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July 15, 2019

Guilford County Schools
c/o Mr. Scott McCully
Guilford County Schools
120 Franklin Boulevard
Greensboro, North Carolina 27401

ECS Project No. 49-8287

Reference: Lead and Copper-in-Drinking Water Testing Services
Guilford County Public Schools
Guilford County, North Carolina

Dear Mr. McCully:

ECS Southeast, LLP (ECS) is pleased to provide Guilford County Public Schools with the laboratory results for the water samples collected at 10 school facilities from November 2018 through January 2019. Services were performed as requested in general accordance with ECS Proposal No. 49:11178-P, Revised, dated November 5, 2018.

Project Description

ECS was requested to provide lead and copper-in-drinking water testing services for 10 school facilities. Sample protocols were performed following US EPA's 3Ts document (reference October 2018 document - 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance) For each facility, water samples were requested to be collected from drinking or water consumption source locations. ECS also collected additional water samples from other randomly selected water source locations in the schools to generally assess water quality with regards to lead and copper. The following schools/facilities were tested for this project phase.

1) Allen Jay Elementary School
2) Southeast Middle School
3) Frazier Elementary School
4) Swann Middle School
5) Penn-Griffin Middle School
6) Claxton Elementary School
7) Kirkman Park Elementary School
8) Foust Elementary School
9) Morehead Elementary School
10) Falkener Elementary School

School	Location	Lead Concentration (ppb)
Allen Jay Elementary	Main Building, Room 11 Drinking Station	66
Allen Jay Elementary	Kitchen Area, Steamer/Comb	11
Frazier Elementary	Clinic Sink	83
Foust	Hallway: Left Water Cooler Near Rm 65	64
Penn Griffin Middle	Cafeteria: Basin Pan	10

Key – ppb – parts per billion

Follow-up Sampling, Analytical Results, and Remedial Measures

With respect to each of the five fixtures identified above, additional sampling and/or remedial measures were undertaken as described below.

Allen Jay Elementary
The Room 11 Drinking Station at Allen Jay Elementary was immediately and permanently removed from service due to a general lack of use on December 7, 2018, following the lead first draw sample result of 66 ppb.

The steamer/comb at Allen Jay that exhibited an 11 ppb first draw sample on November 21, 2018 was immediately taken out of service. A flush sample was taken on December 8, 2018 and no lead was detected, indicating that the faucet was likely the cause of the elevated lead concentration. Next, the faucet was replaced on January 18, 2019 and a second first draw sample was taken on January 22, 2019. There was no lead detected, which indicated that the remediation (replacement of the faucet) was effective. The new fixture was subsequently put back in service.

Frazier Elementary
The clinic sink at Frazier Elementary had a first draw sample result of 83 ppb and was immediately taken out of service and bagged on December 7, 2018. On December 8, 2018, a flush sample was taken from this clinic sink and no lead was detected, indicating that the faucet was likely the source of the lead in the water. The fixture was replaced with a Delta faucet on January 2, 2019 and a first draw collected on January 3, 2019. Lead was detected at 31 ppb indicating that there was still a problem with this fixture. The decision was made to replace the fixture again with a T&S brand faucet due to potential issues associated with the replacement faucet and/or the potential for the laboratory tests to have been impacted by suspended solids in the water sample. A third first draw sample was taken on January 22, 2019 and no lead was detected in the sample, which indicated that the remediation (second replacement of the faucet) was effective. The new fixture was subsequently put back in service.

- Clean debris from all accessible screens routinely. If you discovered sediments in faucet screens, have the sediments tested for lead and continue to clean your screens frequently, even if the analysis finds no lead.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- US EPA recommends public notification of the findings of this sample event to the public and school staff. EPA has described procedures for dissemination of this information which are described in Section III.6 of the 3 Ts document.

Qualifications

The conclusions presented within this report are based upon a reasonable level of investigation within normal bounds and standards of professional practice for a site in this particular geographic and geologic setting. All observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are limited to conditions observed, and or materials reviewed at the time this study was undertaken. No other warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. It is also important to note that lead content in drinking water samples can vary based on a variety of factors and the sample findings for this study are only reflective of the time/date on which the samples were collected and under the conditions sampled.

This letter is provided for the exclusive use of Client and their prospective partners. This letter is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this letter by any undesignated third party or parties would be at such party's sole risk and ECS disclaims liability for any such third party use or reliance. ECS has not completed or used any form of predetermined language to report the conclusions of this work and it is our understanding that we will not be required to do so.

It has been our pleasure to be of service to you on this project. Should you have any questions or comments with regard to the findings and recommendations, please feel free to contact us at your convenience.

Respectfully submitted,

ECS SOUTHEAST, LLP

Ryan C. Abrahamson
Environmental Project Manager

Christopher J. Chapman, CIH
Principal, Director of Industrial Hygiene

Attachments: School Summary Sheets
Laboratory Analytical Results & Chains of Custody

ATTACHMENT

LABORATORY ANALYTICAL RESULTS & CHAINS OF CUSTODY

School Name: Allen Jay Elementary	**Report Date (s):**
Date Test Conducted: 11/21/2018	**Date Results Received:** 12/06/2018
Number of Faucets Tested: 35 (all GCS identified faucets used for drinking/food preparation)	
Lead Results	**Copper Results**
Results 20 ppb and above: 1	**Results 1.3 ppm and above:** 0
Results 10 ppb to below 20 ppb: 1	**Detectable results below 1.3 ppm:** 35
Detectable results below 10 ppb: 14	**Results below detection level:** 0
Results below detection level: 19	

