

Montgomery County Public Schools Lead in Drinking Water Testing 2018

May 3, 2018

Executive Summary:

Woodfield Elementary School

24200 Woodfield Road

Gaithersburg, Maryland 20882

Round of Testing:	Initial
# of Outlets Tested:	48
# of Outlets ≥ 20 ppb:	5
Low Value (ppb):	<1.0
High Value (ppb):	141
Follow-Up Testing Required (Samples ≥ 20 ppb):	Classroom 23 (38.6 ppb) Classroom 21 (141 ppb) Classroom 9 (23.7 ppb) Classroom 3 (22.2 ppb) Classroom 2 (33.0 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	5

Project Status:

Testing Complete: Remediation Plan

Classroom 23 - Replace fixture (M23283), in addition to supply line and valve located under sink

Classroom 21 - Replace fixture (M23279), in addition to supply line and valve located under sink

Classroom 9 - Replace fixture (M23242), in addition to supply line and valve located under sink

Classroom 3 - Replace fixture (M23229), in addition to supply line and valve located under sink

Classroom 2 - Replace fixture (LW05029), in addition to supply line and valve located under sink



May 3, 2018

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

Re: Drinking Water Testing

KCI Job #1214634191

Location: Woodfield Elementary School

24200 Woodfield Road
Gaithersburg, Maryland 20882

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 Woodfield Elementary School, located at 24200 Woodfield Road in Gaithersburg, Maryland 20882.

SCOPE OF SERVICES

KCI conducted lead in water testing at Woodfield 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 3/20/2018 and 3/21/2018 to collect samples from 48 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 4/20/2018, five 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 five 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)
M23283	Faucet - Classroom 23	3/21/2018	38.6	4/20/2018	ND
M23279	Faucet - Classroom 21	3/21/2018	141	4/20/2018	7.3
M23242	Faucet - Classroom 9	3/21/2018	23.7	4/20/2018	1.2
M23229	Faucet - Classroom 3	3/21/2018	22.2	4/20/2018	ND
LW05029	Faucet - Classroom 2	3/21/2018	33.0	4/20/2018	1.4

The initial lead in water sample results (3/21/2018) and 30 second follow up results (4/20/2018) 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 Woodfield Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW05018	18	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW05019	16	Classroom		Bubbler - Indoor	6.7	Pass	Testing Complete
LW05020	13	Classroom		Faucet	<1.0	Pass	Testing Complete
LW05021	13	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05022	12A	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05023	12A	Classroom		Faucet	<1.0	Pass	Testing Complete
LW05025	8	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
LW05026	8	Classroom		Faucet	<1.0	Pass	Testing Complete
LW05027	6	Classroom		Faucet	<1.0	Pass	Testing Complete
LW05029	2	Classroom		Faucet	33.0	Fail	Follow-Up Testing Needed
LW05031	1	Classroom		Faucet	4.6	Pass	Testing Complete
LW05032	1	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05033		Break Room Office	Across From	Faucet	3.4	Pass	Testing Complete
LW05034		Break Room Office	Across From	Icemaker	1.3	Pass	Testing Complete
LW05035		Break Room Office	Across From	Icemaker	<1.0	Pass	Testing Complete
LW05036	22	Classroom		Faucet	12.4	Pass	Testing Complete
LW05037	19	Classroom		Faucet	14.7	Pass	Testing Complete
LW05039	17	Classroom		Faucet	13.8	Pass	Testing Complete
LW05041		Hallway		Cooler	<1.0	Pass	Testing Complete
LW05042	9	Classroom		Faucet	10.9	Pass	Testing Complete
LW05043	9	Classroom		Faucet	9.3	Pass	Testing Complete
LW05044	5	Classroom		Faucet	8.3	Pass	Testing Complete
LW05046	1	Hallway Classroom	Across From	Cooler	<1.0	Pass	Testing Complete
LW05047		Hallway Gymnasium	Across From	Cooler	<1.0	Pass	Testing Complete
M23208		Work Room Office	Inside Of	Faucet	17.4	Pass	Testing Complete
M23209		Health Room Office		Faucet	14.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M23213		Hallway Office	Across From	Cooler	<1.0	Pass	Testing Complete
M23229	3	Classroom		Faucet	22.2	Fail	Follow-Up Testing Needed
M23232	4	Classroom		Faucet	3.8	Pass	Testing Complete
M23240	7	Classroom		Faucet	6.3	Pass	Testing Complete
M23242	9	Classroom		Faucet	23.7	Fail	Follow-Up Testing Needed
M23245	10	Classroom		Faucet	6.2	Pass	Testing Complete
M23247	11	Classroom		Faucet	16.0	Pass	Testing Complete
M23258	14	Classroom		Faucet	10.0	Pass	Testing Complete
M23259	14	Classroom		Bubbler - Indoor	7.0	Pass	Testing Complete
M23262	15	Classroom		Faucet	8.1	Pass	Testing Complete
M23263	15	Classroom		Bubbler - Indoor	4.9	Pass	Testing Complete
M23264		Work Room Media Center	Inside Of	Faucet	15.8	Pass	Testing Complete
M23265	16	Classroom		Faucet	7.8	Pass	Testing Complete
M23271	18	Classroom		Faucet	13.4	Pass	Testing Complete
M23277	20	Classroom		Faucet	11.3	Pass	Testing Complete
M23279	21	Classroom		Faucet	141	Fail	Follow-Up Testing Needed
M23282	22	Classroom		Bubbler - Indoor	8.0	Pass	Testing Complete
M23283	23	Classroom		Faucet	38.6	Fail	Follow-Up Testing Needed
M23288		Hallway Kitchen	Across From	Cooler	<1.0	Pass	Testing Complete
M23291		Kitchen		Faucet	2.9	Pass	Testing Complete
M23292		Kitchen		Faucet	12.5	Pass	Testing Complete
M23293		Kitchen		Faucet	3.6	Pass	Testing Complete

*PPB = parts per billion

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

Follow Up Sample Results for Woodfield Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)*	Status
LW05029	2	Classroom	Faucet	N/A	30.2	1.4	Remediation required – replace fixture, in addition to supply line and valve located under sink
M23229	3	Classroom	Faucet	N/A	13.9	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
M23242	9	Classroom	Faucet	N/A	11.4	1.2	Remediation required – replace fixture, in addition to supply line and valve located under sink
M23279	21	Classroom	Faucet	N/A	62.9	7.3	Remediation required – replace fixture, in addition to supply line and valve located under sink
M23283	23	Classroom	Faucet	N/A	13.4	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.