



#139-1617

HEALTH, SAFETY & RISK MANAGEMENT
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Environmental Hygiene Report

Attn: Maria C. Rice
 Superintendent of Schools
 New Paltz Central School District
 196 Main Street, New Paltz, NY 12561
 Prepared by: Michael O'Rourke, RPIH – No. 0500399

Location(s)	NP High School & Middle School
Project No.	139-1617
Site Visit(s)	January 24, 2017
Report Date	February 4, 2017
Investigator(s)	Michael O'Rourke

Ulster County BOCES Health, Safety & Risk Management does not assert that all potential health or safety hazards at this site were evaluated during this survey. This survey is strictly limited to that which is identified in the Project Scope of the report.

BRINGING ULSTER COUNTY SCHOOLS TOGETHER TO ENHANCE TEACHING & LEARNING

Ellenville Central Schools • Highland Central Schools • Kingston City Schools • New Paltz Central Schools •
 Onteora Central Schools • Rondout Valley Central Schools • Saugerties Central Schools • New Paltz Central Schools

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Author's Note: Parenthetical numerals at the end of a sentence reference the work with the corresponding notation in the **References** section. *Please read this report in its entirety, including any attached appendices, to fully understand this investigation.*

Executive Summary

Per the requirements of Subpart 67-4: Lead Testing in School Drinking Water, we sampled water outlets in the New Paltz Central School District's middle school and high school on October 15 & 29, 2016 (see **Project Report #s 112-1617 & 126-1617**) . Multiple locations sampled in the these two buildings exceeded the 15 parts per billion (ppb) action level. Per 67-4.4, these outlets were taken out of service as potable water until remediation and re-testing indicated that the lead levels are at or below the action level. District personnel removed the plumbing fixtures and associated piping in four home & careers classrooms: one location in the high school and three in the middle school. The fixtures and piping were replaced with lead-free (LF) materials. On January 24, 2017 we resampled these locations using the NYSDOH protocol. The three locations at the middle school had lead levels below the action level but the sample taken in Room 213 at the high school still exceeded 15 ppb. The three locations at the middle school can immediately be put back into service. The sink in Room 213 at the high school will require additional remediation prior to re-sampling.

Project Scope

Collect samples from plumbing fixtures in four locations in the New Paltz High School and Middle School that previously showed lead levels above 15 ppb. Review the data and information and prepare a written report for the New Paltz Central School District.

Materials & Methods

All samples were collected from the type of plumbing fixtures where potable water is commonly drawn using the NYSDOH protocol. First-draw samples for lead were collected after

the water had sat in the pipes for at least eight hours. All samples were collected in 250 ml containers provided by EnviroTest Laboratories in Newburgh, NY. The samples were returned to the laboratory the following day for analysis per the lab’s directives. EnviroTest is NYS ELAP-approved (#10142) for potable and non-potable water analysis.

Results Summary

All sample results and other data were reported to the administration of the local educational agency (LEA) via phone, fax, or e-mail as they became available to our department. **See the Appendix for full laboratory reports.**

Follow-Up Water Testing Results

January 24, 2017

School	Location	Initial Result (ppb)	Re-Test Result (ppb)
High School	Room 213 W. Wall 2 nd From Left Sink Faucet	51	56
Middle School	Room 42 Left Sink Faucet	46	9.9
Middle School	Room 42 Center Sink Faucet	19	14
Middle School	Room 42 Right Sink Faucet	16	8.8

Discussion

In order to be used as healthful fluid for human consumption, water must be free from organisms that are capable of causing disease and from minerals and organic substances that could produce adverse physiological effects. (1) The Safe Drinking Water Act sets maximum contaminant levels (MCLs) for numerous contaminants. These include various inorganic, volatile organic, and synthetic organic compounds. Public water systems are required to do initial and periodic testing of their source water.

Comments & Recommendations

Per the requirements of Subpart 67-4: Lead Testing in School Drinking Water, we sampled water outlets in the New Paltz Central School District's middle school and high school on October 15 & 29, 2016 (see **Project Report #s 112-1617 & 126-1617**) . Multiple locations sampled in the these two buildings exceeded the 15 parts per billion (ppb) action level. Most of these locations were laboratory sinks which are not intended to be used for consumption. Per 67-4.4, these outlets were taken out of service as potable water until remediation and re-testing indicated that the lead levels are at or below the action level. District personnel removed the plumbing fixtures and associated piping in four home & careers classrooms: one location in the high school and three in the middle school. The fixtures and piping were replaced with lead-free (LF) materials. By law LF plumbing materials currently can contain between 0.2 and 0.25% lead. On January 24, 2017 we resampled these locations using the NYSDOH protocol. The three locations at the middle school had lead levels below the action level but the sample taken in Room 213 at the high school still exceeded 15 ppb. The three locations at the middle school can immediately be put back into service. The sink in Room 213 at the high school will require additional remediation prior to re-sampling.

