

Dear Oakland Board of Education,

Due to recent amendments to N.J.A.C. 6A:26 Educational Facilities, New Jersey schools are required to retest potable water outlets during the July 2021- June 2022 school year, and every three (3) years thereafter. The District conducted water sampling on July 13, 2021. Following the receipt of results, it was determined that all existing outlets available for consumption, were below the regulatory action level of 15 ppb.

The District took a step further and tested areas where bottle filling stations are planning to be installed, to determine potential water quality at these locations. Three (3) points were tested at the Dogwood Hill Elementary, three (3) at Manito Elementary, three (3) at Heights Elementary, and four (4) at the Valley Middle School. There are no outlets available for use at any of these locations, currently. Analytical results indicated levels of lead above 15 ppb at these locations. The district will be taking remedial measures during the installation of these outlets, as well as testing them once they are installed, prior to being put into service. The bottle fillers, when installed, will not be put into service unless they test below 15 ppb.

Sincerely,

Karl Environmental Group

Jake Edwards

Industrial Hygienist



Effective and Economical Environmental Solutions

Comprehensive Lead in Drinking Water Services
Per amendments to N.J.A.C 6A:26 Educational Facilities
Oakland Public Schools
315 Ramapo Valley Road
Oakland, NJ 07436

Karl Environmental Group Project #: 21-0680

July 26, 2021

Prepared for:

Mr. Bob Jacod Oakland Public Schools 315 Ramapo Valley Road Oakland, NJ 07436

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

July 26, 2021

Mr. Bob Jacod Oakland Public Schools 315 Ramapo Valley Road Oakland, NJ 07436

Re: Comprehensive Lead in Drinking Water Services per N.J.A.C 6A:26

Oakland Public Schools

315 Ramapo Valley Road, Oakland, NJ 07436 Karl Environmental Group Project #: 21-0680

Dear Mr. Jacod,

Thank you for selecting Karl Environmental Group ("Karl") for this project. This report details the methods and findings of the comprehensive lead in drinking water services as per New Jersey state regulations (amendments to N.J.A.C 6A:26 Educational Facilities) performed at the Dogwood Hill Elementary School, Heights Elementary School, Manito Elementary School and Valley Middle School (the "Facilities"), on July 13, 2021.

1.0 PROJECT BACKGROUND

Karl Environmental was contacted by the Oakland Public Schools (the "Client") to perform lead in drinking water sampling to determine the lead content of drinking water from sources throughout the Facilities. 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 kitchen faucets and sinks in Faculty/Staff lounges.

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 Environmental collected drinking water samples from water outlets throughout each 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 Suburban Testing Labs (Suburban), a New Jersey certified laboratory (NJ Lab ID #PA081) located in Reading, Pennsylvania for analysis by EPA method 200.8, NJ DOE.

During the initial sampling event on July 13, 2021, Karl Environmental collected the following number of samples at each Facility:

Dogwood Hill Elementary School

- One (1) field blank sample
- Two (2) first-draw samples

Manito Elementary School

- One (1) field blank sample
- Two (2) first-draw samples

Heights Elementary School

- One (1) field blank sample
- Two (2) first-draw samples

Valley Middle School

- One (1) field blank sample
- Eight (8) first-draw samples

4.0 DRINKING WATER ANALYSIS RESULTS

The analytical lead in drinking water results for each first draw samples are listed in Tables 1-4, below:

Table 1: Dogwood Hill School – July 13, 2021

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OD-BLANK	N/A	<1.00	No
OD-FP-1FL-KITCHEN	Sink	11.7	No
OD-TL-2FL-FACULTY	Sink	2.71	No

Table 2: Heights Elementary School – July 13, 2021

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OH-BLANK	N/A	<1.00	No
OH-FP-KITCHEN	Sink	6.47	No
OH-TL-FACULTY1	Sink	7.31	No

Table 3: Manito Elementary School – July 13, 2021

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?
OM-BLANK	N/A	<1.00	No
OM-TL-1FL-FACULTY	Sink	1.26	No
OM-FP-1FL-KITCHEN	Sink	10.5	No

