

July 17, 2019

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  
Warwick Elementary School  
1340 Almshouse Road  
Jamison, PA 18929  
Bucks County, Pennsylvania**

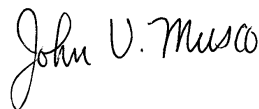
Dear Mr. Nickerson:

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.) 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).

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: R. Copenhaver, PG – Langan  
B. Lambing. - Langan  
Tyler Arinder – Langan

NJ Certificate of Authorization No. 24GA27996400

\\langan.com\data\DY\data4\200130401\Project Data\Record Data\Reports\Day 9\_6-15-19 Holicong\_Warwick\_Jamison\Warwick\_Lead\_Sampling\_Memo.docx

July 02, 2019

Randy Copenhaver  
Langan Engineering  
2700 Kelly Road, Suite 200  
Warrington, PA 18976

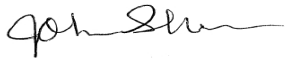
RE: Project: CENTRAL BUCKS SCHOOL (WARWICK)  
Pace Project No.: 7094185

Dear Randy Copenhaver:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



John D. Stanton  
john.stanton@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: Bill Lambing, Langan Engineering



## 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 (WARWICK)

Pace Project No.: 7094185

---

### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

---

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)  
Pace Project No.: 7094185

Sample: W1		Lab ID: 7094185001	Collected: 06/15/19 08:03	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 21:03	7439-92-1	
Sample: W2		Lab ID: 7094185002	Collected: 06/15/19 08:01	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 21:12	7439-92-1	
Sample: W1F		Lab ID: 7094185003	Collected: 06/15/19 08:02	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 21:15	7439-92-1	
Sample: W3		Lab ID: 7094185004	Collected: 06/15/19 08:01	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 21:18	7439-92-1	
Sample: W4		Lab ID: 7094185005	Collected: 06/15/19 08:00	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 21:21	7439-92-1	
Sample: W5		Lab ID: 7094185006	Collected: 06/15/19 08:05	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 21:24	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)

Pace Project No.: 7094185

Sample: W6	Lab ID: 7094185007	Collected: 06/15/19 08:05	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	1.2	ug/L	1.0	1		06/28/19 21:27	7439-92-1	
Sample: W7	Lab ID: 7094185008	Collected: 06/15/19 08:06	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	1.1	ug/L	1.0	1		06/28/19 21:36	7439-92-1	
Sample: W8	Lab ID: 7094185009	Collected: 06/15/19 08:06	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	1.1	ug/L	1.0	1		06/28/19 21:39	7439-92-1	
Sample: W41F	Lab ID: 7094185010	Collected: 06/15/19 08:08	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 21:42	7439-92-1	
Sample: W41	Lab ID: 7094185011	Collected: 06/15/19 08:08	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 21:45	7439-92-1	
Sample: WK	Lab ID: 7094185012	Collected: 06/15/19 08:10	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 21:54	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)

Pace Project No.: 7094185

Sample: W11	Lab ID: 7094185013	Collected: 06/15/19 08:15	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	2.4	ug/L	1.0	1		06/28/19 21:57	7439-92-1	
Sample: W12	Lab ID: 7094185014	Collected: 06/15/19 08:14	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	5.0	ug/L	1.0	1		06/28/19 22:00	7439-92-1	
Sample: W13	Lab ID: 7094185015	Collected: 06/15/19 08:13	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 22:03	7439-92-1	
Sample: W14	Lab ID: 7094185016	Collected: 06/15/19 08:13	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 22:12	7439-92-1	
Sample: W15	Lab ID: 7094185017	Collected: 06/15/19 08:12	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 22:15	7439-92-1	
Sample: W16	Lab ID: 7094185018	Collected: 06/15/19 08:11	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 22:18	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)  
Pace Project No.: 7094185

Sample: W18		Lab ID: 7094185019	Collected: 06/15/19 08:23	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:21	7439-92-1	
Sample: W19		Lab ID: 7094185020	Collected: 06/15/19 08:24	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:24	7439-92-1	
Sample: W21		Lab ID: 7094185021	Collected: 06/15/19 08:24	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:34	7439-92-1	
Sample: W22		Lab ID: 7094185022	Collected: 06/15/19 08:30	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:49	7439-92-1	
Sample: W23		Lab ID: 7094185023	Collected: 06/15/19 08:32	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:52	7439-92-1	
Sample: W24		Lab ID: 7094185024	Collected: 06/15/19 08:33	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:55	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)  
Pace Project No.: 7094185

Sample: W25		Lab ID: 7094185025	Collected: 06/15/19 08:36	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 22:58	7439-92-1	
Sample: W26		Lab ID: 7094185026	Collected: 06/15/19 08:36	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	1.2	ug/L	1.0	1		06/28/19 23:01	7439-92-1	
Sample: W27		Lab ID: 7094185027	Collected: 06/15/19 08:33	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 23:04	7439-92-1	
Sample: W28		Lab ID: 7094185028	Collected: 06/15/19 08:32	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 23:07	7439-92-1	
Sample: W29		Lab ID: 7094185029	Collected: 06/15/19 08:30	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 23:10	7439-92-1	
Sample: W30		Lab ID: 7094185030	Collected: 06/15/19 08:29	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 23:13	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)  
Pace Project No.: 7094185

Sample: W31	Lab ID: 7094185031	Collected: 06/15/19 08:25	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 23:16	7439-92-1	
<b>Sample: W40</b>	<b>Lab ID: 7094185032</b>	Collected: 06/15/19 08:27	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	4.8	ug/L	1.0	1		06/28/19 23:31	7439-92-1	
<b>Sample: W40F</b>	<b>Lab ID: 7094185033</b>	Collected: 06/15/19 08:26	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 23:34	7439-92-1	
<b>Sample: W32</b>	<b>Lab ID: 7094185034</b>	Collected: 06/15/19 08:25	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	3.7	ug/L	1.0	1		06/28/19 23:37	7439-92-1	
<b>Sample: W33</b>	<b>Lab ID: 7094185035</b>	Collected: 06/15/19 08:24	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 23:40	7439-92-1	
<b>Sample: WNF</b>	<b>Lab ID: 7094185036</b>	Collected: 06/15/19 08:22	Received: 06/18/19 11:00	Matrix: Drinking Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>	Analytical Method: EPA 200.8							
Lead	<1.0	ug/L	1.0	1		06/28/19 23:43	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS

Project: CENTRAL BUCKS SCHOOL (WARWICK)

Pace Project No.: 7094185

<b>Sample: WNE</b>		<b>Lab ID: 7094185037</b>	Collected: 06/15/19 08:21	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 23:46	7439-92-1	

<b>Sample: WN1</b>		<b>Lab ID: 7094185038</b>	Collected: 06/15/19 08:20	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	<1.0	ug/L	1.0	1		06/28/19 23:49	7439-92-1	

<b>Sample: WNB</b>		<b>Lab ID: 7094185039</b>	Collected: 06/15/19 08:19	Received: 06/18/19 11:00	Matrix: Drinking Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS Drinking Water</b>		Analytical Method: EPA 200.8						
Lead	1.3	ug/L	1.0	1		06/28/19 23:52	7439-92-1	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.