

TIERRA

June 19, 2023

VIA EMAIL: RPalmer@WeilerEngineering.org

Mrs. Robin Palmer, P.E.
Weiler Engineering Corporation
201 West Marion Avenue, Suite 1306
Punta Gorda, Florida 33950

Re: **NESHAP Asbestos Demolition Survey and Lead-Based Paint
Little Manatee River State Park - Water Treatment Plant (WTP) Evaluation
One Aboveground Storage Tank (AST)
215 Lightfoot Road
Wimauma, Florida
Project No. 6511-23-153E**

Dear Mrs. Palmer:

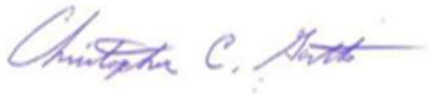
The purpose of this report is to present the results of an asbestos survey performed on June 13, 2023, at the above referenced project locations. We understand that this survey was requested due to the planned demolition/removal of one AST.

- **Asbestos Containing Materials (ACMs) were not identified at/on the AST.**
- **Lead-Based Paint (LBP) was not identified at/on the AST.**

Please refer to the attached report for details.

We appreciate the opportunity to provide this service to your project. If you have any questions regarding this report, please contact us at your earliest convenience.

Respectfully Submitted,
TIERRA, INC.



Christopher C. Garth, LEP
AHERA Asbestos Building Inspector

Scott S. Crandall, P.E.
Florida Licensed Asbestos Consultant
License No. EA0000060

**NESHAP Asbestos Demolition Survey and Lead-Based Paint
Little Manatee River State Park - Water Treatment Plant Evaluation
One Aboveground Storage Tank
215 Lightfoot Road
Wimauma, Florida**



Prepared for:



201 West Marion Avenue, Suite 1306
Punta Gorda, Florida 33950

Prepared by:

TIERRA

7351 Temple Terrace Highway
Tampa, Florida 33637

June 19, 2023

TABLE OF CONTENTS

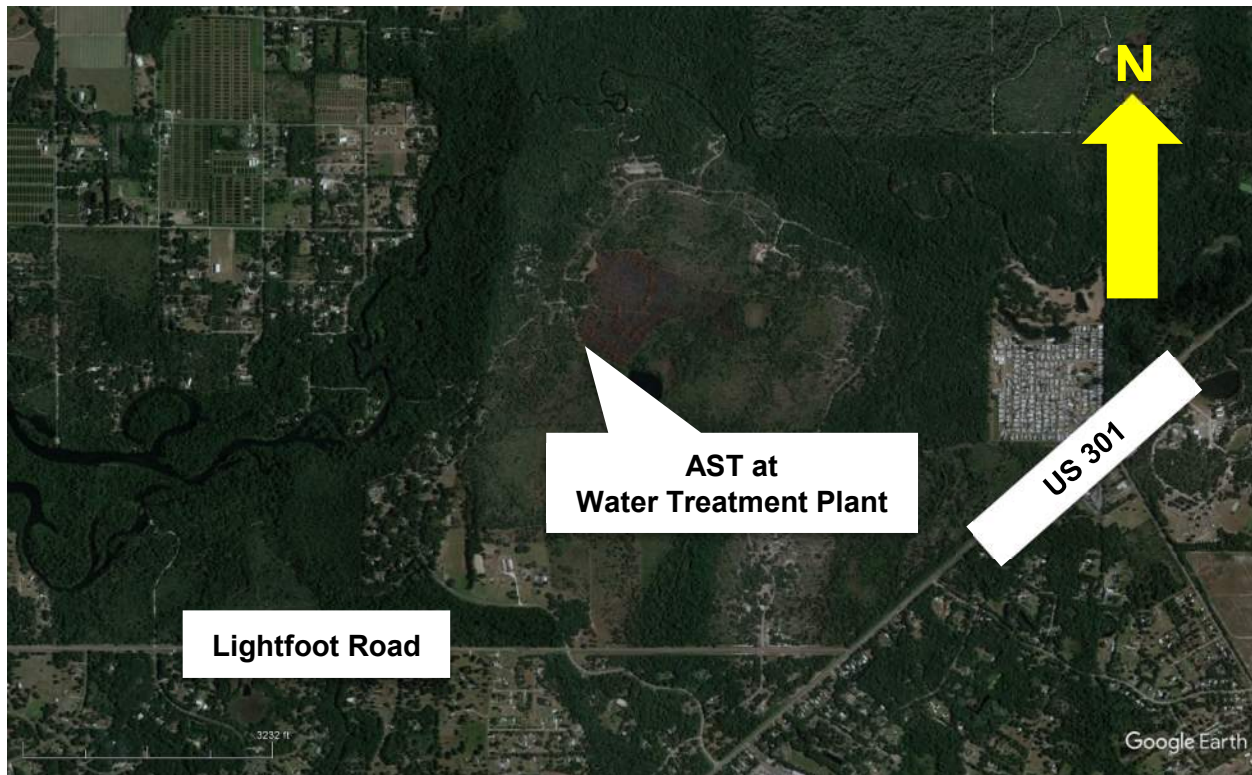
1.0	INTRODUCTION	1
2.0	BUILDING DESCRIPTION	2
3.0	FIELD ACTIVITIES	2
3.1	Visual Assessment	2
3.2	Physical Assessment	3
3.3	Sample Collection	3
3.4	Sample Analysis	3
4.0	REGULATORY OVERVIEW	4
5.0	FINDINGS AND RECOMMENDATIONS	6
5.1	Asbestos	6
5.2	Lead Based Paint	6
6.0	GENERAL COMMENTS	8

