

# Montgomery County Public Schools Lead in Drinking Water Testing Report

Shady Grove Middle School  
8100 Midcounty Highway  
Gaithersburg, MD 20877

Report Date: February 18<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	10/29/2021
# of Outlets Tested	37
# of Outlets $\geq$ 5 ppb	1

## 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 Shady Grove MS

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW01704	In hallway inside of main office	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW01705	In dining room B-101	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW01706	In team room E224	Teachers Lounge Sink	<1	Pass	N/A	Testing Complete
LW01707	In team room E223	Teachers Lounge Sink	<1	Pass	N/A	Testing Complete
LW01709	In team room D218	Teachers Lounge Sink	1.7	Pass	N/A	Testing Complete
LW01710	In kitchen	Ice Machine	<1	Pass	N/A	Testing Complete
LW01711	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW01712	In kitchen	Kitchen Sink	4.2	Pass	N/A	Testing Complete
LW01713	In kitchen	Kitchen Sink	3.0	Pass	N/A	Testing Complete
LW01714	In child development D108	Classroom Sink	2.4	Pass	N/A	Testing Complete
LW01716	In team room E118	Teachers Lounge Sink	<1	Pass	N/A	Testing Complete
LW01717	In office D119	Classroom Sink	<1	Pass	N/A	Testing Complete
LW01718	In team room E119	Teachers Lounge Sink	1.7	Pass	N/A	Testing Complete
LW01719	In locker room - girls A122	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW01720	In locker room - boys A102	Drinking Fountain	<1	Pass	N/A	Testing Complete
Lw10619	In classroom D-114	Classroom Sink	6.3	Fail	2.8	Testing Complete
M44091	In hallway across from E227	Drinking Fountain	<1	Pass	N/A	Testing Complete
M45861	In health room C137	Nurses Office Sink	1.3	Pass	N/A	Testing Complete
M45862	In Workroom C133	Teachers Lounge Sink	1.1	Pass	N/A	Testing Complete
M45869	In staff lounge C121	Teachers Lounge Sink	<1	Pass	N/A	Testing Complete
M45884	In home economics D114	Classroom Sink	2.1	Pass	N/A	Testing Complete
M45885	In home economics D114	Classroom Sink	<1	Pass	N/A	Testing Complete
M45886	In home economics D114	Classroom Sink	1.6	Pass	N/A	Testing Complete
M45887	In home economics D114	Classroom Sink	4.0	Pass	N/A	Testing Complete
M45898	In hallway across CR E106	Drinking Fountain	<1	Pass	N/A	Testing Complete
M45926	In hallway across CR E125	Drinking Fountain	<1	Pass	N/A	Testing Complete
M45929	In hallway across from B101	Drinking Fountain	<1	Pass	N/A	Testing Complete
M45942	In work room C146	Classroom Sink	<1	Pass	N/A	Testing Complete
M45954	In girls locker room	Drinking Fountain	<1	Pass	N/A	Testing Complete
M45960	In kitchen	Kitchen Sink	1.9	Pass	N/A	Testing Complete

M45963	In kitchen	Kitchen Sink	2.1	Pass	N/A	Testing Complete
M45964	In kitchen	Kitchen Sink	1.4	Pass	N/A	Testing Complete
M45965	In kitchen	Kitchen Sink	1.5	Pass	N/A	Testing Complete
M45967	In kitchen	Kitchen Sink	3.4	Pass	N/A	Testing Complete
M45969	In kitchen	Kitchen Sink	2.2	Pass	N/A	Testing Complete
M46067	In hallway next to D214	Drinking Fountain	<1	Pass	N/A	Testing Complete
M46079	In hallway across E208	Drinking Fountain	<1	Pass	N/A	Testing Complete



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

August 29, 2019

**Executive Summary:**  
**Shady Grove Middle School**  
8100 Midcounty Highway, Gaithersburg, MD 20877

<b>Round of Testing:</b>	<b>Post-Remediation Follow-Up</b>
Sample Date	02/01/2019
# of Outlets Tested:	1
# of Outlets $\geq$ 5 ppb:	0
Low Value (ppb):	1.2
High Value (ppb):	1.2

**Project Status**

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

Kitchen: Outlet (LW01713) will be placed back into service



August 29, 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: Shady Grove Middle School  
8100 Midcounty Highway,  
Gaithersburg, MD 20877

Dear Mr. Mullikin:

Intertek-PSI Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of the post-remediation lead in water testing at Shady Grove Middle School, located at 8100 Midcounty Highway, Gaithersburg, MD 20877.