Table 4: Valley Middle School – July 13, 2021

Table 4. Valley What de School Saly 15, 2021										
Sample I.D.	Type of Collection Point	Lead Concentration (ppb)	Above Regulatory Action Level?							
OV-BLANK	N/A	<1.00	No							
OV-FP-1FL-KITCHEN	Sink	3.32	No							
OV-TL-FACULTY	Sink	2.86	No							
OV-FP-1FL-HOMEEC4	Sink	4.86	No							
OV-FP-1FL-HOMEEC3	Sink	9.69	No							
OV-FP-1FL-HOMEEC2	Sink	3.29	No							
OV-FP-1FL-HOMEEC1	Sink	2.12	No							
OV-TL-2FL-FACULTY	Sink	4.44	No							
OV-TL-2FL-BOARDSTAFF	Sink	9.91	No							

All laboratory analytical results were initially compared to the NJ Department of Education Regulatory Action Level of 15 ppb for lead. Analysis of lead in the first draw drinking water samples indicated that, at the time of the sampling event, none of the potable outlets exceeded concentrations above the regulatory action level of 15 ppb. All analytical lab results are included in Attachment A.

5.0 POTENTIAL BOTTLE FILLING STATIONS

The Client requested to test locations on the plumbing line at each Facility, where potential bottle filling stations are to be installed. Currently these locations are not accessible to students and staff and therefore are not required to be sampled as per N.J.A.C 6A:26 Educational Facilities. The results are summarized in Tables 5-8, below:

Table 5: Dogwood Hill School

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)
OD-DW-GYM1	Line	35.3
OD-DW-1stFRONTHALL	Line	25.2
OD-DW-2FL-HALL	Line	7.99

Table 6: Heights Elementary School

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)
OH-DW-1FL-HALL-KG	Line	117
OH-DW-1FL-GYM Hall	Line	62.7
OH-DW-1FL-Hall5GD	Line	25.8

Table 7: Manito Elementary School

Sample I.D.	Type of Collection Point	Lead Concentration (ppb)
OM-DW-1FL-HALL	Line	16.2
OM-DW-1FL-GYM	Line	110
OM-DW-2FL-HALL	Line	55.0

Table 8: Valley Middle School

Table of Table of The Control									
Sample I.D.	Type of Collection Point	Lead Concentration (ppb)							
OV-DW-CAFE HALL	Line	25.0							
OV-DW-CAFE	Line	31.1							
OV-DW-1FL-GYM Hall1	Line	46.4							
OV-WC-2FL-UPPER30sHall	Line	66.5							

The district will be taking remedial measures during the installation of these outlets, as well as testing them once they are installed, prior to being put into service. The bottle fillers, when installed, will not be put into service unless they test below 15 ppb.

6.0 CONCLUSIONS & RECOMMENDATIONS

Following the lead in drinking water sampling event conducted on July 13, 2021 all potable outlets tested were below the regulatory Action Level of 15 ppb. At the conclusion of the comprehensive lead in drinking water services, Karl Environmental Group 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 should 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 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.

7.0 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.

FAX: (610) 856-5040

8.0 CLOSING

Thank you for using Karl Environmental Group 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

Jake Edwards

Industrial Hygienist

610-856-7700 (Phone)

610-856-5040 (Fax)

jedwards@karlenv.com

Attachment A: Analytical Lab Results

Attachment A:

Analytical Lab Results



Results Report Order ID: 1G04185

Karl Environmental Group

20 Lauck Road Mohnton, PA 19540 Project: 21-0680C Oakland Public Schools

Attn: Jake Edwards Regulatory ID:

Sample Number: 1G04185-01 Collector: JE		Site: OD-BLANK Collect Date: 07/13/202	21 6:21 am		Sample ID: Dogwood Hill Elementary School Sample Type: Grab				ol
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Metals</u>									
Lead	< 1.00	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:03	MKR
Sample Number: 1G04185-02		Site: OD-FP-1FL-KITCHEN Sample I				Dogwoo	d Hill E	lementary Schoo	ol
Collector: JE		Collect Date: 07/13/202	21 6:22 am	Samp	le Typ	e: Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Metals</u>									
Lead	11.7	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:05	MKR
Sample Number: 1G04185-03		Site: OD-TL-2FL-FACU	LTY	Samp	le ID:	Dogwoo	d Hill E	lementary Schoo	ol l
Collector: JE		Collect Date: 07/13/202	21 6:31 am	Sample Type: Grab					
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Metals</u>									
Lead	2.71	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:07	MKR
Sample Number: 1G04185-04		Site: OD-DW-GYM1		Samp	le ID:	Dogwoo	d Hill E	lementary Schoo	 ol
Collector: JE		Collect Date: 07/13/202	21 6:25 am	Samp	le Typ	e: Grab			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
<u>Metals</u>									
Lead	35.3	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:10	MKR
Sample Number: 1G04185-05		Site: OD-DW-1stFRON	THALL	Samp	le ID:	Dogwoo	d Hill E	lementary Schoo	ol
Collector: JE		Collect Date: 07/13/2021 6:28 am Sa			le Typ	e: Grab		•	
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву
Metals									
Lead	25.2	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:12	MKR

Report Generated On: 07/19/2021 1:30 pm 1G04185







Sample Number: 1G04185-06 Site: OD-DW-2FL-HALL Sample ID: Dogwood Hill Elementary School

Collector: JE Collect Date: 07/13/2021 6:30 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF **Prep Date Analysis Date** Ву

Metals

Lead 7.99 EPA 200.8 1.00 07/14/21 MKR 07/15/21 19:19 MKR µg/L

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

The test pH, Lab is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

*pH, Final for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Typen Kenn

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Rvan F Knerr Project Manager II

> Report Generated On: 07/19/2021 1:30 pm 1G04185





20 Lauck Road

Client Name: Karl Environmental Group

Mohnton, PA 19540

Jake Edwards

Contact Name:

Phone: 610-856-7700

Fax: 610-856-5040

Email: jedwards@karlenv.com

AT(Check One): Standard 24hr 48hr 72hr Other
Additional charges may apply for rush TAT. If not specified, standard TAT will apply)
Order ID:

ne: 21-0680C Oakland Public Schools

Address: Dogwood Hill Elementary School

25 Dogwood Drive, Oakland, NJ 07436

Payment / P.O. Info:

Comments:

NJ DOE Lead in Drinking Water Samples - PG 1

(6) 250 ml HNO3

** #added 15 drops HNO3 PHCS

		Т	1	r				ノヤ	•	5.0C1	(SIF 033)
SWTL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	Matrix	Sample 99 Type	Bottle Type 89	Preservative	Comments / Field
	OD-BLANK	7/13/21	621	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	Data: Blank
	OD-FP-1FL-KITCHEN	7/13/21	622	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
	OD-TL-2FL-FACULTY	7/13/21	631	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
	OD-DW-GYMI OD-DW-FRONTHALL	\	625)	1		+	1		1	
	OD-DW-FRONTHALL		628								
	OD-DW-25L-Hall	8	630	V	V	A	N	A	V	V	
				V		_					

Relinquished By:	Date: 7/R/21		Sample Conditions	Matrix Key	Bottle Type Key	Reporting Options
MM	Time:		Submitted with COC? // N	NPW = Non-Potable Water	P = Plastic	SDWA Reporting
Received By:	Date:			Solid = Raw Sludge, Dewatered sludge, s (reported as mg/kg)	oll, etc. G = Glass O = Other	PWSID:
	Time:	Temp °C:	Number of containers match number on COC? N	PW = Potable Water (not for SDWA comp	liance) Preservative Key	Fax
Relinquished By:		Acceptable: Y / N		SDWA = Safe Drinking Water Act Potable	Sample N = Sodium	
realiquened by.	Date:	Temp °C:	All containers in tact? ON	Sample Type Key SDWA Sampl		Other
	Time:	Acceptable: Y / N	Tests within holding	G = Grab D=Distribution E=Entry Point		Return a copy of this form with
Received in Lab By:	Date: 7 17 2	iÆi	times 🚫 N	8HC = 8 Hr. R=Raw	S = H ₂ SO ₄ OH = NaOH	Report Report
1 (6)	Time: 11321	Temp °C:	40 mL VOA vials free of	S=Special	O = Other	
AMA	1125	Acceptable Y) N	headspace? 1/N	24HC = 24 Hr. M=Maximum Composite Residence	NA = None Required	
Signing this form indicates your agreement with SWEL's Sta	1 123					

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Results Report Order ID: 1G04181

