SCI ENGINEERING, INC.
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CONSTRUCTION SERVICES

August 6, 2024

Kimberly Butts, CPSM
Director of Purchasing
Pattonville School District
11097 St. Charles Rock Road
St. Ann, Missouri 63074-1509

RE: Lead in Drinking Water Report
Pattonville High School
2497 Creve Coeur Mill Road
Maryland Heights, Missouri
SCI No. 2024-0848.2T

Dear Kimberly Butts:

INTRODUCTION

SCI Engineering, Inc. (SCI) is pleased to submit this report summarizing lead in drinking water sampling activities performed on July 11, 12, and 15, 2024. The purpose of the sampling activities was to screen for elevated levels of lead in the drinking water at potable water sources throughout the above-referenced structure.

The drinking water survey is intended to satisfy the requirements for the "Get the Lead Out of School Drinking Water Act" (GTLOSDWA), Section 160.077 administered by the Missouri Department of Health and Senior Services. Potable water sources to be tested were identified by the school district prior to SCI's field activities.

LIMITATIONS

SCI's sampling activities were limited to locations identified by the school district, which can be found in the attached Water Sources List. SCI's sampling locations are detailed in the attached Field Sheets. Some water fixtures could not be sampled due to field conditions, faulty equipment, or the inability to locate fixtures in the field. If any additional potable water sources need testing, please contact SCI, and we will make arrangements for sampling these fixtures. Potable water sources that were not sampled will need a sign placed near each fixture informing students and faculty it is not to be used as a drinking water source.

DRINKING WATER SURVEY

SCI collected "first draw" samples which consisted of collecting a water sample from each fixture or sample location after it remained stagnant for at least eight hours. Prior to sampling, SCI first mobilized to the site to flush the identified potable water fixtures throughout the structure. Once each fixture was flushed, a sign was placed on the fixture indicating it should not be used. SCI then revisited the site, after a minimum of eight hours, to collect water samples from the fixtures.

SCI collected 150 drinking water samples (PHS-1 through PHS-222) from various water fixtures located throughout the structure and submitted them for analytical testing. Multiple samples were flushed but could not be sampled due to floor waxing or construction activities, preventing SCI access to certain areas. Additionally, some fixtures that were flushed were science classrooms sinks that had "Do Not Drink" signs posted near them. After the samples were flushed, the school district informed SCI that they did not need to be sampled. The drinking water samples were analyzed for total lead by U.S. EPA Method 200.8. SCI collected a minimum of 250 milliliters of water from each location. Sampled water was containerized in laboratory-provided sample containers and shipped to the lab using standard chain-of-custody procedures.

The drinking water samples were analyzed for lead in accordance with the GTLOSDWA, Section 160.077, which establishes an action level (AL) of 5 parts per billion (ppb). The drinking water samples which exceeded the AL are (is) identified in Table 1, below. A copy of the analytical test results and chain-of-custody for all samples is enclosed.

Table 1 – Lead in Drinking Water Results

Sample Number	Sample Location	Sample Description	Result (ppb)
PHS-1	Kitchen	Single Basin Sink by Freezer	16.7
PHS-2	Kitchen	Middle Sink by Ice Maker	22.3
PHS-6	Kitchen	Back Prep Sink	88.1
PHS-7	Kitchen	Middle Sink	8.12
PHS-15	Room A102	Backstage Right, Triple Basin Sink-Left Faucet	10.6
PHS-16	Room A102	Backstage Right, Triple Basin Sink-Middle Faucet	12.2
PHS-17	Room A102	Backstage Right, Triple Basin Sink-Right Faucet	18.8
PHS-41	Second Floor, Room C-212	Fountain Sprayer	23.0
PHS-53	Room F116	Sink, By Door	78.9
PHS-54	Room F116	Table Sink, Front Left (West) – Left Faucet	51.8
PHS-55	Room F116	Table Sink, Front Left (West) – Right Faucet	60.8
PHS-56	Room F116	Second Table Sink, West – Left Faucet	64.6
PHS-57	Room F116	Second Table Sink, West – Right Faucet	78.6
PHS-58	Room F116	First Middle Table Sink – Left Faucet	61.3
PHS-59	Room F116	First Middle Table Sink – Right Faucet	73.9
PHS-60	Room F116	Second Middle Table Sink – Left Faucet	73.0
PHS-61	Room F116	Second Middle Table Sink – Right Faucet	60.9
PHS-62	Room F116	First Right Table Sink – Left Faucet	51.9
PHS-63	Room F116	First Right Table Sink – Right Faucet	61.9
PHS-64	Room F116	Second Right Table Sink – Left Faucet	60.0
PHS-65	Room F116	Second Right Table Sink – Right Faucet	77.6
PHS-66	Room F112	First Table Sink, Left	61.7

