KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

Montgomery County Public Schools
Lead in Drinking Water Testing 2018

April 27, 2018

Executive Summary:
Potomac Elementary School
10311 River Road
Potomac, Maryland 20854

Round of Testing:	Initial
# of Outlets Tested:	55
# of Outlets ≥20 ppb:	1
Low Value (ppb):	<1.0
High Value (ppb):	42.1
Follow-Up Testing Required (Samples ≥ 20 ppb):	Work Room Media Center (42.1 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	1

Project Status:
Testing Complete: Remediation Plan

Work Room Media Center - Replace fixture (M14082), in addition to supply line and valve located under sink.

KCI TECHNOLOGIES
ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD • SPARKS, MD 21152 • 410-316-7800 • (FAX) 410-316-7935

April 27, 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: Potomac Elementary School
10311 River Road
Potomac, Maryland 20854

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 Potomac Elementary School, located at 10311 River Road in Potomac, Maryland 20854.

SCOPE OF SERVICES

KCI conducted lead in water testing at Potomac 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 3/8/2018 and 3/9/2018 to collect samples from 55 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, one 30 second follow-up sample was 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 was one result 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)
M14082	Faucet - Work Room Media Center	3/9/2018	42.1	4/12/2018	572

The initial lead in water sample results (3/9/2018) 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

s

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 Potomac Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW05640		Kitchen		Faucet	4.0	Pass	Testing Complete
LW05641	26	Music		Faucet	7.4	Pass	Testing Complete
LW05642	26	Music		Bubbler - Indoor	4.6	Pass	Testing Complete
LW05643	25	Art		Faucet	4.1	Pass	Testing Complete
LW05644	25	Art		Bubbler - Indoor	3.2	Pass	Testing Complete
LW05645	25	Art		Faucet	4.6	Pass	Testing Complete
LW05646		Break Room		Faucet	3.1	Pass	Testing Complete
LW05647		Break Room Administration		Faucet	6.6	Pass	Testing Complete
LW05648		Health Room Administration		Faucet	2.4	Pass	Testing Complete
LW05649	2	Classroom		Faucet	5.0	Pass	Testing Complete
LW05650	2	Classroom		Bubbler - Indoor	8.5	Pass	Testing Complete
LW05651	9	Classroom		Faucet	6.3	Pass	Testing Complete
LW05652	9	Classroom		Bubbler - Indoor	1.7	Pass	Testing Complete
LW05653		Hallway	Next To Cr14	Cooler	<1.0	Pass	Testing Complete
LW05654	16	Classroom		Faucet	6.7	Pass	Testing Complete
LW05655	16	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW05656		Hallway	Next To Cr 19	Cooler	<1.0	Pass	Testing Complete
LW05657		Hallway	Next To Health Rm	Cooler	<1.0	Pass	Testing Complete
M14072	3	Classroom		Faucet	11.5	Pass	Testing Complete
M14073	3	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
M14074	6	Classroom		Faucet	14.5	Pass	Testing Complete
M14075	6	Classroom		Bubbler - Indoor	7.2	Pass	Testing Complete
M14076	4	Classroom		Faucet	5.2	Pass	Testing Complete
M14077	4	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M14078	5	Classroom		Faucet	11.8	Pass	Testing Complete
M14080	7	Classroom		Faucet	10.2	Pass	Testing Complete
M14081	7	Classroom		Bubbler - Indoor	4.1	Pass	Testing Complete
M14082		Work Room Media Center		Faucet	42.1	Fail	Testing Complete
M14083	8	Classroom		Faucet	5.9	Pass	Testing Complete
M14084	8	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
M14095	14	Classroom		Faucet	5.3	Pass	Testing Complete
M14096	14	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
M14097	10	Classroom		Faucet	6.4	Pass	Testing Complete
M14098	10	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
M14099	11	Classroom		Faucet	5.4	Pass	Testing Complete
M14100	11	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete
M14101	12	Classroom		Faucet	3.1	Pass	Testing Complete
M14102	12	Classroom		Bubbler - Indoor	2.4	Pass	Testing Complete
M14103	15	Classroom		Faucet	1.9	Pass	Testing Complete
M14105	15	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
M14107	13	Classroom		Faucet	3.1	Pass	Testing Complete
M14108	13	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
M14112	17	Classroom		Faucet	7.3	Pass	Testing Complete
M14113	17	Classroom		Bubbler - Indoor	4.5	Pass	Testing Complete
M14114	21	Classroom		Faucet	7.9	Pass	Testing Complete
M14115	21	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
M14116	18	Classroom		Faucet	13.0	Pass	Testing Complete
M14117	18	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
M14118	20	Classroom		Faucet	9.0	Pass	Testing Complete
M14119	20	Classroom		Bubbler - Indoor	5.0	Pass	Testing Complete
M14120	19	Classroom		Faucet	18.3	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
M14121	19	Classroom		Bubbler - Indoor	10.3	Pass	Testing Complete
M14139		All Purpose Room		Cooler	1.0	Pass	Testing Complete
M14140		Kitchen		Faucet	2.0	Pass	Testing Complete
M14143		Kitchen		Faucet	1.1	Pass	Testing Complete

*PPB = parts per billion

Follow Up Sample Result for Potomac Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)*	Initial Draw (3rd) (PPB)	30 Second Draw (PPB)	Status
M14082		Work Room Media Center	Faucet	28.0	3.7	572	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.