



MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 3, 2018

Executive Summary:
Highland Elementary School
3100 Medway Street
Silver Spring, MD 20902

Round of Testing:	Initial
# of Outlets Tested:	94
# of Outlets \geq 20 ppb:	1
Low Value (ppb):	< 1.0
High Value (ppb):	75.5
Follow-Up Testing Required (Samples \geq 20 ppb):	Classroom 12 (75.5 ppb)

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

Project Status
Testing Complete: Remediation Plan

Classroom 12 – Replace fixture (LW01019), in addition to supply line and valve located under sink



May 3, 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: Highland Elementary School
3100 Medway Street
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 initial lead in water testing at Highland Elementary School, located at 3100 Medway Street in Silver Spring, MD 20902.

Scope of Services:

PSI conducted lead in water testing at Highland 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 02/15/18, 02/16/18, 02/20/18, and 02/21/18 to collect samples from 94 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 30 second sample was 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 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)
LW01019	Classroom 12	2/15/2018	75.5	4/12/18	1.0

The initial lead in water sample results (02/16/18 and 02/21/18) 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 – Lead in Water Test Summary Table

ATTACHMENT A

Highland ES Water Test Summary Table

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Initial Sample Results for Highland Elementary School (2/15/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW00968		Kitchen		Faucet	1.2	Pass	Testing Complete
LW00969		Kitchen		Faucet	1.9	Pass	Testing Complete
LW00970		Hallway	Outside Of Kitchen	Cooler	<1.0	Pass	Testing Complete
LW00971		Math	Math Closet	Faucet	<1.0	Pass	Testing Complete
LW00972		Testing Room	Suite B Testing Closet- Old HR	Faucet	<1.0	Pass	Testing Complete
LW00973		Administration	Main Office	Cooler	<1.0	Pass	Testing Complete
LW00974		Break Room	Across From Suite B	Faucet	<1.0	Pass	Testing Complete
LW00975		Hallway	Next To Staff Lounge	Cooler	<1.0	Pass	Testing Complete
LW00976	9A	Special Ed		Faucet	<1.0	Pass	Testing Complete
LW00977	9A	Special Ed		Bubbler - Indoor	1.4	Pass	Testing Complete
LW00978	9	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00979	8	Preschool		Faucet	2.3	Pass	Testing Complete
LW00980	8	Preschool		Bubbler - Indoor	1.4	Pass	Testing Complete
LW00981	H104	Health Room		Faucet	<1.0	Pass	Testing Complete
LW00982		Hallway	Right Of Room 1	Cooler	<1.0	Pass	Testing Complete
LW00983	1	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW00985	1	Kindergarten		Faucet	1.3	Pass	Testing Complete
LW00987	3	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW00988	3	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00989	2	Kindergarten		Faucet	1.9	Pass	Testing Complete
LW00990	2	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW00991	2	Kindergarten		Faucet	4.8	Pass	Testing Complete
LW00992	2	Kindergarten		Bubbler - Indoor	5.0	Pass	Testing Complete
LW00993	4	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW00994	4	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00995	4	Kindergarten		Faucet	2.4	Pass	Testing Complete
LW00997	5	Kindergarten		Faucet	1.5	Pass	Testing Complete
LW00999	5	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW01000	5	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01001	6	Preschool		Faucet	1.8	Pass	Testing Complete
LW01002	6	Preschool		Bubbler - Indoor	4.1	Pass	Testing Complete
LW01003	6	Preschool		Faucet	1.2	Pass	Testing Complete
LW01004	6	Preschool		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01005	7	Classroom	Head Start	Faucet	1.5	Pass	Testing Complete
LW01006	7	Classroom	Head Start	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01007	7	Classroom	Head Start	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01008	7	Classroom	Head Start	Bubbler - Indoor	1.2	Pass	Testing Complete
LW01009	H107	Health Room	Inside Of H104	Faucet	2.9	Pass	Testing Complete
LW01010	H113	Health Room	Inside Of H104	Faucet	1.4	Pass	Testing Complete
LW01011	H111	Health Room	Inside Of H104	Faucet	1.2	Pass	Testing Complete
LW01012	H110	Health Room	Inside Of H104	Faucet	1.7	Pass	Testing Complete
LW01013	10	Classroom		Faucet	4.7	Pass	Testing Complete
LW01014	10	Classroom		Bubbler - Indoor	1.6	Pass	Testing Complete
LW01015	11	Classroom		Faucet	5.1	Pass	Testing Complete
LW01016	11	Classroom		Bubbler - Indoor	1.9	Pass	Testing Complete
LW01017		Classroom	Grade 2 - Computer Lab	Faucet	8.7	Pass	Testing Complete
LW01018		Classroom	Grade 2 - Computer Lab	Bubbler - Indoor	5.8	Pass	Testing Complete
LW01019	12	Classroom		Faucet	75.5	Fail	Follow-Up Testing Needed

