PARTNER
Engineering and Science, Inc.

DRINKING WATER SAMPLING REPORT

Rosenauer Elementary School

60 Citadel Drive
Jackson, New Jersey 08527

April 25, 2022
Partner Project No. 21-327918.2

Prepared for

Jackson Township Board of Education
151 Don Connor Boulevard
Jackson, New Jersey 08527

PARTNER
Engineering and Science, Inc.

April 25, 2022

Mr. Anthony Bruno
Jackson Township Board of Education
151 Don Connor Boulevard
Jackson, New Jersey 08527

Subject: Drinking Water Sampling Report
Jackson Township Board of Education
Rosenauer Elementary School
Jackson, New Jersey 08527
Partner Project 21-327918.2

Dear Mr. Bruno:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Drinking Water Sampling* conducted at the abovementioned address (the "subject property"). This sampling event was performed in general conformance with the scope and limitations as detailed in our fee proposal. This inspection included a site reconnaissance as well as sampling and analysis. An assessment was made, conclusions stated, and recommendations outlined, as required.

We appreciate the opportunity to provide environmental services to the Jackson Township Board of Education. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (908) 497-8904 or via e-mail at dbracey@partneresi.com.

Sincerely,

Dan Bracey, CSP, CHMM
Senior Project Manager
Industrial Hygiene & Health and Safety Services

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APPENDICES

PARTNER

Executive Summary

Partner Engineering and Science, Inc. (Partner) collected drinking water samples for Jackson Township Board of Education at Rosenauer Elementary School on March 5, 2022. Samples were collected according to the "New Jersey Department of Education N.J.A.C. 6A:26" requirements for testing of lead in New Jersey Schools and the "USEPA 3Ts for Reducing Lead in Drinking Water in Schools" recommendations, as well as the Safe Drinking Water Act of 1974.

The first sample at each fixture was a "first draw" which was collected directly from the fixture without letting the water run or flush. The second sample was collected after letting the water run (flush) for thirty seconds. This sample evaluates the lead in water from the water purveyor and the pipes outside the building. The samples collected were analyzed by Alpha Analytical Labs located in Mahwah, New Jersey for analysis of lead content using USEPA Method 200.8 for lead in drinking water. The action level for lead has been set at 15 parts per billion (ppb). According to the USEPA, given present technology and resources, this level is the lowest level to which water systems can reasonably be required to control this contaminant should it be present in drinking water.

Sample analysis indicated that measured lead concentrations did exceed the USEPA Action Level of 15 ppb for lead at Rosenauer Elementary School. Specifically, water from the following outlets had exceedances:

- RES-POE, initial draw, 436.1 ppb
- RES-POE-F, Second draw, 18.75 ppb
- RES-WF-07, initial draw, 24.36 ppb
- RES-WF-08, initial draw, 55.84 ppb
- RES-WF-08-F, Second draw, 90.28 ppb
- RES-WF-16, initial draw, 36.78 ppb
- RES-WF-16-F, Second draw, 126.1 ppb
- RES-WF-17, initial draw, 30.7 ppb
- RES-WF-18, initial draw, 37.69 ppb
- RES-WF-18-F, Second draw, 120.5 ppb

Based on the above referenced sample analytical results, Partner recommends the following actions:

- For the initial point of entry outlet exceeding the USEPA Action Level, this outlet should be labelled as "Do Not Drink – Safe for Handwashing Only".
- A flushing program can be implemented at the point of entry outlet, with either manual or automatic flushing.
- Remove drinking water outlets of concern from service.

- Conduct an investigation into the drinking water outlet of concern and replace any potential lead-leaching fixtures or equipment, such as fixtures and associated piping, that may be contributing to dissolved lead in drinking water.

