



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 16, 2018

Executive Summary:
Colonel Zadok A. Magruder High School
5989 Muncaster Mill Road,
Rockville, MD 20855

Round of Testing:	Initial
# of Outlets Tested:	51
# of Outlets \geq 20 ppb:	1
Low Value (ppb):	<1.0
High Value (ppb):	70.0
Follow-Up Testing Required (Samples \geq 20 ppb):	Biology Office (70.0 ppb)

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

Project Status
Testing Complete: Remediation Plan

Biology Office – Replace fixture (LW02249), in addition to supply line and valve located under sink



May 16, 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: Colonel Zadok A. Magruder High School
5989 Muncaster Mill Road
Rockville, MD 20855

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 Colonel Zadok A. Magruder High School, located at 5989 Muncaster Mill Road, Rockville, MD 20855.

Scope of Services:

PSI conducted lead in water testing at Magruder High 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 3/7/18, 3/8/18, and 3/9/18 to collect samples from 51 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 4/13/18.

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)
LW02249	Biology Office	3/8/18	70.0	4/13/18	1.6

The initial lead in water sample results (3/8/18) and 30 second follow up results (4/13/18) 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

Magruder High School Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Magruder High School (3/8/18) and (3/9/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01179	D127	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01180		Hallway	In Front of D127	Cooler	<1.0	Pass	Testing Complete
LW01181		Hallway	Outside of Gym	Cooler	<1.0	Pass	Testing Complete
LW01182		Work Room Lab	Between 116 And 117 (bio)	Faucet	4.9	Pass	Testing Complete
LW01184	C120	Work Room		Faucet	<1.0	Pass	Testing Complete
LW01185	A109	Weight Room		Cooler	<1.0	Pass	Testing Complete
LW01186		Hallway	In Front of A106	Cooler	<1.0	Pass	Testing Complete
LW01187		Hallway	Left of B110	Cooler	<1.0	Pass	Testing Complete
LW01188		Work Room Administration		Faucet	<1.0	Pass	Testing Complete
LW01189		Health Room		Faucet	<1.0	Pass	Testing Complete
LW01190		Break Room		Faucet	<1.0	Pass	Testing Complete
LW01191		Hallway	Right of Gym	Cooler	<1.0	Pass	Testing Complete
LW01192		Hallway	Right of Gym	Cooler	<1.0	Pass	Testing Complete
LW01193		Hallway	In Front of B113	Cooler	<1.0	Pass	Testing Complete
LW01194	B113	Home Economics		Faucet	9.2	Pass	Testing Complete
LW01195	B113	Home Economics		Faucet	<1.0	Pass	Testing Complete
LW01196	B113	Home Economics		Faucet	2.8	Pass	Testing Complete
LW02224	B113	Home Economics		Faucet	1.5	Pass	Testing Complete
LW02225	B113	Home Economics		Faucet	<1.0	Pass	Testing Complete
LW02226	B113	Home Economics		Faucet	<1.0	Pass	Testing Complete
LW02227	B115	Child Development		Faucet	1.1	Pass	Testing Complete
LW02228	B115	Child Development		Faucet	2.7	Pass	Testing Complete
LW02229	B114	Child Development		Bubbler - Indoor	8.1	Pass	Testing Complete
LW02230		Kitchen		Faucet	3.8	Pass	Testing Complete
LW02231		Kitchen		Faucet	1.1	Pass	Testing Complete
LW02232		Kitchen		Faucet	3.9	Pass	Testing Complete
LW02233		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW02234		Kitchen		Faucet	7.1	Pass	Testing Complete
LW02235		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW02236		Kitchen		Faucet	1.5	Pass	Testing Complete
LW02237		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW02238		Hallway	In Front of D254	Cooler	<1.0	Pass	Testing Complete
LW02239	C245	Office		Faucet	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW02240		Locker Room - Girls		Faucet	<1.0	Pass	Testing Complete
LW02241	A207	Classroom		Faucet	10.9	Pass	Testing Complete
LW02242		Hallway	Outside of A200	Cooler	<1.0	Pass	Testing Complete
LW02243		Hallway	In Front of B223	Cooler	<1.0	Pass	Testing Complete
LW02244		Media Center		Faucet	<1.0	Pass	Testing Complete
LW02245		Hallway	In Front Of Media Storage	Cooler	<1.0	Pass	Testing Complete
LW02246		Hallway	In Front of Head-in Room	Cooler	<1.0	Pass	Testing Complete
LW02247		Office Science		Faucet	1.6	Pass	Testing Complete
LW02248		Office Biology Office		Faucet	2.2	Pass	Testing Complete
LW02249		Biology Office		Faucet	70.0	Fail	Follow-Up Testing Needed
M04316		Dressing		Faucet	5.0	Pass	Testing Complete
M20001		Media Center		Cooler	<1.0	Pass	Testing Complete
M20138	C252	Office		Faucet	<1.0	Pass	Testing Complete
M20274		Kitchen		Ice Maker	1.9	Pass	Testing Complete
M25782	A210	Office Math		Faucet	2.5	Pass	Testing Complete
M25797	A216	Classroom		Faucet	14.2	Pass	Testing Complete
M25799		Resource Office Language Office		Faucet	<1.0	Pass	Testing Complete
M25812		Math	Prep. Rm Office	Faucet	1.4	Pass	Testing Complete

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Sample Results for Magruder High School (4/13/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	Initial draw (3 rd) (PPB)	30 Second Draw (PPB)	Status
LW02249		Biology Office	Faucet	65.4	59.8	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 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.