



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

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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.