MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

May 25, 2018

Executive Summary:
Quince Orchard High School
15800 Quince Orchard Road
Gaithersburg, MD 20878

Round of Testing:	Initial
# of Outlets Tested:	62
# of Outlets ≥ 20 ppb:	1
Low Value (ppb):	< 1.0
High Value (ppb):	29.1
Follow-Up Testing Required (Samples ≥ 20 ppb):	Training Room (29.1 ppb)

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

Project Status
Testing Complete: Remediation Plan

Training Room– Replace fixture (M35165), 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: Quince Orchard High School
15800 Quince Orchard Road
Gaithersburg, MD 20878

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 Quince Orchard High School, located at 15800 Quince Orchard Road in Gaithersburg, MD 20878.

Scope of Services:

PSI conducted lead in water testing at Quince Orchard 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 4/09/18 and 4/10/18 to collect samples from 62 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)
M35165	Training Room	4/10/18	29.1	5/8/18	<1.0

The initial lead in water sample results (4/10/18) 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
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Attachments: A – Floor Plan with Test Locations
B – Lead in Water Test Summary Table
C – Laboratory Analytical Results and Chain of Custody

ATTACHMENT A

Quince Orchard HS Water Test Summary Table

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

Initial Sample Results for Quince Orchard High School (4/10/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW08586		Hallway	Next to 308	Cooler	<1.0	Pass	Testing Complete
LW08587		Hallway	Next to 308	Cooler	<1.0	Pass	Testing Complete
LW08588	308	Break Room		Faucet	<1.0	Pass	Testing Complete
LW08589		Hallway	Next to 323b	Cooler	<1.0	Pass	Testing Complete
LW08590		Hallway	Across from 338	Cooler	<1.0	Pass	Testing Complete
LW08591		Hallway	Across from 338	Cooler	<1.0	Pass	Testing Complete
LW08592		Hallway	Across from Media Center	Cooler	<1.0	Pass	Testing Complete
LW08593		Kitchen		Faucet	1.0	Pass	Testing Complete
LW08594		Kitchen		Faucet	3.7	Pass	Testing Complete
LW08595		Kitchen		Icemaker	<1.0	Pass	Testing Complete
LW08596	133	Computer Lab		Faucet	1.1	Pass	Testing Complete
LW08606		Training Room Locker Room - Boys		Icemaker	<1.0	Pass	Testing Complete
LW08607		Locker Room - Girls		Cooler	<1.0	Pass	Testing Complete
LW08608		Hallway	Across from 119B	Cooler	<1.0	Pass	Testing Complete
LW08609	119G	Computer Lab		Faucet	1.7	Pass	Testing Complete
LW08610		Hallway	Next to 126	Cooler	<1.0	Pass	Testing Complete
LW08611		Hallway	Next to 126	Cooler	<1.0	Pass	Testing Complete
LW08612	124A	Music		Faucet	<1.0	Pass	Testing Complete
LW08613	124A	Music		Faucet	<1.0	Pass	Testing Complete
LW08614	124A	Music		Faucet	2.7	Pass	Testing Complete
LW08615	121	Child Development		Faucet	1.0	Pass	Testing Complete
LW08616	121	Child Development		Faucet	1.4	Pass	Testing Complete
LW08617	121	Child Development		Faucet	2.6	Pass	Testing Complete
LW08618	121	Child Development		Bubbler - Indoor	2.2	Pass	Testing Complete
LW08710		Hallway	Across from Media Center	Cooler	<1.0	Pass	Testing Complete
LW08711	251	Classroom		Faucet	<1.0	Pass	Testing Complete
LW08712	254	Health Room		Faucet	1.3	Pass	Testing Complete
LW08713	259	Concession		Faucet	4.4	Pass	Testing Complete
LW08714	259	Concession		Faucet	5.3	Pass	Testing Complete
LW08715	259	Concession		Icemaker	<1.0	Pass	Testing Complete
LW08716		Hallway	Next to Restroom	Cooler	<1.0	Pass	Testing Complete
LW08717		Hallway	Next to Restroom	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW08718		Hallway	Next to Restroom	Cooler	<1.0	Pass	Testing Complete
LW08719		Hallway	Across from Gym	Cooler	<1.0	Pass	Testing Complete
LW08720		Hallway	Across from Gym	Cooler	<1.0	Pass	Testing Complete
LW08721		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW08722		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW08944		Kitchen		Faucet	1.1	Pass	Testing Complete
LW08945		Kitchen		Faucet	<1.0	Pass	Testing Complete
LW08946		Kitchen		Faucet	3.0	Pass	Testing Complete
LW08947		Kitchen		Faucet	3.6	Pass	Testing Complete
LW08948		Kitchen		Faucet	4.7	Pass	Testing Complete
LW08949		Hallway	Across from Kitchen	Cooler	<1.0	Pass	Testing Complete
LW08950		Hallway	Across from Kitchen	Cooler	<1.0	Pass	Testing Complete
LW08951		Hallway	Across from 288B	Cooler	<1.0	Pass	Testing Complete
LW08952		Hallway	Across from 152	Cooler	<1.0	Pass	Testing Complete
LW08953		Locker Room - Boys		Cooler	<1.0	Pass	Testing Complete
LW08954		Hallway	Next to Electrical Room	Cooler	<1.0	Pass	Testing Complete
LW08956		Hallway	Next to Electrical Room	Cooler	<1.0	Pass	Testing Complete
M05969	119E	Classroom		Faucet	3.3	Pass	Testing Complete
M05970	153A	Music Storage		Faucet	6.8	Pass	Testing Complete
M35134	120	Classroom		Faucet	4.7	Pass	Testing Complete
M35165		Training Room		Faucet	29.1	Fail	Follow-Up Testing Needed
M35167		Training Room		Faucet	17.7	Pass	Testing Complete
M35181	134 D	Dressing Room - Girls		Faucet	3.3	Pass	Testing Complete
M35182	134D	Dressing Room - Girls		Faucet	3.2	Pass	Testing Complete
M35217	200D	Work Room Admin		Faucet	1.2	Pass	Testing Complete
M36133		Hallway	Across from 119B	Cooler	<1.0	Pass	Testing Complete
M46192		Hallway	Across IMC	Cooler	<1.0	Pass	Testing Complete
M46199	245	Media Center		Faucet	<1.0	Pass	Testing Complete
M46204	231	Office		Faucet	<1.0	Pass	Testing Complete
M46205		Hallway	Across From 288B	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 Quince Orchard High School (5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2nd) (PPB)	30 Second Draw (PPB)	Status
M35165		Training Room	Faucet	7.3	<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 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.