

Technical Excellence Practical Experience Client Responsiveness

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 Pine Run Elementary School 383 W Butler Avenue New Britain, 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 210T, 508A, 608A) at levels 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:

| <u>Location</u> | <u>Sample ID</u> | <u>Result</u> |
|------------------|------------------|---------------|
| Nurses treatment | 210TR_081221 | 95.1 ug/L |

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

Sincerely, Langan Engineering & Environmental Services, Inc.

ohn U. Musco

John V. Musco Associate

Enclosure cc: B. Lambing – Langan

NJ Certificate of Authorization No. 24GA27996400

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2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501 www.langan.com

New Jersey • New York • Connecticut • Massachusetts • Pennsylvania • Washington, DC • Ohio • Illinois • Florida • Texas • Arizona • Colorado • Washington • California Athens • Calgary • Dubai • London • Panama



Pace Analytical Services, LLC 575 Broad Hollow Road Melville, NY 11747 (631)694-3040

August 18, 2021

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

RE: Project: CENTRAL BUCKS SCHOOL(PINE RUN) Pace Project No.: 70184248

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,

Dophia Sparkes

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

Enclosures





CERTIFICATIONS

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70184248

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



ANALYTICAL RESULTS

| Project: | CENTRAL BUCKS SCHOOL(PINE RUN) |
|----------|--------------------------------|
|----------|--------------------------------|

| Sample: 210TR_081221 | Lab ID: 701 | 84248001 | Collected: (| 08/12/2 | 1 08:03 | Received: 0 | 8/14/21 10:40 | Matrix: Drinking | Water |
|--------------------------------|-----------------------------------|--------------|--------------|---------|---------|-------------|---------------|------------------|-------|
| Parameters | Results | Units | Report I | Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 200.8 MET ICPMS Drinking Water | Analytical Meth | od: EPA 20 | 0.8 | | | | | | |
| | Pace Analytica | I Services - | Melville | | | | | | |
| Lead | 95.1 | ug/L | | 1.0 | 1 | | 08/17/21 16:5 | 59 7439-92-1 | |
| Sample: 508AR_081221 | Lab ID: 701 | 34248002 | Collected: (| 08/12/2 | 1 08:05 | Received: 0 | 8/14/21 10:40 | Matrix: Drinking | Water |
| Parameters | Results | Units | Report I | Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 200.8 MET ICPMS Drinking Water | Analytical Meth Pace Analytica | | | | | | | | |
| Lead | 3.4 | ug/L | | 1.0 | 1 | | 08/17/21 17:0 | 0 7439-92-1 | |
| Sample: 608AR_081221 | Lab ID: 701 | 34248003 | Collected: (| 08/12/2 | 1 08:06 | Received: 0 | 8/14/21 10:40 | Matrix: Drinking | Water |
| Parameters | Results | Units | Report I | Limit | DF | Prepared | Analyzed | CAS No. | Qual |
| 200.8 MET ICPMS Drinking Water | Analytical Meth Pace Analytica | | | | | | | | |
| Lead | 3.3 | ug/L | | 1.0 | 1 | | 08/17/21 17:0 | 1 7/20 02 1 | |



QUALITY CONTROL DATA

| Project: CENTRAL BUCK Pace Project No.: 70184248 | S SCHOOL(PINE RI | UN) | | | | | |
|---|--------------------|-------------------------------------|--------------------|------------------------------|-------------------|-----------------|------------|
| QC Batch: 222171 QC Batch Method: EPA 200.8 | | Analysis Methoo Analysis Descrij | ption: 2 | EPA 200.8 200.8 MET No Pr | | | |
| Associated Lab Samples: 7018424 | 3001, 70184248002, | Laboratory: 70184248003 | I | Pace Analytical S | ervices - Melvill | e | |
| METHOD BLANK: 1120306 | | Matrix: W | ater | | | | |
| Associated Lab Samples: 70184248 | 3001, 70184248002, | | | | | | |
| Parameter | Units | Blank I Result | Reporting Limit | Analyzed | Qualifier | e | |
| Lead | ug/L | <1.0 | 1.0 | | | <u> </u> | |
| ABORATORY CONTROL SAMPLE: | 1120307 | | | | | | |
| Parameter | Units | Spike LC Conc. Res | | LCS % Rec | % Rec Limits | Qualifiers | |
| _ead | 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 |
| _ead | 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 | | |
| _ead | ug/L | 7.2 | 7. | 0 2 | 2 | _ | |
| SAMPLE DUPLICATE: 1120311 | | | | | | | |
| Parameter | Units | 70184245003 Result | Dup Result | RPD | Qualifiers | | |
| _ead | ug/L | 48.8 | 49.4 | 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.



