Pass	Testing Complete
LW13069	In hallway adjacent to gym	Bottle Refill Dispenser/Water Refill Station	<1.0	Pass	Testing Complete
LW09925	In classroom 104	Drinking Water fountain - Bubbler Style	<1.0	Pass	Testing Complete

# Montgomery County Public Schools Lead in Drinking Water Testing Report

Darnestown Elementary School  
15030 Turkey Foot Road  
Darnestown, MD 20878

Report Date: February 20<sup>th</sup>, 2022

## LEAD IN DRINKING WATER SAMPLE RESULTS SUMMARY

All Maryland public and nonpublic schools are required to sample all drinking water outlets for the presence of lead pursuant to the Code of Maryland Regulations (COMAR). Montgomery County Public Schools (MCPS) is required to remediate outlets where lead in drinking water concentrations exceed the Montgomery County Action Level (AL) of 5 parts per billion (ppb). A summary of the lead in water initial samples collected by SaLUT are presented in the table below.

Sampling Date	11/12/2021
# of Outlets Tested	53
# of Outlets $\geq$ 5 ppb	7

## NEXT STEPS

If an initial sample exceeds the AL (5 ppb), the outlet will be immediately shut-down, a follow-up sample collected, and a remedial plan of action developed for this outlet. No additional sampling or remedial actions are required for schools where all initial samples are below the AL.

## HEALTH EFFECTS OF LEAD

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead is stored in the bones and it can be released later in life. During pregnancy, the fetus receives lead from the mother's bones, which may affect brain development. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.



## **SOURCES OF HUMAN EXPOSURE TO LEAD**

There are many different sources of human exposure to lead. These include: lead-based paint, lead-contaminated dust or soil, some plumbing materials, certain types of pottery, pewter, brass fixtures, food, cosmetics, exposure in the work place and from certain hobbies. According to the Environmental Protection Agency (EPA), 10 to 20 percent of a person's potential exposure to lead may come from drinking water, while for an infant consuming formula mixed with lead-containing water this may increase to 40 to 60 percent.

### **TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER:**

1. Run your water to flush out lead: If water hasn't been used for several hours, run water for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
2. Use cold water for cooking and preparing baby formula: Lead from the plumbing dissolves more easily into hot water.

*\*Please note that boiling the water will not reduce lead levels.*

### **ADDITIONAL INFORMATION**

1. For additional information, please contact Brian Mullikin, Environmental Team Leader, at 240.740.2324 or [brian\\_a\\_mullikin@mcpsmd.org](mailto:brian_a_mullikin@mcpsmd.org).
2. For additional information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at [www.epa.gov/lead](http://www.epa.gov/lead).
3. If you are concerned about exposure; contact your local health department or healthcare provider to find out how you can get your child tested for lead.

*Please refer to the attachment(s) for additional water sampling information.*

**Attachment(s)** A – Lead in Water Sample Results Table

**ATTACHMENT A**

**Lead in Water Sample Results Table**

## Sampling Results for Darnestown ES

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW09919	In classroom 102	Classroom Combination Sink	4.4	Pass	N/A	Testing Complete
LW09922	In classroom 115	Classroom Combination Sink	8.4	Fail	5.5	Testing Complete
LW09923	In classroom 115	Classroom Combination Drinking Fountain	5.7	Fail	3.3	Testing Complete
LW09925	In classroom 104	Classroom Combination Drinking Fountain	6.9	Fail	22.1	Testing Complete
LW09926	In classroom 117	Classroom Combination Sink	3.5	Pass	N/A	Testing Complete
LW09927	In classroom 117	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
LW09931	In classroom 136	Drinking Fountain	1.3	Pass	N/A	Testing Complete
LW10493	In hallway adjacent to gym	Drinking Fountain	1.3	Pass	N/A	Testing Complete
LW10494	In classroom 6	Classroom Combination Sink	127	Fail	33.5	Testing Complete
LW10497	In hallway adjacent to 8	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW10604	In hallway adjacent to 111	Bottle Filler	<1	Pass	N/A	Testing Complete
LW10605	In hallway adjacent to 111	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW10606	In classroom 104	Classroom Combination Sink	3.7	Pass	N/A	Testing Complete
LW10607	In classroom 136	Classroom Combination Sink	1.1	Pass	N/A	Testing Complete
M16402	In classroom 121	Classroom Sink	8.9	Fail	13.3	Testing Complete
M16413	In classroom 132	Classroom Sink	4.3	Pass	N/A	Testing Complete
M16417	In classroom 138	Classroom Combination Sink	2.5	Pass	N/A	Testing Complete
M16423	In hallway adjacent to media center	Drinking Fountain	<1	Pass	N/A	Testing Complete
M16438	In classroom 113	Classroom Sink	21.1	Fail	19	Testing Complete
M16439	In classroom 113	Classroom Sink	15.9	Fail	14.8	Testing Complete
M16454	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
M16455	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
M31029	In classroom 146	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31031	In classroom 150	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31033	In break room 123	Teachers Lounge Sink	<1	Pass	N/A	Testing Complete
M31034	In break room 123	Teachers Lounge Sink	<1	Pass	N/A	Testing Complete
M31035	In classroom 154	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31037	In hallway adjacent to 154	Drinking Fountain	<1	Pass	N/A	Testing Complete
M31038	In hallway adjacent to 154	Drinking Fountain	<1	Pass	N/A	Testing Complete
M31045	In classroom 164	Classroom Combination Sink	<1	Pass	N/A	Testing Complete