Karl Environmental Group 20 Lauck Road

Mohnton, PA 19540

Project: 21-0680D Oakland Public Schools

Attn: Jake Edwards Regulatory ID:

Sample Number: 1G04181-01 Collector: JE		Site: OH-BLANK Collect Date: 07/13/2021	7:36 am	Sample Sample		Heights e: Grab	Elemer	ntary School			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву		
<u>Metals</u>											
Lead	< 1.00	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:45	MKR		
Sample Number: 1G04181-02		Site: OH-FP-KITCHEN				Sample ID: Heights Elementary School					
Collector: JE		Collect Date: 07/13/2021	7:43 am	Sample	е Тур	e: Grab					
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву		
<u>Metals</u>											
Lead	6.47	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:51	MKR		
Sample Number: 1G04181-03		Site: OH-TL-FACULTY1	Sample ID: Heights Elementary Scho				ntary School				
Collector: JE		Collect Date: 07/13/2021	7:48 am	Sample Type: Grab							
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву		
<u>Metals</u>											
Lead	7.31	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:53	MKR		
Sample Number: 1G04181-04		Site: OH-DW-1FL-HALL-K	G.	Sample	e ID:	Heights	Elemer	ntary School			
Collector: JE		Collect Date: 07/13/2021	7:37 am	Sample	mple Type: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву		
<u>Metals</u>											
Lead	117	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:55	MKR		
Sample Number: 1G04181-05		Site: OH-DW-1FL-GYM H	all	Sample	e ID:	Heights	Elemer	ntary School			
Collector: JE		Collect Date: 07/13/2021	Sample	е Тур	e: Grab		•				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву		
<u>Metals</u>						_					
Lead	62.7	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:58	MKR		

Report Generated On: 07/19/2021 1:31 pm 1G04181







Sample Number: 1G04181-06 Site: OH-DW-1FL-Hall5GD Sample ID: Heights Elementary School

Collector: JE Collect Date: 07/13/2021 7:50 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF **Prep Date Analysis Date** Ву

Metals

Lead 25.8 EPA 200.8 1.00 07/14/21 MKR 07/15/21 19:00 MKR µg/L

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

The test pH, Lab is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

*pH, Final for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Typen Kenn

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Rvan F Knerr Project Manager II

> Report Generated On: 07/19/2021 1:31 pm 1G04181





Manifest Co.	1 (88) 6
Client Name: Karl Environmental Group	1G041
	 Ryan F

Address: 20 Lauck Road

Mohnton, PA 19540

Contact Name: Jake Edwards

Fax: 610-856-5040

Email: jedwards@karlenv.com

Payment / P.O. Info: _

M=Maximum Residence

Required

TAT(Check One): Standard 24hr 4 (Additional charges may apply for rush TAT. If not sp	8hr72hrOther ecified, standard TAT will apply)
	D
me: 21-0680D Oakland Public Scl	nools
Heights Elementary School	
114 Seminole Ave, Oakland, NJ	07436

Comments:

NJ DOE Lead in Drinking Water Samples - PG 1

		0	ō			\ \ \ \		See Coo	les Belo)W	
endums Jaquin No. 12 No		Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	Matrix	Sample Type	Bottle Type	Preservative	Comments / Field
OH-BLANK	7/1	13/21	736	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	Blank
OH-FP-KITCHEN	⁾ 7/1	13/21	773	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
OH-TL-FACULTY1	1	3/21	748	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
OH- DW-1FL- [44]	1.KG	1	737		1	1	1	1	1	1	
0H-DW-1FL- [41]	H911		747								
04-DW-1FL-Ha	115GD \	/	750	V	V	V	V	V	V	V	
- 11							V				
X (6) 250ML HNO3 P											
X:15 drops HNO3; Ph < 2 PF	7-13-21	SIFC	339)							<u> </u>	
Chu	Date 7/13/z Time: 1125	!		Sut	Sample Conditions Matrix Key NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sluce	dae soll o	P	Bottle Typ = Plastic = Glass	oe Key	□sov	Reporting Options
Received By.	Date:		mp ºC;		nber of containers ch number on COC? / N PW = Potable Water (not for SDWA SDWA = Safe Drinking Water Act Pc	complianc	e) F	= Other Preservati		PWSID Fax	
Relinquished By:	Date:	Tei	mp °C:	All	ontainers in tact? (Y)/ N Sample Type Key SDWA S	ample Ty	pes A	= Sodium Thiosulf = Ascorbio = HNO ₂	ate	⋉ Ema	
Received in Lab By:	Date: 7/13/2		ceptable: Y / N	Tes time	s within holding S N 8HC = 8 Hr. Composite C=Check	Point c	C S OI	= HCl = H₂SO₄ H = NaOH		Retu Repo	rm a copy of this form with ort
SHIT!	Time:		ceptable(Y)N	ON 40 r	nL VOA vials free of 24HC = 24 Hr. S=Special M=Maxim			= Other A = None			

