

Montgomery County Public Schools Lead in Drinking Water Testing Report

**Greenwood Elementary School
3336 Gold Mine Road
Brookeville, MD 20833**

Report Date: February 23rd, 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	11/30/2021
# of Outlets Tested	41
# of Outlets \geq 5 ppb	19

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.
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.
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 Greenwood ES

Fixture Barcode	Fixture Location	Fixture Type	Initial Results (ppb)	Pass/Fail	Follow up Results (ppb)	Status
LW06498	In break room	Teachers Lounge Sink	2.7	Pass	N/A	Testing Complete
LW06452	In classroom 1	Classroom Combination Drinking Fountain	7.2	Fail	1.6	Testing Complete
LW04934	In classroom 18	Classroom Sink	1.4	Pass	N/A	Testing Complete
LW04945	In classroom 21	Classroom Combination Drinking Fountain	8.8	Fail	<1	Testing Complete
LW06501	In classroom 39	Classroom Combination Drinking Fountain	1.5	Pass	N/A	Testing Complete
LW06381	In classroom 41	Classroom Sink	6.0	Fail	<1	Testing Complete
LW06503	In classroom 44	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06375	In classroom 46	Classroom Combination Sink	1.2	Pass	N/A	Testing Complete
LW06377	In classroom 48	Classroom Sink	1.9	Pass	N/A	Testing Complete
LW06378	In classroom 50	Classroom Combination Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06445	In classroom 6	Teacher's Lounge Sink	3.5	Pass	N/A	Testing Complete
LW06446	In classroom 6	Classroom Combination Drinking Fountain	9.4	Fail	<1	Testing Complete
LW06369	In classroom 61	Classroom Sink	4.8	Pass	N/A	Testing Complete
LW06443	In classroom 8	Teacher's Lounge Sink	2.6	Pass	N/A	Testing Complete
LW04944	In hallway adjacent to boiler	Drinking Fountain	1.7	Pass	N/A	Testing Complete
LW11141	In hallway adjacent to IMC	Bottle Filler	<1	Pass	N/A	Testing Complete
M21856	In hallway adjacent to IMC	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW04949	In hallway adjacent to room 14	Drinking Fountain	4.0	Pass	N/A	Testing Complete
LW06441	In hallway adjacent to room 55	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06442	In hallway adjacent to room 55	Drinking Fountain	<1	Pass	N/A	Testing Complete
LW06440	In hallway adjacent to room 8	Drinking Fountain	4.9	Pass	N/A	Testing Complete
LW06494	In health room	Nurses Office Sink	1.8	Pass	N/A	Testing Complete
M21851	In kitchen	Kitchen Sink	2.2	Pass	N/A	Testing Complete
M21852	In kitchen	Kitchen Sink	5.9	Fail	<1	Testing Complete
LW04932	In kitchen	Kitchen Sink	6.8	Fail	<1	Testing Complete
LW11151	In room 10	Classroom Sink	3.3	Pass	N/A	Testing Complete
LW11150	In room 11	Classroom Sink	6.9	Fail	2.4	Testing Complete
LW11149	In room 12	Classroom Sink	9.7	Fail	1.8	Testing Complete
LW11148	In room 14	Classroom Sink	5.5	Fail	1.6	Testing Complete
LW11147	In room 15	Classroom Combination Sink	7.1	Fail	4.3	Testing Complete

LW11146	In room 16	Classroom Combination Sink	5.3	Fail	<1	Testing Complete
LW11145	In room 17	Classroom Sink	6.0	Fail	<1	Testing Complete
LW11155	In room 2	Classroom Sink	7.2	Fail	<1	Testing Complete
LW11144	In room 20	Classroom Sink	4.0	Pass	N/A	Testing Complete
LW11143	In room 22	Classroom Sink	7.3	Fail	<1	Testing Complete
LW11156	In room 32	Classroom Sink	22	Fail	6.8	Testing Complete
LW11153	In room 4	Classroom Sink	5.9	Fail	<1	Testing Complete
LW11154	In room 5	Classroom Sink	7.9	Fail	1.5	Testing Complete
LW11152	In room 9	Classroom Combination Sink	8.4	Fail	1.1	Testing Complete
LW06382	In work room adjacent to main office	Teachers Lounge Sink	3.9	Pass	N/A	Testing Complete
LW11142	In work room adjacent to media center	Teachers Lounge Sink	8.0	Fail	<1	Testing Complete



