



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 25, 2018

Executive Summary:
Fairland Elementary School
14315 Fairdale Road
Silver Spring, MD 20905

Round of Testing:	Initial
# of Outlets Tested:	96
# of Outlets \geq 20 ppb:	4
Low Value (ppb):	< 1.0
High Value (ppb):	56.0
Follow-Up Testing Required (Samples \geq 20 ppb):	Room 108 (20.3 ppb) Room 205 (42.2 ppb) Room 6 (56.0 ppb) Room 19 (47.0 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	4

Project Status **Testing Complete: Remediation Plan**

Music Room 108– Replace fixture (M09946), in addition to supply line and valve located under sink
ESOL Classroom 205– Replace fixture (M09959), in addition to supply line and valve located under sink
Classroom 6– Replace fixture (M43203), in addition to supply line and valve located under sink
Classroom 19– Replace fixture (M43241), 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
Gaithersburg, Maryland 20879

Re: Lead in Water Testing Service

Location: Fairland Elementary School
14315 Fairdale Road
Silver Spring, MD 20905

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 Fairland Elementary School, located at 14315 Fairdale Road in Silver Spring, MD 20905.

Scope of Services:

PSI conducted lead in water testing at Fairland 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 4/3/18 and 4/4/18 to collect samples from 96 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. Four 30 second follow-up samples 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 four 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)
M09946	Instrumental Music 108	4/4/18	20.3	5/8/18	<1.0
M09959	ESOL Classroom 205	4/4/18	42.2	5/8/18	<1.0
M43203	Classroom 6	4/4/18	56.0	5/8/18	<1.0
M43241	Classroom 19	4/4/18	47.0	5/8/18	3.2

The initial lead in water sample results (4/4/18) 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

