

June 25, 2020

Mike Nickerson, CHMM Environmental/Safety Coordinator Central Bucks School District 320 West Swamp Road Doylestown, PA 18901

Re: Lead in Drinking Water Sample Collection and Reporting Pine Run Elementary School 383 W Butler Avenue New Britain, PA 18901 Bucks County, Pennsylvania

Dear Mr. Nickerson:

This document has been prepared by Langan to provide the results of the drinking water sampling activities at the above referenced school. Langan sampled the drinking water sources (e.g. fountains, sink faucets, etc.) on May 29, 2020 as identified by the Central Bucks School District facility inventory. 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 results did not detect any exceedances at this school of the Pennsylvania Action Level of 15 micrograms per liter (ug/L).

Also, as requested by CBSD, below is a list of locations with lead results above 10 ug/L, but below Pennsylvania Action Level of 15 ug/L:

 Location
 Sample ID
 Result

 Nurses Office
 210-20
 11.3 ug/L

 Rm 608B LGI
 608B-20
 11.0 ug/L

A field sketch of the 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

P.O. Box 1569 Doylestown, PA 18901-0219

T: 215.491.6500

F: 215.491.6501

www.langan.com





June 05, 2020

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

RE: Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Dear Bill Lambing:

Enclosed are the analytical results for sample(s) received by the laboratory on May 30, 2020. 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,

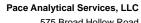
Sophia Sparkes sophia.sparkes@pacelabs.com (631)694-3040

Sophia Sparkes

Project Manager

Enclosures





575 Broad Hollow Road Melville, NY 11747 (631)694-3040



CERTIFICATIONS

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747 Maryland Certification #: 208

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158 Pennsylvania Certification #: 68-00350 Connecticut Certification #: PH-0435 Rhode Island Certification #: LAO00340 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987



Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Sample: 101-20	I ah ID:	70132681001	Collected: 05/29/2	20 07:50	Received:	05/30/20 10:20	Matrix: Drinking	ı Water
•							_	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical	Method: EPA 20	00.8					
	Pace Anal	ytical Services -	Melville					
Lead	3.	9 ug/L	1.0	1		06/03/20 17:5	57 7439-92-1	
Sample: 200A-20	Lab ID:	70132681002	Collected: 05/29/2	20 07:52	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 ytical Services -						
Lead	<1.	0 ug/L	1.0	1		06/03/20 17:5	58 7439-92-1	
Sample: 200B-20	Lab ID:	70132681003	Collected: 05/29/2	20 07:52	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 ytical Services -						
Lead	<1.	0 ug/L	1.0	1		06/03/20 17:5	59 7439-92-1	
Sample: 204-20	Lab ID:	70132681004	Collected: 05/29/2	20 07:54	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 ytical Services -						
Lead	8.	7 ug/L	1.0	1		06/03/20 18:0	03 7439-92-1	
Sample: 207-20	Lab ID:	70132681005	Collected: 05/29/2	20 07:54	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	Method: EPA 20 ytical Services -						
		4 ug/L						



Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Pace Project No.: 70132681								
Sample: 210-20	Lab ID: 70	0132681006	Collected: 05/29/2	20 07:56	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Mo	ethod: EPA 20	00.8					
	Pace Analyti	cal Services -	- Melville					
Lead	11.3	ug/L	1.0	1		06/03/20 18:0	05 7439-92-1	
Sample: 300A-20	Lab ID: 70	0132681007	Collected: 05/29/2	20 07:58	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20						
Lead	<1.0	ug/L	1.0	1		06/03/20 18:0	06 7439-92-1	
Sample: 300B-20	Lab ID: 70	0132681008	Collected: 05/29/2	20 07:58	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	ethod: EPA 20 cal Services -						
Lead	<1.0	ug/L	1.0	1		06/03/20 18:0	7439-92-1	
Sample: 308A-20	Lab ID: 70	0132681009	Collected: 05/29/2	20 08:00	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20						
Lead	3.8	ug/L	1.0	1		06/03/20 18:0	08 7439-92-1	
Sample: 308B-20	Lab ID: 70	0132681010	Collected: 05/29/2	20 08:00	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	ethod: EPA 20						
Lead	6.0	ug/L	1.0	1		06/03/20 18:0	9 7439-92-1	



Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Pace Project No.: 70132681								
Sample: 401A-20	Lab ID: 70	132681011	Collected: 05/29/2	20 08:04	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me	ethod: EPA 20	00.8					
	Pace Analytic	cal Services -	- Melville					
Lead	<1.0	ug/L	1.0	1		06/03/20 18:1	0 7439-92-1	
Sample: 401B-20	Lab ID: 70	132681012	Collected: 05/29/2	20 08:04	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me							
Lead	<1.0	ug/L	1.0	1		06/03/20 18:1	1 7439-92-1	
Sample: 407A-20	Lab ID: 70	132681013	Collected: 05/29/2	20 08:05	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me Pace Analytic							
Lead	<1.0	ug/L	1.0	1		06/03/20 18:1	5 7439-92-1	
Sample: 407B-20	Lab ID: 70	132681014	Collected: 05/29/2	20 08:05	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me							
Lead	<1.0	ug/L	1.0	1		06/03/20 18:1	8 7439-92-1	
Sample: 408A-20	Lab ID: 70	132681015	Collected: 05/29/2	20 08:07	Received:	05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Me					-		
Lead	1.6	ug/L	1.0	1		06/03/20 18:1	9 7439-92-1	



Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Pace Project No.: 70132681								
Sample: 408B-20	Lab ID: 70	0132681016	Collected: 05/29/2	20 08:07	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical M	ethod: EPA 20	00.8					
_	Pace Analyti	ical Services -	Melville					
Lead	1.6	ug/L	1.0	1		06/03/20 18:2	0 7439-92-1	
Sample: 500A-20	Lab ID: 70	0132681017	Collected: 05/29/2	20 08:10	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20						
Lead	<1.0	ug/L	1.0	1		06/03/20 18:2	1 7439-92-1	
Sample: 500B-20	Lab ID: 70	0132681018	Collected: 05/29/2	20 08:10	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	,	ethod: EPA 20 ical Services -						
Lead	<1.0	ug/L	1.0	1		06/03/20 18:2	2 7439-92-1	
Sample: 508A-20	Lab ID: 70	0132681019	Collected: 05/29/2	20 08:13	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20				•		
Lead	1.9	ug/L	1.0	1		06/03/20 18:2	3 7439-92-1	
Sample: 508B-20	Lab ID: 70	0132681020	Collected: 05/29/2	20 08:13	Received: (05/30/20 10:20	Matrix: Drinking	Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	•	ethod: EPA 20						
Lead	1.2	ug/L	1.0	1		06/03/20 18:2	5 7439-92-1	



Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Sample: 600A-20	Lab ID: 701	32681021	Collected: 05/29/2	20 08:19	Received: 0	5/30/20 10:20	Matrix: Drinking	Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
200.8 MET ICPMS Drinking Water	Analytical Meth	hod: EPA 20	00.8			•	•		
	Pace Analytica	al Services -	Melville						
Lead	<1.0	ug/L	1.0	1		06/03/20 18:26	7439-92-1		
Sample: 600B-20	Lab ID: 701	32681022	Collected: 05/29/2	20 08:19	Received: 0	5/30/20 10:20	Matrix: Drinking	Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
200.8 MET ICPMS Drinking Water	Analytical Meth								
Lead	<1.0	ug/L	1.0	1		06/03/20 18:27	7 7439-92-1		
Sample: 608A-20	Lab ID: 701	32681023	Collected: 05/29/2	20 08:21	Received: 0	5/30/20 10:20	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	3.9	ug/L	1.0	1		06/03/20 18:28	3 7439-92-1		
Sample: 608B-20	Lab ID: 701	32681024	Collected: 05/29/2	20 08:22	Received: 0	5/30/20 10:20	Matrix: Drinking	Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
200.8 MET ICPMS Drinking Water	Analytical Meth								
Lead	11.0	ug/L	1.0	1		06/03/20 18:3	1 7439-92-1		
	Lab ID: 701	32681025	Collected: 05/29/2	20 08:17	Received: 0	5/30/20 10:20	Matrix: Drinking	Water	
Sample: 104-20					Duamanad		0.0.0.1	0	
Sample: 104-20 Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
·	Results Analytical Methodology Pace Analytical	nod: EPA 20	00.8	DF	Prepared	Analyzed	CAS No.	Quai	

(631)694-3040



ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Sample: 103-20	Lab ID: 701	32681026	Collected: 05/29/2	20 08:16	Received: 05	5/30/20 10:20 N	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	3.1	ug/L	1.0	1		06/03/20 18:33	7439-92-1	



QUALITY CONTROL DATA

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

LABORATORY CONTROL SAMPLE:

Date: 06/05/2020 09:19 PM

Lead

QC Batch: 163139 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: 70132681001, 70132681002, 70132681003, 70132681004, 70132681005, 70132681006, 70132681007,