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

October 30, 2019

Executive Summary:
Greenwood Elementary School
3336 Gold Mine Road
Brookeville, Maryland 20833

Round of Testing:	Post-Remediation Follow-up
Sample Date	2/4/2019
# of Outlets Tested:	3
# of Outlets \geq 5 ppb:	1
Low Value (ppb):	2.2
High Value (ppb):	13.4

Project Status

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

Classroom 18 - Outlet (LW04934) will be placed back into service
Classroom 18 - Outlet (LW04935) will be removed from service
Classroom 8 - Outlet (LW06443) will be placed back into 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: Greenwood Elementary School

3336 Gold Mine Road
Brookeville, Maryland 20833

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 Greenwood Elementary School, located at 3336 Gold Mine Road in Brookeville, Maryland 20833.

SCOPE OF SERVICES

Three drinking water outlets were remediated at Greenwood Elementary 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 2/4/2019 to collect post-remediation follow-up samples from 3 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
LW04934	18	Classroom		Faucet	48.9	ND	4.8	Pass	Post-remediation follow-up testing complete. Outlet will be placed back into service
LW04935	18	Classroom		Bubbler - Indoor	22.3	ND	13.4	Fail	Post-remediation follow-up testing complete. Outlet will be removed from service
LW06443	8	Classroom		Faucet	26.5	4.8	2.2	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,
KCI Technologies, Inc.



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



Montgomery County Public Schools Lead in Drinking Water Testing 2018

April 30, 2018

Executive Summary:
Greenwood Elementary School
3336 Gold Mine Road
Brookeville, Maryland 20833

Round of Testing:	Initial
# of Outlets Tested:	58
# of Outlets ≥ 20 ppb:	3
Low Value (ppb):	<1.0
High Value (ppb):	48.9
Follow-Up Testing Required (Samples ≥ 20 ppb):	Classroom 18 (48.9 ppb) Classroom 18 (22.3 ppb) Classroom 8 (26.5 ppb)

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

Project Status:
Testing Complete: Remediation Plan

Classroom 18 - Replace fixture (LW04934), in addition to supply line and valve located under sink
Classroom 18 - Replace fixture (LW04935), in addition to supply line and valve located under sink
Classroom 8 - Replace fixture (LW06443), in addition to supply line and valve located under sink



April 30, 2018

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

Re: Drinking Water Testing

KCI Job #1214634189

Location: Greenwood Elementary School

3336 Gold Mine Road
Brookeville, Maryland 20833

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 Greenwood Elementary School, located at 3336 Gold Mine Road in Brookeville, Maryland 20833.

SCOPE OF SERVICES

KCI conducted lead in water testing at Greenwood 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 3/15/2018 and 3/16/2018 to collect samples from 58 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 4/12/2018, three 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.

RESULTS

There were three 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:

Barcode ID	Sample Location	Date Collected	Initial Sample Result (ppb)	Date Collected	30 Second Follow Up Sample Result (ppb)
LW04934	Faucet - Classroom 18	3/16/2018	48.9	4/12/2018	ND
LW04935	Bubbler-Indoor - Classroom 18	3/16/2018	22.3	4/12/2018	ND
LW06443	Faucet - Classroom 8	3/16/2018	26.5	4/12/2018	4.8