Fairland ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Fairland Elementary School (4/4/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01542	4	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01543	4	Classroom		Faucet	1.2	Pass	Testing Complete
LW01544	7	Special Ed		Faucet	3.2	Pass	Testing Complete
LW01545	7	Special Ed		Faucet	2.0	Pass	Testing Complete
LW01546	7	Special Ed		Bubbler - Indoor	3.2	Pass	Testing Complete
LW01547	5	Special Ed		Faucet	4.5	Pass	Testing Complete
LW01600	12	Classroom		Bubbler - Indoor	2.9	Pass	Testing Complete
LW01601	20	Break Room		Faucet	<1.0	Pass	Testing Complete
LW01602	22	Classroom		Faucet	3.0	Pass	Testing Complete
LW01603	22	Classroom		Bubbler - Indoor	9.7	Pass	Testing Complete
LW01604	21	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW01605	19	Classroom		Faucet	4.2	Pass	Testing Complete
LW01606	17	Classroom		Faucet	1.5	Pass	Testing Complete
LW01607	17	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
LW01608		Hallway	Across from CR 14	Cooler	<1.0	Pass	Testing Complete
LW01609		Hallway	Next to APR	Cooler	<1.0	Pass	Testing Complete
LW01610		Hallway	Next to APR	Cooler	<1.0	Pass	Testing Complete
LW01611		Kitchen All Purpose Room		Faucet	<1.0	Pass	Testing Complete
LW01612	209	Classroom		Faucet	5.1	Pass	Testing Complete
LW01613	208	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01614	201	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01615	24	Classroom		Faucet	1.5	Pass	Testing Complete
LW01616	24	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete
LW01617	25	Classroom		Faucet	3.4	Pass	Testing Complete
LW01619	26	Classroom		Faucet	5.1	Pass	Testing Complete
LW01620	26	Classroom		Bubbler - Indoor	2.6	Pass	Testing Complete
LW01621	29	Classroom		Faucet	2.2	Pass	Testing Complete
LW01622	29	Classroom		Bubbler - Indoor	12.3	Pass	Testing Complete
LW01623	27	Classroom		Faucet	2.5	Pass	Testing Complete
LW01624	27	Classroom		Bubbler - Indoor	2.1	Pass	Testing Complete
LW01625	30	Classroom		Faucet	2.9	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01634		Material Prep Area	Media Office	Faucet	1.3	Pass	Testing Complete
LW01635	10	Classroom		Faucet	2.5	Pass	Testing Complete
LW01636	10	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW01637	11	Classroom		Bubbler - Indoor	1.0	Pass	Testing Complete
LW01638	12	Classroom		Faucet	1.2	Pass	Testing Complete
LW01644		Work Room Administration		Faucet	2.4	Pass	Testing Complete
LW01645		Health Room Administration		Faucet	<1.0	Pass	Testing Complete
LW01646	1	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01648	2	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01649	2	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW01650	3	Classroom	Head Start	Faucet	<1.0	Pass	Testing Complete
LW01651	3	Classroom	Head Start	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01652	30	Classroom		Bubbler - Indoor	3.1	Pass	Testing Complete
LW01653		Hallway	Across from CR 30	Cooler	<1.0	Pass	Testing Complete
LW07349	5	Special Ed		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09940	111	Art		Faucet	1.8	Pass	Testing Complete
M09941	111	Art		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09943	110	Classroom	Dual Purpose Room of Music	Faucet	3.8	Pass	Testing Complete
M09944	109	Music		Faucet	9.0	Pass	Testing Complete
M09945	109	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09946	108	Inst Music		Faucet	20.3	Fail	Follow-Up Testing Needed
M09947	108	Inst Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09948	103	Classroom		Faucet	4.3	Pass	Testing Complete
M09949	103	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09950	102	Classroom		Faucet	2.0	Pass	Testing Complete
M09951	102	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09952	101	Classroom		Faucet	5.4	Pass	Testing Complete
M09953	101	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09954		Hallway	Next to CR 101	Cooler	<1.0	Pass	Testing Complete
M09955		Hallway	Next to CR 101	Cooler	<1.0	Pass	Testing Complete
M09957	211	Classroom		Faucet	<1.0	Pass	Testing Complete
M09958	211	Classroom		Bubbler - Indoor	6.8	Pass	Testing Complete
M09959	205	Classroom ESOL		Faucet	42.2	Fail	Follow-Up Testing Needed
M09960	205	Classroom ESOL		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09961	210	Classroom		Faucet	5.2	Pass	Testing Complete
M09962	210	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09963	204	ESOL		Faucet	8.5	Pass	Testing Complete
M09964	204	ESOL		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
M09966	209	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09967	208	Classroom		Faucet	2.3	Pass	Testing Complete
M09974		Hallway	Across from CR 208	Cooler	<1.0	Pass	Testing Complete
M09975		Hallway	Across from CR 208	Cooler	<1.0	Pass	Testing Complete
M09979	203	Classroom		Faucet	10.8	Pass	Testing Complete
M09980	203	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09981	202	Classroom		Faucet	4.9	Pass	Testing Complete
M09982	202	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M09983	201	Classroom		Faucet	8.4	Pass	Testing Complete
M26361	13	Classroom		Faucet	9.6	Pass	Testing Complete
M43172	31	Office		Faucet	4.4	Pass	Testing Complete
M43193	11	Classroom		Faucet	<1.0	Pass	Testing Complete
M43197		Hallway	Across CR 7	Cooler	<1.0	Pass	Testing Complete
M43198		Hallway	Across CR 7	Cooler	<1.0	Pass	Testing Complete
M43203	6	Classroom		Faucet	56.0	Fail	Follow-Up Testing Needed
M43204	6	Classroom		Faucet	2.8	Pass	Testing Complete
M43214	2	Classroom		Faucet	6.8	Pass	Testing Complete
M43218	1	Classroom		Faucet	6.5	Pass	Testing Complete
M43228		Kitchen All Purpose Room		Faucet	1.4	Pass	Testing Complete
M43229		Kitchen All Purpose Room		Faucet	3.0	Pass	Testing Complete
M43230		Kitchen All Purpose Room		Faucet	8.4	Pass	Testing Complete
M43238	21	Classroom		Faucet	1.4	Pass	Testing Complete
M43241	19	Classroom		Bubbler - Indoor	47.0	Fail	Follow-Up Testing Needed
M43242	18	Classroom		Faucet	<1.0	Pass	Testing Complete
M43243	18	Classroom		Bubbler - Indoor	2.6	Pass	Testing Complete
M43254	14	Classroom		Faucet	6.1	Pass	Testing Complete
M43255	14	Classroom		Bubbler - Indoor	1.7	Pass	Testing Complete

*ppb = parts per billion

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

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

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	30 Second Draw (PPB)	Status
M09946	108	Inst. Music	Faucet	13.0	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M09959	205	ESOL Classroom	Faucet	4.6	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M43203	6	Classroom	Faucet	93.0	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
M43241	19	Classroom	Bubbler- Indoor	6.0	3.2	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.