



Montgomery County Public Schools Lead in Drinking Water Testing 2018

April 27, 2018

Executive Summary:

Rolling Terrace Elementary School

705 Bayfield Street

Takoma Park, Maryland 20912

Round of Testing:	Initial
# of Outlets Tested:	85
# of Outlets ≥ 20 ppb:	2
Low Value (ppb):	<1.0
High Value (ppb):	21.9
Follow-Up Testing Required (Samples ≥ 20 ppb):	Classroom B107 (21.6 ppb) Classroom B214 (21.9 ppb)

Round of Testing:	Follow-Up - 30 sec draw
# of Outlets Tested:	2

Project Status:

Testing Complete: Remediation Plan

Classroom B107 - Replace fixture (LW03379), in addition to supply line and valve located under sink

Classroom B214 - Replace fixture (LW05112), in addition to supply line and valve located under sink



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 #1214634186

Location: Rolling Terrace Elementary School

705 Bayfield Street
Takoma Park, Maryland 20912

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 Rolling Terrace Elementary School, located at 705 Bayfield Street in Takoma Park, Maryland 20912.

SCOPE OF SERVICES

KCI conducted lead in water testing at Rolling Terrace 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 2/20/2018 and 2/21/2018 to collect samples from 85 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 4/11/2018, two 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 two 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)
LW03379	Faucet - Classroom B107	2/21/2018	21.6	4/11/2018	1.9
LW05112	Bubbler-Indoor - Classroom B214	2/21/2018	21.9	4/11/2018	12.9

The initial lead in water sample results (2/21/2018) and 30 second follow up results (4/11/2018) 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 Rolling Terrace Elementary School

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PBB)*	Pass/Fail	Status
LW03352		Conference Room Administration	Inside Of	Faucet	<1.0	Pass	Testing Complete
LW03353		Kitchen All Purpose Room	Inside Of	Faucet	10.8	Pass	Testing Complete
LW03354	INTRM	Music		Faucet	2.4	Pass	Testing Complete
LW03356	C103	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03357	C103	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03358	C101	Classroom		Faucet	8.9	Pass	Testing Complete
LW03359	C101	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03360		Hallway Gymnasium	Across From	Cooler	<1.0	Pass	Testing Complete
LW03361		Hallway Gymnasium	Across From	Cooler	<1.0	Pass	Testing Complete
LW03362	C100	Classroom		Faucet	2.6	Pass	Testing Complete
LW03363	C100	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03364	B110	Classroom		Faucet	4.0	Pass	Testing Complete
LW03365	B110	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03366	B111	Classroom		Faucet	1.9	Pass	Testing Complete
LW03367	B111	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03368	B109	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03369	B109	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03370	B108	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03371	B108	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03372	B106	Classroom		Faucet	1.2	Pass	Testing Complete
LW03373	B106	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03374		Break Room		Faucet	<1.0	Pass	Testing Complete
LW03375	B104	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03376	B104	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03377	B102	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03378	B102	Classroom		Bubbler - Indoor	3.3	Pass	Testing Complete
LW03379	B107	Classroom		Faucet	21.6	Fail	Follow-up Testing Needed