Number of Faucets Requiring Remedial Action: 2

Location of Faucet	**Action Taken**
Sample ID: 011-AJE Location description: Main Building, Room 11 Drinking Station	__ Temporarily Taken Out of Service: mm/dd/yyyy X Permanently Taken Out of Service: 12/7/19 __ Flush Tested: mm/dd/yyyy Flush Test Result: #### __ Replaced: mm/dd/yyyy __ Retest: mm/dd/yyyy Retest Result: #### __ Other: _____mm/dd/yyyy __ Placed Back in Service on: mm/dd/yyyy
Sample ID: S01-AJE Location description: Kitchen Area, Steamer/Comb	X Temporarily Taken Out of Service: 12/07/19 __ Permanently Taken Out of Service: mm/dd/yyyy X Flush Tested: 12/08/2019 Flush Test Result: ND (<1 ppb) X Replaced: 01/18/2019 X Retest: 01/23/2019 Retest Result: ND (<3 ppb) __ Other: _____mm/dd/yyyy X Placed Back in Service

Daily School-Wide Flushing:

__ Continue with protocol

__ Discontinue flushing protocol: mm/dd/yyyy

_X_ Other (Describe: Continue with Periodic Flushing)

This is a summary report prepared by ECS. ECS suggests that the full report be referred to with regards to findings, recommendations, and technical limitations for this sampling event.

Version_____

Date_____

School Name: Falkener Elementary	**Report Date (s):**
Date Test Conducted: 12/21/2018	**Date Results Received:** 1/3/2019
Number of Faucets Tested: 34 (all GCS identified faucets used for drinking/food preparation)	
Lead Results	Copper Results
Results 20 ppb and above: 0	**Results 1.3 ppm and above:** 0
Results 10 ppb to below 20 ppb: 0	**Detectable results below 1.3 ppm: 33**
Detectable results below 10 ppb: 2	**Results below detection level: 1**
Results below detection level: 32	
Number of Faucets Requiring Remedial Action: 0	

Daily School-Wide Flushing:

__ Continue with protocol

__ Discontinue flushing protocol: mm/dd/yyyy

X Other (Describe: Continue with Periodic Flushing)

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Version_____

Date_____

School Name: Frazier Elementary	**Report Date (s):**
Date Test Conducted: 11/21/2018	**Date Results Received:** 12/06/2018
Number of Faucets Tested: 30 (all GCS identified faucets used for drinking/food preparation)	
Lead Results	**Copper Results**
Results 20 ppb and above: 1	**Results 1.3 ppm and above:** 0
Results 10 ppb to below 20 ppb: 0	**Detectable results below 1.3 ppm:** 30
Detectable results below 10 ppb: 5	**Results below detection level:** 0
Results below detection level: 24	

Number of Faucets Requiring Remedial Action: 1

Location of Faucet	**Action Taken**
Sample ID: FES-247 Location description: Clinic Sink	X Temporarily Taken Out of Service: 12/07/2018 __ Permanently Taken Out of Service: mm/dd/yyyy X Flush Tested: 12/08/2018 Flush Test Result: ND (<1 ppb) X Replaced: 01/02/2019 Retest: 01/03/2019 Retest Result: 31 ppb X Replaced: 01/16/2019 Retest: 01/22/2019 Retest Result: ND (<3 ppb) __ Other: _____mm/dd/yyyy X Placed Back in Service

Daily School-Wide Flushing:

__ Continue with protocol

__ Discontinue flushing protocol: mm/dd/yyyy

X Other (Describe: Continue with Periodic Flushing)

This is a summary report prepared by ECS. ECS suggests that the full report be referred to with regards to findings, recommendations, and technical limitations for this sampling event.

Version_____

Date_____

School Name: Morehead Elementary	**Report Date (s):**
Date Test Conducted: 12/19/2018	**Date Results Received:** 12/28/2018
Number of Faucets Tested: 28 (all GCS identified faucets used for drinking/food preparation)	
Lead Results	**Copper Results**
Results 20 ppb and above: 0	**Results 1.3 ppm and above:** 0
Results 10 ppb to below 20 ppb: 0	**Detectable results below 1.3 ppm:** 28
Detectable results below 10 ppb: 2	**Results below detection level:** 0
Results below detection level: 26	
Number of Faucets Requiring Remedial Action: 0	

Daily School-Wide Flushing:

__ Continue with protocol

__ Discontinue flushing protocol: mm/dd/yyyy

X Other (Describe: Continue with Periodic Flushing)

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Version_____

Date_____

School Name: Southeast Middle	**Report Date (s):**
Date Test Conducted: 12/18/2018	**Date Results Received:** 12/26/2018
Number of Faucets Tested: 43 (all GCS identified faucets used for drinking/food preparation)	
Lead Results	**Copper Results**
Results 20 ppb and above: 0	**Results 1.3 ppm and above:** 0
Results 10 ppb to below 20 ppb: 0	**Detectable results below 1.3 ppm: 43**
Detectable results below 10 ppb: 4	**Results below detection level:** 0
Results below detection level: 39	
Number of Faucets Requiring Remedial Action: 0	
Daily School-Wide Flushing: __ Continue with protocol __ Discontinue flushing protocol: mm/dd/yyyy _X_ Other (Describe: Continue with Periodic Flushing)	
This is a summary report prepared by ECS. ECS suggests that the full report be referred to with regards to findings, recommendations, and technical limitations for this sampling event.	

Version_____

Date_____