MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 17, 2018

Executive Summary:
Cold Spring Elementary School
9201 Falls Chapel Way
Potomac, MD 20854

Round of Testing:	Initial
# of Outlets Tested:	37
# of Outlets ≥ 20 ppb:	9
Low Value (ppb):	< 1.0
High Value (ppb):	79.1
Follow-Up Testing Required (Samples ≥ 20 ppb):	Room 5 (24.2 ppb) Media Center (72.6 ppb) Computer Lab (79.1 ppb) Room 19 (41.0 ppb) Room 19 (36.1) Room 13 (56.3 ppb) Room 24 (35.9 ppb) Computer Lab (30.1 ppb) Room 1 (26.2 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	9

Project Status
Testing Complete: Remediation Plan

Classroom 5– Replace fixture (LW06923), in addition to supply line and valve located under sink
Media Center– Replace fixture (LW06928), in addition to supply line and valve located under sink
Computer Lab– Replace fixture (LW06931), in addition to supply line and valve located under sink
Classroom 19– Replace fixture (LW06932), in addition to supply line and valve located under sink
Classroom 19– Replace fixture (LW06933), in addition to supply line and valve located under sink
Classroom 13– Replace fixture (LW06997), in addition to supply line and valve located under sink
Classroom 24– Replace fixture (M12613), in addition to supply line and valve located under sink
Computer Lab– Replace fixture (M12618), in addition to supply line and valve located under sink
Classroom 1– Replace fixture (M14040), in addition to supply line and valve located under sink

May 17, 2018

Mr. Brian Mullikin
Environmental Team Leader
Montgomery County Public Schools
8301 Turkey Thicket Drive
Building A, First Floor
Gaithersburg, Maryland 20879

Re: Lead in Water Testing Service

Location: Cold Spring Elementary School
9201 Falls Chapel Way
Potomac, MD 20854

Dear Mr. Mullikin:

Professional Services Industries (PSI), Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of initial lead in water testing at Cold Spring Elementary School, located at 9201 Falls Chapel Way in Potomac, MD 20854.

Scope of Services:

PSI conducted lead in water testing at Cold Spring 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.

PSI visited the site on 3/13/18 and 3/14/18 to collect samples from 37 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. Nine 30 second follow-up sample were collected on 5/8/18.

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 nine results of the initial 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)
LW06923	Classroom 5	3/14/18	24.2	5/8/18	4.1
LW06928	Media Center	3/14/18	72.6	5/8/18	1.8
LW06931	Computer Lab 20	3/14/18	79.1	5/8/18	12.2
LW06932	Classroom 19	3/14/18	41.0	5/8/18	<1.0
LW06933	Classroom 19	3/14/18	36.1	5/8/18	2.4
LW06997	Classroom 13	3/14/18	56.3	5/8/18	<1.0
M12613	Classroom 24	3/14/18	35.9	5/8/18	2.3
M12618	Computer Lab 20	3/14/18	30.1	5/8/18	19.7
M14040	Classroom 1	3/14/18	26.2	5/8/18	<1.0

The initial lead in water sample results (03/14/2018) and 30 second follow up results (5/8/18) 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,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Nand Kaushik, P.E.
Department Manager, Environmental Services
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Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Cold Spring ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.
Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Cold Spring Elementary School (3/14/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW06922		Hallway	Across From 6	Cooler	<1.0	Pass	Testing Complete
LW06923	5	Classroom		Bubbler - Indoor	24.2	Fail	Follow-Up Testing Needed
LW06928		Media Center		Faucet	72.6	Fail	Follow-Up Testing Needed
LW06929		Break Room		Faucet	2.3	Pass	Testing Complete
LW06931	20	Computer Lab		Bubbler - Indoor	79.1	Fail	Follow-Up Testing Needed
LW06932	19	Classroom		Faucet	41.0	Fail	Follow-Up Testing Needed
LW06933	19	Classroom		Bubbler - Indoor	36.1	Fail	Follow-Up Testing Needed
LW06947		Hallway	In Front Of Gym	Cooler	<1.0	Pass	Testing Complete
LW06948		Hallway	In Front Of Gym	Cooler	<1.0	Pass	Testing Complete
LW06950	15	Classroom		Faucet	3.0	Pass	Testing Complete
LW06951	15	Classroom		Faucet	5.3	Pass	Testing Complete
LW06957		Kitchen		Faucet	5.5	Pass	Testing Complete
LW06958		Kitchen		Faucet	1.9	Pass	Testing Complete
LW06993	9	Classroom		Faucet	12.7	Pass	Testing Complete
LW06994	11	Classroom		Faucet	9.3	Pass	Testing Complete
LW06997	13	Classroom		Bubbler - Indoor	56.3	Fail	Follow-Up Testing Needed
M12572	10	Classroom		Faucet	4.2	Pass	Testing Complete
M12577	13	Classroom		Faucet	10.5	Pass	Testing Complete
M12580	8	Classroom		Faucet	12.9	Pass	Testing Complete
M12582	7	Classroom		Faucet	7.6	Pass	Testing Complete
M12584	6	Classroom		Faucet	16.6	Pass	Testing Complete
M12595	2	Classroom		Faucet	7.2	Pass	Testing Complete
M12597	1	Classroom		Faucet	14.7	Pass	Testing Complete
M12599	3	Classroom		Faucet	11.6	Pass	Testing Complete
M12603	4	Classroom		Faucet	6.3	Pass	Testing Complete
M12610	21	Classroom		Faucet	8.8	Pass	Testing Complete
M12612	23	Classroom		Faucet	5.1	Pass	Testing Complete
M12613	24	Classroom		Bubbler - Indoor	35.9	Fail	Follow-Up Testing Needed
M12616	24	Classroom		Faucet	2.1	Pass	Testing Complete
M12618	20	Computer Lab		Faucet	30.1	Fail	Follow-Up Testing Needed
M12621		Hallway	Next to Admin	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
M12622	18	Classroom		Faucet	5.7	Pass	Testing Complete
M12637		Kitchen		Faucet	1.2	Pass	Testing Complete
M12638		Kitchen		Faucet	2.4	Pass	Testing Complete
M12645	17	Classroom		Faucet	13.2	Pass	Testing Complete
M12648		Work Room Admin		Faucet	8.1	Pass	Testing Complete
M14040	1	Classroom		Faucet	26.2	Fail	Follow-Up Testing Needed

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.
Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Sample Results for Cold Spring Elementary School (5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2rd) (PPB)	30 Second Draw (PPB)	Status
LW06923	5	Classroom	Bubbler - Indoor	12.2	4.1	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06928		Media Center	Faucet	17.2	1.8	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06931	20	Computer Lab	Bubbler - Indoor	62.8	12.2	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06932	19	Classroom	Faucet	14.8	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06933	19	Classroom	Bubbler - Indoor	34.6	2.4	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW06997	13	Classroom	Bubbler - Indoor	7.1	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M12613	24	Classroom	Bubbler - Indoor	6.2	2.3	Remediation required – replace fixture, in addition to supply line and valve located under sink
M12618	20	Computer Lab	Faucet	145.0	19.7	Remediation required – replace fixture, in addition to supply line and valve located under sink
M14040	1	Classroom	Faucet	4.7	<1.0	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 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.