



*Effective and Economical  
Environmental Solutions*

**Lead in Drinking Water Sampling  
Oakland Public School District  
315 Ramapo Valley Road  
Oakland, NJ 07436**

**Karl Environmental Group Project #: 24-0661**

**August 5, 2024**

Prepared for:  
Mr. Joseph Tumminia  
Supervisor of Buildings & Grounds  
Oakland Board of Education  
315 Ramapo Valley Road  
Oakland, NJ 07436

Prepared by:  
Karl Environmental Group  
20 Lauck Road  
Mohnton, PA 19540  
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August 5, 2024

Mr. Joseph Tumminia  
Supervisor of Buildings & Grounds  
Oakland Board of Education  
315 Ramapo Valley Road  
Oakland, NJ 07436

**Re: Lead in Drinking Water Sampling  
Oakland Public School District  
315 Ramapo Valley Road  
Oakland, NJ 07436  
Karl Environmental Group Project #: 24-0661**

Dear Mr. Tumminia,

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 performed at Valley Middle School, Heights Elementary School, Manito Elementary School, Dogwood Hill Elementary School, and Our Lady of Perpetual Help, (the “Facilities”) on July 8 and July 25, 2024.

## **1.0 PROJECT BACKGROUND**

Karl Environmental was contracted by the Oakland Board of Education (the “Client”) to perform lead in drinking water sampling to determine the lead content of drinking water from outlets in the five (5) Facilities listed above.

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 or from which the water may be used for cooking or beverage preparation, including, but not limited to, water coolers/bubblers, kitchen faucets, nurse’s office faucets, and faculty/staff lounges.



## 2.0 LEAD IN DRINKING WATER

Lead is a toxic substance that can be harmful to human health. 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 enter drinking water from plumbing materials such as pipes, solder, and 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 Environmental filled one (1) 250 milliliter (mL) wide-mouth high density polyethylene (HDPE) sample collection bottle from each outlet. The sample was collected after the water in the building was not disturbed for at least eight (8), but not more than 48 hours. The first draw sample is representative of the water from the end point of the water source (i.e., the bubbler or tap).

Samples were collected from outlets identified by the designee of the Client at the time of sampling.

All samples were recorded under proper chain of custody and couriered to Eurofins Built Testing Laboratory – iATL in Mount Laurel, NJ for analysis by EPA method 200.8, NJ DOE. The sample was preserved using concentrated Nitric Acid (HNO<sub>3</sub>) at the laboratory.

Karl Environmental Group collected the following number of samples at the Facilities during the initial sampling event on July 8, 2024:

### **Valley Middle School**

Eleven (11) First Draw Samples & One (1) Field Blank

### **Dogwood Hill Elementary School**

Five (5) First Draw Samples & One (1) Field Blank

### **Heights Elementary School**

Five (5) First Draw Samples & One (1) Field Blank

### **Manito Elementary School**

Five (5) First Draw Samples & One (1) Field Blank

### **Our Lady of Perpetual Help**

Two (2) First Draw Samples & One (1) Field Blank



Following the installation of new lead reducing filters by the Client for two (2) outlets above the regulatory action level, Karl Environmental Group performed the following secondary sampling event on July 25, 2024:

**Valley Middle School**

One (1) First Draw Sample & One (1) Field Blank

**Dogwood Hill Elementary School**

One (1) First Draw Sample & One (1) Field Blank

**4.0 DRINKING WATER ANALYSIS RESULTS**

The analytical lead in drinking water results for the initial sampling event are listed in the Tables 1-5 below:

**Table 1: Valley Middle School – July 8, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OV-FR-1FL-Faculty	Sink	3.80	No
OV-01	Bottle Filler	<1.00	No
OV-02	Bottle Filler	<1.00	No
OV-FP-1FL-Kitchen	Prep Sink	31.2	Yes
OV-03	Bottle Filler	<1.00	No
OV-FP-1FL-HomeEC4	Sink	8.60	No
OV-FP-1FL-HomeEC3	Sink	1.90	No
OV-FP-1FL-HomeEC5	Sink	9.50	No
OV-FP-1FL-HomeEC1	Sink	14.5	No
OV-04	Bottle Filler	<1.00	No
OV-TL-2FL-Faculty	Sink	1.60	No
OV-Blank	Field Blank	<1.00	No

**Table 2: Dogwood Hill Elementary School – July 8, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OD-01	Bottle Filler	<1.00	No
OD-0TL-2FL-Faculty	Sink	<1.00	No
OD-02	Bottle Filler	<1.00	No
OD-03	Bottle Filler	<1.00	No
OD-FP-1FL-Kitchen	Prep Sink	151	Yes
OD-Blank	Field Blank	<1.00	No