70132681008, 70132681009, 70132681010, 70132681011, 70132681012

METHOD BLANK: 785900 Matrix: Water

785901

Associated Lab Samples: 70132681001, 70132681002, 70132681003, 70132681004, 70132681005, 70132681006, 70132681007,

70132681008, 70132681009, 70132681010, 70132681011, 70132681012

Parameter Units Blank Reporting Result Limit Analyzed Qualifiers ug/L <1.0 1.0 06/03/20 17:44

LCS LCS Spike % Rec % Rec Limits Parameter Units Conc. Result Qualifiers Lead ug/L 50 49.6 99 85-115

MATRIX SPIKE SAMPLE: 785903 MS MS 70132680041 Spike % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers 1.2 7.0 145 70-130 M1 4 Lead ug/L

MATRIX SPIKE SAMPLE: 785905 70132681003 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers Lead ug/L <1.0 4.2 104 70-130

 SAMPLE DUPLICATE: 785902

 Parameter
 Units
 70132680041 Result
 Dup Result
 RPD
 Qualifiers

 Lead
 ug/L
 1.2
 1.2
 2

 SAMPLE DUPLICATE: 785904

 Parameter
 Units
 Result
 Result
 RPD
 Qualifiers

 Lead
 ug/L
 <1.0</td>
 <1.0</td>
 <1.0</td>

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.



QUALITY CONTROL DATA

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

QC Batch: 163140 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

Qualifiers

Associated Lab Samples: 70132681013, 70132681014, 70132681015, 70132681016, 70132681017, 70132681018, 70132681019,

70132681020, 70132681021, 70132681022, 70132681023, 70132681024, 70132681025, 70132681026

METHOD BLANK: 785907 Matrix: Water

Associated Lab Samples: 70132681013, 70132681014, 70132681015, 70132681016, 70132681017, 70132681018, 70132681019,

70132681020, 70132681021, 70132681022, 70132681023, 70132681024, 70132681025, 70132681026

Blank Reporting
Parameter Units Result Limit Analyzed

Lead ug/L <1.0 1.0 06/03/20 18:12

LABORATORY CONTROL SAMPLE: 785908

LCS LCS Spike % Rec % Rec Parameter Units Conc. Result Limits Qualifiers Lead 50 49.6 99 85-115 ug/L

MATRIX SPIKE SAMPLE: 785910

MS MS 70132681013 % Rec Spike Parameter Units Result Conc. Result % Rec Limits Qualifiers <1.0 4.0 101 4 70-130 Lead ug/L

MATRIX SPIKE SAMPLE: 785912

70132681023 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers Lead ug/L 3.9 7.9 70-130

SAMPLE DUPLICATE: 785909

 Parameter
 Units
 Result Result Result RPD
 Qualifiers

 Lead
 ug/L
 <1.0</td>
 <1.0</td>

SAMPLE DUPLICATE: 785911

Date: 06/05/2020 09:19 PM

 Parameter
 Units
 Result Result Result
 RPD Qualifiers

 Lead
 ug/L
 3.9
 3.9
 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.



QUALIFIERS

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

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.

ANALYTE QUALIFIERS

Date: 06/05/2020 09:19 PM

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70132681

Date: 06/05/2020 09:19 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
70132681001	101-20	EPA 200.8	163139		
70132681002	200A-20	EPA 200.8	163139		
70132681003	200B-20	EPA 200.8	163139		
70132681004	204-20	EPA 200.8	163139		
70132681005	207-20	EPA 200.8	163139		
70132681006	210-20	EPA 200.8	163139		
70132681007	300A-20	EPA 200.8	163139		
70132681008	300B-20	EPA 200.8	163139		
70132681009	308A-20	EPA 200.8	163139		
70132681010	308B-20	EPA 200.8	163139		
70132681011	401A-20	EPA 200.8	163139		
70132681012	401B-20	EPA 200.8	163139		
70132681013	407A-20	EPA 200.8	163140		
70132681014	407B-20	EPA 200.8	163140		
70132681015	408A-20	EPA 200.8	163140		
70132681016	408B-20	EPA 200.8	163140		
70132681017	500A-20	EPA 200.8	163140		
70132681018	500B-20	EPA 200.8	163140		
70132681019	508A-20	EPA 200.8	163140		
70132681020	508B-20	EPA 200.8	163140		
70132681021	600A-20	EPA 200.8	163140		
70132681022	600B-20	EPA 200.8	163140		
70132681023	608A-20	EPA 200.8	163140		
70132681024	608B-20	EPA 200.8	163140		
70132681025	104-20	EPA 200.8	163140		
70132681026	103-20	EPA 200.8	163140		