



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 25, 2018

Executive Summary:
Shady Grove Middle School
8100 Midcounty Hwy
Gaithersburg, MD 20877

Round of Testing:	Initial
# of Outlets Tested:	39
# of Outlets \geq 20 ppb:	1
Low Value (ppb):	< 1.0
High Value (ppb):	21.7
Follow-Up Testing Required (Samples \geq 20 ppb):	Kitchen (21.7 ppb)

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

Project Status
Testing Complete: Remediation Plan

Kitchen– Replace fixture (LW01713), in addition to supply line and valve located under sink



May 25, 2018

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

Re: Lead in Water Testing Service

Location: Shady Grove Middle School
8100 Midcounty Hwy
Gaithersburg, MD 20877

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 Shady Grove Middle School, located at 8100 Midcounty Hwy in Gaithersburg, MD 20877.

Scope of Services:

PSI conducted lead in water testing at Shady Grove Middle 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 3/20/18 and 3/21/18 to collect samples from 39 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. One 30 second follow-up sample was 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 was one result 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)
LW01713	Kitchen	3/21/18	21.7	5/8/18	1.6

The initial lead in water sample results (3/21/18) 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
Nand.Kaushik@psiusa.com

Attachments: A – Lead in Water Test Summary Table

ATTACHMENT A

Shady Grove MS Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Shady Grove Middle School (3/21/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01704		Hallway	Inside of Main Office	Cooler	<1.0	Pass	Testing Complete
LW01705		Dining Hall		Cooler	<1.0	Pass	Testing Complete
LW01706	E224	Team Room		Faucet	<1.0	Pass	Testing Complete
LW01707	E223	Team Room		Faucet	<1.0	Pass	Testing Complete
LW01709	D218	Team Room		Faucet	1.6	Pass	Testing Complete
LW01710		Kitchen		Icemaker	<1.0	Pass	Testing Complete
LW01711		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW01712		Kitchen		Faucet	2.5	Pass	Testing Complete
LW01713		Kitchen		Faucet	21.7	Fail	Follow-Up Testing Needed
LW01714	D108	Child Development		Faucet	<1.0	Pass	Testing Complete
LW01715	D114	Home Economics		Faucet	10.1	Pass	Testing Complete
LW01716	E118	Team Room		Faucet	<1.0	Pass	Testing Complete
LW01717	D119	Office		Faucet	<1.0	Pass	Testing Complete
LW01718	E119	Team Room		Faucet	1.0	Pass	Testing Complete
LW01719	A122	Locker Room - Girls		Cooler	<1.0	Pass	Testing Complete
LW01720	A102	Locker Room - Boys		Cooler	<1.0	Pass	Testing Complete
M44091		Hallway	Across from E227	Cooler	<1.0	Pass	Testing Complete
M45861	C135	Health Room		Faucet	<1.0	Pass	Testing Complete
M45862		Work Room Admin		Faucet	1.4	Pass	Testing Complete
M45869		Break Room Admin		Faucet	1.8	Pass	Testing Complete
M45884	D114	Home Economics		Faucet	1.3	Pass	Testing Complete
M45885	D114	Home Economics		Faucet	<1.0	Pass	Testing Complete
M45886	D114	Home Economics		Faucet	<1.0	Pass	Testing Complete
M45887	D114	Home Economics		Faucet	3.5	Pass	Testing Complete
M45898		Hallway	Across CR E106	Cooler	<1.0	Pass	Testing Complete
M45926		Hallway	Across CR E125	Cooler	<1.0	Pass	Testing Complete
M45929		Hallway	Next to C155	Cooler	<1.0	Pass	Testing Complete
M45942	C146	Work Room		Faucet	<1.0	Pass	Testing Complete
M45954		Girls Locker Room		Cooler	<1.0	Pass	Testing Complete
M45960		Kitchen		Faucet	1.6	Pass	Testing Complete
M45963		Kitchen		Faucet	1.1	Pass	Testing Complete
M45964		Kitchen		Faucet	1.3	Pass	Testing Complete
M45965		Kitchen		Faucet	1.4	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
M45966		Kitchen		Faucet	8.0	Pass	Testing Complete
M45967		Kitchen		Faucet	2.6	Pass	Testing Complete
M45969		Kitchen		Faucet	1.0	Pass	Testing Complete
M46067		Hallway	Next to D214	Cooler	<1.0	Pass	Testing Complete
M46068		Hallway	Across D208	Cooler	<1.0	Pass	Testing Complete
M46079		Hallway	Across E208	Cooler	<1.0	Pass	Testing Complete

*ppb = parts per billion

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

Follow Up Sample Results for Shady Grove Middle School (5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	30 Second Draw (PPB)	Status
LW01713		Kitchen	Faucet	15.4	1.6	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.