References

1. **American Water Works Association:** *Water Quality and Treatment*. New York, NY: McGraw-Hill, 1990
2. **Bailey, R.A. et. al.:** *Chemistry of the Environment*. New York, NY: Academic Press, 1978.
3. **USEPA:** *3Ts for Reducing Lead in Drinking Water in Schools*. Washington, DC: USEPA, 2006.

APPENDIX

Laboratory Reports

ANALYTICAL REPORT

Job Number: 420-115962-1
SDG Number: New Paltz CSD - H&Cs
Job Description: Ulster BOCES

For:
Ulster BOCES
175 Roue 32 North
New Paltz, NY 12561

Attention: Michael O'Rourke



Meredith W Ruthven
Customer Service Manager
mruthven@envirotestlaboratories.com
02/03/2017

NYSDOH ELAP does not certify for all parameters. EnviroTest Laboratories does hold certification for all analytes where certification is offered by ELAP unless otherwise specified in the Certification Information section of this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval of the laboratory. EnviroTest Laboratories Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our laboratory. All questions regarding this report should be directed to the EnviroTest Customer Service Representative.

EnviroTest Laboratories, Inc. Certifications and Approvals: NYSDOH 10142, NJDEP NY015, CTDOH PH-0554

METHOD SUMMARY

Client: Ulster BOCES

Job Number: 420-115962-1
SDG Number: New Paltz CSD - H&Cs

Description	Lab Location	Method	Preparation Method
Matrix: Water			
ICPMS Metals by 200.8	EnvTest	EPA 200.8 Rev.5.4	
200 Series Drinking Water Prep Determination Step	EnvTest		EPA 200

Lab References:

EnvTest = EnviroTest

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Ulster BOCES

Job Number: 420-115962-1
SDG Number: New Paltz CSD - H&Cs

Method	Analyst	Analyst ID
EPA 200.8 Rev.5.4	Sirico, Derek	DS

SAMPLE SUMMARY

Client: Ulster BOCES

Job Number: 420-115962-1
SDG Number: New Paltz CSD - H&Cs

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
420-115962-1	HS - Room 213 W. Wall 2nd From Left Sink Faucet	Drinking Water	01/24/2017 0739	01/24/2017 0910
420-115962-2	MS - Room 42 Left Sink Faucet	Drinking Water	01/24/2017 0754	01/24/2017 0910
420-115962-3	MS - Room 42 Center Sink Faucet	Drinking Water	01/24/2017 0755	01/24/2017 0910
420-115962-4	MS - Room 42 Right Sink Faucet	Drinking Water	01/24/2017 0755	01/24/2017 0910

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Job Number: 420-115962-1
Sdg Number: New Paltz CSD - H&Cs

Client Sample ID: HS - Room 213 W. Wall 2nd From Left Sink
Lab Sample ID: 420-115962-1

Date Sampled: 01/24/2017 0739
Date Received: 01/24/2017 0910
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	RL	RL	Dilution
Method: 200.8 Rev.5.4			Date Analyzed:	02/01/2017 1254	
Prep Method: 200			Date Prepared:	02/01/2017 1025	
Pb	56 g	ug/L	1.0	1.0	1.0

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Job Number: 420-115962-1
Sdg Number: New Paltz CSD - H&Cs

Client Sample ID: MS - Room 42 Left Sink Faucet
Lab Sample ID: 420-115962-2

Date Sampled: 01/24/2017 0754
Date Received: 01/24/2017 0910
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	RL	RL	Dilution
Method: 200.8 Rev.5.4			Date Analyzed:	02/01/2017 1256	
Prep Method: 200			Date Prepared:	02/01/2017 1025	
Pb	9.9	ug/L	1.0	1.0	1.0

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Job Number: 420-115962-1
Sdg Number: New Paltz CSD - H&Cs

