



April 30, 2018

Mr. Ed Buzzelli  
Hanover County Public Schools  
Operations  
200 Berkley Street  
Ashland, VA 23005

Subject: Lead in Drinking Water Sampling Results – Resampling Event  
Rural Point Elementary School

Dear Ed,

EEE Consulting Inc. (3e) sampled seventeen (17) high priority drinking water sources at the Rural Point Elementary School located at 7161 Studley Road in Mechanicsville, Virginia on November 1, 2017. High priority drinking water sources tested included the water main entering the building, drinking water fountains/coolers and bubbler drinking fountains. Four (4) samples collected from the drinking water sources contained lead concentrations above the Action Limit of 20 parts per billion (ppb) of lead recommended by the EPA Revised Technical Guidance, “3Ts for Reducing Lead in Drinking Water in Schools”. Samples collected from the remaining drinking water sources at Rural Point Elementary School contained lead concentrations below the Action Limit. Sample results depicted in red contained concentrations above the Action Limit of 20 ppb lead.

**Elevated Lead Results – November 1, 2017:**

Sample ID	Location	Lead Result
RPES-DF-01	Drinking Fountain in Kitchen	86.1 ppb
RPES-DF-10	Drinking Fountain in Room 17	84.7 ppb
RPES-DF-11	Drinking Fountain in Room 21	165 ppb
RPES-DF-14	Bubbler Fountain at Exterior of Building Outside Room 27	20.5 ppb

3e recommended this source be resampled with an initial draw sample (denoted as A) followed by a 30-second flush sample (denoted as B) to determine whether lead is being contributed from the unit or the internal plumbing of the building. These units were taken out of service until follow-up testing was completed on March 9, 2018. The bubbler fountain at the exterior of the building outside of Room 27 (RPES-DF-14) was not sampled, as the supply tube was broken and disconnected from the water line. If the fountain is repaired, 3e recommends resampling with an initial draw, followed by a 30-second flush sample. The samples were submitted to Environmental Hazards Services, LLC in Chesterfield, Virginia for analysis of lead content.

**Resample Results - March 7, 2018:**

Sample ID	Location	Lead Result
RPES-DF-01A	Drinking Fountain in Kitchen	23.9 ppb
RPES-DF-01B	Drinking Fountain in Kitchen	238 ppb
RPES-DF-10A	Drinking Fountain in Room 17	159 ppb
RPES-DF-10B	Drinking Fountain in Room 17	<1.0 ppb
RPES-DF-11A	Drinking Fountain in Room 21	37.9 ppb
RPES-DF-11B	Drinking Fountain in Room 21	1.01 ppb

The sample results indicated that lead concentrations from the resample of RPES-DF-01 were reported above the EPA Action Limit of 20 ppb; however, the resample collected second draw sample (RPES-DF-01B) was higher

than the initial sample collected. **3e** determined that the higher concentration of the second draw sample (RPES-DF-01B) is likely due to leaching of lead into the water as it sits in the chiller within the water fountain. Initial resamples of RPES-DF-10 and RPDES-DF-11 were reported above the EPA Action Limit of 20 ppb; however, the resamples collected after the 30-second flush for RPES-DF-10 and RPES-DF-11 were reported below the Action Limit. **3e** determined that the elevated concentrations of the first draw samples (RPES-DF-010A and RPES-DF-11A) and acceptable concentrations in the second draw sample (RPES-DF-10B and RPES-DF-11B) are likely due to leaching of lead into the water as it sits in the bubbler, but not in the bubbler valves. Documentation for the resamples is included on the attached field sampling documentation form and sample location sites are represented on the attached building diagram.

In lieu of lead contamination being localized and limited to three (3) units, **3e** recommends replacing these sources with new fountains, as it may be the most practical solution. The EPA worked with the plumbing industry and National Sanitation Foundation (NSF) International to develop an industry standard that is designed to minimize the amounts of lead being leached from these products. Hanover County Public Schools should ensure that any replacement fountains be in compliance with NSF Standard 61, Section 9 before purchasing or installing a new endpoint device.

We appreciate this opportunity to provide our environmental consulting services on this project and look forward to continued services. Please feel free to contact me at (804) 442-3330 ext. 225 with any questions.

Sincerely,

A handwritten signature in blue ink that reads "Carroll H. Ellis, III". The signature is written in a cursive style.

