

# Montgomery County Public Schools Lead in Drinking Water Testing Report

**Robert Frost Middle School  
9201 Scott Drive  
Rockville, MD 20850**

**Report Date: February 17<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	12/9/2021
# of Outlets Tested	36
# of Outlets $\geq$ 5 ppb	2

## **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 Robert Frost MS

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW02253	In hallway adjacent to 101	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06856	In hallway adjacent to health room	Drinking Fountain	3.2	Pass	N/A	Testing Complete
LW06857	In health room	Nurses Office Sink	<1	Pass	N/A	Testing Complete
LW06858	In hallway right of main office	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06860	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
Lw06861	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW06862	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
LW06863	In kitchen	Kitchen Sink	2.1	Pass	N/A	Testing Complete
LW06864	In kitchen	Ice Machine	<1	Pass	N/A	Testing Complete
LW06865	In girl's locker room	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06866	In girl's locker room	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06867	In hallway between gym and kitchen	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06868	In boy's locker room	Drinking Fountain	9.4	Fail	<1	Testing Complete
LW06869	In boy's locker room	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06870	In hallway right of 240b	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06875	In hallway next to 253b	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06876	In hallway next to 253b	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06878	In hallway next to 112	Drinking Fountain	1.3	Pass	N/A	Testing Complete
LW06880	In hallway next to 153	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06881	In hallway next to 153	Drinking Fountain	<1	Pass	N/A	Testing Complete
Lw10792	In hallway adjacent to 101	Bottle Filler	<1	Pass	N/A	Testing Complete
Lw10793	In hallway next to 115	Bottle Filler	1.6	Pass	N/A	Testing Complete
Lw10794	In hallway next to 240	Bottle Filler	<1	Pass	N/A	Testing Complete
Lw10795	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
Lw10796	In hallway next to 101	Bottle Filler	1.1	Pass	N/A	Testing Complete
M10715	In team room 217 A	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete
M10737	In work room by admin	Teacher's Lounge Sink	1.5	Pass	N/A	Testing Complete
M10744	In hallway adjacent to CR 233	Drinking Fountain	<1	Pass	N/A	Testing Complete
M10763	In kitchen	Kitchen Sink	<1	Pass	N/A	Testing Complete
M10877	In team room 153	Teacher's Lounge Sink	<1	Pass	N/A	Testing Complete

M10895	In teacher's lounge 115	Teacher's Lounge Sink	3.5	Pass	N/A	Testing Complete
M10896	In teacher's lounge 115	Teacher's Lounge Sink	3.4	Pass	N/A	Testing Complete
M10897	In teacher's lounge 115	Teacher's Lounge Sink	1.8	Pass	N/A	Testing Complete
M10898	In teacher's lounge 115	Teacher's Lounge Sink	8.0	Fail	4.5	Testing Complete
M10900	In teacher's lounge 115	Teacher's Lounge Sink	3.4	Pass	N/A	Testing Complete
M15140	In hallway next to CR 215	Drinking Fountain	<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:**  
**Robert Frost Middle School**  
9201 Scott Drive,  
Rockville, MD 20850

<b>Round of Testing:</b>	<b>Post-Remediation Follow-up</b>
Sample Date	01/25/2019
# of Outlets Tested:	2
# of Outlets $\geq$ 5 ppb:	2
Low Value (ppb):	7.5
High Value (ppb):	11.1

**Project Status**

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

Classroom 101 – Outlet (M10893) will have signage affixed.  
Team Room 220B – Outlet (M10716) will have signage affixed.



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: Robert Frost Middle School  
9201 Scott Drive,  
Rockville, MD 20850

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 Robert Frost Middle School, located at 9201 Scott Drive, Rockville, MD 20850.

**Scope of Services:**

Two (2) drinking water outlets were remediated at Robert Frost Middle 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 01/25/2019 to collect post-remediation follow-up samples from 2 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
M10893	101	Classroom		Faucet	39.2	2.9	7.5	Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed
M10716	220 B	Team Room		Faucet	62.5	19.5	11.1	Fail	Post-remediation follow-up testing complete. Outlet will have signage affixed

**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.**

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





## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 17, 2018

**Executive Summary:**  
**Robert Frost Middle School**  
9210 Scott Drive  
Rockville, MD 20850

Round of Testing:	Initial
# of Outlets Tested:	46
# of Outlets $\geq$ 20 ppb:	3
Low Value (ppb):	< 1.0
High Value (ppb):	145.0
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Room 233 (39.2 ppb) Room 220B (62.5 ppb) Room 101 (145.0 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	3

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

Music Room 233– Replace fixture (LW06871), in addition to supply line and valve located under sink  
Team Room 220B– Replace fixture (M10716), in addition to supply line and valve located under sink  
Classroom 101– Replace fixture (M10893), in addition to supply line and valve located under sink



May 17, 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: Robert Frost Middle School  
9210 Scott Drive  
Rockville, MD 20850

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 Robert Frost Middle School, located at 9210 Scott Drive in Rockville, MD 20850.