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PBB)*	Pass/Fail	Status
LW03380	B107	Classroom		Bubbler - Indoor	9.8	Pass	Testing Complete
LW03381	B105	Classroom		Faucet	1.9	Pass	Testing Complete
LW03382	B105	Classroom		Bubbler - Indoor	1.1	Pass	Testing Complete
LW03383	B101	Classroom		Faucet	<1.0	Pass	Testing Complete
LW03384	B101	Classroom		Bubbler - Indoor	2.5	Pass	Testing Complete
LW03385	B100	Classroom		Faucet	1.1	Pass	Testing Complete
LW03386	B100	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03387	103	Health Room		Faucet	<1.0	Pass	Testing Complete
LW03388	111	Health Room	Inside Of	Faucet	3.8	Pass	Testing Complete
LW03391	112	Health Room	Inside Of	Faucet	5.8	Pass	Testing Complete
LW03392	113	Health Room	Inside Of	Faucet	16	Pass	Testing Complete
LW03393	A102	Classroom		Faucet	1.6	Pass	Testing Complete
LW03395	A100	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete
LW03396	A100	Hallway	Across From	Cooler	<1.0	Pass	Testing Complete
LW03397	A100	Classroom		Faucet	4.3	Pass	Testing Complete
LW03401	A101	Classroom		Faucet	5.2	Pass	Testing Complete
LW03403	B206	Classroom		Faucet	7.0	Pass	Testing Complete
LW03404	B206	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW03405	B204	Classroom		Faucet	4.7	Pass	Testing Complete
LW03406	B204	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03407	B202	Classroom		Faucet	8.6	Pass	Testing Complete
LW03409	B200	Classroom		Faucet	4.9	Pass	Testing Complete
LW03410	B200	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03411	A204	Classroom		Faucet	2.8	Pass	Testing Complete
LW03412	A204	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW03415	A200	Classroom		Faucet	2.4	Pass	Testing Complete
LW03417	A201	Classroom		Faucet	5.4	Pass	Testing Complete
LW05105	B208	Classroom		Faucet	5.7	Pass	Testing Complete
LW05106	B208	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW05107	B210	Classroom		Faucet	4.9	Pass	Testing Complete
LW05108	B210	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results (PPB)*	Pass/Fail	Status
LW05110	B212	Classroom		Bubbler - Indoor	4.5	Pass	Testing Complete
LW05111	B214	Classroom		Faucet	7.2	Pass	Testing Complete
LW05112	B214	Classroom		Bubbler - Indoor	21.9	Fail	Follow-up Testing Needed
LW05114	C200	Classroom		Bubbler - Indoor	2.6	Pass	Testing Complete
LW05115	C205	Classroom		Faucet	2.2	Pass	Testing Complete
LW05116	C205	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05117	C203	Classroom		Faucet	2.9	Pass	Testing Complete
LW05118	C203	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05119	C201	Classroom		Faucet	11.6	Pass	Testing Complete
LW05120	C201	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW05121		Hallway	Across From C200	Cooler	<1.0	Pass	Testing Complete
LW05122		Hallway	Across From C200	Cooler	<1.0	Pass	Testing Complete
LW05123	C202	Classroom		Faucet	5.4	Pass	Testing Complete
LW05124	C202	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW05125	B213	Classroom		Faucet	3.2	Pass	Testing Complete
LW05126	B213	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete
LW05127	B211	Classroom		Faucet	6.5	Pass	Testing Complete
LW05128	B211	Classroom		Bubbler - Indoor	1.2	Pass	Testing Complete
LW05129	B205	Classroom		Faucet	1.0	Pass	Testing Complete
LW05130	B205	Classroom		Bubbler - Indoor	1.8	Pass	Testing Complete
LW05131		Hallway	Across From Cr A202	Cooler	<1.0	Pass	Testing Complete
LW05132	A203	Classroom		Faucet	2.9	Pass	Testing Complete
M03373		Work Room Admin		Faucet	<1.0	Pass	Testing Complete
M03447		Kitchen All Purpose Room	Back Wall	Faucet	3.8	Pass	Testing Complete
M03448		Kitchen All Purpose Room	Back Wall	Faucet	2.5	Pass	Testing Complete
M03449		Kitchen All Purpose Room	Back Wall	Faucet	<1.0	Pass	Testing Complete
M44661		Hallway	Across from CR A202	Cooler	<1.0	Pass	Testing Complete

*PPB = Parts per billion

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

Follow Up Sample Results for Rolling Terrace Elementary School

Barcode ID	Room #	Location	Equipment Type	Initial Draw (2nd) (PPB)	Initial Draw (3rd) (PPB)	30 Second Draw (PBB)*	Status
LW03379	B107	Classroom	Faucet	19.7	11.4	1.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW05112	B214	Classroom	Bubbler - Indoor	249	291	12.9	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.