1.0 INTRODUCTION

1.1 Property Description

Address(s):	Rosenauer Elementary School – 60 Citadel Drive, Jackson
Nature of Use:	School
Walk-Through Inspector:	Angelica Rosaperez
Walk-Through Date:	January 12, 2022
Sampling Conducted By:	Angelica Rosaperez Anthony Mercogliano
Sampling Date:	March 5, 2022

1.2 Purpose and Scope

The purpose of this drinking water sampling event was to sample and analyze drinking water for a determination of lead content for comparison with the USEPA Action Level as defined by the National Primary Drinking Water Regulations (NPDWR - 40 CFR Chapter I, Part 141), in addition to the "New Jersey Department of Education N.J.A.C. 6A:26" requirements for testing of lead in New Jersey Schools and the "USEPA 3Ts for Reducing Lead in Drinking Water in Schools". The NPDW set a Maximum Contaminant Level Goal (MCLG) for each listed contaminant, which identifies a level of that contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals. The MCLG for lead has been set at zero (0) ppb. Since lead contamination generally occurs from corrosion of onsite lead pipes, or lead-based solder on fittings and fixtures, it cannot be directly detected or removed by the municipal water system. Instead, the USEPA is requiring municipal water systems to control the corrosiveness of their water if the level of lead at the tap exceeds an Action Level.

The action level for lead has been set at 15 parts per billion (ppb). According to the NPDWR Lead and Copper Rule (LCR), given present technology and resources, this level is the lowest level to which water systems can reasonably be required to control this contaminant should it be present in drinking water.

2.0 METHODOLOGY

Select drinking water samples were collected according to the "New Jersey Department of Education N.J.A.C. 6A:26" requirements for testing of lead in New Jersey Schools and the "USEPA 3Ts for Reducing Lead in Drinking Water in Schools" recommendations, as well as the LCR Monitoring requirements for lead in tap water (40 CFR Part 141, Subpart I, § 141.86(b)). Sampling consisted of collecting a one liter (L) first draw sample from a drinking water outlet that had been stagnant for at least eight (8) hours in a bottle with an appropriate preservative. Partner made a reasonable effort to determine whether the stagnation preconditions were able to be met prior to conducting sampling. A second-draw sample was collected minutes after the first-draw, in order to determine whether lead was being provided via the service line. Second-draw samples were only analyzed if the first-draw sample exceeded the USEPA Action Level of 15 ppb. Sample bottles were provided by Alpha Analytical Labs located in Mahwah, New Jersey with an appropriate preservative lead in drinking water sampling. After collection, sample bottles were labeled with a unique identifier and transferred under chain of custody to by Alpha Analytical Labs located in Mahwah, New Jersey for analysis by USEPA Method 200.8. The laboratory results and chain of custody are contained in **Appendix A.**

3.0 BACKGROUND

Partner collected a total of 41 drinking water samples from Rosenauer Elementary School on March 2017. A total of 21 samples were analyzed. Following collection, samples were sent to SGS Accutest in Dayton, New Jersey for analysis of lead content using USEPA Method 200.8 for lead in drinking water. The results of the analytical data revealed that no samples exceeded the USEPA Action level of 15 ppb for lead.

4.0 ANALYTICAL RESULTS

During the course of this site visit, Partner collected water samples at 20 locations. Partner did not attempt to disassemble mechanical equipment, open plumbing pipe chases, or assess materials within wall voids.

Sample names and their respective locations were updated from the 2017 sampling event based on relevant known plumbing information as provided by the Jackson Township Board of Education and the site guide.

A total of 40 drinking water samples were collected from Rosenauer Elementary School on March 5, 2022. A total of 26 samples were analyzed. The results are listed in Table 1 below.

Table 1
Analytical Results Summary
Rosenauer Elementary School
5-Mar-22

Sample Name	Location	Results (ppb)
RES-POE	**Boiler Room**	**436.1**
RES-POE-F	**Boiler Room**	**18.75**
RES-WF-01	K1	3.091
RES-WF-02	K2	0.7678
RES-WF-03	K3	2.666
RES-WF-04	K4	14.38
RES-S-05	Nurse	0.8977
RES-WF-06	Adjacent to Library	4.328
RES-WF-07	**Adjacent to Library**	**24.36**
RES-WF-07-F	Adjacent to Library	12.82
RES-WF-08	**Adjacent to Library**	**55.84**
RES-WF-08-F	**Adjacent to Library**	**90.28**
RES-WF-09	Cafeteria	3.906
RES-S-10	Kitchen	0.6236
RES-WF-11	Main Hall	0.6853
RES-WF-12	Main Hall	ND
RES-BF-13	Main Hall	ND
RES-WF-14	Main Hall	2.673
RES-S-15	Faculty	0.6197
RES-WF-16	**Adjacent to Rm. 6**	**36.78**
RES-WF-16-F	**Adjacent to Rm. 6**	**126.1**
RES-WF-17	**Adjacent to Rm. 6**	**30.7**
RES-WF-17-F	Adjacent to Rm. 6	4.716