LIST OF APPENDICES

Appendix A	Certifications
Appendix B	Sample Location Map
Appendix C	Laboratory Report

1.0 INTRODUCTION

An asbestos survey and screening for screening for Lead-Based Paint (LBP) was performed at the aboveground storage tank (AST) located at the Little Manatee River State Park Water Treatment Plant located at 215 Lightfoot Road in Wimauma, Florida. A Project Location Map is presented below.



The survey was conducted on June 13, 2023 by an Asbestos Hazard Emergency Response Act (AHERA) accredited asbestos inspector under the supervision of Mr. Scott Crandall P.E., a Florida Licensed Asbestos Consultant (LAC). Their certifications are presented in **Appendix A**. Suspect asbestos-containing material (ACM) samples were collected in general accordance with the sampling protocols outlined in EPA regulation 40 CFR 763. Samples were delivered to accredited laboratories for analysis by polarized light microscopy and lead by EPA Method 6010.

We understand this asbestos survey was requested due to the planned demolition/removal of one AST at the project site. EPA regulation 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), prohibits the release of asbestos fibers and other hazardous air pollutants to the atmosphere during renovation or demolition activities. The asbestos NESHAP requires that potentially regulated asbestos-containing building materials be identified, classified and quantified prior to planned renovation or demolition activities.

2.0 BUILDING/STRUCTURE DESCRIPTION

General	Facility Type	Water Treatment Plant
	Building Size	NA
	Number of Stories	NA
	Date of Construction	unknown
Structural	Floor System	concrete slab
	Exterior Wall Support	NA
	Roof Supports & Decking	NA
	Roof System	NA
Mechanical / Plumbing	HVAC Type	NA
	Duct Type	NA
	Pipe Insulation	NA
Interior Finishes	Wall Finishes	NA
	Floor Finishes	NA
	Ceiling Systems	NA
	Ceiling Finishes	NA
	Other	One Aboveground Storage Tank (4,350-gallons water) made of steel with a concrete slab beneath. 8.5' height, 9.33' diameter.

3.0 FIELD ACTIVITIES

The survey was conducted by Mr. Chris Garth on June 13, 2023. He is an AHERA-accredited asbestos inspector. A copy of the inspector's certificate is presented in the Appendix. The survey was conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763, the AHERA. A summary of the survey activities performed is provided below.

3.1 Visual Assessment

Survey activities began with visual observation of the structure to identify homogeneous areas of suspect ACM. A homogeneous material consists of building materials that appear similar throughout in terms of color, texture and date of application. Building materials identified as steel, concrete, glass, wood, masonry, metal or rubber were not considered suspect ACM. However, coatings on those materials may be considered suspect ACM.

3.2 Physical Assessment

A physical assessment of each homogeneous area of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

3.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with AHERA sampling protocols. Representative samples of suspect materials were collected in each homogeneous area. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

A summary of suspect ACM samples collected during the survey is included in Section 5.0. A Sample Location Map is included in **Appendix B**.

3.4 Sample Analysis

Bulk asbestos samples were submitted under chain of custody to Air Quality Environmental Labs in Seminole, Florida for analysis by polarized light microscopy with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart F). The laboratory report is included in **Appendix C**. The percentage of asbestos, where applicable, was determined by microscopic visual estimation. Air Quality Environmental Labs is accredited under the National Voluntary Laboratory Accreditation Program.

The U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) define asbestos containing material (ACM) as any material which contains greater than one percent asbestos. When samples analyzed by Polarized Light Microscopy contain asbestos in amounts less than ten percent ($< 10\%$), a more exact method of analysis called point counting may be performed at the client's request. The EPA point count method allows a sample in which asbestos was visually detected, but which is visually estimated to have 10% or less asbestos, to be quantified using a point count procedure. If not point counted, a sample in which asbestos was visually detected and estimated (including trace to $\leq 1\%$) must be assumed to be greater than 1% and treated as an ACM. The EPA point counting procedure is as follows: an ocular reticle (crosshair or point array) is used to visually superimpose a point or points on the microscope field of view. A total of 400 points superimposed on either asbestos fibers or non-asbestos matrix material must be counted over at least eight different preparations of representative sub-samples. If an asbestos fiber and matrix particle overlap so that a point is superimposed on their visual intersection, a point is scored for both categories. Point counting provides a quantification of the area percent asbestos. Per EPA's regulations, materials which have been point-counted and, therefore, quantitatively determined to have less than or equal to one percent ($\leq 1\%$) asbestos, can be treated as non-ACM.