Carroll H. Ellis, III  
Environmental Scientist

Attachments

Sample Recordkeeping Form										School: Rural Point Elementary School	
Sample Collector	Sample ID #	Sample Date	Sample Time	Sample Type (1st Draw or Flush)	Outlet Type	Manufacturer/Model	Serial #	Laboratory	Bottle Lot #	Lead Result (ppb)	
1	ES	RPES-WM-01	11/01/17	6:53 AM	30 sec	Main		EHS	44081705	<1.00	
2	ES	RPES-S-01	11/01/17	6:17 AM	Initial	Kitchen Prep Sink		EHS	44081705	<1.00	
3	ES	RPES-DF-01	11/01/17	6:15 AM	Initial	Drinking Fountain	NSW-1A	C218650	EHS	44081705	86.1
4	ES	RPES-DF-02	11/01/17	6:13 AM	Initial	Drinking Fountain		EHS	44081705	1.43	
5	ES	RPES-DF-03	11/01/17	6:12 AM	Initial	Drinking Fountain		EHS	44081705	7.2	
6	ES	RPES-DF-04	11/01/17	6:09 AM	Initial	Drinking Fountain		EHS	44041725	4.1	
7	ES	RPES-DF-05	11/01/17	6:48 AM	Initial	Drinking Fountain	P8AM-D300	130393132	EHS	44041725	<1.00
8	ES	RPES-DF-06	11/01/17	6:19 AM	Initial	Drinking Fountain		EHS	44041725	<1.00	
9	ES	RPES-DF-07	11/01/17	6:22 AM	Initial	Drinking Fountain		EHS	44041725	<1.00	
10	ES	RPES-DF-08	11/01/17	6:26 AM	Initial	Drinking Fountain	PLF14M	128357430	EHS	44121600	<1.00
11	ES	RPES-DF-09	11/01/17	6:34 AM	Initial	Drinking Fountain	P8AM-D101	37580356	EHS	44041725	<1.00
12	ES	RPES-DF-10	11/01/17	6:44 AM	Initial	Bubbler Fountain		EHS	44041725	84.7	
13	ES	RPES-DF-11	11/01/17	6:37 AM	Initial	Bubbler Fountain		EHS	44041725	165	
14	ES	RPES-DF-12	11/01/17	6:39 AM	Initial	Bubbler Fountain		EHS	44041725	6.75	
15	ES	RPES-DF-13	11/01/17	6:40 AM	Initial	Bubbler Fountain		EHS	44041725	4.24	
16	ES	RPES-DF-14	11/01/17	6:42 AM	Initial	Drinking Fountain		EHS	44041725	20.5	
17	ES	RPES-DF-15	11/01/17	6:31 AM	Initial	Drinking Fountain		EHS	44121600	5.44	
18	ES	RPES-DF-16	11/01/17	6:29 AM	Initial	Drinking Fountain	Fountain not operational; No sample Collected				
Resamples											
3	CE	RPES-DF-01A	3/7/18	9:00 AM	Initial	Drinking Fountain		EHS		23.9	
3	CE	RPES-DF-01B	3/7/18	9:01 AM	30 sec	Drinking Fountain		EHS		238	
12	CE	RPES-DF-10A	3/7/18	8:39 AM	Initial	Bubbler Fountain		EHS		159	





Environmental Hazards Services, L.L.C.  
 7469 Whitepine Rd  
 Richmond, VA 23237  
 Telephone: 800.347.4010

## Lead in Drinking Water Analysis Report

Report Number: 18-03-01240

Client: EEE Consulting Inc.  
 8525 Bell Creek Rd.  
 Mechanicsville, VA 23116

Received Date: 03/09/2018  
 Reported Date: 03/20/2018  
 Sampled By: Carroll Ellis  
 Tech Certification #:

Project/Test Address: Rural Point Elementary School; Mechanicsville, VA 23116

Client Number:  
 48-5796

# Laboratory Results

Fax Number:  
 804-442-3334

Lab Sample Number	Client Sample ID	Collection Date	Collection Location	Concentration ug/L (ppb)	Analysis Date	Narrative ID
18-03-01240-001	RPES-DF-01A	03/07/2018	DRINKING FOUNTAIN	23.9	03/19/2018	
18-03-01240-002	RPES-S-01B	03/07/2018	DRINKING FOUNTAIN	238	03/19/2018	
18-03-01240-003	RPES-DF-10A	03/07/2018	BUBBLER FOUNTAIN	159	03/19/2018	
18-03-01240-004	RPES-DF-10B	03/07/2018	BUBBLER FOUNTAIN	<1.00	03/19/2018	
18-03-01240-005	RPES-DF-11A	03/07/2018	BUBBLER FOUNTAIN	37.9	03/19/2018	
18-03-01240-006	RPES-DF-11B	03/07/2018	BUBBLER FOUNTAIN	1.01	03/19/2018	