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Results Report Order ID: 1G04176

Karl Environmental Group

20 Lauck Road Mohnton, PA 19540 Project: 21-0680B Oakland Public Schools

Attn: Jake Edwards Regulatory ID:

Sample Number: 1G04176-01 Site: OM-BLANK Collector: JE Collect Date: 07/13/2021 7:01 am				Sample ID: Manito Elementary School Sample Type: Grab									
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву				
<u>Metals</u>													
Lead	< 1.00	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:34	MKR				
Sample Number: 1G04176-02		Site: OM-TL-1FL-FACULT					Sample ID: Manito Elementary School						
Collector: JE		Collect Date: 07/13/2021	7:02 am	Sampl	е Тур	e: Grab							
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву				
Metals													
Lead	1.26	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:37	MKR				
Sample Number: 1G04176-03 Collector: JE		Site: OM-FP-1FL-KITCHE Collect Date: 07/13/2021	Sample ID: Manito Elementary School Sample Type: Grab										
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву				
Metals													
Lead	10.5	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:39	MKR				
Sample Number: 1G04176-04		Site: OM-DW-1FL-HALL		Sampl	le ID: Manito Elementary School								
Collector: JE		Collect Date: 07/13/2021	7:04 am	Sampl	е Тур	e: Grab							
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву				
<u>Metals</u>													
Lead	16.2	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:33	MKR				
Sample Number: 1G04176-05		Site: OM-DW-1FL-GYM		Sampl	e ID:	Manito E	Elemen	tary School					
Collector: JE		Collect Date: 07/13/2021	7:10 am	Sampl	е Тур	e: Grab		,					
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву				
<u>Metals</u>													
Lead	110	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:41	MKR				

Report Generated On: 07/19/2021 1:31 pm 1G04176







Sample Number: 1G04176-06 Site: OM-DW-2FL-HALL Sample ID: Manito Elementary School

Collector: JE Collect Date: 07/13/2021 7:13 am Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF **Prep Date Analysis Date** Ву

Metals

Lead 55.0 EPA 200.8 1.00 07/14/21 MKR 07/15/21 18:43 MKR µg/L

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

The test pH, Lab is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

*pH, Final for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Typen Kenn

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Rvan F Knerr Project Manager II

> Report Generated On: 07/19/2021 1:31 pm 1G04176



Client Name: Karl Environmental Group



Address:	20 Lauck	Road	
	Mohnton	ΡΔ 105//0	

Contact Name: Jake Edwards

Comments:

Phone: 010-000-1100

Fax: 610-856-5040

Email: jedwards@karlenv.com

AT(Check One): Standard 24hr 48hr 72hr Other (Additional charges may apply for rush TAT. If not specified, standard TAT will apply)
Order ID:

ne: 21-0680B Oakland Public Schools

Address: Manito Elementary School

111 Manito Avenue, Oakland, NJ 07436

Payment / P.O. Info: ___

NJ DOE Lead in Drinking Water Samples - PG 1

	77	70			T		See Coo	les Beli)\\\	
Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	Matrix	Sample Type	/be	Preservative	Comments / Field
OM-BLANK	7/13/21	701	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	Data:
OM-TL-1FL-FACULTY	7/13/21	702	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
OM-FP-1FL-KITCHEN	7/13/21	708	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
om-DW-IEL-Hall)	204	1	1		,	1)		
om-DW-IFL-Eyn		710								
on-ou-ZPL-Hall	V	713	•		V		V		V	
			(\ .	-	¥				
X (6) 250ML HNO3 P										
7=15 drops HNO3 added; Ph-2 Relinquished Pro	05 F	·13.21	(SIR	7334)						