QUALIFIERS

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70184248

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CENTRAL BUCKS SCHOOL(PINE RUN)

Pace Project No.: 70184248

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|--------------|-----------------|----------|-------------------|---------------------|
| 70184248001 | 210TR_081221 | EPA 200.8 | 222171 | | |
| 70184248002 | 508AR_081221 | EPA 200.8 | 222171 | | |
| 70184248003 | 608AR_081221 | EPA 200.8 | 222171 | | |

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Docu The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be c

WO#:70184248

TO BE AN ADDRESS OF THE OWNER.

| Section | A d Client Information: | Section B Required Pri | niect | Info | rmation: | | | Invo | | tion: | С natio | on: | | | | | | | | | | | | | | | | | | | | | | |
|---------|--|---------------------------|---------------------------|-------------|--------------|-----------|---------------|----------|---------------------------|-----------------|-------------|--------|----------|--------|----------|----------|-------|---------------|-------------------|--------|-------|-------|-------|-------|-------|------------------|-------|----|-------------------------|---------|------|-----------|----------------------------|---|
| Company | | Report To: | | Lamb | | | _ | | _ | Attent | - | _ | II Lam | pnide | - | _ | - | - | | _ | | _ | 1 | 7 | 01 | 842 | 48 | | | | | | | |
| Address | | Сору То: | 0111 | Lanto | Ing | | | | | or destroyed as | 115 111 111 | | | | Engir | neering | J | | | | | | - | | | | | | | | | | | |
| | on, PA 18976 | | | | | | | | | Addre | | _ | _ | | | Suite : | | | | | | | | | 1.11 | 2.5 | UL.S. | R | egulat | tory Ag | ency | E. | | |
| | blambing@langan.com | Purchase Or | der #: | | 200130403- | -400-001 | | | | Pace | Quot | | | - | | Lang | | ace l | MSA | | | | _ | | | | | | | | | | | |
| Phone: | 215-491-6500 Fax 2015-491-6501 | Project Name | | | tral Bucks S | | trict (Pine F | Run) | | Pace | Proje | ect Ma | anage | r: | sor | hia.s | sparl | kes | @p | acel | abs.c | :om | | | | | | | State | / Locat | ion | 122 | | |
| 10 | ed Due Date: 72 hour (3 day) Turn Around | Project #: 200 | | | | | | | | Pace | Profi | ile #: | 79 | 83 | | | | | | | | | | | | | | | _ | PA | | | | |
