

August 25, 2021

Thomas M. Hanna, P.E., LEED AP
Capital Projects Manager
Central Bucks School District
320 West Swamp Road
Doylestown, PA 18901

**Re: Lead in Drinking Water Re-Sample Collection and Reporting
Central Bucks East High School
2804 Holicong Road
Doylestown, PA 18902**

Dear Mr. Hanna:

This document has been prepared by Langan to provide the results of the drinking water re-sampling activities at the above referenced school. The results of the initial drinking water sampling activities documented that total lead was present in six samples collected from drinking water fixtures (Sample Locations A110A, A110C, A113A, D108A, D225, D221) at levels above the 15 micrograms per liter (ug/L) regulatory level. The re-sampling was conducted on August 11, 2021 after the fixtures were flushed. The collected samples were sent to the Pennsylvania certified environmental laboratory, PACE Analytical, and analyzed for total lead by USEPA Method 200.8, to meet Pennsylvania's action level requirements.

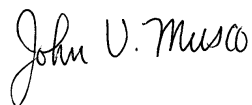
The re-sampling results did not detect any exceedances of the Pennsylvania Action Level of 15 ug/L with the exception of the following locations:

<u>Location</u>	<u>Sample ID</u>	<u>Result</u>
Kitchen 1-bowl sink near coffee sales	A110CR_081121	21.4 ug/L
Java sink (coffee)	A113AR_081121	48.8 ug/L
Room 225	D225R_081121	35.5 ug/L
Room 221	D221R_081121	22.1 ug/L

A figure of the re-sampling locations and copy of the laboratory report is attached.

Sincerely,

Langan Engineering & Environmental Services, Inc.



John V. Musco
Associate

Enclosure

cc: B. Lambing - Langan

NJ Certificate of Authorization No. 24GA27996400

\\langan.com\data\DYL\data4\200130403\Project Data\Record Data\Reports\Resampling August 2021\Resampling Report\East\East_Lead_Re-Sampling_Report_2021.docx

August 18, 2021

Bill Lambing
Langan Engineering
2700 Kelly Road
Suite 200
Warrington, PA 18976

RE: Project: CENTRAL BUCKS SCHOOL (CB EAST)
Pace Project No.: 70184245

Dear Bill Lambing:

Enclosed are the analytical results for sample(s) received by the laboratory on August 14, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Sophia Sparkes
sophia.sparkes@pacelabs.com
(631)694-3040
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: CENTRAL BUCKS SCHOOL (CB EAST)

Pace Project No.: 70184245

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

Connecticut Certification #: PH-0435

Delaware Certification # NY 10478

Maryland Certification #: 208

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

New Jersey Certification #: NY158

New York Certification #: 10478 Primary Accrediting Body

Pennsylvania Certification #: 68-00350

Rhode Island Certification #: LAO00340

Virginia Certification # 460302

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (CB EAST)
Pace Project No.: 70184245

Sample: A110AR_081121	Lab ID: 70184245001	Collected: 08/11/21 07:41	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	14.4	ug/L	1.0	1		08/17/21 16:48	7439-92-1	
Sample: A110CR_081121	Lab ID: 70184245002	Collected: 08/11/21 07:42	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	21.4	ug/L	1.0	1		08/17/21 16:49	7439-92-1	
Sample: A113AR_081121	Lab ID: 70184245003	Collected: 08/11/21 07:38	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	48.8	ug/L	1.0	1		08/17/21 16:50	7439-92-1	
Sample: D108AR_081121	Lab ID: 70184245004	Collected: 08/11/21 07:47	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	5.5	ug/L	1.0	1		08/17/21 16:53	7439-92-1	
Sample: D225R_081121	Lab ID: 70184245005	Collected: 08/11/21 07:52	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8 Pace Analytical Services - Melville							
Lead	35.5	ug/L	1.0	1		08/17/21 16:54	7439-92-1	

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ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (CB EAST)

Pace Project No.: 70184245

Sample: D221R_081121	Lab ID: 70184245006	Collected: 08/11/21 07:50	Received: 08/14/21 10:40	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water		Analytical Method: EPA 200.8 Pace Analytical Services - Melville						
Lead	22.1	ug/L	1.0	1		08/17/21 16:56	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CENTRAL BUCKS SCHOOL (CB EAST)
Pace Project No.: 70184245

QC Batch: 222171 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET No Prep Drinking Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70184245001, 70184245002, 70184245003, 70184245004, 70184245005, 70184245006

METHOD BLANK: 1120306 Matrix: Water
Associated Lab Samples: 70184245001, 70184245002, 70184245003, 70184245004, 70184245005, 70184245006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	<1.0	1.0	08/17/21 16:33	

LABORATORY CONTROL SAMPLE: 1120307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	50	50.6	101	85-115	

MATRIX SPIKE SAMPLE: 1120310

Parameter	Units	70183854001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	7.2	50	71.5	129	70-130	

MATRIX SPIKE SAMPLE: 1120312

Parameter	Units	70184245003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	48.8	50	110	122	70-130	

SAMPLE DUPLICATE: 1120309

Parameter	Units	70183854001 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	7.2	7.0	2	

SAMPLE DUPLICATE: 1120311

Parameter	Units	70184245003 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	48.8	49.4	1	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: CENTRAL BUCKS SCHOOL (CB EAST)

Pace Project No.: 70184245

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CENTRAL BUCKS SCHOOL (CB EAST)

Pace Project No.: 70184245

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70184245001	A110AR_081121	EPA 200.8	222171		
70184245002	A110CR_081121	EPA 200.8	222171		
70184245003	A113AR_081121	EPA 200.8	222171		
70184245004	D108AR_081121	EPA 200.8	222171		
70184245005	D225R_081121	EPA 200.8	222171		
70184245006	D221R_081121	EPA 200.8	222171		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 70184245

Client Name:

Project:

PM: STS

Due Date: 08/19/21

CLIENT: LAN-PA

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 5295 6205 5280

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags Ziploc None Other

Thermometer Used: TH091 Correction Factor: +0.0

Cooler Temperature(°C): 21.0 Cooler Temperature Corrected(°C): 21.0

Temp should be above freezing to 6.0°C

USDA Regulated Soil (N/A, water sample)

Temperature Blank Present: Yes No

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Date/Time 5035A kits placed in freezer

Date and Initials of person examining contents: KO 8/14/21

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC,

Did samples originate from a foreign source including Hawaii and Puerto Rico)? Yes No

NM, NY, OK, OR, SC, TN, TX, or VA (check map)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		7.
Sufficient Volume: (Triple volume provided for	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		10.
Containers Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		11.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12.
-Includes date/time/ID, Matrix: <u>SL WT OIL</u>				
All containers needing preservation have been checked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	13.
pH paper Lot # <u>HC55968</u>				Sample #
All containers needing preservation are found to be in compliance with method recommendation? (HNO ₃ , H ₂ SO ₄ , HCl, NaOH>9 Sulfide, NaOH>12 Cyanide)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water).				Initial when completed: Lot # of added preservative: Date/Time preservative added:
Per Method, VOA pH is checked after analysis				
Samples checked for dechlorination:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	14.
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
SM 4500 CN samples checked for sulfide?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	15.
Lead Acetate Strips Lot #				
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	16.
Trip Blank Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable):				

Field Data Required? Y / N

Client Notification/ Resolution:

Date/Time:

Person Contacted:

Comments/ Resolution: