



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

April 24, 2018

Executive Summary:
Stephen Knolls School
10731 St Margarets Way
Silver Spring, MD 20902

Round of Testing:	Initial
# of Outlets Tested:	41
# of Outlets \geq 20 ppb:	3
Low Value (ppb):	< 1.0
High Value (ppb):	48.1
Follow-Up Testing Required (Samples \geq 20 ppb):	Room D7 (29.3 ppb), Kitchen Faucet (48.1 ppb), and Kitchen Faucet (42.4)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	3

Project Status
Testing Complete: Remediation Plan

Room D7-Media Center – Replace fixture (LW01093), in addition to supply line and valve located under sink
Kitchen Faucet – Replace fixture (M03145), in addition to supply line and valve located under sink
Kitchen Faucet – Replace fixture (M03146), in addition to supply line and valve located under sink



April 24, 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: Stephen Knolls School
10731 St Margarets Way
Silver Spring, MD 20902

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 the initial and follow-up lead in water testing at Stephen Knolls School, located at 10731 St Margarets Way in Silver Spring, MD 20902.

Scope of Services:

PSI conducted lead in water testing at Stephen Knolls 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 02/20/18, 02/21/18, and 02/22/18 to collect samples from 41 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. Three 30 second follow-up samples were collected on 4/12/18.

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 three 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)
LW01093	Faucet – Media Center	2/21/2018	29.3	4/12/18	105.0
M03145	Faucet – Kitchen	2/21/2018	48.1	4/12/18	2.5
M03146	Faucet - Kitchen	2/21/2018	42.4	4/12/18	3.7

The initial lead in water sample results 02/21/18 and 02/22/18 and 30 second follow up results (4/12/18) 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 – Initial Lead in Water Test Summary Table

ATTACHMENT A

Stephen Knolls School Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Stephen Knolls School (2/21/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01065	A5	Break Room		Faucet	8.6	Pass	Testing Complete
LW01066		Hallway	Across From Boys Restroom And A4	Cooler	<1.0	Pass	Testing Complete
LW01067		Work Room Office		Faucet	11.0	Pass	Testing Complete
LW01069	A7	Classroom		Faucet	11.1	Pass	Testing Complete
LW01070	B2	Classroom		Faucet	3.5	Pass	Testing Complete
LW01071	B2	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW01072	B2	Classroom		Faucet	4.3	Pass	Testing Complete
LW01075		Kitchen		Faucet	7.3	Pass	Testing Complete
LW01076		Kitchen		Faucet	7.0	Pass	Testing Complete
LW01077		Cafeteria		Faucet	17.3	Pass	Testing Complete
LW01078		Cafeteria		Bubbler - Indoor	7.7	Pass	Testing Complete
LW01079		Hallway		Cooler	8.6	Pass	Testing Complete
LW01080	A6	Health Room		Faucet	1.1	Pass	Testing Complete
LW01081	HR	Health Room		Faucet	1.9	Pass	Testing Complete
LW01082	B3	Classroom		Faucet	9.4	Pass	Testing Complete
LW01083	B5	Classroom		Faucet	1.0	Pass	Testing Complete
LW01084	B6	Classroom		Faucet	1.8	Pass	Testing Complete
LW01085	B6	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW01086	C3	Classroom		Faucet	5.6	Pass	Testing Complete
LW01087	C4	Classroom		Faucet	2.5	Pass	Testing Complete
LW01088	D9	Classroom		Faucet	2.2	Pass	Testing Complete
LW01089	D6	Classroom		Faucet	2.3	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01090	D5	Classroom		Faucet	5.9	Pass	Testing Complete
LW01091	D2	Classroom		Faucet	2.7	Pass	Testing Complete
LW01093	D7	Media Center		Faucet	29.3	Fail	Follow-Up Testing Needed
LW01094	D1	Kitchen		Faucet	14.9	Pass	Testing Complete
LW01095	D1	Kitchen		Faucet	2.8	Pass	Testing Complete
LW01096	D1	Kitchen		Faucet	5.7	Pass	Testing Complete
LW02353		Hallway	Next To Room D3	Cooler	1.9	Pass	Testing Complete
LW02354		Hallway		Cooler	<1.0	Pass	Testing Complete
M03112	D3	Classroom		Faucet	3.7	Pass	Testing Complete
M03124	D10	Classroom		Faucet	2.7	Pass	Testing Complete
M03127	D11	Classroom		Faucet	2.0	Pass	Testing Complete
M03136	C2	Classroom		Faucet	8.6	Pass	Testing Complete
M03141		Kitchen	By Room C1	Faucet	15.6	Pass	Testing Complete
M03142		Kitchen	By Room C1	Faucet	3.7	Pass	Testing Complete
M03145		Kitchen	By Room C1	Faucet	48.1	Fail	Follow-Up Testing Needed
M03146		Kitchen	By Room C1	Faucet	42.4	Fail	Follow-Up Testing Needed
M03151	B7	Classroom		Faucet	2.6	Pass	Testing Complete
M03157	B4	Break Room		Faucet	13.7	Pass	Testing Complete
M03163	A3	Therapy		Bubbler - Indoor	16.3	Pass	Testing Complete

*ppb = parts per billion

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

Follow Up Sample Results for Stephen Knolls School (4/12/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	Initial draw (3 rd) (PPB)	30 Second Draw (PPB)	Status
LW010903		Media Center Room D7	Bubbler - Indoor	12.30	447.0	105.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M03145		Kitchen	Faucet	7.20	344.0	2.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
M03146		Kitchen	Faucet	8.10	173.0	3.70	Remediation required – replace fixture, in addition to supply line and valve located under sink

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.