

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

Doyle Elementary School 260 N West Street Doylestown, PA 18901

Dear Mr. Hanna:

This document has been prepared by Langan to provide the results of the drinking water resampling activities at the above referenced school. The results of the initial drinking water sampling activities documented that total lead was present in three samples collected from drinking water fixtures (Sample Locations DS3, DS12, DN3) at level above the 15 micrograms per liter (ug/L) regulatory level. The re-sampling was conducted on August 12, 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 location:

LocationSample IDResultS3DS3R_08122119.7 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\\data\\200130403\\Project Data\\Record Data\\Report_\2021.\Resampling August 2021\\Resampling Report\\Doyle\\Loyle_\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 (DOYLE)

Pace Project No.: 70184252

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

Sophia Sparkes

Project Manager

Enclosures





(631)694-3040



CERTIFICATIONS

Project: CENTRAL BUCKS SCHOOL (DOYLE)

Pace Project No.: 70184252

Maryland Certification #: 208

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747 Connecticut Certification #: PH-0435 Delaware Certification # NY 10478

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



ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (DOYLE)

Pace Project No.: 70184252

Date: 08/18/2021 03:39 PM

Sample: DS3R_081221	Lab ID: 701	84252001	Collected: 08/12/2	21 08:30	Received: 08	3/14/21 10:40	Matrix: Drinking	g 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	19.7	ug/L	1.0	1		08/17/21 17:20	0 7439-92-1						
Sample: DS12R_081221	Lab ID: 701	84252002	Collected: 08/12/2	21 08:32	Received: 08	3/14/21 10:40	Matrix: Drinkin	g Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual					
200.8 MET ICPMS Drinking Water	Analytical Meth												
Lead	7.1	ug/L	1.0	1		08/17/21 17:2	1 7439-92-1	M1					
Sample: DN3R_081221	Lab ID: 701	84252003	Collected: 08/12/2	21 08:24	Received: 08	/14/21 10:40	Matrix: Drinking	g Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual					
200.8 MET ICPMS Drinking Water	Analytical Meth												
Lead	9.4	ug/L	1.0	1		08/17/21 17:24	4 7439-92-1						

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA

CENTRAL BUCKS SCHOOL (DOYLE) Project:

Pace Project No.:

QC Batch Method:

70184252

EPA 200.8

QC Batch: 222172

Parameter

Analysis Method:

EPA 200.8

Analysis Description:

200.8 MET No Prep Drinking Water

Laboratory:

Pace Analytical Services - Melville

Associated Lab Samples: 70184252001, 70184252002, 70184252003

METHOD BLANK: 1120313 Matrix: Water

Associated Lab Samples:

70184252001, 70184252002, 70184252003

Units

Units

ug/L

ug/L

ug/L

ug/L

Units

ug/L

Blank Result Reporting

50.2

Limit

Analyzed Qualifiers

Lead <1.0 1.0 08/17/21 17:04 ug/L

LABORATORY CONTROL SAMPLE: 1120314

Parameter

Spike Conc.

LCS Result

LCS % Rec

100

MS

Result

528

72.5

1

1

% Rec Limits

85-115

Qualifiers

MATRIX SPIKE SAMPLE:

Parameter

Lead

Lead

Lead

1120316

Units

70184249004 Result

Spike Conc.

50

MS % Rec % Rec Limits

77

131

Qualifiers

MATRIX SPIKE SAMPLE:

1120318

Parameter Units 70184252002 Result 7.1 Spike Conc. 50

MS Result

MS % Rec % Rec Limits

70-130

70-130 M1

Qualifiers

SAMPLE DUPLICATE: 1120315

Parameter

Parameter

70184249004 Units Result

490

7.1

490

Dup Result

493

7.1

Qualifiers

Lead

SAMPLE DUPLICATE: 1120317

70184252002 Result

Dup Result

RPD

RPD

Qualifiers

Date: 08/18/2021 03:39 PM

Lead

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.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: CENTRAL BUCKS SCHOOL (DOYLE)

Pace Project No.: 70184252

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: 08/18/2021 03:39 PM

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

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CENTRAL BUCKS SCHOOL (DOYLE)

Pace Project No.: 70184252

Date: 08/18/2021 03:39 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70184252001	DS3R_081221	EPA 200.8	222172		
70184252002	DS12R_081221	EPA 200.8	222172		
70184252003	DN3R_081221	EPA 200.8	222172		