Client Sample ID: MS - Room 42 Center Sink Faucet
Lab Sample ID: 420-115962-3

Date Sampled: 01/24/2017 0755
Date Received: 01/24/2017 0910
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	RL	RL	Dilution
Method: 200.8 Rev.5.4			Date Analyzed:	02/01/2017 1257	
Prep Method: 200			Date Prepared:	02/01/2017 1025	
Pb	14	ug/L	1.0	1.0	1.0

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Job Number: 420-115962-1
Sdg Number: New Paltz CSD - H&Cs

Client Sample ID: MS - Room 42 Right Sink Faucet
Lab Sample ID: 420-115962-4

Date Sampled: 01/24/2017 0755
Date Received: 01/24/2017 0910
Client Matrix: Drinking Water

Analyte	Result/Qualifier	Unit	RL	RL	Dilution
Method: 200.8 Rev.5.4			Date Analyzed:	02/01/2017 1257	
Prep Method: 200			Date Prepared:	02/01/2017 1025	
Pb	8.8	ug/L	1.0	1.0	1.0

DATA REPORTING QUALIFIERS

Client: Ulster BOCES

Job Number:
Sdg Number: New Paltz CSD - H&Cs

Lab Section	Qualifier	Description
Metals	g	Result fails applicable NYS drinking water standards

Certification Information

Client: Ulster BOCES

Job Number:

Sdg Number: New Paltz CSD - H&Cs

The following analytes are Not Part of the ELAP scope of accreditation:

Sulfur, Tungsten, Silicon, Bicarbonate Alkalinity, 7 Day BOD 5210C, 28 Day BOD, Soluble BOD, Carbon Dioxide, Carbonate Alkalinity, CBOD Soluble, Chlorine, Cyanide (WAD), Ferrous Iron, Ferric Iron, Total Nitrogen, Total Organic Nitrogen, Dissolved Oxygen, pH, Phenolphthalein Alkalinity, Solids (Fixed), Solids (Percent), Solids (Percent Moisture), Solids (Percent Volatile), Solids (Volatile Suspended), Temperature, TKN (Soluble), Total Inorganic Carbon, Volatile Acids as Acetic Acid, 2-Aminopyridine, 3-Picoline, 1-Methyl-2-pyrrilidinone, Aziridine, Dimethyl sulfoxide, 1-Chlorohexane, Iron Bacteria, Salmonella, & Sulfur Reducing Bacteria.

The following analytes are Not Part of ELAP Potable Water scope of accreditation:

Cobalt (200.7, 200.8), Tin (200.7), Strontium (200.7), Gold (200.7), Platinum (200.7), Palladium (200.7), Titanium (200.7), Phosphorus (365.3), Nitrate-Nitrite (10-107-4-1C, 353.2), m-Xylene & p-Xylene (502.2, 524), Naphthalene (502.2), o-Xylene (502.2, 524), & Fecal Coliform (9222D).

The following analytes are Not Part of ELAP Solid and Hazardous Waste scope of accreditation:

Ammonia (SM 4500NH3G), TKN (351.2), Phosphorus (365.3), 1,2-Dichloro-1,1,2-trifluoroethane (8260), & Chlorodifluoromethane (8260).

The following analytes are Not Part of ELAP Non Potable Water scope of accreditation:

Dissolved Organic Carbon (5310C), Mecoprop (8151A), & MCPA (8151A).

Definitions and Glossary

Client: Ulster BOCES

Job Number:

Sdg Number: New Paltz CSD - H&Cs

<u>Abbreviation</u>	<u>These commonly used abbreviations may or may not be present in this report.</u>
%R	Percent Recovery
DL, RA, RE	Indicates a Dilution, Reanalysis or Reextraction.
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit - an estimate of the minimum amount of a substance that an analytical process can reliably detect. A MDL is analyte- and matrix-specific and may be laboratory-dependent.
ND	Not detected at the reporting limit (or MDL if shown).
QC	Quality Control
RL	Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.
RPD	Relative Percent Difference - a measure of the relative difference between two points.

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Ulster BOCES

Job Number: 420-115962-1
SDG Number: New Paltz CSD - H&Cs

Login Number: 115962

Question	T/F/NA	Comment
Samples were collected by ETL employee as per SOP-SAM-1	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is recorded.	True	19.8 C
Cooler Temp. is within method specified range.(0-6 C PW, 0-8 C NPW, or BAC <10 C	False	
If false, was sample received on ice within 6 hours of collection.	False	
Based on above criteria cooler temperature is acceptable.	True	Method does not require cooling
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	