10031					1 1		
1= 15 drops HNO3 added	1; Ph-2 04	7.13.21 ((SIF0339)				
Relinquished By.	Date: 157	1 17.01	Sample Conditions	1	- Contraction of the Contraction		
(///	//15/21				ix Key	Bottle Type Key	Reporting Options
The state of the s	Time:		Submitted with COC? Y N	NPW = Non-Potable Wa		P = Plastic	SDWA Reporting
Received By:	Date:			Solid = Raw Sludge, Dev	watered sludge, soll, etc.	G = Glass O = Other	
		Temp °C:	Number of containers match number on COC3 N / N	(reported as mg/l		U - Other	PWSID:
	Time:	Acceptable: Y / N	match number on COC7 Y / N	PW = Potable Water (no		Preservative Key	Fax
Relinquished By:	Date:	Acceptable, 17 N	J		Vater Act Potable Sample	N = Sodium	X Email
	Date.	Temp °C:	All containers in tact?	Sample Type Key	SDWA Sample Types	Thiosulfate	
	Time:	A ====================================	Table the first terms of	G = Grab	D=Distribution	A = Ascorbic Acid H = HNO ₃	Other
Received in Lab By:		Acceptable: Y / N	Tests within holding times N	8HC = 8 Hr:	E=Entry Point	C = HCI	Return a copy of this form with
(6)	Date: 7/13/21	Temp °C: 14.6	\cup	Composite	R=Raw C=Check	S = H ₂ SO₄ OH = NaOH	Report
COM AT	Time: (1)2(2)	•	40 mL VOA vials free of	NUIS AUG	S=Special	O = Other	
3 1011	1125	Acceptable (Y/N	headspace? YIN	24HC = 24 Hr. Composite	M=Maximum Residence	NA = None Required	
Signing this form indicates your agreement with SWTL's St		30110			1		

Shaded areas are for SWTL use only.



Results Report Order ID: 1G04187

Karl Environmental Group

20 Lauck Road Mohnton, PA 19540 Project: 21-0680A Oakland Public Schools

Attn: Jake Edwards Regulatory ID:

Sample Number: 1G04187-01 Collector: JE		Site: OV-BLANK Collect Date: 07/13/2021	5:01 am	Sampl Sampl		Valley M e: Grab	liddle S	chool				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву			
<u>Metals</u>												
Lead	< 1.00	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 19:21	MKR			
Sample Number: 1G04187-02		Site: OV-FP-1FL-KITCHE	ite: OV-FP-1FL-KITCHEN			Sample ID: Valley Middle School						
Collector: JE		Collect Date: 07/13/2021	5:14 am	Sampl	е Тур	e: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву			
<u>Metals</u>												
Lead	3.23	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 17:40	MKR			
Sample Number: 1G04187-03			Site: OV-TL-1FL-FACULTY			Valley M	liddle S	chool				
Collector: JE		Collect Date: 07/13/2021	Sampl	е Тур	e: Grab							
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву			
<u>Metals</u>												
Lead	2.86	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 17:50	MKR			
Sample Number: 1G04187-04		Site: OV-FP-1FL-HOMEE	C4	Sampl	e ID:	Valley M	liddle S	chool				
Collector: JE		Collect Date: 07/13/2021	5:25 am	Sampl	е Тур	e: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву			
<u>Metals</u>												
Lead	4.86	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 17:53	MKR			
Sample Number: 1G04187-05		Site: OV-FP-1FL-HOMEE	C3	Sampl	e ID:	Valley M	liddle S	chool				
Collector: JE		Collect Date: 07/13/2021	5:23 am	Sampl	е Тур	e: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву			
<u>Metals</u>												
Lead	9.69	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 17:55	MKR			