Table 1 – Lead in Drinking Water Results (Continued)

Sample Number	Sample Location	Sample Description	Result (ppb)
PHS-67	Room F112	First Table Sink, Second	68.4
PHS-68	Room F112	Second Table Sink, Left	64.9
PHS-69	Room F112	Second Table Sink, Second	59.1
PHS-70	Room F112	First Table Sink, Middle	61.8
PHS-71	Room F112	First Table Sink, Second	80.8
PHS-72	Room F112	Second Table Sink, Middle	60.8
PHS-73	Room F112	Second Table Sink, Second	57.4
PHS-74	Room F112	First Table Sink, Right	60.9
PHS-75	Room F112	First Table Sink, Second	13.1
PHS-76	Room F112	Second Table Sink, Right	65.2
PHS-77	Room F112	Second Table Sink, Second	65.4
PHS-78	Room F108	Countertop Sink, Right	186
PHS-79	Room F108	West Wall, Left Sink	134
PHS-80	Room F108	West Wall, Right Sink	522
PHS-85	Room F106	Counter Sink by Whiteboard	40.5
PHS-111	Room F200	Front Right Table Sink	42.5
PHS-112	Room F200	Back Right Table Sink	193
PHS-113	Room F200	Middle Back Table Sink	24.2
PHS-114	Room F200	Back Left Table Sink	46.7
PHS-175	Nurse's Office	Ice Maker	10.1
PHS-187	Room G101	Sink	7.35
PHS-188	Room G104	Sink	9.45
PHS-219	Stuco Office	Sink	8.60

CONCLUSION AND RECOMMENDATIONS

As can be seen in Table 1, above, 45 drinking water samples exceeded the AL. SCI recommends any fixture which exceeds the AL be taken out of service until remediated and follow up testing indicates results less than the AL. Alternatively, if a water fixture is determined not to be a potable drinking water source, signage may be installed indicating the purpose and/or restrictions of the fixture.

According to GTLOSDWA, any water fixtures which exceed the AL shall be remediated prior to August 1, 2024, or the first day on which students will be present in the building, whichever is later. Any replacement fixture shall be lead free, as defined in 40 CFR 143.12.

REPORTING

Within seven business days after receiving this report, the school district shall contact parents and staff via written notification which shall include the following:

- The test results and a summary that explains such results;
- A description of any remedial steps taken;
- A description of general health effects of lead contamination and community specific resources; and
- If there is not enough water to meet the drinking water needs of the students, teachers and staff, bottled water shall be provided.

Additionally, within two weeks of receiving this report, the results and any lead remediation plans must be made available on the school's website.

This report, and subsequent annual testing reports, must be submitted to the Missouri Department of Health and Senior Services, Healthy Drinking Water Unit, PO Box 570, Jefferson City, MO 65102-0570.

FUTURE TESTING

After the fixtures identified in Table 1, above, have been remediated, at least 25 percent of the remediated fixtures must be sampled annually until all remediated sources have been tested. However, SCI recommends all fixtures be tested once they have been remediated. Once all fixtures have been tested and are below the action level, the school shall test the potable drinking water fixtures once every five years.

SCI appreciates the opportunity to be of service to you on this project, and we look forward to working with you in the future. Please contact us if you have any questions or comments regarding the information provided.

Respectfully,

SCI ENGINEERING, INC.

Brian L. Lieb
Project Scientist

Jessica B. Keeven, CHMM
Senior Scientist

BLL/JBK/bms

Enclosures
Water Sources List
SCI Field Sheets
Lead Testing Results