The initial lead in water sample results (3/16/2018) and 30 second follow up results (4/12/2018) 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 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 Greenwood Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW04932		Kitchen		Faucet	11.0	Pass	Testing Complete
LW04933	20	Classroom		Faucet	16.5	Pass	Testing Complete
LW04934	18	Classroom		Faucet	48.9	Fail	Follow-Up Testing Needed
LW04935	18	Classroom		Bubbler - Indoor	22.3	Fail	Follow-Up Testing Needed
LW04937	16	Classroom		Faucet	6.2	Pass	Testing Complete
LW04938	22	Classroom		Bubbler - Indoor	6.9	Pass	Testing Complete
LW04939	22	Classroom		Faucet	6.3	Pass	Testing Complete
LW04940	15	Classroom		Faucet	9.0	Pass	Testing Complete
LW04942	14	Classroom		Faucet	9.0	Pass	Testing Complete
LW04943	14	Classroom		Bubbler - Indoor	10.4	Pass	Testing Complete
LW04944		Hallway	Across From Boiler	Cooler	<1.0	Pass	Testing Complete
LW04945	21	Classroom		Faucet	4.8	Pass	Testing Complete
LW04947	17	Classroom		Faucet	5.0	Pass	Testing Complete
LW04948	17	Classroom		Bubbler - Indoor	5.8	Pass	Testing Complete
LW04949		Hallway	Across From 14	Cooler	1.4	Pass	Testing Complete
LW04950	11	Classroom		Faucet	7.7	Pass	Testing Complete
LW04951	11	Classroom		Bubbler - Indoor	9.6	Pass	Testing Complete
LW04952	12	Classroom		Faucet	14.6	Pass	Testing Complete
LW04953	12	Classroom		Bubbler - Indoor	7.7	Pass	Testing Complete
LW04954	10	Classroom		Faucet	5.4	Pass	Testing Complete
LW04955	9	Classroom		Faucet	7.4	Pass	Testing Complete
LW04957	61	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW06369	61	Classroom		Faucet	3.7	Pass	Testing Complete
LW06371	62	Classroom		Faucet	2.8	Pass	Testing Complete
LW06372	62	Classroom		Faucet	<1.0	Pass	Testing Complete
LW06374	62	Classroom		Faucet	<1.0	Pass	Testing Complete
LW06375	46	Classroom		Faucet	3.7	Pass	Testing Complete
LW06376	46	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06377	48	Classroom		Faucet	3.7	Pass	Testing Complete
LW06378	50	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06379	50	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06380	41	Classroom		Bubbler - Indoor	2.1	Pass	Testing Complete
LW06381	41	Classroom		Faucet	<1.0	Pass	Testing Complete
LW06382		Work Room Office	Main Office	Faucet	4.3	Pass	Testing Complete
LW06440		Hallway	Across From 8	Cooler	<1.0	Pass	Testing Complete
LW06441		Hallway	Left Of 55	Cooler	<1.0	Pass	Testing Complete
LW06442		Hallway	Left Of 55	Cooler	<1.0	Pass	Testing Complete
LW06443	8	Classroom		Faucet	26.5	Fail	Follow-Up Testing Needed
LW06445	6	Classroom		Faucet	3.1	Pass	Testing Complete
LW06447	4	Classroom		Faucet	8.5	Pass	Testing Complete
LW06448	4	Classroom		Faucet	16.1	Pass	Testing Complete
LW06449	2	Classroom		Faucet	9.9	Pass	Testing Complete
LW06450	2	Classroom		Bubbler - Indoor	7.8	Pass	Testing Complete
LW06451	1	Classroom		Faucet	11.8	Pass	Testing Complete
LW06492	7	Classroom		Faucet	8.4	Pass	Testing Complete
LW06494		Health Room		Faucet	<1.0	Pass	Testing Complete
LW06495	5	Classroom		Bubbler - Indoor	16.4	Pass	Testing Complete
LW06496	5	Classroom		Faucet	10.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW06497		Work Room		Faucet	3.4	Pass	Testing Complete
LW06498		Break Room		Faucet	3.5	Pass	Testing Complete
LW06499	32	Classroom		Faucet	11.6	Pass	Testing Complete
LW06500	32	Classroom		Bubbler - Indoor	12.7	Pass	Testing Complete
LW06501	39	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW06502	39	Classroom		Faucet	5.5	Pass	Testing Complete
LW06504	44	Classroom		Faucet	<1.0	Pass	Testing Complete
M21851		Kitchen	Under Windows	Faucet	7.7	Pass	Testing Complete
M21852		Kitchen	Under Windows	Faucet	18	Pass	Testing Complete
M21856		Hallway	Outside Admin	Cooler	1.7	Pass	Testing Complete

*PPB = parts per billion

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

Follow Up Sample Results for Greenwood Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW04934	18	Classroom	Faucet	8.7	5.6	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW04935	18	Classroom	Bubbler - Indoor	18.9	13.1	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06443	8	Classroom	Faucet	7.9	200	4.8	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.