

March 15, 2022

Ref: 21336.22



Mr. Ronald Wybraniec
Operations Manager
Office of Education
New Jersey Department of Children and Families
PO Box 710
Trenton, NJ 08625

Re: Lead and Copper in Drinking Water Testing
DCF Regional School – Warren Campus
540 Route 57 East
Port Murray, NJ 07865
Project No. 21336.22

Dear Mr. Wybraniec,

Vanasse Hangen Brustlin Inc. (VHB) was retained to perform drinking water testing at the New Jersey Department of Children and Families (DCF) Regional School's Warren County Campus located at 540 Route 57 East, Port Murray, New Jersey (subject property). VHB performed the sampling on March 12, 2022. The purpose of the testing was to determine if lead or copper may be present in potable water sources above the established regulatory limits in Client-identified drinking water sources within the subject building.

METHODS

Samples of potable water were collected from each Client-identified location where water may be used for drinking or food preparation. Sampling protocol included the following:

- Samples were collected on a Saturday when the school was not occupied.
- The sample locations were flushed for several minutes by the Client the day prior to collecting the samples.
- The Client was instructed to not use water from the sampling locations during the overnight period or morning prior to collecting the samples.
- Samples were collected at the Client-identified sampling locations starting with the location nearest to the water service point of entry to the building.
- Each sampling location was inspected for evidence that the water had been used that day prior to collecting the first draw samples (i.e. dripping faucet, water residue in basin).
- Each location was checked to verify whether water treatment (filter/bubbler) was or was not in use.
- Two (2) samples were collected at each location. The first sample is a first-draw sample collected from the tap

1805 Atlantic Avenue

Engineers | Scientists | Planners | Designers

Manasquan, New Jersey 08736

P 732.223.2225



- after the overnight resting period. The second is a flush sample collected after running water for 30 seconds.
- Samples were collected in 250 mL bottles.
 - Bottles were labeled, and chain-of-custody completed for each sample.
 - Samples were dropped off at the laboratory.
 - The laboratory accessioned the samples and added the necessary preservatives within the allowable timeframe.

Samples were delivered under chain-of-custody to IATL International, Inc., 9000 Commerce Parkway Suite B, Mt. Laurel, New Jersey 08054. IATL is a New Jersey Department of Environmental Protection (NJDEP) Certified Drinking Water Laboratory.

The regulatory limits for lead and copper are established by the United States Environmental Protection Agency (EPA) under the Safe Drinking Water Act – Lead and Copper Rule (LCR). The LCR established an action level of 0.015 mg/L (15 ppb) for lead and 1.3 mg/L (1300 ppb) for copper. The New Jersey Department of Education (NJDOE) and New Jersey Department of Health (NJDOH) have adopted these limits as well.

RESULTS

TABLE 1 SUMMARY OF LABORATORY ANALYSIS RESULTS – LEAD (Pb)					
Sample ID	FD/FL	Location	Treatment in Use	Result (PPB)	MCL (PPB)
WA-01-FD	FD	Room 105	Yes	<1.00	15
WA-02-FL	FL	Room 105	Yes	NA	15
WA-03-FD	FD	Kitchen	Yes	<1.00	15
WA-04-FL	FL	Kitchen	Yes	NA	15
WA-05-FD	FD	Room 107	Yes	1.40	15
WA-06-FL	FL	Room 107	Yes	NA	15
WA-07-FD	FD	Room 115	Yes	<1.00	15
WA-08-FL	FL	Room 115	Yes	NA	15
WA-09-FD	FD	Room 108	Yes	<1.00	15
WA-10-FL	FL	Room 108	Yes	NA	15
WA-11-FD	FD	Room 111	Yes	<1.00	15
WA-12-FL	FL	Room 111	Yes	NA	15

MCL – Maximum Contaminant Level; NA – Not Analyzed; FD – First Draw; FL – Flush

TABLE 2 SUMMARY OF LABORATORY ANALYSIS RESULTS – Copper (Cu)					
Sample ID	FD/FL	Location	Treatment in Use	Result (PPB)	MCL (PPB)
WA-01-FD	FD	Room 105	Yes	<100	1,300
WA-02-FL	FL	Room 105	Yes	NA	1,300
WA-03-FD	FD	Kitchen	Yes	<100	1,300
WA-04-FL	FL	Kitchen	Yes	NA	1,300