| | | | - | | | | | | | | | | | | | | | | - 11 | Re | quest | ed Ar | nalys | is Fi | tered | 1 (Y/N | I) | | | | | - 74 | | |
| | MATRIX Drinking 1 | | (see valid codes to left) | C=COMP) | | COLL | ECTED | | TION | | - | F | Prese | ervati | ves | | 14741 | NIA | | | | | | | | | | _ | | | | | | |
| | Water Wasto W Product Soli/Solid Oil | P SL OL | (see valid o | (G=GRAB | STA | RT | EN | D | AT COLLEC | ERS | | | | | | | | s Test | (PB) | | | | | | | | | | orine (Y/N) | | | | | |
| ITEM # | One Character per box. Wipe (A-Z, 0-9 / , -) Air Other Sample Ids must be unique Tissue | WP AR OT TS | MATRIX CODE | SAMPLE TYPE | DATE | TIME | DATE | TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | H2SO4 | HCI | NaOH | Na2S203 | Methanol | Other | Analyses Test | 200.7 Metals (PB) | | | | | | | | | | Residual Chlorine (Y/N) | | | | | |
| 1 | 210TR_081221 | | DW | G | 8/12/2021 | 803 | 8/12/2021 | 803 | | 1 | | | x | | | | | | x | | | | ١. | | | | | | | | | | | |
| 2 | 508AR_081221 | | DW | | 8/12/2021 | 805 | 8/12/2021 | 805 | | 1 | | | x | | | | | Ĩ | x | | | | | | | | | | | | | | | |
| | | | | | | | | 806 | | | | | x | | | | | Ì | x | | | | | | | | | | 1 | | | | | ٦ |
| 3 | 608AR_081221 | | DW | G | 8/12/2021 | 806 | 8/12/2021 | 806 | | | | - | <u>-</u> | 1 | | | - | ł | | | + | + | | 1 | | | | | 1 | | | | | |
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| | ADDITIONAL COMMENTS | | REI | LINQ | UISHED BY / | AFFILIATI | UN | DATE | | - | TIME | - 14 | 1.01 | ~ | | EPTE | UBYI | AF | | | | 11 | 07 | | - | | | _ | | SAMP | T | | 1 | _ |
| | | | | 1 | Sur | Jam | 4 | 8/12/20 |)21 | | 530 | 0 | 1 | m | ~ | ~ | - | 10 | h | \sim | | | 4/1 | M | 181 | 1 | 0.6 | 10 | | _ | + | | | _ |
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| Page | | | | | | SAMPL | ER NAME A | ND SIGN | ATUP | RE | | | | 2 | | | | | | | J. | - | | | -18 | | | | υ | Б | | | | |
| e 7 of | | | | | | Pf | RINT Name | of SAMPL | ER: | Э | | | | | | | | в | Bill La | mbin | 9 | | | | | | | | TEMP in C | eived | () | ed ler | (Y/N) Samples Intact | _ |
| f 8 | | | | | | S | GNATURE | of SAMPL | ER: | , | 12 | ser | 0 c | So | w |) | | | | DATE | Sign | ed: | | | 8/12 | 2/202 | 1 | | TEN | Rec | V/V | Seal | Sam | ž |