RES-WF-18	**Adjacent to Rm. 6**	**37.69**
RES-WF-18-F	**Adjacent to Rm. 6**	**120.5**
RES-WF-19	Trailer Child Study	14.76

NOTES

ND= Not detected. Lead levels not detected at the reporting limit (0.3430 ppb)

1 ppb = 1 ug/L

***BOLD** = Exceedances above USEPA Action Level 15 ppb*

5.0 CONCLUSION

Sample analysis indicated that measured lead concentrations did exceed the USEPA Action Level of 15 ppb for lead at Rosenauer Elementary School. Specifically, water from the following outlets had exceedances:

- RES-POE, initial draw, 436.1 ppb
- RES-POE-F, Second draw, 18.75 ppb
- RES-WF-07, initial draw, 24.36 ppb
- RES-WF-08, initial draw, 55.84 ppb
- RES-WF-08-F, Second draw, 90.28 ppb
- RES-WF-16, initial draw, 36.78 ppb
- RES-WF-16-F, Second draw, 126.1 ppb
- RES-WF-17, initial draw, 30.7 ppb
- RES-WF-18, initial draw, 37.69 ppb
- RES-WF-18-F, Second draw, 120.5 ppb

6.0 RECOMMENDATIONS

Based on the above referenced sample analytical results, Partner recommends the following actions:

- For the initial point of entry outlet exceeding the USEPA Action Level, this outlet should be labelled as "Do Not Drink – Safe for Handwashing Only".
- A flushing program can be implemented at the point of entry outlet, with either manual or automatic flushing.
- Remove drinking water outlets of concern from service.
- Conduct an investigation into the drinking water outlet of concern and replace any potential lead-leaching fixtures or equipment, such as fixtures and associated piping, that may be contributing to dissolved lead in drinking water.

Additional control technologies may be utilized to reduce lead content in drinking water, including, but not limited to onsite water treatment and filtration. All response actions should be conducted in according with industry, local, state and federal guidelines and/or requirements

In the event the remedial action involves replacing the fixture/associated piping or installing a new fixture, Jackson Township BOE should conduct sampling for lead in drinking water to ensure lead levels are below the action level prior to opening up the fixture for use. Additionally, sampling of all drinking water outlets must be conducted every third school year beginning with the 2021-2022 school year.

Flushing involves opening suspect taps every morning before the facility opens and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. All flushing should be recorded in a log submitted daily to the head of maintenance/facilities. The faucet should be opened and the water should run for 30 seconds to one minute, or until cold.

A filtration device, or point-of-use (POU) device can be relatively inexpensive ($65 to $250) or expensive (ranging from $250 to $500), their effectiveness varies, and they may be vulnerable to vandalism. They also require a maintenance program for regular upkeep to ensure effectiveness. Cartridge filter units need to be replaced periodically to remain effective. NSF International, an independent, third-party certification organization, has a testing program to evaluate the performance of POU devices for lead removal (NSF Standard 53). Before purchasing any device, ask the manufacturer for proof of NSF approval and the Performance Data Sheet, or check by visiting the NSF Web site at:
http://www.nsf.org/business/search_listings/index/asp

Consult NSF Standard 61 (Sections 4, 8 and 9) before buying any replacement products. This standard will provide you with information on plumbing products that are designed to minimize lead leaching. Before you purchase any brass plumbing products, request information regarding compliance with this standard.

7.0 LIMITATIONS

Partner subcontracted with Alpha Analytical who performed the lead analysis. No warranties expressed or implied, are made by Partner or its subcontractor Alpha Analytical or their employees as to the use of any information, apparatus, product or process disclosed in this report. Every reasonable effort has been made to assure correctness.

State-of-the-art practices have been employed to perform this inspection. No demolition or product research was performed in attempts to reveal material compositions. The services consist of professional opinions and recommendations made in accordance with generally accepted engineering principles/practices. These services are designed to provide an analytical tool to assist the client. Partner and its subcontractors and their employees/representatives bear no responsibility for the actual condition of the structure or safety of this site pertaining to lead and/or lead contamination regardless of the actions taken by the inspection team or the client.

