

November 30, 2018

Mr. Keith Shanahan
Culligan Water Conditioning-Mechanicsburg
12 Waterford Drive
Mechanicsburg, PA 17050

Certificate of Analysis

Project Name: Keith Shanahan	Workorder: 3001578
Purchase Order:	Workorder ID: Greenwood SD HS 11/20/18

Dear Mr. Shanahan:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, November 20, 2018.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Amy K Borden (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Kendra Sweeney

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.



Ms. Amy K Borden
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3001578 Greenwood SD HS 11/20/18

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3001578001	Greenwood HS Home Ec 026	Drinking Water	11/20/2018 06:30	11/20/2018 18:38	Collected by Client
3001578002	Greenwood HS Gym	Drinking Water	11/20/2018 06:30	11/20/2018 18:38	Collected by Client
3001578003	Greenwood HS Kitchen	Drinking Water	11/20/2018 06:30	11/20/2018 18:38	Collected by Client

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SAMPLE SUMMARY

Workorder: 3001578 Greenwood SD HS 11/20/18

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3001578 Greenwood SD HS 11/20/18

Lab ID: **3001578001** Date Collected: 11/20/2018 06:30 Matrix: Drinking Water
 Sample ID: **Greenwood HS Home Ec 026** Date Received: 11/20/2018 18:38

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
METALS										
Copper, Total	0.14		mg/L	0.0050	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:15	LXC	A1
Lead, Total	0.0044		mg/L	0.0020	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:15	LXC	A1



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ANALYTICAL RESULTS

Workorder: 3001578 Greenwood SD HS 11/20/18

Lab ID: **3001578002** Date Collected: 11/20/2018 06:30 Matrix: Drinking Water
 Sample ID: **Greenwood HS Gym** Date Received: 11/20/2018 18:38

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
METALS										
Copper, Total	0.058		mg/L	0.0050	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:18	LXC	A1
Lead, Total	ND		mg/L	0.0020	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:18	LXC	A1



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ANALYTICAL RESULTS

Workorder: 3001578 Greenwood SD HS 11/20/18

Lab ID: **3001578003** Date Collected: 11/20/2018 06:30 Matrix: Drinking Water
 Sample ID: **Greenwood HS Kitchen** Date Received: 11/20/2018 18:38

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
METALS										
Copper, Total	0.14		mg/L	0.0050	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:20	LXC	A1
Lead, Total	ND		mg/L	0.0020	EPA 200.8	11/30/18 00:15	LXC	11/30/18 02:20	LXC	A1



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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3001578 Greenwood SD HS 11/20/18

Lab ID	Sample ID	Analysis Method	Prep Method
3001578001	Greenwood HS Home Ec 026	EPA 200.8	EPA ACIDT
3001578002	Greenwood HS Gym	EPA 200.8	EPA ACIDT
3001578003	Greenwood HS Kitchen	EPA 200.8	EPA ACIDT

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Analytical Laboratory Services, Inc.

Environmental w Industrial Hygiene w Field Services

34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Generated by ALSi



1 of 1

Client Name: Culligan		Container Type	PL	Receipt Information (completed by Receiving Lab)	
Address: 12 Waterford Drive Mechanicsburg, PA 17050		Container Size	250ML	Cooler Temp: 1	Therm ID: 403
Contact: Keith Shanahan		Preservative	HNO3	No. of Coolers: 1	Y N Initial
Phone#: 717-649-0192		ANALYSES/METHOD REQUESTED			
Project Name#: Greenwood School District-High School		Lead/Copper			
Bill To: Culligan		Enter Number of Containers Per Sample or Field Results Below.			
TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. <input type="checkbox"/> Rush-Subject to ALSi approval and surcharges.		Sample/COC Comments			
Date Required: _____ Approved By: _____		Courier/Tracking #: _____			
Email? <input checked="" type="checkbox"/> -Y <input type="checkbox"/> -N		Custody Seals Present? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
Fax? <input type="checkbox"/> -Y <input type="checkbox"/> -N		(if present) Seals Intact? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
Sample Description/Location (as it will appear on the lab report)		COC Labels Complete/Accurate? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
Sample Date	Time	Cont. in Good Cond.? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
Greenwood H.S - Home Ec.026	11/20/18 6:30 PM	Correct Containers? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
Greenwood H.S - GYM	11/20/18 6:30 PM	Correct Sample Volumes? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
Greenwood H.S - Kitchen	11/20/18 6:30 PM	Correct Preservation? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
5		Headspace/Volatiles? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			
6					
7					
8					
9					
10					
Project Comments:		Standard <input type="checkbox"/> CLP-like <input type="checkbox"/> USACE <input type="checkbox"/>			
LOGGED BY (signature): _____		Special Processing USACE <input type="checkbox"/> Navy <input type="checkbox"/>			
REVIEWED BY (signature): _____		State Samples Collected in NY <input type="checkbox"/> NJ <input type="checkbox"/> PA <input checked="" type="checkbox"/> NC <input type="checkbox"/>			
Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
ALS-Bill Duhon	11-20-18	8:00 AM	ALS-Bill Duhon	11-20-18	1:17 PM
ALS-Bill Duhon	11-20-18	1:38 PM	ALS-Bill Duhon	11-20-18	1:38 PM
5			6		
7			8		
9			10		
Reportable to PADEP? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Sample Disposal Lab <input type="checkbox"/> Special <input type="checkbox"/>			
PWSID # _____		EDDS: Format Type- _____			
* G=Grab; C=Composite		**Matrix - AI=Air, DW=Drinking Water, GW=Groundwater, OF=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater			

