

Effective and Economical Environmental Solutions

Lead in Drinking Water Sampling
Per amendments to N.J.A.C 6A:26 Educational Facilities
South Bergen Jointure Commission
Board of Education Office – Teterboro, NJ 07608
Lodi Campus – 123 Union Street, Lodi, NJ 07644
Maywood Campus – 404 Maywood Avenue, Maywood, NJ 07607
Karl Environmental Group Project #: 25-0586

April 7, 2025

Prepared for:

Kenneth Sheldon
Assistant Business Administrator
South Bergen Jointure Commission
696 RT 46 West
Teterboro, NJ

Prepared by:

Karl Environmental Group 20 Lauck Road Mohnton, PA 19540 Tel: (800) 527-5581 Fax: (610) 856-5040



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Web: www.karlenv.com

April 7, 2025

Kenneth Sheldon Assistant Business Administrator South Bergen Jointure Commission 696 RT 46 West Teterboro, NJ

Re: Lead in Drinking Water Sampling

Per amendments to N.J.A.C 6A:26 Educational Facilities

South Bergen Jointure Commission

Board of Education Office – Teterboro, NJ 07608 Lodi Campus – 123 Union Street, Lodi, NJ 07644

Maywood Campus – 404 Maywood Avenue, Maywood, NJ 07607

Karl Environmental Group Project #: 25-0586

Dear Mr. Sheldon,

Thank you for selecting Karl Environmental Group ("Karl") for this project. This report details the methods and findings of the lead in drinking water services as per New Jersey state regulations (amendments to N.J.A.C 6A:26 Educational Facilities) performed within the three (3) properties, the Board of Education Office (Teterboro), the Lodi Campus, and the Maywood Campus (the "Facilities"), on April 1, 2025.

PROJECT SUMMARY

All of the outlets tested on April 1, 2025 passed the lead in water testing by being under the action level of 15 PPB (Parts Per Billion).

1.0 PROJECT BACKGROUND

Karl Environmental was contracted by Kenneth Sheldon, of the South Bergen Jointure Commission (the "Client"), to perform lead in drinking water sampling to determine the lead content of drinking water from sources at three (3) properties (the "Facilities"), on April 1, 2025.

The purpose of lead in drinking water sampling is to determine if any sampled drinking water sources exhibit lead levels exceeding the Regulatory Action Level of 15 parts per billion (ppb). Drinking water collection points included any water sources from which a student, staff, or faculty may reasonably drink from or which the water may be used for cooking or beverage preparation, including, but not limited to, water coolers, bottle fillers, bubblers, and kitchen/nurses/classroom faucets.



2.0 LEAD IN DRINKING WATER

Lead is a toxic substance that can be harmful to human health. As compared to adults, children are more susceptible to the detrimental health effects of lead, as their nervous systems are not yet fully developed.

Exposure to lead can occur in a variety of ways including through food, soil, deteriorating lead-based paint, and drinking water. Lead can leach into drinking water from plumbing materials such as pipes and solder, as well as brass plumbing fixtures. For this investigation, planning, preparation, methodology, sampling, and follow-up actions were conducted according to the technical guidance provided by New Jersey following the adoption of amendments to N.J.A.C. 6A:26: Educational Facilities, requiring the sampling of drinking water for lead in schools.

3.0 DRINKING WATER SAMPLING METHODOLOGY

Karl collected drinking water samples from water outlets throughout the Facility. At each collection point, Karl Environmental filled a 250 milliliter (mL) wide-mouth high density polyethylene (HDPE) sample collection bottle from the selected water source. Samples were collected after the water in each building had not been used for at least 8 hours, but not more than 48 hours. Samples were preserved using concentrated Nitric Acid (HNO₃). The initial sample at each collection point represents the first draw sample. The first draw sample is representative of the water from the end point of the water source (i.e., the bubbler or tap).

A field blank using lead-free laboratory reagent water was also collected at each Facility during the sampling event to rule out contamination of samples during the collection and transportation process. All samples were recorded under proper chain of custody and couriered to Eurofins Built Environment (iATL), a New Jersey certified laboratory located in Mount Laurel, New Jersey for analysis by EPA method 200.8, NJ DOE.