**Table 3: Heights Elementary School – July 8, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OH-01	Bottle Filler	<1.00	No
OH-02	Bottle Filler	2.00	No
OH-FP-Kitchen	Prep Sink	9.50	No
OH-TL-Faculty1	Sink	11.1	No
OH-03	Bottle Filler	<1.00	No
OH-Blank	Field Blank	<1.00	No

**Table 4: Manito Elementary School – July 8, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OM-TL-1FL-Faculty	Sink	5.80	No
OM-01	Bottle Filler	<1.00	No
OM-02	Bottle Filler	<1.00	No
OM-FP-1FL-Kitchen	Prep Sink	4.50	No
OM-03	Bottle Filler	<1.00	No
OM-Blank	Field Blank	<1.00	No

**Table 5: Our Lady of Perpetual Help – July 8, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OLPH-01	Bottle Filler	<1.00	No
OLPH-02	Bottle Filler	<1.00	No
OLPH-Blank	Field Blank	<1.00	No



The analytical lead in drinking water results for the secondary sampling event on July 25, 2024 are listed in the Tables 6 and 7 below:

**Table 6: Valley Middle School – July 25, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OV-FP-1FL-Kitchen	Prep Sink	<1.00	No
OV-Blank	Field Blank	<1.00	No

**Table 7: Dogwood Hill Elementary School – July 25, 2024**

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OD-FP-1FL-Kitchen	Prep Sink	9.20	No
OD-Blank	Field Blank	<1.00	No

## 5.0 CONCLUSIONS & RECOMMENDATIONS

Following the lead in drinking water sampling events conducted on July 8 and July 25, 2024, 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.
- 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 pertinent 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 therefore 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.

## 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***

*Sean M Kennedy*

Sean Kennedy  
Industrial Hygienist  
Karl Environmental Group  
Office: (610)-856-7700  
Fax: (610)-856-5040  
Cell: 484-269-7870  
Email: [skennedy@karlenv.com](mailto:skennedy@karlenv.com)

Attachment A: Results/COC  
Attachment B: Maps



**Attachment A:**

**Analytical Lab Results/  
Chain of Custody**

CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group  
 20 Lauck Road  
 Mohnton PA 19540

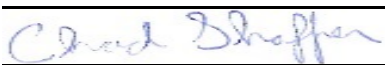
Report Date: 7/15/2024  
 Report No.: 701971 - Lead Water  
 Project: Oakland  
 Project No.: 24-0661


Client: KAR387

LEAD WATER SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 7768608 <b>Client No.:</b> OV-FR-1FL-Faculty	<b>Location:</b> 1st Floor Faculty * Sample acidified to pH <2.	<b>Result(ppb):</b> 3.80
<b>Lab No.:</b> 7768609 <b>Client No.:</b> OV-01	<b>Location:</b> Bottle Filler * Sample acidified to pH <2.	<b>Result(ppb):</b> <1.00
<b>Lab No.:</b> 7768610 <b>Client No.:</b> OV-02	<b>Location:</b> Bottle Filler Cafeteria * Sample acidified to pH <2.	<b>Result(ppb):</b> <1.00
<b>Lab No.:</b> 7768611 <b>Client No.:</b> OV-FP-1FL-Kitchen	<b>Location:</b> Kitchen Top * Sample acidified to pH <2.	<b>Result(ppb):</b> 31.2
<b>Lab No.:</b> 7768612 <b>Client No.:</b> OV-03	<b>Location:</b> Bottle Filler Caf Hallway * Sample acidified to pH <2.	<b>Result(ppb):</b> <1.00
<b>Lab No.:</b> 7768613 <b>Client No.:</b> OV-FP-1FL-HomeEC4	<b>Location:</b> Home EC 4 * Sample acidified to pH <2.	<b>Result(ppb):</b> 8.60
<b>Lab No.:</b> 7768614 <b>Client No.:</b> OV-FP-1FL-HomeEC3	<b>Location:</b> Home EC 3 * Sample acidified to pH <2.	<b>Result(ppb):</b> 1.90
<b>Lab No.:</b> 7768615 <b>Client No.:</b> OV-FP-1FL-HomeEC5	<b>Location:</b> Home EC 2 * Sample acidified to pH <2.	<b>Result(ppb):</b> 9.50
<b>Lab No.:</b> 7768616 <b>Client No.:</b> OV-FP-1FL-HomeEC1	<b>Location:</b> Home EC 1 * Sample acidified to pH <2.	<b>Result(ppb):</b> 14.5
<b>Lab No.:</b> 7768617 <b>Client No.:</b> OV-04	<b>Location:</b> Bottle Filler 2nd Floor Hallway * Sample acidified to pH <2.	<b>Result(ppb):</b> <1.00