| | Sa | mple C | condition | n Upon | Rece | ipt WO#:7 | 1121 | 248 | |
|---|--------------|-------------|----------------|--------------|------------|---|----------------|--------------------|--------|
| Face Analytical® | | | | | Pro | MOH: U | 0104 | | |
| Pace Analytical | Client Na | ime: | | | FIU | PM: STS | Due D | ate: 08/19/2 | • |
| | | | and Minther | | | CLIENT: LAN | -PA | | |
| Courier: Fed Ex UPS USPS Client | | s D | | | | | | | |
| Courter: Pred Ex. UPS USPS Client Tracking #: <u>5,245 (5,265</u> Custody Seal on Cooler/Box Present: Pre | 2 50 | Sools int | act. [] Yes | No | | remperatu | re Blank Pre | sent: Ves | 0 |
| Custody Seal on Cooler/Box Present: | SANO | | | er | | Type of Ice | Wet Blu | e None | |
| Packing Material: Bubble Wrap D Bubble | Days 📋 | ribior Di | 10.0 | | | Samples on | ice, cooling p | irocess has begun | |
| Thermometer Used: TH091 | | omnaratu | re Correcte | d{°C']: | 21,0 | Date/Time | 5035A kits p | laced in freezer | |
| | - | emperato | | | | | | 0/, | |
| Temp should be above freezing to 6.0°C | ì | | | Date and | Initials o | of person examin | ing contents | : KO 8/14 | 121 |
| USDA Regulated Soil (\Box N/A, water sample | | 1 | | | | C Did samples | orionate fro | m a foreign source | |
| Did samples originate in a quarantine zone w | ithin the U | nited State | S: AL, AR, CA, | 1 L, UA, IU, | L, 110, 11 | including Ha | awaii and Pue | erto Rico)? 🛛 YesD | Ø No |
| NM, NY, OK, OR, SC, TN, TX, or VA (check map)? | | S LINO | LL C 010) ar | nd include | with SC | UR/COC paperwo | irk. | | 8 U |
| NM, NY, OK, OR, SC, TN, TX, or VA (check map)? If Yes to either question, fill out a Regulat | ed Soll Un | iecklist (F | -LI-C-010) ui | | | СОМ | MENTS: | | |
| | | ⊡No | | 1. | | | | | |
| Chain of Custody Present: | ØYes ØYes | | | 2. | | | | | - |
| Chain of Custody Filled Out: | AllYes | | | 3. | | | | | |
| Chain of Custody Relinquished: | 1 | | DN/A | 4. | | | | | |
| Sampler Name & Signature on COC: | ∠ Yes | | | 5. | | | | | |
| Samples Arrived within Hold Time: | | No | | 6. | | * | | | |
| Short Hold Time Analysis (<72hr): | | ENO | | 7. | | | | | |
| Rush Turn Around Time Requested: | | | | 8. | | | | | |
| Sufficient Volume: (Triple volume provided fo | ElYes | | | 9. | | | | | |
| Correct Containers Used: | Elles | | | | | | | | |
| -Pace Containers Used: | ElYes | | | 10. | | | | | |
| Containers Intact: Filtered volume received for Dissolved tests | | □No | ,EINTA | 11. | Note if | sediment is visibl | e in the disso | lved container. | |
| Sample Labels match COC: | ElYes | ⊡No | | 12. | | | | 34 | |
| -Includes date/time/ID, Matrix: SL WT | | | | | | 11.00 | - N+ 011 | D HCI | |
| All containers needing preservation have be | en Dayes | ⊡No | ⊡N/A | 13. | | H_2SO_4 | 🗆 NaOH | | |
| checked? | 6 | | | | | | | | |
| oH paper Lot # 11(15596% | | | | Sample | # | | | | |
| All containers needing preservation are fou | nd to be | | | Sampic | T | | | C 100 C | Б¢ |
| in compliance with method recommendation | n? | | ⊡N/A | | | | | | |
| (HNO₃, H₂SO₄, HCI, NaOH>9 Sulfide, | Pres | ⊡No | | | | | | | |
| NAOH>12 Cyanide) | 0 | | | | | | | | |
| Exceptions: VOA, Coliform, TOC/DOC, Oil and | Grease, | | | Initial wh | nen comp | leted: Lot # of a | lded | Date/Time preser | vative |
| DRO/8015 (water). | | | | | a | preservati | | added: | |
| Per Method, VOA pH is checked after analys | GYes | ⊡No | 6N/A | 14. | | 11 | | | |
| Samples checked for dechlorination: | | | T | | | | | | |
| KI starch test strips Lot # | ÷ | | 1 | 1 | Positive | for Res. Chlorine | Y N | | |
| Residual chlorine strips Lot # | ⊡Yes | □No | DN/A | 15. | | | | | |
| SM 4500 CN samples checked for sulfide? | | | | 1 | | | | | |
| Lead Acetate Strips Lot # Headspace in VOA Vials (>6mm): | ⊡Yes | ⊡No | A/NC | 16. | | | - | | |
| Trip Blank Present: | □Yes | DNo | A/NC | 17. | 1 | | | | |
| Trip Blank Custody Seals Present | ⊡Yes | ⊡No | ΦN/A | | 1 | | | | |
| Pace Trip Blank Lot # (if applicable): | | | | | 2 | | N 1 11 | | |
| Client Notification/ Resolution: | | | | Field Da | ata Requir | terrane and the second s | Y / N | | |
| Person Contacted: | | | | | Date | /Time: | | | |
| Comments/ Resolution: | | | | | | | | • | |
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