8.0 SIGNATURES OF PROFESSIONALS

Partner performed lead-in-drinking water sampling at the Jackson Township Board of Education properties, Ocean County, New Jersey in general conformance with the scope and limitations of the protocol stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

Prepared By:

Partner Engineering and Science, Inc.

Angelica Rosaperez
Assistant Project Manager

Reviewed by:

Daniel Bracey, CSP, CHMM
Senior Project Manager

APPENDIX A: LABORATORY ANALYSIS AND CHAIN OF CUSTODY

ANALYTICAL REPORT

Lab Number:	L2211731
Client:	Partner Engineering & Science, Inc. 611 Industrial Way West Eatontown, NJ 07724
ATTN:	Angelica Rosaperez
Phone:	(732) 380-1200
Project Name:	JACKSON LDW-ROSENAUER
Project Number:	21-327918.1
Report Date:	03/21/22

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2211731-01	RES-POE	DW	JACKSON	03/05/22 13:39	03/07/22
L2211731-02	RES-POE-F	DW	JACKSON	03/05/22 13:39	03/07/22
L2211731-03	RES-WF-01	DW	JACKSON	03/05/22 13:43	03/07/22
L2211731-04	RES-WF-01-F	DW	JACKSON	03/05/22 13:43	03/07/22
L2211731-05	RES-WF-02	DW	JACKSON	03/05/22 13:44	03/07/22
L2211731-06	RES-WF-02-F	DW	JACKSON	03/05/22 13:44	03/07/22
L2211731-07	RES-WF-03	DW	JACKSON	03/05/22 13:45	03/07/22
L2211731-08	RES-WF-03-F	DW	JACKSON	03/05/22 13:45	03/07/22
L2211731-09	RES-WF-04	DW	JACKSON	03/05/22 13:46	03/07/22
L2211731-10	RES-WF-04-F	DW	JACKSON	03/05/22 13:46	03/07/22
L2211731-11	RES-S-05	DW	JACKSON	03/05/22 13:49	03/07/22
L2211731-12	RES-S-05-F	DW	JACKSON	03/05/22 13:49	03/07/22
L2211731-13	RES-WF-06	DW	JACKSON	03/05/22 13:50	03/07/22
L2211731-14	RES-WF-06-F	DW	JACKSON	03/05/22 13:50	03/07/22
L2211731-15	RES-WF-07	DW	JACKSON	03/05/22 13:51	03/07/22
L2211731-16	RES-WF-07-F	DW	JACKSON	03/05/22 13:51	03/07/22
L2211731-17	RES-WF-08	DW	JACKSON	03/05/22 13:52	03/07/22
L2211731-18	RES-WF-08-F	DW	JACKSON	03/05/22 13:52	03/07/22
L2211731-19	RES-WF-09	DW	JACKSON	03/05/22 13:55	03/07/22
L2211731-20	RES-WF-09-F	DW	JACKSON	03/05/22 13:55	03/07/22
L2211731-21	RES-S-10	DW	JACKSON	03/05/22 13:56	03/07/22
L2211731-22	RES-S-10-F	DW	JACKSON	03/05/22 13:56	03/07/22
L2211731-23	RES-WF-11	DW	JACKSON	03/05/22 13:59	03/07/22
L2211731-24	RES-WF-11-F	DW	JACKSON	03/05/22 13:59	03/07/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2211731-25	RES-WF-12	DW	JACKSON	03/05/22 14:00	03/07/22
L2211731-26	RES-BF-13	DW	JACKSON	03/05/22 14:00	03/07/22
L2211731-27	RES-WF-12-F	DW	JACKSON	03/05/22 14:01	03/07/22
L2211731-28	RES-BF-13-F	DW	JACKSON	03/05/22 14:01	03/07/22
L2211731-29	RES-WF-14	DW	JACKSON	03/05/22 14:02	03/07/22
L2211731-30	RES-WF-14-F	DW	JACKSON	03/05/22 14:02	03/07/22
L2211731-31	RES-S-15	DW	JACKSON	03/05/22 14:03	03/07/22
L2211731-32	RES-S-15-F	DW	JACKSON	03/05/22 14:03	03/07/22
L2211731-33	RES-WF-16	DW	JACKSON	03/05/22 14:05	03/07/22
L2211731-34	RES-WF-16-F	DW	JACKSON	03/05/22 14:05	03/07/22
L2211731-35	RES-WF-17	DW	JACKSON	03/05/22 14:06	03/07/22
L2211731-36	RES-WF-17-F	DW	JACKSON	03/05/22 14:06	03/07/22
L2211731-37	RES-WF-18	DW	JACKSON	03/05/22 14:07	03/07/22
L2211731-38	RES-WF-18-F	DW	JACKSON	03/05/22 14:07	03/07/22
L2211731-39	RES-WF-19	DW	JACKSON	03/05/22 14:08	03/07/22
L2211731-40	RES-WF-19-F	DW	JACKSON	03/05/22 14:08	03/07/22