WA-05-FD	FD	Room 107	Yes	<100	1,300
WA-06-FL	FL	Room 107	Yes	NA	1,300
WA-07-FD	FD	Room 115	Yes	<100	1,300
WA-08-FL	FL	Room 115	Yes	NA	1,300
WA-09-FD	FD	Room 108	Yes	<100	1,300
WA-10-FL	FL	Room 108	Yes	NA	1,300
WA-11-FD	FD	Room 111	Yes	<100	1,300
WA-12-FL	FL	Room 111	Yes	NA	1,300

Laboratory analysis results of the lead and copper sampling indicate the concentrations were below the regulatory limits for lead and copper at each test location. Flush samples were not analyzed because there were no exceedances reported in the first draw results. Certificates of laboratory analysis are presented in **Appendix I**.

LIMITATIONS

Results should not be considered to reflect conditions at other tap locations in the facility. The findings in this report are reflective of the conditions at the time of the VHB inspections. The findings and recommendations are valid as of the date of the report. The conclusions are limited based on the site conditions at the time of our inspection and the enclosed analytical results.

Please do not hesitate to contact the undersigned at 732-223-2225 if you have questions and/or comments or require additional information.

Respectfully submitted,

VANASSE HANGEN BRUSTLIN, INC.

A handwritten signature in blue ink, appearing to read "Chris Glowacki", is placed over a rectangular area.

Christopher Glowacki, CIH, CIEC
Senior Project Manager

APPENDIX I

LABORATORY CERTIFICATES OF ANALYSIS

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736


Client: VHB973


Report Date: 3/17/2022
Report No.: 655754 - Lead Water
Project: Warren
Project No.: 21336.22

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7384901 Client No.: WA-01-FD	Location: 105 * Sample acidified to pH <2.	Result(ppb): 1.00
Lab No.: 7384902 Client No.: WA-02-FL	Location: 105 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384903 Client No.: WA-03-FD	Location: Kitchen * Sample acidified to pH <2.	Result(ppb): <1.00
Lab No.: 7384904 Client No.: WA-04-FL	Location: Kitchen * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384905 Client No.: WA-05-FD	Location: 107 * Sample acidified to pH <2.	Result(ppb): <1.00
Lab No.: 7384906 Client No.: WA-06-FL	Location: 107 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384907 Client No.: WA-07-FD	Location: 115 * Sample acidified to pH <2.	Result(ppb): <1.00
Lab No.: 7384908 Client No.: WA-08-FL	Location: 115 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384909 Client No.: WA-09-FD	Location: 108 * Sample acidified to pH <2.	Result(ppb): <1.00
Lab No.: 7384910 Client No.: WA-10-FL	Location: 108 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/14/2022
Date Analyzed: 03/15/2022
Signature: 
Analyst: Mark Stewart

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736

Client: VHB973

Report Date: 3/17/2022
Report No.: 655754 - Lead Water
Project: Warren
Project No.: 21336.22

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7384911
Client No.: WA-11-FD

Location: 111
* Sample acidified to pH <2.

Result(ppb): <1.00

Lab No.: 7384912
Client No.: WA-12-FL

Location: 111
* Sample acidified to pH <2.

Result(ppb): Sample Not Analyzed

Lab No.: 7384913
Client No.: WA-13-FD

Location: Additional Sample Received
* Sample acidified to pH <2.

Result(ppb): <1.00

Lab No.: 7384914
Client No.: WA-14-FL

Location: Additional Sample Received
* Sample acidified to pH <2.

Result(ppb): Sample Not Analyzed

Please refer to the Appendix of this report for further information regarding your analysis.

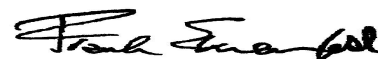
Date Received: 3/14/2022

Date Analyzed: 03/15/2022

Signature:

Analyst: Mark Stewart

Approved By:



Frank E. Ehrenfeld, III

Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736

Client: VHB973

Report Date: 3/17/2022
Report No.: 655754 - Lead Water
Project: Warren
Project No.: 21336.22

Appendix to Analytical Report:

Customer Contact: Chris Glowacki
Analysis: AAS-GF - ASTM D3559-08D

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: ?wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Water
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by AAS Graphite Furnace:

- ASTM D3559-08D

Certification:

- NYS-DOH No. 11021

- NJDEP No. 03863

Note: These methods are analytically equivalent to iATL's accredited method;

- USEPA 40CFR 141.11B

- USEPA 200.9 Pb, AAS-GF, RL <2 ppb/sample

- USEPA SW 846-7421 - Pb(AAS-GF, RL <2 ppb/sample)

Regulatory limit for lead in drinking water is 15.0 parts per billion as cited in EPA 40 CFR 141.11 National Primary Drinking Water Regulations, Subpart B: Maximum contaminant levels for inorganic chemicals.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Sample results are not corrected for contamination by field or analytical blanks.