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

Date Received: 7/8/2024  
 Date Analyzed: 07/15/2024  
 Signature:   
 Analyst: Chad Shaffer

Approved By:   
 Frank E. Ehrenfeld, III  
 Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/15/2024  
Report No.: 701971 - Lead Water  
Project: Oakland  
Project No.: 24-0661

Client: KAR387

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7768618                      Location: Field Blank                      Result(ppb): <1.00  
Client No.: OV-Blank                      \* Sample acidified to pH <2.

Lab No.: 7768619                      Location: Bottle Filler 2nd Floor Hall                      Result(ppb): <1.00  
Client No.: OD-01                      \* Sample acidified to pH <2.

Lab No.: 7768620                      Location: Faculty 2nd Floor                      Result(ppb): <1.00  
Client No.: OD0TL-2FL-Faculty                      \* Sample acidified to pH <2.

Lab No.: 7768621                      Location: Bottle Filler                      Result(ppb): <1.00  
Client No.: OD-02                      \* Sample acidified to pH <2.

Lab No.: 7768622                      Location: Gym Bottle Filler                      Result(ppb): <1.00  
Client No.: OD-03                      \* Sample acidified to pH <2.

Lab No.: 7768623                      Location: Kitchen                      Result(ppb): 151  
Client No.: OD-FP-1FL-Kitchen                      \* Sample acidified to pH <2.

Lab No.: 7768624                      Location: Field Blank                      Result(ppb): <1.00  
Client No.: OD-Blank                      \* Sample acidified to pH <2.

Lab No.: 7768625                      Location: Bottle Filler Outside Room 7                      Result(ppb): <1.00  
Client No.: OH-01                      \* Sample acidified to pH <2.

Lab No.: 7768626                      Location: Bottle Filler By Maintenance                      Result(ppb): 2.00  
Client No.: OH-02                      \* Sample acidified to pH <2.

Lab No.: 7768627                      Location: Kitchen                      Result(ppb): 9.50  
Client No.: OH-FP-Kitchen                      \* Sample acidified to pH <2.

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

Date Received: 7/8/2024  
Date Analyzed: 07/15/2024  
Signature:   
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



Built Environment Testing

iATL

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

Report Date: 7/15/2024  
Report No.: 701971 - Lead Water  
Project: Oakland  
Project No.: 24-0661

Client: KAR387

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7768628                      Location: Faculty                      Result(ppb): 11.1  
Client No.: OH-TL-Faculty1              \* Sample acidified to pH <2.

Lab No.: 7768629                      Location: Bottle Filler Lower Level              Result(ppb): <1.00  
Client No.: OH-03                      \* Sample acidified to pH <2.

Lab No.: 7768630                      Location: Field Blank                      Result(ppb): <1.00  
Client No.: OH-Blank                      \* Sample acidified to pH <2.

Lab No.: 7768631                      Location: 1st Floor Faculty                      Result(ppb): 5.80  
Client No.: OM-TL-1FL-Faculty              \* Sample acidified to pH <2.

Lab No.: 7768632                      Location: Bottle Filler Hall 1st Floor              Result(ppb): <1.00  
Client No.: OM-01                      \* Sample acidified to pH <2.

Lab No.: 7768633                      Location: Gym                      Result(ppb): <1.00  
Client No.: OM-02                      \* Sample acidified to pH <2.


Lab No.: 7768634                      Location: Kitchen                      Result(ppb): 4.50  
Client No.: OM-FP-1FL-Kitchen              \* Sample acidified to pH <2.


Lab No.: 7768635                      Location: Bottle Filler 2nd Floor              Result(ppb): <1.00  
Client No.: OM-03                      \* Sample acidified to pH <2.

Lab No.: 7768636                      Location: Field Blank                      Result(ppb): <1.00  
Client No.: OM-Blank                      \* Sample acidified to pH <2.

Lab No.: 7768637                      Location: Bottle Filler 1st Floor              Result(ppb): <1.00  
Client No.: OLPH-01                      \* Sample acidified to pH <2.

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

Date Received: 7/8/2024  
Date Analyzed: 07/15/2024  
Signature:   
Analyst: Chad Shaffer

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



Built Environment Testing

iATL

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

Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/15/2024  
Report No.: 701971 - Lead Water  
Project: Oakland  
Project No.: 24-0661

Client: KAR387

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7768638  
Client No.: OLPH-02

Location: Bottle Filler 2nd Floor  
\* Sample acidified to pH <2.