During the initial sampling event, Karl Environmental Group collected the following number of samples from the Facilities:

Board of Education - Teterboro

Two (2) samples
One (1) Field Blank

Lodi Campus

Four (4) samples
One (1) Field Blank

Maywood Campus

Seven (7) samples One (1) Field Blank



4.0 DRINKING WATER ANALYSIS RESULTS

The analytical lead in drinking water results for each first draw sample are listed in the table below:

| Sample I.D. | Type of Collection Point | Lead Concentration (ppb) | Above Regulatory Action Level? |
|--------------------|------------------------------|--------------------------------|-----------------------------------|
| BOE – 1 | Sink (1st floor) | <1.00 | No |
| BOE – 2 | Sink (2 nd floor) | <1.00 | No |
| BOE - Blank | N/A | <1.00 | No |
| LC-1F-CS-R1 | Sink | 2.90 | No |
| LC-1F-CS-R2 | Sink | 1.20 | No |
| LC-1F-CS-R8-R | Right sink | <1.00 | No |
| LC-1F-CS-R8-L | Left sink | <1.00 | No |
| LC-BLANK | N/A | <1.00 | No |
| MC-1F-KITCH-KC | Left sink | 9.80 | No |
| MC-1F- KITCH-KC-R | Right sink | 5.40 | No |
| MC-3F-BR-L-HWS | Drop sink | 7.90 | No |
| MC-BMTGYM-BR-R-HWS | Right sink | 5.60 | No |
| MC-BMTGYM-BR-L-HWS | Left sink | 2.60 | No |
| MC-BMTGYM-GR-L | Left sink | 3.80 | No |
| MC-BMTGYM-GR-R | Right sink | 2.60 | No |
| MC-BLANK | N/A | <1.00 | No |

All laboratory analytical results were compared to the <u>Regulatory Action Level of 15 ppb for lead</u>. Analysis of lead in the first draw drinking water samples indicated that at the time of the sampling, none of the samples were above the Regulatory Action Level.

5.0 CONCLUSIONS & RECOMMENDATIONS

Following the lead in drinking water sampling event conducted on April 1, 2025, all outlets were below the Regulatory Action Level of 15 ppb. At the conclusion of the lead in drinking water services, Karl Environmental offers the following recommendations at this time:

- Continue to monitor lead in drinking water levels as part of a regular sampling and maintenance plan, as per New Jersey State regulations. Amendments will require district-wide sampling every three (3) years.
- In the interim, when drinking water outlets are replaced/added, or the plumbing is disturbed, sampling of the impacted outlets must be completed to determine if lead levels were affected.



FAX: (610) 856-5040

- Implement an aerator cleaning maintenance program to prevent the build-up of debris behind the screen which may contribute to elevated lead levels.
- Enter all filter maintenance, aerator maintenance, plumbing repairs/changes and any other pertinant information into the Field Log Book for each Facility.
- Use only cold water for food and beverage preparation. Hot water is more likely to contribute to the
 corrosion of plumbing materials and thefore contain a greater level of contaminants from the plumbing
 system.

6.0 LIMITATIONS

This investigation focused on lead in drinking water only. No other heavy metals or additional contaminants were sampled for or analyzed. Lead concentrations can change as water continues to move through the water system. Each sample was a grab sample and represents lead concentrations only at the specific time of collection and may vary based on the water usage in the facility. Interpretation of these results is only valid if the facility is serviced by a municipal water supplier or water utility.

This lead sampling event was in response to the amendments to N.J.A.C. 6A:26, Educational Facilities dated July 13, 2016, which requires testing for lead in the drinking water of public and charter school districts every three (3) years.

7.0 CLOSING

Thank you for using Karl Environmental to assist you with this project. Please do not hesitate to call if you have any questions relating to this report or for any other environmental health and safety concerns.