M31046	In classroom 164	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31047	In classroom 166	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31048	In classroom 166	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31049	In classroom 131	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31052	In classroom 135	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31056	In art room 182	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31059	In inst music room 188	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31060	In inst music room 188	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31061	In band room 190	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31063	In classroom 137	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31067	In classroom 141	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31069	In classroom 8	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31070	In classroom 8	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31076	In classroom 18	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31079	In hallway adjacent to 018	Drinking Fountain	<1	Pass	N/A	Testing Complete
M31080	In hallway adjacent to 018	Drinking Fountain	<1	Pass	N/A	Testing Complete
M31081	In classroom 22	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31082	In classroom 22	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31083	In classroom 26	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31084	In classroom 26	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31446	In admin work room 100D	Classroom Combination Sink	<1	Pass	N/A	Testing Complete
M31447	In admin work room 100D	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
M31450	In health room 100C	Nurses Office Sink	<1	Pass	N/A	Testing Complete



**MONTGOMERY COUNTY PUBLIC SCHOOLS LEAD IN DRINKING WATER  
POST-REMEDIATION FOLLOW-UP TESTING 2019**

November 13, 2019

**Executive Summary:**  
**Darnestown Elementary School**  
15030 Turkey Foot Road,  
Darnestown, MD 20878

<b>Round of Testing:</b>	<b>Post-Remediation Follow-up</b>
Sample Date	01/24/2019
# of Outlets Tested:	5
# of Outlets $\geq$ 5 ppb:	1
Low Value (ppb):	<1.0
High Value (ppb):	8.9

**Project Status**

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

- Classroom 2 – Outlet (LW10496) will be placed back in service.
- Classroom 102 – Outlet (LW09919) will be placed back in service.
- Classroom 115 – Outlet (LW09922) will be placed back in service.
- Classroom 113 – Outlet (M16438) will have signage affixed.
- Kitchen – Outlet (M16455) will be placed back in service.



November 13, 2019

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 Post-Remediation Follow-up Testing Service

Location: Darnestown Elementary School  
15030 Turkey Foot Road,  
Darnestown, MD 20878

Dear Mr. Mullikin:

Intertek-PSI, Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of post-remediation lead in water testing at Darnestown Elementary School, located at 15030 Turkey Foot Road, Darnestown, MD 20878.

**Scope of Services:**

Five (5) drinking water outlets were remediated at Darnestown Elementary School due to initial levels that exceeded the lead action level of 5 parts per billion (ppb). Intertek-PSI 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.

Intertek-PSI visited the site on 01/24/2019 to collect post-remediation follow-up samples from 5 of the outlets that have 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
LW10496	2	Classroom		Bubbler – Indoor	20.8	1.5	1.2	Pass	Post-remediation follow-up testing complete. Outlet will be placed back in service
LW09919	102	Classroom		Faucet	20.2	1.3	2.5	Pass	Post-remediation follow-up testing complete. Outlet will be placed back in service
LW09922	115	Classroom		Faucet	25.5	1.5	3.2	Pass	Post-remediation follow-up testing complete. Outlet will be placed back in service
M16438	113	Classroom		Faucet	24.0	1.5	8.9	Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed
M16455		Kitchen		Faucet	32.9	12.4	<1.0	Pass	Post-remediation follow-up testing complete. Outlet will be placed back in service

\*ppb = parts per billion

### **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.**

A handwritten signature in blue ink, appearing to read 'Nan Lin', with a stylized flourish at the end.

Nan Lin  
Department Manager, Environmental Services  
[Nan.Lin@intertek.com](mailto:Nan.Lin@intertek.com)





## Montgomery County Public Schools Lead in Drinking Water Testing 2018

June 19, 2018

### Executive Summary:

#### Darnestown Elementary School

15030 Turkey Foot Road

Darnestown, Maryland 20878

Round of Testing:	Initial
# of Outlets Tested:	69
# of Outlets $\geq 20$ ppb:	5
Low Value (ppb):	<1.0
High Value (ppb):	32.9
Follow-Up Testing Required (Samples $\geq 20$ ppb):	Classroom 002 (20.8 ppb) Classroom 115 (25.5 ppb) Classroom 113 (24.0 ppb) Classroom 102 (20.2 ppb) Kitchen (32.9 ppb)

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

### Project Status:

#### Testing Complete: Remediation Plan

Classroom 002 - Replace fixture (LW10496), in addition to supply line and valve located under sink

Classroom 115 - Replace fixture (LW09922), in addition to supply line and valve located under sink

Classroom 113 - Replace fixture (M16438), in addition to supply line and valve located under sink

Classroom 102 - Replace fixture (LW09919), in addition to supply line and valve located under sink

Kitchen - Replace fixture (M16455), in addition to supply line and valve located under sink



June 19, 2018

Mr. Brian Mullikin, MS  
Environmental Team Leader  
Montgomery County Public Schools  
Division of Maintenance  
Gaithersburg, Maryland 20879

Re: Drinking Water Testing

KCI Job #1214634193

**Location: Darnestown Elementary School**

15030 Turkey Foot Road  
Darnestown, Maryland 20878

Dear Mr. Mullikin:

KCI Technologies, Inc. (KCI) is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of initial and follow-up lead in water testing at Darnestown Elementary School, located at 15030 Turkey Foot Road in Darnestown, Maryland 20878.

**SCOPE OF SERVICES**

KCI conducted lead in water testing at Darnestown 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.

KCI visited the site on 4/19/2018 and 4/20/2018 to collect samples from 69 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. On 5/24/2018, five 30 second follow-up samples were collected.

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.

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## **RESULTS**

There were five results of the 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:

<b>Barcode ID</b>	<b>Sample Location</b>	<b>Date Collected</b>	<b>Initial Sample Result (ppb)</b>	<b>Date Collected</b>	<b>30 Second Follow Up Sample Result (ppb)</b>
LW10496	Bubbler - Indoor - Classroom 002	4/20/2018	20.8	5/24/2018	1.5
LW09922	Faucet - Classroom 115	4/20/2018	25.5	5/24/2018	1.5
M16438	Faucet - Classroom 113	4/20/2018	24.0	5/24/2018	1.5
LW09919	Faucet - Classroom 102	4/20/2019	20.2	5/24/2018	1.3
M16455	Faucet - Kitchen	4/20/2018	32.9	5/24/2018	12.4

The initial lead in water sample results (4/20/2018) and 30 second follow up results (5/24/2018) 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

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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

Attachment:

A- Lead in Water Test Summary Table

# ATTACHMENT A

## Lead in Water Test Summary Table

ATTACHMENT A

Lead in Water Test Summary Table

Contractor: KCI Technologies, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Darnestown Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW09919	102	Classroom		Faucet	20.2	Fail	Follow Up Testing Needed
LW09920	113	Classroom		Bubbler - Indoor	12.5	Pass	Testing Complete
LW09922	115	Classroom		Faucet	25.5	Fail	Follow Up Testing Needed
LW09923	115	Classroom		Bubbler - Indoor	3.8	Pass	Testing Complete
LW09924	104	Classroom		Faucet	7.8	Pass	Testing Complete
LW09925	104	Classroom		Bubbler - Indoor	2.9	Pass	Testing Complete
LW09926	117	Classroom		Faucet	3.8	Pass	Testing Complete
LW09927	117	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW09928	106	Classroom		Faucet	8.7	Pass	Testing Complete
LW09929	106	Classroom		Bubbler - Indoor	1.7	Pass	Testing Complete
LW09930	132	Classroom		Bubbler - Indoor	5.4	Pass	Testing Complete
LW09931	136	Classroom		Bubbler - Indoor	4.4	Pass	Testing Complete
LW10491	138	Classroom		Bubbler - Indoor	3.9	Pass	Testing Complete
LW10492		Kitchen		Faucet	8.1	Pass	Testing Complete
LW10493		Hallway	Outside Of Gym	Cooler	<1.0	Pass	Testing Complete
LW10496	002	Classroom		Bubbler - Indoor	20.8	Fail	Follow Up Testing Needed
LW10497		Hallway	Next To Cr 008	Cooler	<1.0	Pass	Testing Complete
M16401	002	Classroom		Faucet	6.3	Pass	Testing Complete
M16413	132	Classroom		Faucet	6.8	Pass	Testing Complete
M16415	136	Classroom		Faucet	5.8	Pass	Testing Complete
M16417	138	Classroom		Faucet	7.9	Pass	Testing Complete
M16423		Girls Bathroom	Across CR 11	Cooler	<1.0	Pass	Testing Complete
M16427		Hallway	Outside of CR 7	Cooler	<1.0	Pass	Testing Complete
M16438	113	Classroom		Faucet	24.0	Fail	Follow Up Testing Needed
M16452		Hallway	Across from Boiler Next to BBR	Cooler	<1.0	Pass	Testing Complete
M16454		Kitchen		Faucet	7.3	Pass	Testing Complete
M16455		Kitchen		Faucet	32.9	Fail	Follow Up Testing Needed

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M31029	146	Classroom		Faucet	<1.0	Pass	Testing Complete
M31030	146	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31031	150	Classroom		Faucet	<1.0	Pass	Testing Complete
M31032	150	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31033	123	Break Room		Faucet	<1.0	Pass	Testing Complete
M31034	123	Break Room		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31035	154	Classroom		Faucet	<1.0	Pass	Testing Complete
M31036	154	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31037		Hallway	Across from CR 154	Cooler	<1.0	Pass	Testing Complete
M31038		Hallway	Across from CR 154	Cooler	<1.0	Pass	Testing Complete
M31045	164	Classroom		Faucet	<1.0	Pass	Testing Complete
M31046	164	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31047	166	Classroom		Faucet	<1.0	Pass	Testing Complete
M31048	166	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31049	131	Classroom		Faucet	<1.0	Pass	Testing Complete
M31050	131	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31052	135	Classroom		Faucet	<1.0	Pass	Testing Complete
M31053	135	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31055	182	Art		Faucet	<1.0	Pass	Testing Complete
M31056	182	Art		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31059	188	Inst Music		Faucet	1.3	Pass	Testing Complete
M31060	188	Inst Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31061	190	Band		Faucet	<1.0	Pass	Testing Complete
M31062	190	Band		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31063	137	Classroom		Faucet	<1.0	Pass	Testing Complete
M31064	137	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31066	141	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31067	141	Classroom		Faucet	<1.0	Pass	Testing Complete
M31069	008	Classroom		Faucet	1.1	Pass	Testing Complete
M31070	008	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M31076	18	Classroom		Faucet	<1.0	Pass	Testing Complete
M31077	18	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31079		Hallway	Across from CR 018	Cooler	<1.0	Pass	Testing Complete
M31080		Hallway	Across from CR 018	Cooler	<1.0	Pass	Testing Complete
M31081	22	Classroom		Faucet	<1.0	Pass	Testing Complete
M31082	22	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31083	26	Classroom		Faucet	2.6	Pass	Testing Complete
M31084	26	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31446	100D	Work Room Admin		Faucet	<1.0	Pass	Testing Complete
M31447	100D	Work Room Admin		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31449	100C	Health		Bubbler - Indoor	<1.0	Pass	Testing Complete
M31450	100C	Health		Faucet	<1.0	Pass	Testing Complete

\*PPB = parts per billion



**Contractor:** KCI Technologies, Inc.  
**Certified Laboratory:** Microbac Laboratories, Inc.

Follow Up Sample Results for Darnestown Elementary School

Barcode ID	Room #	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW09919	102	Faucet	N/A	14.3	1.3	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW09922	115	Faucet	N/A	12.5	1.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW10496	002	Bubbler - Indoor	N/A	14.6	1.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
M16438	113	Faucet	N/A	8.7	1.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
M16455		Faucet	N/A	ND	12.4	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.