Result(ppb): <1.00

Lab No.: 7768639  
Client No.: OLPH-Blank

Location: Field Blank  
\* Sample acidified to pH <2.

Result(ppb): <1.00

Lab No.: 7768640  
Client No.: OV-TL-2FL-Faculty

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

Result(ppb): 1.60

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

Date Received: 7/8/2024  
Date Analyzed: 07/15/2024  
Signature: Chad Shaffer  
Analyst: Chad Shaffer

Approved By: Frank E. Ehrenfeld, III  
Frank E. Ehrenfeld, III  
Laboratory Director

## CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/15/2024  
Report No.: 701971 - Lead Water  
Project: Oakland  
Project No.: 24-0661

Client: KAR387

## Appendix to Analytical Report:

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

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:** 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](http://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 D3559-15D

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 µg/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 1.0 PPB

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CERTIFICATE OF ANALYSIS

---

Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/15/2024  
Report No.: 701971 - Lead Water  
Project: Oakland  
Project No.: 24-0661

Client: KAR387

**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](mailto: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.



## Chain of Custody

- Environmental Lead -

**Contact Information**

<p><b>Client Company:</b> <u>Karl Environmental</u></p> <p><b>Office Address:</b> <u>20 Lauck Road</u></p> <p><b>City, State, Zip:</b> <u>Monroton, PA</u></p> <p><b>Fax Number:</b> <u>610-856-5040</u></p> <p><b>Email Address:</b> <u>a.meas@karlenv.com</u></p>	<p><b>Project Number:</b> <u>24-0661</u></p> <p><b>Project Name:</b> <u>Oakland</u></p> <p><b>Primary Contact:</b> <u>Angela Meas</u></p> <p><b>Office Phone:</b> <u>610-856-7400</u></p> <p><b>Cell Phone:</b> <u>484-345-9846</u></p>
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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 \_\_\_\_\_

**Special Instructions:**

200.8 Lead

**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): <u>Angela Meas</u>	Date: <u>7/8/24</u>	Time: <u>9:10 AM</u>
Received (Name / iATL): _____	Date: <u>7/8/24</u>	Time: <u>9:17 AM</u>
Sample Login (Name / iATL): _____	Date: _____	Time: _____
Analysis(Name(s) / iATL): <u>7/15/24</u>	Date: _____	Time: <u>JUL - 8 2024</u>
QA/QC Review (Name / iATL): _____	Date: _____	Time: _____
Archived / Released: _____ QA/QC InterLAB Use: _____	Date: _____	Time: _____

RECEIVED

IATL-PY

## Sample Log

-Environmental Lead-

Client: Karl Environmental Project: 24-0661

Sampling Date/Time: 7/8/24 5:30 AM

Client Sample #	iATL #	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft <sup>2</sup> ) Volume (L)	Results ( )
OV-FB-1FL- Faculty	7768608	1st floor Faculty Bottle filler			5:15 AM	250 mL	
OV-01	7768609	Bottle filler			5:17 AM	250 mL	
OV-02	7768610	Bottle filler Cafeteria			5:19 AM	250 mL	
OV-FP-1FL- Kitchen	7768611	Kitchen top			5:20 AM	250 mL	
OV-03	7768612	Bottle filler Caf Hallway			5:23 AM	250 mL	
OV-FP-1FL- Home EC4	7768613	Home EC 4			5:24 AM	250 mL	
OV-FP-1FL- HOME EC 3	7768614	Home EC 3			5:24 AM	250 mL	
OV-FP-1FL- HOME EC 2	7768615	Home EC 2			5:25 AM	250 mL	
OV-FP-1FL- HOME EC 1	7768616	Home EC 1			5:26 AM	250 mL	
OV-04	7768617	Bottle filler 2nd floor Hallway			5:29 AM	250 mL	
OV-ATL 29A- Faculty		2nd floor Faculty			5:42 AM	250 mL	
OV-Blank	7768618	field blank				250 mL	
OD-01	7768619	Bottle filler 2nd floor Hall			5:44	250 mL	
OD-TL-2FL- Faculty	7768620	Faculty 2nd floor			5:42 AM	250 mL	
OD-02	7768621	Bottle filler			5:45 AM	250 mL	

\* = 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.