# Environmental Hazards Services, L.L.C

Client Number: 48-5796

Report Number: 18-03-01240

Project/Test Address: Rural Point Elementary School; Mechanicsville, VA  
23116

---

Lab Sample Number	Client Sample ID	Collection Date	Collection Location	Concentration ug/L (ppb)	Analysis Date	Narrative ID
-------------------	------------------	-----------------	---------------------	--------------------------	---------------	--------------

---

Method: SM 3113B-2010  
Analyst: Jennalee Zlotkowski  
Accreditation #: VA 460172

Reviewed By Authorized Signatory: *Melissa Kanode*

---

*Missy Kanode*

QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contain less than the reporting limit which is 1 ppb.

The EPA Maximum Contaminant Level for Lead in Drinking Water is 15 ppb. The results herein conform to NELAC standards, where applicable, unless otherwise narrated on this report. Results represent the analysis of samples submitted by the client. Sample location, description, field parameter results, etc., were provided by the client. This report cannot be reproduced, except in full, without written approval from Environmental Hazards Services, L.L.C.

---

LEGEND                      ug/L= micrograms per liter                      ppb = parts per billion

---



**ENVIRONMENTAL HAZARDS SERVICES, LLC**  
**Water Chain-of-Custody Form**

(For Multi-Sample Projects)  
 Richmond, VA - Phone: (800) 347-4010 FAX: (804) 275-4907  
 ONLINE CLIENT PORTAL AVAILABLE FOR ANALYSIS RESULTS AT: [www.leadlab.com](http://www.leadlab.com)

18-03-01240



Due Date:  
 04/19/2018  
 (Thursday)  
 AE

Company Name: EEE Consulting Inc Account #: 48-5796

Address: 8525 Bell Creek Rd City/State/Zip: Mechanicsville, VA 23116

Phone: 804-442-3330 Email: csmith@eee-consulting.com Fax: \_\_\_\_\_

Project Name / Collection Address: Rural Point Elementary School City/State: Mechanicsville, VA Zip: 23116  
 (Required) (Required)

Age of Property: \_\_\_\_\_ Well Tag # (If Applicable): \_\_\_\_\_ Collected by: Carroll H. Ellis, III Certification #: \_\_\_\_\_

P.O. #: 17-191 Relinquished by: Ch Signature: Ch Date: 3/9/18

\* Sample not received. TAM 3/9/18

No.	Client Sample ID	Collection Location (Ex: Kitchen Sink)	Collection Date	Collection Time	Metals			Field Parameters		LAB USE
					Lead	Copper	Other	Field pH at time of Collection:	Temp. at time of Collection:	Temp at Time of Receipt:
1	RPES-DF-01A	Drinking Fountain	3/7/2018	9:00	AM/PM	✓				
2	RPES-S-01B	Drinking Fountain	3/7/2018	9:01	AM/PM	✓				
3	RPES-DF-10A	Bubbler Fountain	3/7/2018	8:39	AM/PM	✓				
4	RPES-DF-10B	Bubbler Fountain	3/7/2018	8:40	AM/PM	✓				
5	RPES-DF-11A	Bubbler Fountain	3/7/2018	8:43	AM/PM	✓				
6	RPES-DF-11B	Bubbler Fountain	3/7/2018	8:44	AM/PM	✓				
7	RPES-DF-14A	Bubbler Fountain	3/7/2018	8:52	AM/PM	✓				
8	<del>RPES-DF-14B</del>	<del>Fountain</del>	3/7/2018	N/A	AM/PM	✓				
9			3/7/2018		AM/PM	✓				
10			3/7/2018		AM/PM	✓				

Received By: J. Mohammed

Date: 3/9/18 Time: 4:15p Temp. Received: \_\_\_\_\_

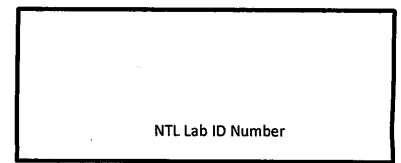
Shipping Tracking #: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

**PLEASE SEND WATER KIT SAMPLES TO THE FOLLOWING ADDRESS:**

**556 S. Mansfield St.  
 Ypsilanti, MI 48197**

*All Samples Except for Lead /Metals Must Be Shipped On Ice Via Overnight Shipping*



NTL Lab ID Number