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01021	13	Classroom		Faucet	2.7	Pass	Testing Complete
LW01022	13	Classroom		Bubbler - Indoor	2.1	Pass	Testing Complete
LW01023	14	Classroom		Faucet	4.9	Pass	Testing Complete
LW01024	14	Classroom		Bubbler - Indoor	2.9	Pass	Testing Complete
LW01025	13A	Reading		Faucet	3.4	Pass	Testing Complete
LW01027	13B	ESOL		Faucet	3.9	Pass	Testing Complete
LW01028	14A	Classroom		Faucet	4.6	Pass	Testing Complete
LW01029	MU	Classroom		Faucet	3.6	Pass	Testing Complete
LW01030		Hallway	Across From Elevator	Cooler	<1.0	Pass	Testing Complete
LW01031	21	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01032	21	Classroom		Bubbler - Indoor	1.4	Pass	Testing Complete
LW01033	19	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01034	19	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01035	20	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01036	20	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01037	18	Classroom		Faucet	1.4	Pass	Testing Complete
LW01038	18	Classroom		Bubbler - Indoor	1.3	Pass	Testing Complete
LW01039	17	Classroom		Faucet	1.6	Pass	Testing Complete
LW01040	17	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01041	16	Classroom		Faucet	1.0	Pass	Testing Complete
LW01042	16	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01043	15	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01043	15	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01044	15	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01045		Hallway	Across From Elevator- Lower Level	Cooler	<1.0	Pass	Testing Complete
LW01047	28	Classroom	Lower Level	Bubbler - Indoor	2.8	Pass	Testing Complete
LW01048	27	Classroom	Lower Level	Faucet	1.3	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW01049	27	Classroom	Lower Level	Bubbler - Indoor	1.0	Pass	Testing Complete
LW01050	26	Classroom	Lower Level	Faucet	<1.0	Pass	Testing Complete
LW01051	26	Classroom	Lower Level	Bubbler - Indoor	1.0	Pass	Testing Complete
LW01052	25	Classroom	Lower Level	Faucet	1.0	Pass	Testing Complete
LW01053	25	Classroom	Lower Level	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01054	24	Classroom	Lower Level	Faucet	<1.0	Pass	Testing Complete
LW01055	24	Classroom	Lower Level	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01056	23	Classroom	Lower Level	Faucet	3.5	Pass	Testing Complete
LW01057	23	Classroom	Lower Level	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01058	22	Classroom	Lower Level	Faucet	<1.0	Pass	Testing Complete
LW01060	29	Music	Lower Level	Faucet	2.5	Pass	Testing Complete
LW01061	29	Music	Lower Level	Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01062	30	Classroom	Lower Level	Faucet	1.7	Pass	Testing Complete
LW01063	30	Classroom	Lower Level	Bubbler - Indoor	2.7	Pass	Testing Complete
LW01064		Hallway	Across From Gym	Cooler	<1.0	Pass	Testing Complete
M03911		Work Room Admin		Faucet	6.3	Pass	Testing Complete
M03913		Kitchen		Faucet	2.0	Pass	Testing Complete
M03914		Kitchen All		Faucet	11.1	Pass	Testing Complete
M03986		Work Room Media Center		Faucet	2.5	Pass	Testing Complete

*ppb = parts per billion

Contractor: Professional Services Industries, Inc.

Certified Laboratory: Microbac Laboratories, Inc.

Follow Up Sample Results for Highland Elementary School (4/15/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 nd) (PPB)	Initial draw (3 rd) (PPB)	30 Second Draw (PPB)	Status
LW01019	12	Classroom	Faucet	2.6	3.0	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 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.