## Sample Log

-Environmental Lead-

Client: Karl Environmental Project: 24-0661

Sampling Date/Time: 7/8/24

Client Sample #	iATL #	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft2) Volume (L)	Results ( )
OD-03	7768622	Gym Bottle filler			5:47AM	250 mL	
OD-FP-IFL- Kitchen	7768623	Kitchen			5:49AM	250 mL	
OD-Blank	7768624	Field blank				250 mL	
OH-01	7768625	Bottle filler outside Room 7			5:59 AM	250 mL	
OH-02	7768626	Bottle filler by maintenance			6:01 AM	250 mL	
OH-FP-Kitchen	7768627	Kitchen			6:01 AM	250 mL	
OH-TL- Faculty 1	7768628	Faculty			6:03 AM	250 mL	
OH-03	7768629	Bottle filler lower level			6:05 AM	250 mL	
OH-Blank	7768630	field blank				250 mL	
OM-TL-IFL- Faculty	7768631	1st floor Faculty			6:16 AM	250 mL	
OM-01	7768632	Bottle filler Hall 1st floor			6:15 AM	250 mL	
OM-02	7768633	Gym			6:18 AM	250 mL	
OM-FP-IFL- Kitchen	7768634	Kitchen			6:19 AM	250 mL	
OM-03	7768635	Bottle filler 2nd floor			6:22 AM	250 mL	
OM-Blank	7768636	field blank				250 mL	

\* - Insufficient Sample Provided to Perform QC Reanalysis (<20mg)

\*\* - 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 NJ DEP conditions apply.





CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/30/2024  
Report No.: 702864 - Lead Water  
Project: Oakland  
Project No.: 24-0780

Client: KAR387

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.: 7775175                      Location: Kitchen                      Result(ppb): 9.20  
Client No.: OD-FP-1FL-Kitchen      \* Sample acidified to pH <2.

Lab No.: 7775176                      Location: Blank                      Result(ppb): <1.00  
Client No.: OD-Blank                      \* Sample acidified to pH <2.

Lab No.: 7775177                      Location: Kitchen                      Result(ppb): <1.00  
Client No.: OV-FP-1FL-Kitchen      \* Sample acidified to pH <2.

Lab No.: 7775178                      Location: Blank                      Result(ppb): <1.00  
Client No.: OV-Blank                      \* Sample acidified to pH <2.

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

Date Received: 7/25/2024  
Date Analyzed: 07/30/2024  
Signature: Chad Shaffer  
Analyst: Chad Shaffer

Approved By: Frank E. Ehrenfeld, III  
Frank E. Ehrenfeld, III  
Laboratory Director

## CERTIFICATE OF ANALYSIS

Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/30/2024  
Report No.: 702864 - Lead Water  
Project: Oakland  
Project No.: 24-0780

Client: KAR387

## Appendix to Analytical Report:

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

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:** 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](http://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 D3559-15D

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 µg/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 1.0 PPB

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CERTIFICATE OF ANALYSIS

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Client: Karl Environmental Group  
20 Lauck Road  
Mohnton PA 19540

Report Date: 7/30/2024  
Report No.: 702864 - Lead Water  
Project: Oakland  
Project No.: 24-0780

Client: KAR387

**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](mailto: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.

## Chain of Custody

– Environmental Lead –

**Contact Information**

<b>Client Company:</b> <u>Karl Environmental</u>	<b>Project Number:</b> <u>24-0780</u>
<b>Office Address:</b> <u>20 Louck Rd.</u>	<b>Project Name:</b> <u>Oakland</u>
<b>City, State, Zip:</b> <u>Mohrton, PA 19540</u>	<b>Primary Contact:</b> <u>Sean Kennedy</u>
<b>Fax Number:</b> <u>610-850-5040</u>	<b>Office Phone:</b> <u>610-850-7700</u>
<b>Email Address:</b> <u>skennedy@karlenv.com</u>	<b>Cell Phone:</b> <u>484-269-7870</u>

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 \_\_\_\_\_



**Special Instructions:**

200.8

**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): <u>[Signature]</u>	Date: <u>7/25/04</u>	Time: <u>8:55</u>	
Received (Name / iATL): <u>[Signature]</u>	Date: <u>7/25/04</u>	Time: <u>9:57 am</u>	
Sample Login (Name / iATL): <u>[Signature]</u>	Date: <u>[Signature]</u>	Time: <u>[Signature]</u>	
Analysis (Name(s) / iATL): <u>[Signature]</u>	Date: _____	Time: _____	
QA/QC Review (Name / iATL): _____	Date: _____	Time: _____	
Archived / Released: _____	Date: _____	Time: _____	
QA/QC InterLAB Use: _____	Date: _____	Time: _____	