**Scope of Services:**

One (1) drinking water outlet was remediated at Shady Grove Middle School due to initial lead 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 01/31/2019 and 02/01/2019 to collect post-remediation follow-up sample from 1 drinking water outlet 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 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
LW01713		Kitchen		Faucet	21.7	15.4	1.2	Pass	Post-remediation follow-up testing complete. Outlet will be placed back into 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,

**INTERTEK-PSI**

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





## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 25, 2018

**Executive Summary:**  
**Shady Grove Middle School**  
8100 Midcounty Hwy  
Gaithersburg, MD 20877

Round of Testing:	Initial
# of Outlets Tested:	39
# of Outlets $\geq$ 20 ppb:	1
Low Value (ppb):	< 1.0
High Value (ppb):	21.7
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Kitchen (21.7 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	1

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

Kitchen– Replace fixture (LW01713), in addition to supply line and valve located under sink



May 25, 2018

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

Re: Lead in Water Testing Service

Location: Shady Grove Middle School  
8100 Midcounty Hwy  
Gaithersburg, MD 20877

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 Shady Grove Middle School, located at 8100 Midcounty Hwy in Gaithersburg, MD 20877.

**Scope of Services:**

PSI conducted lead in water testing at Shady Grove 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 3/20/18 and 3/21/18 to collect samples from 39 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. One 30 second follow-up sample was collected on 5/8/18.

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 was one result 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)
LW01713	Kitchen	3/21/18	21.7	5/8/18	1.6

The initial lead in water sample results (3/21/18) and 30 second follow up results (5/8/18) 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

## Shady Grove MS Water Test Summary Table

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

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

Initial Sample Results for Shady Grove Middle School (3/21/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01704		Hallway	Inside of Main Office	Cooler	<1.0	Pass	Testing Complete
LW01705		Dining Hall		Cooler	<1.0	Pass	Testing Complete
LW01706	E224	Team Room		Faucet	<1.0	Pass	Testing Complete
LW01707	E223	Team Room		Faucet	<1.0	Pass	Testing Complete
LW01709	D218	Team Room		Faucet	1.6	Pass	Testing Complete
LW01710		Kitchen		Icemaker	<1.0	Pass	Testing Complete
LW01711		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW01712		Kitchen		Faucet	2.5	Pass	Testing Complete
LW01713		Kitchen		Faucet	21.7	Fail	Follow-Up Testing Needed
LW01714	D108	Child Development		Faucet	<1.0	Pass	Testing Complete
LW01715	D114	Home Economics		Faucet	10.1	Pass	Testing Complete
LW01716	E118	Team Room		Faucet	<1.0	Pass	Testing Complete
LW01717	D119	Office		Faucet	<1.0	Pass	Testing Complete
LW01718	E119	Team Room		Faucet	1.0	Pass	Testing Complete
LW01719	A122	Locker Room - Girls		Cooler	<1.0	Pass	Testing Complete
LW01720	A102	Locker Room - Boys		Cooler	<1.0	Pass	Testing Complete
M44091		Hallway	Across from E227	Cooler	<1.0	Pass	Testing Complete
M45861	C135	Health Room		Faucet	<1.0	Pass	Testing Complete
M45862		Work Room Admin		Faucet	1.4	Pass	Testing Complete
M45869		Break Room Admin		Faucet	1.8	Pass	Testing Complete
M45884	D114	Home Economics		Faucet	1.3	Pass	Testing Complete
M45885	D114	Home Economics		Faucet	<1.0	Pass	Testing Complete
M45886	D114	Home Economics		Faucet	<1.0	Pass	Testing Complete
M45887	D114	Home Economics		Faucet	3.5	Pass	Testing Complete
M45898		Hallway	Across CR E106	Cooler	<1.0	Pass	Testing Complete
M45926		Hallway	Across CR E125	Cooler	<1.0	Pass	Testing Complete
M45929		Hallway	Next to C155	Cooler	<1.0	Pass	Testing Complete
M45942	C146	Work Room		Faucet	<1.0	Pass	Testing Complete
M45954		Girls Locker Room		Cooler	<1.0	Pass	Testing Complete
M45960		Kitchen		Faucet	1.6	Pass	Testing Complete
M45963		Kitchen		Faucet	1.1	Pass	Testing Complete
M45964		Kitchen		Faucet	1.3	Pass	Testing Complete
M45965		Kitchen		Faucet	1.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
M45966		Kitchen		Faucet	8.0	Pass	Testing Complete
M45967		Kitchen		Faucet	2.6	Pass	Testing Complete
M45969		Kitchen		Faucet	1.0	Pass	Testing Complete
M46067		Hallway	Next to D214	Cooler	<1.0	Pass	Testing Complete
M46068		Hallway	Across D208	Cooler	<1.0	Pass	Testing Complete
M46079		Hallway	Across E208	Cooler	<1.0	Pass	Testing Complete

\*ppb = parts per billion

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

Follow Up Sample Results for Shady Grove Middle School (5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW01713		Kitchen	Faucet	15.4	1.6	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 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.