Section A

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields mu

WO#:70184252

70184252

Section B Section C

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

																			Kequ	ested /	anaiys	IS FIITE	ereu (1	1/(4)					
		MATRIX CODE	to left)	OMP)		COLLE	ECTED_		,			Pre	eser	vativ	es		N/A											8 :	
	SAMPLE ID	Drinking Water	(see valid codes to left)	(G=GRAB C=COMP)	STAF	R T	ENI	D	SAMPLE TEMP AT COLLECTION	ERS							s Test	(PB)								irine (Y/N)			
+	(A-Z, 0-9 / , -)	Wipo WP Air AR Other OT Fissue TS	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP	# OF CONTAINERS	Unpreserved	HNO3	HCI	NaOH	Na2S203	Methanol	Analyses Test	200.7 Metals (Residual Chlorine (Y/N)			
Į.	DS3R_081221		DW	G	8/12/2021	830	8/12/2021	830		1		х						x								41			
V.	DS12R_081221		DW	G	B/12/2021	832	8/12/2021	832		1		х			4			×		\sqcup	+	\perp	-	-		-			_
3	DN3R_081221		DW	G	8/12/2021	824	8/12/2021	824		1	_	X			\dashv	\perp	-	×		+	+	\vdash	_	-		- 1			
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Page 7						12 Million	ER NAME A		_	RE	- 4							II.	91						F	ပ	uo P		
7 of 8							GNATURE							,				Bill L	ambing DATE	Signed:					-	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples
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Courier: Fed Ex UPS USPS LICIE	SK	30					OV-CAN
racking #: 5,95 626 Custody Seal on Cooler/Box Present:	TVAS TAND	Seals int	act: Yes	No	T	emperature Blank Pre	sent: Lives No
Custody Seal on Cooler/Box Present. C Packing Material:	ble Bags [7]	inloc 🗆	vone 🗆 Oth	er	T	ype of Ice: Wet Blue	None
Packing Material: Usubble Wrap U But	Correctio	n Factor:	10.0)	S	amples on ice, cooling p	rocess has begun
Thermometer Used: TH091 Cooler Temperature(°C):	Contection	mneratu	re Correcte	d(°C):	0.10	ate/Time 5035A kits p	laced in freezer
Cooler Temperature(°C):	O COOIET TO	трогосо		2			0/4/
Temp should be above freezing to 6.0°C	anial			Date and li	nitials of pers	on examining contents	: KO 8/14/21
JSDA Regulated Soil (🗌 N/A, water sam	ipie)	't - d Ctoto	. A1 AD CA	EL GA ID I	A MS. NC [id samples orignate fro	m a foreign source
Did samples originate in a quarantine zon	e within the Ur	Miceo 2rare	S. AL, AN, CA,	1 4, 01, 10, 4	i	ncluding Hawaii and Pue	erto Rico)? 🗀 YeslX) No
NM, NY, OK, OR, SC, TN, TX, or VA (check ma	ap)? 🗆 Yes	LUNO Luint (C	. ເ. ຕ ກາກ) ລາ	nd include	with SCUR/CO	C paperwork.	1 19
NM, NY, OK, OR, SC, TN, TX, or VA (check ma If Yes to either question, fill out a Regu	ilated Soil Chi	ecklist It.	-[1-0-010] 0	I III III III III		COMMENTS:	
				1.			
Chain of Custody Present:	Zíves	□No		2.			
Chain of Custody Filled Out:	∕∆Yes	□No		3.			
Chain of Custody Relinquished:	ZiYes	□No	□N/A	4.			
Sampler Name & Signature on COC:	∠¥es	□No	LIN/A	5.			
Samples Arrived within Hold Time:	Yes	□No		6.			
Short Hold Time Analysis (<72hr):	□Yes	PNO		7.			
Rush Turn Around Time Requested:	□Yes	MO		8.			
Sufficient Volume: (Triple volume provide	d for Wes	□No		9.			
Correct Containers Used:	✓Yes	□No		3.			
-Pace Containers Used:	∠Yes	□No		10.			
Containers Intact:	#Yes	□No		11.	Note if sedim	ent is visible in the disso	olved container.
Filtered volume received for Dissolved te	ests 🗆 Yes	□No	PM/A	12.	Hoto II coulin		
Sample Labels match COC:	Yes	□No					
-Includes date/time/ID, Matrix: SL	WIDIL	CT No.	□N/A	13.	□ HNO ₃	□H ₂ SO ₄ □NaOH	□ HCI
All containers needing preservation have	e been Dives	□No	UN/ A	1.0.		-	
abookad?							
pH paper Lot # //C/55968	found to be			Sample #	ŧ		
All containers needing preservation are	lation?						80
in compliance with method recommend	"⊵Yes	□No	□N/A				
(HNO ₃ , H ₂ SO ₄ , HCl, NaOH>9 Sulfide,	Ø.			l v		•	
NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil	and Grease.						Date/Time preservativ
DRO/8015 (water).	and or or or			Initial who	en completed:	Lot # of added	added:
Per Method, VOA pH is checked after an	nalvsis					preservative:	Jaqueu.
Samples checked for dechlorination:	□Yes	□No	(DN/A	14.			
KI starch test strips Lot #						011 : -01/ N	
Residual chlorine strips Lot #	20.				Positive for Re	s. Chlorine? Y N	
SM 4500 CN samples checked for sulfid	le? □Yes	□No	₽N/A	15.			
Lead Acetate Strips Lot #				_			
Headspace in VOA Vials (>6mm):	□Yes	□No	₽N/A	16.			
Trip Blank Present:	□Yes	□No	₽N/A	17.	1		
Trip Blank Custody Seals Present	□Yes	□No	фN/A		1		
Pace Trip Blank Lot # (if applicable):					7 D	Y / N	
Client Notification/ Resolution:				Held Dat	a Required?		
Person Contacted:					Date/Time:		
- Comments/ Resolution:							

^{*} PM (Project Manager) review is documented electronically in LIMS