PPB = Parts per billion. 1 µg/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 1.0 PPB

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736

Report Date: 3/17/2022
Report No.: 655754 - Lead Water
Project: Warren
Project No.: 21336.22

Client: VHB973

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

Matrix spiking is performed on each client batch to determine if interferences could impact results. When spike recoveries fall out of acceptable range matrix interference is suspected and samples are diluted until acceptable spike recovery can be achieved. Reporting limits will increase by the same degree as the dilution required.

Note: Sample dilution required due to matrix interference.

Water Sample Turbidity greater than 1.0 NTU does not meet Federal and NJ State Primary & Secondary Drinking Water Standards.

* ASTM D3559 (D) calls for the addition of acid at the time of sampling. Unless so noted on the chain of custody by the client iATL acidifies samples to a pH of <2 at least 24 hours prior to analysis.

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736


Client: VHB973


Report Date: 3/17/2022
Report No.: 655754 - Copper Water
Project: Warren
Project No.: 21336.22

COPPER WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7384901 Client No.: WA-01-FD	Location: 105 * Sample acidified to pH <2.	Result(ppb): <100
Lab No.: 7384902 Client No.: WA-02-FL	Location: 105 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384903 Client No.: WA-03-FD	Location: Kitchen * Sample acidified to pH <2.	Result(ppb): <100
Lab No.: 7384904 Client No.: WA-04-FL	Location: Kitchen * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384905 Client No.: WA-05-FD	Location: 107 * Sample acidified to pH <2.	Result(ppb): <100
Lab No.: 7384906 Client No.: WA-06-FL	Location: 107 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384907 Client No.: WA-07-FD	Location: 115 * Sample acidified to pH <2.	Result(ppb): <100
Lab No.: 7384908 Client No.: WA-08-FL	Location: 115 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed
Lab No.: 7384909 Client No.: WA-09-FD	Location: 108 * Sample acidified to pH <2.	Result(ppb): <100
Lab No.: 7384910 Client No.: WA-10-FL	Location: 108 * Sample acidified to pH <2.	Result(ppb): Sample Not Analyzed

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/14/2022
Date Analyzed: 03/17/2022
Signature: 
Analyst: Mark Stewart

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736

Client: VHB973

Report Date: 3/17/2022
Report No.: 655754 - Copper Water
Project: Warren
Project No.: 21336.22

COPPER WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7384911
Client No.: WA-11-FD

Location: 111
* Sample acidified to pH <2.

Result(ppb): <100

Lab No.: 7384912
Client No.: WA-12-FL

Location: 111
* Sample acidified to pH <2.

Result(ppb): Sample Not Analyzed

Lab No.: 7384913
Client No.: WA-13-FD

Location: Additional Sample Received
* Sample acidified to pH <2.


Result(ppb): <100

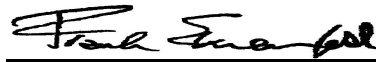
Lab No.: 7384914
Client No.: WA-14-FL

Location: Additional Sample Received
* Sample acidified to pH <2.

Result(ppb): Sample Not Analyzed

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/14/2022
Date Analyzed: 03/17/2022
Signature: 
Analyst: Mark Stewart

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736

Client: VHB973

Report Date: 3/17/2022
Report No.: 655754 - Copper Water
Project: Warren
Project No.: 21336.22

Appendix to Analytical Report:

Customer Contact: Chris Glowacki
Analysis: AAS-FL- ASTM D1688-12(A)

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Water
Exceptions Noted: See Following Pages

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iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

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Information Pertinent to this Report:

Analysis by AAS Graphite Furnace:

- ASTM D1688-12(A)

Accreditations:

- NYS-DOH No. 11021

- NJDEP No. 03863

Note: These methods are analytically equivalent to iATL's accredited method;

- USEPA 200.9 Cu, AAS-FL, RL <40 ppb/sample

Regulatory limit for copper in drinking water is 1300 parts per billion (or 1.3 ppm) as cited in EPA 40 CFR 141.11 National Primary Drinking Water Regulations, Subpart B: Maximum contaminant levels for inorganic chemicals.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Sample results are not corrected for contamination by field or analytical blanks.

