

Montgomery County Public Schools Lead in Drinking Water Testing 2018

June 11, 2018

Executive Summary:

Germantown Elementary School

19110 Liberty Mill Road

Germantown, Maryland 20874

Round of Testing:	Initial
# of Outlets Tested:	47
# of Outlets ≥ 20 ppb:	6
Low Value (ppb):	<1.0
High Value (ppb):	222
Follow-Up Testing Required (Samples ≥ 20 ppb):	Classroom 9 (222 ppb) Classroom 16 (41.8 ppb) Classroom 14 (28.5 ppb) Classroom K-1 (37.6 ppb) Classroom G2 (171 ppb) Kitchen (41.6 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	6

Project Status:

Testing Complete: Remediation Plan

- Classroom 9 - Replace fixture (LW09624), in addition to supply line and valve located under sink
- Classroom 16 - Replace fixture (LW09626), in addition to supply line and valve located under sink
- Classroom 14 - Replace fixture (LW09628), in addition to supply line and valve located under sink
- Classroom K-1 - Replace fixture (Bubbler - Indoor), in addition to supply line and valve located under sink
- Classroom G2 - Replace fixture (Bubbler - Indoor), in addition to supply line and valve located under sink
- Kitchen - Replace fixture (Faucet), in addition to supply line and valve located under sink



June 11, 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: Germantown Elementary School

19110 Liberty Mill Road
Germantown, Maryland 20874

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 Germantown Elementary School, located at 19110 Liberty Mill Road in Germantown, Maryland 20874.

SCOPE OF SERVICES

KCI conducted lead in water testing at Germantown 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 4/23/2018 and 4/24/2018 to collect samples from 47 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 6/5/2018, six 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 six 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)
LW09624	Faucet - Classroom 9	4/24/2018	222	6/5/2018	1.6
LW09626	Faucet - Classroom 16	4/24/2018	41.8	6/5/2018	ND
LW09628	Faucet - Classroom 14	4/24/2018	28.5	6/5/2018	1.6
LW09647	Bubbler - Indoor - Classroom K-1	4/24/2018	37.6	6/5/2018	3.0
LW09664	Bubbler - Indoor - Classroom G2	4/24/2018	171	6/5/2018	8.4
M11293	Kitchen	4/24/2018	41.6	6/5/2018	ND

The initial lead in water sample results (4/24/2018) and 30 second follow up results (6/5/2018) 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

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Lead in Water Test Summary Table

Contractor: KCI Technologies, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Germantown Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW09594		Work Room Administration		Faucet	2.6	Pass	Testing Complete
LW09598		Kitchen		Ice Maker	2.4	Pass	Testing Complete
LW09599		Kitchen		Ice Maker	8.3	Pass	Testing Complete
LW09600		Cafeteria		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09601		Art		Faucet	3.4	Pass	Testing Complete
LW09602	25	Staff Development		Faucet	4.0	Pass	Testing Complete
LW09603	7	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09604	12	Classroom		Faucet	8.6	Pass	Testing Complete
LW09605	8	Classroom		Faucet	1.4	Pass	Testing Complete
LW09606	8	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
LW09620	11	Classroom		Faucet	6.0	Pass	Testing Complete
LW09621	11	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
LW09622	10	Classroom		Faucet	3.6	Pass	Testing Complete
LW09623	10	Classroom		Bubbler - Indoor	5.4	Pass	Testing Complete
LW09624	9	Classroom		Faucet	222	Fail	Follow-Up Testing Needed
LW09625	9	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW09626	16	Classroom		Faucet	41.8	Fail	Follow-Up Testing Needed
LW09628	14	Classroom		Faucet	28.5	Fail	Follow-Up Testing Needed
LW09629	14	Classroom		Bubbler - Indoor	15.9	Pass	Testing Complete
LW09630	13	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09631	13	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
LW09646	K-1	Classroom		Faucet	2.3	Pass	Testing Complete
LW09647	K-1	Classroom		Bubbler - Indoor	37.6	Fail	Follow-Up Testing Needed
LW09648	K-2	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09649	K-2	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW09650	2	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09651	2	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09652	1	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09653	1	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09654	3	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09655	3	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09656	4	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09657	4	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09658	6	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09659	6	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09660		Hallway Hallway	Between K-1 & K-2	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09661		Hallway Hallway	Next To Girls Bathroom	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09662		Hallway Hallway	Outside Of Gym	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW09663	G2	Classroom		Faucet	<1.0	Pass	Testing Complete
LW09664	G2	Classroom		Bubbler - Indoor	171	Fail	Follow-Up Testing Needed
M11237	16	Classroom		Bubbler - Indoor	15.7	Pass	Testing Complete
M11239	5	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
M11241		Hallway Hallway	Near CR 6	Cooler	<1.0	Pass	Testing Complete
M11242	5	Classroom		Faucet	1.7	Pass	Testing Complete
M11293		Kitchen		Faucet	41.6	Fail	Follow-Up Testing Needed
M11294		Kitchen		Faucet	6.1	Pass	Testing Complete
M11309		Hallway	Across from IMC	Cooler	1.0	Pass	Testing Complete

*PPB = parts per billion

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

Follow Up Sample Results for Germantown Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW09624	9	Classroom	Faucet	N/A	6.2	1.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW09626	16	Classroom	Faucet	N/A	1.7	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW09628	14	Classroom	Faucet	N/A	1.8	1.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW09647	K-1	Classroom	Bubbler - Indoor	N/A	39.9	3.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW09664	G2	Classroom	Bubbler - Indoor	N/A	46.7	8.4	Remediation required – replace fixture, in addition to supply line and valve located under sink
M11293		Kitchen	Faucet	N/A	9.3	ND	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.