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	YES
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name:	JACKSON LDW-ROSENAUER	**Lab Number:**	L2211731
Project Number:	21-327918.1	**Report Date:**	03/21/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	JACKSON LDW-ROSENAUER	**Lab Number:**	L2211731
Project Number:	21-327918.1	**Report Date:**	03/21/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Report Submission

In reference to question 5a:

Reporting limits were not specified.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 03/21/22

METALS

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-01
Client ID: RES-POE
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:39
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	436.1		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 15:38	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-02
Client ID: RES-POE-F
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:39
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	18.75		ug/l	1.000	0.3430	1	03/16/22 07:46	03/16/22 22:52	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-03
Client ID: RES-WF-01
Sample Location: JACKSON
Date Collected: 03/05/22 13:43
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	3.091		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:38	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-05
Client ID: RES-WF-02
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:44
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	0.7678	J	ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:42	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-07
Client ID: RES-WF-03
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:45
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	2.666		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:46	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-09
Client ID: RES-WF-04
Sample Location: JACKSON
Date Collected: 03/05/22 13:46
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	14.38		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:50	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-11
Client ID: RES-S-05
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:49
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	0.8977	J	ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:54	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-13
Client ID: RES-WF-06
Sample Location: JACKSON
Date Collected: 03/05/22 13:50
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	4.328		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:58	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-15
Client ID: RES-WF-07
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:51
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	24.36		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:02	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-16
Client ID: RES-WF-07-F
Sample Location: JACKSON
Date Collected: 03/05/22 13:51
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	12.82		ug/l	1.000	0.3430	1	03/16/22 07:46	03/16/22 22:55	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-17
Client ID: RES-WF-08
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:52
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	55.84		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:14	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-18
Client ID: RES-WF-08-F
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:52
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	90.28		ug/l	1.000	0.3430	1	03/16/22 07:46	03/16/22 22:59	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-19
Client ID: RES-WF-09
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:55
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	3.906		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:18	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-21
Client ID: RES-S-10
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:56
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	0.6236	J	ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:22	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-23
Client ID: RES-WF-11
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 13:59
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	0.6853	J	ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:26	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-25
Client ID: RES-WF-12
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:00
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:30	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-26
Client ID: RES-BF-13
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:00
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:34	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-29
Client ID: RES-WF-14
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:02
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	2.673		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:38	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-31
Client ID: RES-S-15
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:03
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	0.6197	J	ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:42	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-33
Client ID: RES-WF-16
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:05
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	36.78		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:46	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-34
Client ID: RES-WF-16-F
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:05
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	126.1		ug/l	10.00	3.430	10	03/16/22 07:46	03/17/22 13:59	EPA 3005A	3,200.8	CD

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-35
Client ID: RES-WF-17
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:06
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	30.70		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 17:50	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-36
Client ID: RES-WF-17-F
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:06
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	4.716		ug/l	1.000	0.3430	1	03/16/22 07:46	03/16/22 23:11	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-37
Client ID: RES-WF-18
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:07
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	37.69		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 18:28	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-38
Client ID: RES-WF-18-F
Sample Location: JACKSON
Date Collected: 03/05/22 14:07
Date Received: 03/07/22
Field Prep: Not Specified