**Scope of Services:**

PSI conducted lead in water testing at Robert Frost 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 3/12/18 and 3/13/18 to collect samples from 46 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. Three 30 second follow-up sample were 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 were three 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)
LW06871	Music Room 233	3/13/18	133.0	5/8/18	10.6
M10716	Team Room 220B	3/13/18	62.5	5/8/18	20.5
M10893	Classroom 101	3/13/18	39.2	5/8/18	2.9

The initial lead in water sample results (3/13/2018) 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

## Robert Frost MS Water Test Summary Table

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

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

Initial Sample Results for Robert Frost Middle School (3/13/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW02250	155B	Break Room	Inside Of 154	Faucet	6.2	Pass	Testing Complete
LW02251	115	Food Room		Faucet	5.1	Pass	Testing Complete
LW02252	100	Science	Next To South End	Faucet	8.8	Pass	Testing Complete
LW02253		Hallway	Across From 101	Cooler	<1.0	Pass	Testing Complete
LW06856		Hallway	Close To Health Room	Cooler	1.9	Pass	Testing Complete
LW06857		Health Room		Faucet	<1.0	Pass	Testing Complete
LW06858		Hallway	Right Of Main Office	Cooler	<1.0	Pass	Testing Complete
LW06859		Kitchen	Next To Old Staff Lounge	Faucet	1.8	Pass	Testing Complete
LW06860		Kitchen		Faucet	1.6	Pass	Testing Complete
LW06861		Kitchen		Faucet	10.0	Pass	Testing Complete
LW06862		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW06863		Kitchen		Faucet	2.4	Pass	Testing Complete
LW06864		Kitchen		Icemaker	<1.0	Pass	Testing Complete
LW06865		Locker Room - Girls	In Front Of 6866	Cooler	<1.0	Pass	Testing Complete
LW06866		Locker Room - Girls		Cooler	<1.0	Pass	Testing Complete
LW06867		Hallway	Between Gym And Kitchen	Cooler	1.1	Pass	Testing Complete
LW06868		Locker Room - Boys	In Front Of 6869	Cooler	<1.0	Pass	Testing Complete
LW06869		Locker Room - Boys		Cooler	<1.0	Pass	Testing Complete
LW06870		Hallway	Right Of 240b	Cooler	<1.0	Pass	Testing Complete
LW06871	233	Music		Faucet	39.2	Fail	Follow-Up Testing Needed
LW06872	220B	Team Room		Bubbler - Indoor	16.8	Pass	Testing Complete
LW06873	209B	Resource Center	Inside Of 209a	Faucet	13.8	Pass	Testing Complete
LW06875		Hallway	Next To 253b	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06876		Hallway	Next To 253b	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06877	206E	Break Room		Faucet	5.5	Pass	Testing Complete
LW06878		Hallway	Next To 112	Cooler	1.2	Pass	Testing Complete
LW06879	111	Classroom	Between File Cabinets	Faucet	12.5	Pass	Testing Complete
LW06880		Hallway	Next To 153	Cooler	<1.0	Pass	Testing Complete
LW06881		Hallway	Next To 153	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
M10529	206A	Work Room		Faucet	10.9	Pass	Testing Complete
M10715	217A	Team Room		Faucet	1.6	Pass	Testing Complete
M10716	220B	Team Room		Faucet	62.5	Fail	Follow-Up Testing Needed
M10729	253	Team Room		Faucet	<1.0	Pass	Testing Complete
M10737		Work Room Admin		Faucet	1.1	Pass	Testing Complete
M10744		Hallway	Across from CR 233	Cooler	<1.0	Pass	Testing Complete
M10763	246	Kitchen		Faucet	2.0	Pass	Testing Complete
M10767		Break Room		Faucet	12.0	Pass	Testing Complete
M10770	100	Science		Faucet	8.1	Pass	Testing Complete
M10877	153	Team Room		Faucet	<1.0	Pass	Testing Complete
M10893	101	Classroom		Faucet	145.0	Fail	Follow-Up Testing Needed
M10895	115	Food Room		Faucet	2.4	Pass	Testing Complete
M10896	115	Food Room		Faucet	2.3	Pass	Testing Complete
M10897	115	Food Room		Faucet	1.7	Pass	Testing Complete
M10898	115	Food Room		Faucet	3.9	Pass	Testing Complete
M10900	115	Food Room		Faucet	2.2	Pass	Testing Complete
M15140		Hallway	Next to CR 215	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 Robert Frost Middle School (5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW06871	233	Music Room	Faucet	133.0	10.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
M10716	220 B	Team Room	Faucet	19.5	20.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
M10893	101	Classroom	Faucet	21.6	2.9	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.