

# Montgomery County Public Schools Lead in Drinking Water Testing Report

Eastern Middle School  
300 University Blvd, East  
Gaithersburg, MD 20901

Report Date: April 13th, 2020

## 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	2/21/2020
# of Outlets Tested	31
# of Outlets $\geq$ 5 ppb	3

## 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 Eastern MS

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW02198	In gymnasium	Drinking Fountain	1.9	Pass	N/A	Testing Complete
LW02199	In hallway next to main office	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02200	In hallway next to main office	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02201	In hallway across from Laundry room	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02202	In kitchen by cafeteria	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW02204	In kitchen by cafeteria	Ice Machine	<1	Pass	N/A	Testing Complete
LW02205	In kitchen by cafeteria	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW02206	In kitchen by cafeteria	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW02207	In kitchen by cafeteria	Kitchen Sink	1.8	Pass	N/A	Testing Complete
LW02208	In kitchen by cafeteria	Kitchen Sink	1.1	Pass	N/A	Testing Complete
LW02209	In kitchen by cafeteria	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW02210	In cafeteria	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02211	In cafeteria	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02212	In hallway next to room 311	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02215	In break room 109	Teachers Lounge Sink	1.3	Pass	N/A	Testing Complete
LW02216	In hallway by music ie. next to 115a	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02217	In health room 113	Nurses Office Sink	1.3	Pass	N/A	Testing Complete
LW02218	In office 711	Classroom Sink	9.7	Fail	<1	Remediation Action Plan
LW02219	In staff development 903	Classroom Sink	3.5	Pass	N/A	Testing Complete
LW02220	In hallway across from room 901	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02221	In hallway next to 1001	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW02222	In fitness room 304	Drinking Fountain	3.8	Pass	N/A	Testing Complete
M12998	In hallway next to Stairwell 1	Drinking Fountain	<1	Pass	N/A	Testing Complete
M13029	In science between CR 806 and 804	Classroom Sink	8.6	Fail	2.2	Remediation Action Plan

M13030	In science between CR 806 and 804	Classroom Sink	201	Fail	8.7	Remediation Action Plan
M13051	In hallway across from CR 800	Drinking Fountain	<1	Pass	N/A	Testing Complete
M13074	In music storage 503	Classroom Sink	4.7	Pass	N/A	Testing Complete
M13078	In hallway across from 110	Drinking Fountain	<1	Pass	N/A	Testing Complete
M40630	In girls locker room across from gym	Drinking Fountain	<1	Pass	N/A	Testing Complete
M40631	In girls locker room across from gym	Drinking Fountain	<1	Pass	N/A	Testing Complete
M41287	In work room	Classroom Sink	<1	Pass	N/A	Testing Complete



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

October 30, 2019

### Executive Summary:

#### Eastern Middle School

300 University Boulevard  
Silver Spring, Maryland 20901

Round of Testing:	Post-Remediation Follow-up
Sample Date	1/25/2019
# of Outlets Tested:	2
# of Outlets $\geq$ 5 ppb:	2
Low Value (ppb):	35.1
High Value (ppb):	547

### Project Status

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

Classroom 905 - Outlet (M13005) will be removed from service

Classroom Stage Between CR 705 and 707 707 - Outlet (M13017) will be removed from 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: Eastern Middle School**

300 University Boulevard  
Silver Spring, Maryland 20901

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 Eastern Middle School, located at 300 University Boulevard in Silver Spring, Maryland 20901.

**SCOPE OF SERVICES**

Two drinking water outlets were remediated at Eastern Middle School 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 1/25/2019 to collect post-remediation follow-up samples from 2 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
M13005	905	Classroom		Faucet	56.6	115	547	Fail	Post-remediation follow-up testing complete. Outlet will be removed from service
M13017	707	Classroom Stage Between CR 705 and 707		Faucet	24.2	1.9	35.1	Fail	Post-remediation follow-up testing complete. Outlet will be removed from 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.



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Respectfully Submitted,  
KCI Technologies, Inc.



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



## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 3, 2018

**Executive Summary:**  
**Eastern Middle School**  
300 University Boulevard E  
Silver Spring, MD 20901

Round of Testing:	Initial
# of Outlets Tested:	43
# of Outlets $\geq$ 20 ppb:	4
Low Value (ppb):	< 1.0
High Value (ppb):	64.9
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Classroom 905 (56.6 ppb) Room (Stage) Between CR 705 and 707 (24.2 ppb) Room Between 804 and 806 (64.9 ppb) Room Between 804 and 806 (34.9 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	4

### **Project Status** **Testing Complete: Remediation Plan**

Classroom 905 – Replace fixture (M13005), in addition to supply line and valve located under sink.

Room (Stage) Between CR 705 and 707– Replace fixture (M13017), in addition to supply line and valve located under sink.

Room Between 804 and 806 – Fixture (M13029), not a primary drinking outlet, place signage in room not to drink from outlet

Room Between 804 and 806 – Fixture (M13030), not a primary drinking outlet, place signage in room not to drink from outlet



May 3, 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: Eastern Middle School  
300 University Boulevard  
Silver Spring, MD 20901

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 Eastern Middle School, located at 300 University Boulevard E in Silver Spring, MD 20901.

### **Scope of Services:**

PSI conducted lead in water testing at Eastern Middle 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 02/08/18 and 02/09/18 to collect samples from 43 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. Four 30 second follow-up samples were collected on 4/11/18, 4/12/18, and 4/13/19.