Sample Depth:
Matrix: Dw

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	120.5		ug/l	10.00	3.430	10	03/16/22 07:46	03/17/22 14:02	EPA 3005A	3,200.8	CD

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1
Lab Number: L2211731
Report Date: 03/21/22

SAMPLE RESULTS

Lab ID: L2211731-39
Client ID: RES-WF-19
Sample Location: JACKSON
Sample Depth:
Matrix: Dw

Date Collected: 03/05/22 14:08
Date Received: 03/07/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	14.76		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 18:32	EPA 3005A	3,200.8	WP

Project Name: JACKSON LDW-ROSENAUER **Lab Number:** L2211731

Project Number: 21-327918.1 **Report Date:** 03/21/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03,05,07,09,11,13,15,17,19,21,23,25-26,29,31,33,35,37,39 Batch: WG1613455-1										
Lead, Total	ND		ug/l	1.000	0.3430	1	03/13/22 03:25	03/13/22 16:26	3,200.8	WP

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,16,18,34,36,38 Batch: WG1615311-1										
Lead, Total	ND		ug/l	1.000	0.3430	1	03/16/22 07:46	03/16/22 21:27	3,200.8	WP

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15,17,19,21,23,25-26,29,31,33,35,37,39 Batch: WG1613455-2								
Lead, Total	91		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 02,16,18,34,36,38 Batch: WG1615311-2								
Lead, Total	110		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15,17,19,21,23,25-26,29,31,33,35,37,39 QC Batch ID: WG1613455-3 QC Sample: L2211731-01 Client ID: RES-POE												
Lead, Total	436.1	530	922.1	92		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15,17,19,21,23,25-26,29,31,33,35,37,39 QC Batch ID: WG1613455-5 QC Sample: L2211731-03 Client ID: RES-WF-01												
Lead, Total	3.091	530	484.1	91		-	-		70-130	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15,17,19,21,23,25-26,29,31,33,35,37,39 QC Batch ID: WG1613455-4 QC Sample: L2211731-01 Client ID: RES-POE						
Lead, Total	436.1	442.1	ug/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01,03,05,07,09,11,13,15,17,19,21,23,25-26,29,31,33,35,37,39 QC Batch ID: WG1613455-6 QC Sample: L2211731-03 Client ID: RES-WF-01						
Lead, Total	3.091	3.104	ug/l	0		20

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information

Cooler	Custody Seal
H	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2211731-01A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-02A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-03A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-04A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-05A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-06A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-07A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-08A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-09A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-10A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-11A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-12A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-13A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-14A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-15A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-16A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-17A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-18A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-19A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-20A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-21A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-22A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-23A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)

*Values in parentheses indicate holding time in days

Project Name: JACKSON LDW-ROSENAUER
Project Number: 21-327918.1

Lab Number: L2211731
Report Date: 03/21/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2211731-24A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-25A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-26A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-27A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-28A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-29A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-30A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-31A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-32A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)
L2211731-33A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-34A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-35A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-36A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-37A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-38A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-39A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		PB-2008T-PPB(180)
L2211731-40A	Plastic 250ml HNO3 preserved	H	<2	<2	3.5	Y	Absent		HOLD-METAL-TOTAL(180)

*Values in parentheses indicate holding time in days

Project Name:	JACKSON LDW-ROSENAUER	**Lab Number:**	L2211731
Project Number:	21-327918.1	**Report Date:**	03/21/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	JACKSON LDW-ROSENAUER	**Lab Number:**	L2211731
Project Number:	21-327918.1	**Report Date:**	03/21/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	JACKSON LDW-ROSENAUER	**Lab Number:**	L2211731
Project Number:	21-327918.1	**Report Date:**	03/21/22

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 4

Date Rec'd in Lab: 03/07/22

ALPHA Job #: L2211731

Client Information

Client: Partner Engineering Science
Address: 611 Industrial Way W Suite A Eatontown NJ
Phone: 732-403-5569
Fax:
Email: arosaperez@partnerescom

Project Information

Project Name: Jackson LDW - Rosencrans
Project Location: Jackson
Project #: 21-327918.1
(Use Project name as Project #) ☐
Project Manager: Angelica Rosaperez
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☒ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Analyze flush sample if initial is over 15ppb