Respectfully submitted,
Karl Environmental Group

Barry M. Hunsberger

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FAX: (610) 856-5040

Attachment A:

Analytical Lab Results



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group

20 Lauck Road

Mohnton PA 19540

Client: KAR387

Report Date: 4/4/2025

Report No.: 711658 - Lead Water

Project:

South Bergen LIW

Project No.: 25-0586

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.:7833228 **Location:** 1 FL - Sink **Result(ppb):**<1.00

Client No.:BOE-1 * Sample acidified to pH <2.

Lab No.:7833229 Location: 2nd FL - Sink

* Sample acidified to pH <2. Client No.:BOE-2

Lab No.:7833230 Location: Blank

Client No.: BOE-Blank * Sample acidified to pH <2.

Lab No.:7833231 Location: Sink

Client No.:LC-1F-CS-R1 * Sample acidified to pH <2.

Lab No.: 7833232 Location: Sink

* Sample acidified to pH <2. Client No.:LC-1F-CS-R2

Lab No.:7833233 Location: Sink **Result(ppb):**<1.00

Client No.:LC-1F-CS-R8-R * Sample acidified to pH <2.

Location: Blank Lab No.:7833234 **Result(ppb):**<1.00

* Sample acidified to pH <2. Client No.:LC-Blank

Lab No.:7833235 Location:Blank **Result(ppb):**<1.00

Client No.:MC-Blank * Sample acidified to pH <2.

Lab No.:7833236 Location: Sink **Result(ppb):**<1.00

Client No.:LC-1F-CS-R8-L * Sample acidified to pH <2.

Lab No.:7833237 Location: Left Sink Result(ppb):9.80

Client No.: MC-1F-KITCH-KC * Sample acidified to pH <2.

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

4/1/2025 Date Received:

04/04/2025 Date Analyzed:

Signature: Analyst:

Chad Shaffer

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director

Dated: 4/4/2025 2:43:28 Page 1 of 4



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group

20 Lauck Road

Mohnton PA 19540

Client: KAR387

Report Date: 4/4/2025

Report No.: 711658 - Lead Water

Project: South Bergen LIW

Project No.: 25-0586

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.:7833238 Location:Right Sink Result(ppb):5.40

Client No.:MC-1F-KITCH-KC-R * Sample acidified to pH <2.

Lab No.:7833239 Location: Drop Sink (Food Instructions on Well) Result(ppb):7.90

Client No.:MC-3F-BR-L-HWS * Sample acidified to pH <2.

Lab No.:7833240 Location: Right Sink Result(ppb): 5.60

Client No.: * Sample acidified to pH <2.

MC-BMTGYM-BR-R-HWS

Lab No.:7833241 Location:Left Sink Result(ppb):2.60

Client No.: * Sample acidified to pH <2.

MC-BMTGYM-BR-L-HWS

Lab No.:7833242 Location: Left Sink Result(ppb): 3.80

Client No.:MC-BMTGYM-GR-L * Sample acidified to pH <2.

Lab No.:7833243 Location: Right Sink Result(ppb): 2.60

Client No.:MC-BMTGYM-GR-R * Sample acidified to pH <2.

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

Date Received:

4/1/2025

Date Analyzed:

04/04/2025

Signature:

Analyst: Chad Shaffer

Dated: 4/4/2025 2:43:28

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director



PA

19540

9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group Report Date: 4/4/2025

20 Lauck Road Report No.: 711658 - Lead Water

25-0586

South Bergen LIW

Project:

Project No.: Client: KAR387

Appendix to Analytical Report:

Customer Contact: Mike Karl Analysis: AAS-GF - ASTM D3559-15D

Mohnton

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 OfficeManager: ?wchampion@iatl.com iATL Account Representative: Shirley Clark 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 ir 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.

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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 D3559-15D

- 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 μ g/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 1.0 PPB

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CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group Report Date: 4/4/2025

20 Lauck Road Report No.: 711658 - Lead Water

Mohnton PA 19540 Project: South Bergen LIW

Client: KAR387 Project No.: 25-0586

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.

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