

August 24, 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
Bridge Valley Elementary School
2280 Sugar Bottom Road
Furlong, PA 18925**

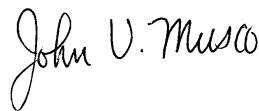
Dear Mr. Hanna:

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 one sample collected from a drinking water fixture (Sample Location 180) at a level above the 15 micrograms per liter (ug/L) regulatory level. The re-sampling was conducted on August 12, 2021 after the fixture was flushed. The collected sample was 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 result did not detect an exceedance of the Pennsylvania Action Level of 15 ug/L.

A figure of the re-sampling location 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\Bridge Valley\Bridge Valley_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 (BRIDGE)
Pace Project No.: 70184247

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,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: CENTRAL BUCKS SCHOOL (BRIDGE)

Pace Project No.: 70184247

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

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ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (BRIDGE)

Pace Project No.: 70184247

Sample: 180R_081221	Lab ID: 70184247001	Collected: 08/12/21 07:05	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	2.1	ug/L	1.0	1		08/17/21 16:58	7439-92-1		

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QUALITY CONTROL DATA

Project: CENTRAL BUCKS SCHOOL (BRIDGE)
Pace Project No.: 70184247

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: 70184247001

METHOD BLANK: 1120306 Matrix: Water
Associated Lab Samples: 70184247001

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 (BRIDGE)

Pace Project No.: 70184247

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CENTRAL BUCKS SCHOOL (BRIDGE)

Pace Project No.: 70184247

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70184247001	180R_081221	EPA 200.8	222171		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO#: 70184247



70184247

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Langan Engineering		Report To: Bill Lambing		Attention: Bill Lambing	
Address: 2700 Kelly Road, Suite 200		Copy To:		Company Name: Langan Engineering	
Warrington, PA 18976		Purchase Order #: 200130403-400-001		Address: 2700 Kelly Road, Suite 200	
Email: blambing@langan.com		Project Name: Central Bucks School District (Bridge Valley)		Pace Quote: See Langan-Pace MSA	
Phone: 215-491-6500 Fax 2015-491-6501		Project #: 200130403		Pace Project Manager: sophia.sparkes@pacelabs.com	
Requested Due Date: 72 hour (3 day) Turn Around				Pace Profile #: 7983	
				Regulatory Agency	
				State / Location	
				PA	

ITEM #	SAMPLE ID <small>One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique</small>	MATRIX <small>Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue</small>	CODE <small>DW WT WW P SL OL WP AR OT TS</small>	COLLECTED	START	END	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)							
									DATE		TIME		Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2SO3		Methanol	Other	Analyses Test	200.7 Metals (PB)														
									DATE	TIME	DATE	TIME																									
1	180R_081221	DW	G	8/12/2021	705	8/12/2021	705	1		X									X																		
2																																					
3																																					
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					
10																																					
11																																					
12																																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>Bill Lambing</i>	8/12/2021	5:36	<i>Kenn Orr</i>	8/14/21	10:40	

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Bill Lambing				
SIGNATURE of SAMPLER: <i>Bill Lambing</i>	DATE Signed: 8/12/2021				



Sample Condition Upon Receipt

WO#: 70184247

Client Name: _____

Project: _____

PM: STS

Due Date: 08/19/21

CLIENT: LAN-PA

Courier: Fed Ex UPS USPS Client Commercial Pace OtherTracking #: 5295 6205 5280Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes NoPacking Material: Bubble Wrap Bubble Bags Ziploc None Other

Thermometer Used: TH091

Correction Factor: +0.0Cooler Temperature(°C): 21.0Cooler Temperature Corrected(°C): 21.0Temperature Blank Present: Yes NoType of Ice: Wet Blue None Samples on ice, cooling process has begun

Date/Time 5035A kits placed in freezer _____

Temp should be above freezing to 6.0°C

USDA Regulated Soil (N/A, water sample)Date and Initials of person examining contents: KD 8/14/21Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? Yes NoDid samples originate from a foreign source including Hawaii and Puerto Rico)? 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: KI starch test strips Lot #	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Residual chlorine strips Lot #		Positive for Res. Chlorine? Y N
SM 4500 CN samples checked for sulfide?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Lead Acetate Strips Lot #		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable): _____		

Field Data Required? Y / N

Client Notification/ Resolution: _____

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.