Please specify Metals or TAL.
Lead

ANALYSIS
Lead

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Lead	Sample Specific Comments
L2211731-01	RES-POE	3/5/22	1:37	DW	NS	X	
-02	RES-POE-F		1:39				
-03	RES-WF-01		1:43				
-04	RES-WF-01-F		1:43				
-05	RES-WF-02		1:44				
-06	RES-WF-02F		1:44				
-07	RES-WF-03		1:45				
-08	RES-WF-03F		1:45				
-09	RES-WF-04		1:46				
-10	RES-WF-04F	↓	1:46				

Container Type: P
Preservative: C

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
AR	3/7 900		
Rachel Lague AAL	3/7/22 13:35	[illegible] AAL	3/7/22 9:20
[illegible] AAL	3/7	[illegible] AAL	3/7 1800
[illegible]	[illegible]	Melissa Wood	3/7/22 2300

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 4

Date Rec'd in Lab: 03/07/22

ALPHA Job #: L2211731

Client Information
Client:
Address:
Phone:
Fax:
Email:

Project Information
Project Name:
Project Location:
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
Lead

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Lead	Sample Specific Comments
11731 -11	RES-S-05	3/7/22	1:49	DW	NS	x	
-12	RES-S-05		1:49				
-13	RES-MF-06		1:50				
-14	RES-MF-06-F		1:50				
-15	RES-MF-07		1:51				
-16	RES-MF-07-F		1:51				
-17	RES-MF-08		1:52				
-18	RES-MF-08-F		1:52				
-19	RES-MF-09		1:55				
-20	RES-MF-09-F		1:55				

Container Type: P
Preservative: C

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
AL	3/7 900	Rene Flores-ALPHA	3/7/22 9:20
Rene Flores-ALPHA	3/7/22 13:35	TSA AAL	3/7 1800
TSA AAL	3/8		
		Melissa Wood	3/7/22 2000

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTANTS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ALPHA ANALYTICAL

NEW JERSEY CHAIN OF CUSTODY

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Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 3 of 4

Date Rec'd in Lab: 03/07/22

ALPHA Job #: L2211731

Client Information
Client:
Address:
Phone:
Fax:
Email:

Project Information
Project Name:
Project Location:
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: Lead	Sample Specific Comments	Total Bottle
11731-21	RES-S-10	3/5/22	1:56	DW	NS	X		
-22	RES-S-10-F	"	1:56	"	"	"		
-23	RES-WF-11	"	1:59	"	"	"		
-24	RES-WF-11-F	"	1:59	"	"	"		
-25	RES-WF-12	"	2:00	"	"	"		
-26	RES-BF-13	"	2:00	"	"	"		
-27	RES-WF-12-F	"	2:01	"	"	"		
-28	RES-BF-13-F	"	2:01	"	"	"		
-29	RES-WF-14	"	2:02	"	"	"		
-30	RES-WF-14-F	V	2:02	"	"	"		

Container Type: P
Preservative: C

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
AAL	3/7 900	Rec'd Here AAL	3/7/22 9:20
Rec'd Here AAL	3/7/22 13:35	Rec'd AAL	3/7 1800
Rec'd AAL	3/7		
		Melissa Wood	3/7/22 2300

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTANTS. (See reverse side.)

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FAX: 508-822-3288

NEW JERSEY CHAIN OF CUSTODY

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Date Rec'd in Lab: 03/07/22

ALPHA Job #: L2211731

Client Information
Client:
Address:
Phone:
Fax:
Email:

Project Information
Project Name:
Project Location:
Project #
(Use Project name as Project #)
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
Lead

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Lead	Sample Specific Comments
11731-31	RES-S-15	3/5/22	2:03	DW	NS	X	
-32	RES-S-15-F		2:05				
-33	RES-WF-16		2:05				
-34	RES-WF-16-F		2:05				
-35	RES-WF-17		2:06				
-36	RES-WF-17-F		2:06				
-37	RES-WF-18		2:07				
-38	RES-WF-18-F		2:07				
-39	RES-WF-19		2:08				
-40	RES-WF-19-F		2:08				

Container Type: P
Preservative: C

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
AR	3/7 900		
	3/7/22 13:35		3/7 1800
	3/7		
	3/7	Melissa Wood	3/7/22 0300

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)