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 four 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)
M13005	Classroom 905	2/09/2018	56.6	4/12/18	115.0
M13017	Stage Between CR 705 and 707	2/09/2018	24.2	4/11/18	1.9
M13029	Room Between 804 and 806	2/09/2018	64.9	4/13/18	7.5
M13030	Room Between 804 and 806	2/09/2018	34.9	4/13/18	3.9

The initial lead in water sample results (02/09/18) and 30 second follow up results (4/11/18, 4/12/18, and 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](mailto:Nand.Kaushik@psiusa.com)

Attachments: A – Lead in Water Test Summary Table

# ATTACHMENT A

## Eastern MS Water Test Summary Table

**Contractor:** Professional Services Industries, Inc.

**Certified Laboratory:** Microbac Laboratories, Inc.

Initial Sample Results for Eastern Middle School (2/9/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW02198		Gymnasium		Cooler	<1.0	Pass	Testing Complete
LW02199		Hallway	Next To Main Office	Cooler	<1.0	Pass	Testing Complete
LW02200		Hallway	Next To Main Office	Cooler	<1.0	Pass	Testing Complete
LW02201		Hallway	Across From Laundry Room	Cooler	<1.0	Pass	Testing Complete
LW02202		Kitchen Cafeteria		Faucet	<1.0	Pass	Testing Complete
LW02203		Kitchen Cafeteria		Faucet	<1.0	Pass	Testing Complete
LW02204		Kitchen Cafeteria		Icemaker	<1.0	Pass	Testing Complete
LW02205		Kitchen Cafeteria		Faucet	<1.0	Pass	Testing Complete
LW02206		Kitchen Cafeteria		Faucet	<1.0	Pass	Testing Complete
LW02207		Kitchen Cafeteria		Faucet	<1.0	Pass	Testing Complete
LW02208		Kitchen Cafeteria		Faucet	<1.0	Pass	Testing Complete
LW02209		Kitchen Cafeteria		Faucet	1.0	Pass	Testing Complete
LW02210		Cafeteria		Cooler	<1.0	Pass	Testing Complete
LW02211		Cafeteria		Cooler	<1.0	Pass	Testing Complete
LW02212		Hallway	Next To Room 311	Cooler	<1.0	Pass	Testing Complete
LW02213	107	Break Room	Across From TV Studio	Faucet	6.4	Pass	Testing Complete
LW02215	109	Break Room		Faucet	1.8	Pass	Testing Complete
LW02216		Hallway Music	Next To 115A	Cooler	<1.0	Pass	Testing Complete
LW02217	113	Health Room		Faucet	<1.0	Pass	Testing Complete
LW02218	711	Office		Faucet	4.7	Pass	Testing Complete
LW02219	903	Staff Development		Faucet	3.5	Pass	Testing Complete
LW02220		Hallway	Across From Room 901	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW02221		Hallway	Next To 1001	Cooler	<1.0	Pass	Testing Complete
LW02222	304	Fitness Room		Cooler	1.7	Pass	Testing Complete
LW02223	106	Classroom		Faucet	16.6	Pass	Testing Complete
M12997	601	Classroom		Faucet	17.7	Pass	Testing Complete
M12998		Hallway	Next to Stairwell 1	Cooler	<1.0	Pass	Testing Complete
M13005	905	Classroom		Faucet	56.6	Fail	Follow-Up Testing Needed
M13012	811	Assistant Principal		Faucet	5.3	Pass	Testing Complete
M13017	707	Classroom	Stage Between CR 705 and 707	Faucet	24.2	Fail	Follow-Up Testing Needed
M13019	701	Work Room		Faucet	11.1	Pass	Testing Complete
M13020	707	Classroom	Stage Between CR 705 and 707	Faucet	13.1	Pass	Testing Complete
M13029		Science	Rm Between CR 806 and 804	Faucet	64.9	Fail	Follow-Up Testing Needed
M13030		Science	Rm Between CR 806 and 804	Faucet	34.9	Fail	Follow-Up Testing Needed
M13051		Hallway	Across from CR 800	Cooler	<1.0	Pass	Testing Complete
M13074	503	Music Storage		Faucet	4.3	Pass	Testing Complete
M13087		Media Center Office		Faucet	6.4	Pass	Testing Complete
M13095		Hallway	Across from CR 300	Bubbler - Indoor	7.8	Pass	Testing Complete
M13098		Hallway	Across from CR 300	Bubbler - Indoor	3.5	Pass	Testing Complete
M40630		Girls Locker Room	Across from Gym	Cooler	<1.0	Pass	Testing Complete
M40631		Girls Locker Room	Across from Gym	Cooler	<1.0	Pass	Testing Complete
M41287		Work Room		Faucet	2.8	Pass	Testing Complete
M41294	106	Classroom		Faucet	8.0	Pass	Testing Complete

\*ppb = parts per billion

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

Follow Up Sample Results for Eastern Middle School (4/11/18, 4/12/18, and 4/13/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	Initial draw (3 <sup>rd</sup> ) (PPB)	30 Second Draw (PPB)	Status
M13005	905	Classroom	Faucet	36.5	197.0	115.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M13017	707	Stage Between CR 705 and 707	Faucet	6.0	29.8	1.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
M13029	-	Room Between CR 806 and 804	Faucet	40.9	79.6	7.5	Remediation not required – not a primary drinking outlet, place signage in room not to drink from outlet
M13030	-	Room Between CR 806 and 804	Faucet	211	57.1	3.9	Remediation not required – not a primary drinking outlet, place signage in room not to drink from outlet

\*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.