Report Generated On: 07/19/2021 1:30 pm 1G04187







Sample Number: 1G04187-06		Site: OV-FP-1FL-HOMEE		Samp		Valley M	1iddle S	chool		
Collector: JE		Collect Date: 07/13/2021	5:21 am	Samp	Іе Тур	e: Grab				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals										
Lead	3.29	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 17:57	MKR	
Sample Number: 1G04187-07		Site: OV-FP-1FL-HOMEE	 C1	Samp	le ID:	Valley M	1iddle S	chool		
Collector: JE		Collect Date: 07/13/2021	5:20 am	Sample Type: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals										
Lead	2.12	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 17:59	MKR	
Sample Number: 1G04187-08		Site: OV-TL-2FL-FACULT	Y	Samp	le ID:	Valley M	liddle S	chool		
Collector: JE		Collect Date: 07/13/2021	Samp	Іе Тур	e: Grab					
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals										
Lead	4.44	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:02	MKR	
Sample Number: 1G04187-09		Site: OV-TL-2FL-BOARDS	STAFF	Samp	le ID:	Valley M	liddle S	chool		
Collector: JE		Collect Date: 07/13/2021			e: Grab	iidaio o	011001			
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals										
Lead	9.91	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:04	MKR	
Sample Number: 1G04187-10		Site: OV-DW-CAFE HALL		Sample ID: Valley Middle School						
Collector: JE		Collect Date: 07/13/2021	5:08 am	Sample Type: Grab						
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals Metals										
Lead	25.0	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:06	MKR	
Sample Number: 1G04187-11		Site: OV-DW-CAFE		Samp	le ID:	Valley M	1iddle S	chool		
Collector: JE		Collect Date: 07/13/2021	5:12 am			e: Grab				
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals Metals										
Lead	31.1	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:09	MKR	
Sample Number: 1G04187-12		Site: OV-DW-1FL-GYM Ha	 all1	Samp	le ID:	Valley M	1iddle S	chool		
Collector: JE		Collect Date: 07/13/2021			e: Grab					
Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	Ву	Analysis Date	Ву	
Metals										
Lead	46.4	μg/L	EPA 200.8	1.00	1	07/14/21	MKR	07/15/21 18:18	MKR	

Report Generated On: 07/19/2021 1:30 pm 1G04187







Sample Number: 1G04187-13 Site: OV-WC-2FL-UPPER30sHall Sample ID: Valley Middle School Collector: JE Collect Date: 07/13/2021 5:33 am

Sample Type: Grab

Department / Test / Parameter Result Units Method R.L. DF **Prep Date Analysis Date** Ву

Metals

Lead 66.5 EPA 200.8 1.00 07/14/21 MKR 07/15/21 18:20 MKR µg/L

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

The test pH, Lab is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

*pH, Final for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

Typen Kenn

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

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Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Rvan F Knerr Project Manager II

> Report Generated On: 07/19/2021 1:30 pm 1G04187





Client Name:	Karl E	nvironmental	Group

1G04187 Ryan F Knerr

Address: 20 Lauck Road

Mohnton, PA 19540

Fax: 610-856-5040

Contact Name: Jake Edwards

Email: jedwards@karlenv.com

Payment / P.O. Info: _

Comments:

NJ DOE Lead in Drinking Water Samples - PG 1

(8) 250mL HNO3

* added 15 drops HNO3 PHC?

		70	ъ	ъ			See Codes Below				
SWTL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	Matrix	Sample Type	Bottle Type	Preservative	Comments / Field Data:
1	OV-BLANK .	7/13/21	501	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	BLANK
	OV-FP-1FL-KITCHEN	7/13/21	514	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
	OV-TL-1FL-FACULTY .	7/13/21	506	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
	OV-FP-1FL-HOMEEC4	7/13/21	525	JE	Lead, 200.8, NJ DOE	1	PW	G	Ρ	Н	
4	OV-FP-1FL-HOMEEC3	7/13/21	523	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
\$	OV-FP-1FL-HOMEEC2	7/13/21	521	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
	OV-FP-1FL-HOMEEC1	7/13/21	526	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	
	OV-TL-2FL-FACULTY	7/13/21	531	JE	Lead, 200.8, NJ DOE	1	PW	G	Р	Н	