PPB = Parts per billion. 1 µg/L = 1 ppb MDL = 20 PPB Reporting Limit (RL) = 40 PPB

Disclaimers / Qualifiers:

CERTIFICATE OF ANALYSIS

Client: Vanasse Hangen Brustlin, Inc.
1805 Atlantic Avenue
Manasquan NJ 08736

Report Date: 3/17/2022
Report No.: 655754 - Copper Water
Project: Warren
Project No.: 21336.22

Client: VHB973

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Matrix spiking is performed on each client batch to determine if interferences could impact results. When spike recoveries fall out of acceptable range matrix interference is suspected and samples are diluted until acceptable spike recovery can be achieved. Reporting limits will increase by the same degree as the dilution required.

Note: Sample dilution required due to matrix interference.

Water Sample Turbidity greater than 1.0 NTU does not meet Federal and NJ State Primary & Secondary Drinking Water Standards.

* ASTM D1668-12(A) calls for the addition of acid at the time of sampling. Unless so noted on the chain of custody by the client iATL acidifies samples to a pH of <2 at least 24 hours prior to analysis.

Chain of Custody

– Environmental Lead –

Contact Information

Client Company: VHB
Office Address: 1805 Atlantic Avenue
City, State, Zip: Manasquan, NJ 08742
Fax Number: _____
Email Address: Thalter@vhb.com, CGlowacki@vhb.com

Project Number: 21336.22
Project Name: Warren
Primary Contact: Chris Glowacki
Office Phone: 7322232225
Cell Phone: _____

iATL is accredited by the National Lead Laboratory Accreditation Program (NLLAP) to perform analytical testing of environmental samples for lead (Pb). The accreditation is through AIHA-LAP, LLC and several other nationally recognized state programs.

Matrix/Method:

- ☐ Paint by AAS: ASTM D3335-85a, 2009
☐ Wipe/Dust by AAS: SW 846: 3050B: 700B, 2010
☐ Air by AAS: NIOSH 7082, 1994
☐ Soil by AAS: EPA SW 846 (Soil)
☐ Water by AAS-GF: ASTM D3559-03D, US EPA 200.9
☐ Other Metals (Cd, Zn, Cr) by AAS
☐ Toxicity Characteristic Leaching Procedure (TCLP) by AAS: US EPA 1311
☒ Other NJ Lead in Drinking Water + Copper

Special Instructions:

FD=First Draw, FL=Flush, Flush samples only to be analyzed if exceedance of limits on First Draw Sample

Turnaround Time

Preliminary Results Requested Date: _____ ☐ Verbal ☒ Email ☐ Fax

Specific date / time

☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization): 2/12 VHB
Received (Name / iATL): _____
Sample Login (Name / iATL): _____
Analysis(Name(s) / iATL): PKAMS GUFMS
QA/QC Review (Name / iATL): 3/18/22
Archived / Released: _____ QA/QC InterLAB Use: _____

Date: 3/12/22 Time: Federal
Date: _____ Time: _____
Date: _____ Time: _____
Date: 3/15/22 3/17/22 Time: _____
Date: _____ Time: h
Date: _____ Time: _____

RECEIVED

Sample Log

—Environmental Lead—

Client: 21336.22

Project: W. Green

Sampling Date/Time: 3/12/22 900 - 930

Client Sample #	iATL #	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft2) Volume (L)	Results ()
WA-01-FD	73849001	105		3/12/22	900	250mL	
WA-02-FL	73849002	105			902		
WA-03-FD	73849003	Kitchen			905		
WA-04-FL	73849004	Kitchen			907		
WA-05-FD	73849005	107			910		
WA-06-FL	73849006	107			912		
WA-07-FD	73849007	(TH) 108/115			915		
WA-08-FL	73849008	(TP) 108/115			916		
WA-09-FD	73849009	108			919		
WA-10-FL	73849010	108			920		
WA-11-FD	73849011	111			925		
WA-12-FD	73849012	111			926		
ASE							
WA-13-FD	73849013						
- 14-FL	73849014				Acidified	ms 3/14/22	17:20

* = Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

** = Insufficient Sample Provided to Analyze (<50mg) *** = Matrix / Substrate Interference Possible

FB = Method Requires the Submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.