Relinquished By:	Date: 7/13/13.		Sample Conditions	Matri:	x Key	Bottle Type Key	Reporting Options
(//2/	7/17/A		Submitted with COC? Ø N	NPW = Non-Potable Wate	er	P = Plastic	SDWA Reporting
Bassius	1125			Solid = Raw Sludge, Dew (reported as mg/kg		G = Glass O = Other	PWSID:
Received By:	Date:	Temp °C:	Number of containers match number on COC? N	PW = Potable Water (not	7	Preservative Key	Fax
	Time:	Acceptable: Y / N		SDWA = Safe Drinking W	ater Act Potable Sample	N = Sodium	X Email
Relinquished By:	Date:	Temp °C:	All containers in tact? (Y) N	Sample Type Key	SDWA Sample Types	Thiosulfate A = Ascorbic Acid	Other
	Time:	Acceptable: Y / N	Tests within holding times N	G = Grab 8HC = 8 Hr	D=Distribution E=Entry Point R=Raw	H = HNO ₃ C = HCl S = H ₂ SO ₄	Return a copy of this form with Report
Received in Lab By:	Date: 7/13/21	Temp °C: 4.6 0n		Composite	C=Check S=Special	OH = NaOH O = Other	·
WHI	Time: 125	Acceptable: N 1 C	40 mL VOA vials free of headspace?	24HC = 24 Hr Composite	M=Maximum Residence	NA = None Required	

Signing this form indicates your agreement with SWTL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.4 Effective November 12, 2014 Shaded areas are for SWTL use only.





Client Name:	Karl Environmental Group
Address: 20	Lauck Road

Ryan F Knerr

Mohnton,	PA	19540

Fax: 610-856-5040

Contact Name: Jake Edwards

Comments:

*

Email: jedwards@karlenv.com

	TAT(Check One): Standard 24hr 48hr 72hr Other (Additional charges may apply for rush TAT. If not specified, standard TAT will apply)
	Order ID:
	21-0680A
	me: 20-0700B Oakland Public Schools
2	Valley Middle School
_	71 Oak Street, Oakland, NJ 07436
Payment / I	P.O. Info:

(5) (13) 250 mL HNO3 * added 15 drops HWO3 pHL2 pf 7.13.21 (SIF0339) ** took timeNJ DOE Lead in Drinking Water Samples- PG 2 See Codes Below Quantity Date Sampled Time Sampled SWTL Sample Number Preservative Bottle Type Samplers Initials Matrix Comments / Field Sample Description / Site ID: Test(s) Requested: Data: OV-TL-2FL-BOARDSTAFF 7/13/21 JΕ Lead, 200.8, NJ DOE PW G Р Н 7/13/21 JE Lead, 200.8, NJ DOE PW G Р Н 512 7/13/21 JE Lead, 200.8, NJ DOE PW G Н Ρ 518 7/13/21 JE Lead, 200.8, NJ DOE PW G Р Н 7/13/21 JE Lead, 200.8, NJ DOE PW G Р Н 7/13/21 JE Lead, 200.8, NJ DOE PW G Ρ Η 7/13/21 JΕ Lead, 200.8, NJ DOE P PW G H 7/13/21 JΕ Lead, 200.8, NJ DOE PW G Р H

Relinquished By:	Date: 7/3/7.1		Sample Conditions	Matrix Key	Bottle Type Key	Reporting Options
201	Time:		Submitted with COC? DIN	NPW = Non-Potable Water	P = Plastic	SDWA Reporting
Received By:	1125		_	Solid = Raw Sludge, Dewatered sludge, soll, etc. (reported as mg/kg)	G = Glass O = Other	PWSID:
		Temp °C:	Number of containers match number on COC?/ / N	PW = Potable Water (not for SDWA compliance)	Preservative Key	Fax
	Time:	Acceptable: Y / N		SDWA = Safe Drinking Water Act Potable Sample	N = Sodium	IX Email
Relinquished By:	Date:	Temp °C:	All containers in fact? N	Sample Type Key SDWA Sample Types		Other
Description of the control of the co	Time:	Acceptable: Y / N	Tests within holding times W/N	G = Grab	H = HNO ₃ C = HCl S = H ₂ SO ₄	Return a copy of this form with
Received in Lab By:	Date: 7113/21	Temp °C: 14.6		Composite C=Check	0H = Na0H 0 = Other	Report
JANH P	Time: \125	Acceptable (Y)N	40 mL VOA vials free of headspace? Y / N	24HC = 24 Hr Composite S=Special M=Maximum Residence	NA = None Required	