Lead paint chip samples were sent under chain of custody to Pace Analytical Services, LLC in Oldsmar Florida and analyzed in Pace's Ormond Beach Florida laboratory. Lead samples were analyzed by Inductively Coupled Plasma (ICP) using EPA Method 6010. Pace is National Environmental Laboratory Accreditation Conference (NELAC) and National Lead Laboratory Accreditation Program (NLLAP) accredited.

4.0 REGULATORY OVERVIEW

4.1 Asbestos

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as either friable, Category I non-friable or Category II non-friable ACM. Friable materials are those that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACM includes packings, gaskets, resilient floor coverings and asphalt roofing products containing more than 1% asbestos. Category II non-friable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Friable ACM, Category I and Category II non-friable ACM which are in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered Regulated ACM (RACM).

In the State of Florida, asbestos activities are regulated by the Florida Department of Environmental Protection (FDEP) and the Department of Business and Professional Regulations under Florida Administrative Code, Chapter 469. Licensure is required to these regulations for most activities involving asbestos. RACM must be removed prior to demolition activities which will disturb the materials. The owner or operator must provide the FDEP with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by a State of Florida licensed asbestos abatement contractor.

The OSHA Asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities which could disturb ACM and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. It is important to understand that OSHA does not recognize EPA's definition of ACM being 1% or greater, rather OSHA looks at any amount of asbestos present and requires the employers to ensure their worker exposures are below the permissible exposure limits. ACM less than 1% can be regulated by OSHA.

4.2 Lead-Based Paint

Lead-based paint is defined as a surface coating or paint containing lead in excess of 1.0 milligram per square centimeter (mg/cm²) or 0.5% by weight (EPA Toxic Substance Control Act, Section 401). 0.5% is equivalent to 5000 parts per million (ppm).

Under EPA regulations lead impacted wastes generated during abatement activities are handled as either a solid waste or a hazardous waste, depending on the amount and form of the metal. If the maximum level of the contaminant in an extract of a representative sample of the waste stream proposed for disposal, as determined by a Toxicity Characteristic Leaching Procedure (TCLP) laboratory analysis (see *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, Test Method 1311, EPA Publication SW-846), is less than the regulatory level set in 40 CFR 261.24, then EPA regulations allow the material to be disposed of as solid waste at a solid

waste landfill. If the TCLP analysis equals or exceeds the regulatory level, the material must be managed as a hazardous waste.

Impacted materials that are recycled, such as painted steel beams sent to a scrap metal yard, are not considered waste; therefore, they are exempt from waste disposal regulations, however other occupational exposure and recycling regulations may apply.

OSHA established the Lead Standard for the Construction Industry, 29 CFR 1926.62, which applies to all construction work where an employee may be exposed to lead. These exposures include demolition and salvage of structures where lead or material containing lead are present and removal or encapsulation of materials containing lead, as well as alterations and repairs including painting and decorating. The standard defines the occupationally permissible exposure limit and specific requirements for construction work with lead materials. OSHA does not have a percentage lead in paint action level in their current construction lead standard. OSHA regulations are driven by airborne lead exposure to workers. OSHA considers the lead regulation enforceable if the presence of *any* lead in paint at detectable concentrations is present when demolition or renovation activities are performed.

Any abatement of the lead-based paint or cutting, sanding, and/or grinding of the structures painted with LBP should be performed in accordance with OSHA regulations.

5.0 FINDINGS AND RECOMMENDATIONS

5.1 Asbestos

A total of seven (7) bulk samples were collected during the survey. A summary of suspect ACM is provided in the table below, along with the results from the laboratory. A Sample Location Map is provided in **Appendix B**. The analytical results are included in **Appendix C**.

Summary of ACM Sampling Results

Sample No.	Material Description	Sample Location	Asbestos Content	NESHAP Category
1	Gray concrete	Beneath AST NE corner	None Detected	NA
2	Gray concrete	Beneath AST SE corner	None Detected	NA
3	Gray concrete	Beneath AST SW corner	None Detected	NA
4	White fiberglass tank With white and green coating	Aerator tank NW	None Detected	NA
5	White fiberglass tank With white and green coating	Aerator tank North-center	None Detected	NA
6	White fiberglass tank With white and green coating	Aerator tank NE	None Detected	NA
7	Red Gasket with green coating	Between fiberglass aerator tank and steel tank, north side	None Detected	NA

NA= Not Applicable

None of the samples tested positive for the presence of asbestos mineral fibers.

5.2 Lead Based Paint

Three (3) paint chip samples were collected during the LBP survey. PC-1 was collected from the steel olive green AST. PC-2 was collected from the white fiberglass tank on top of the steel AST. PC-3 was collected from the yellow ladder attached to the north side of the steel AST. A summary of the LBP laboratory analytical results are provided in the table below. The laboratory report is included in **Appendix C**.

Summary of LBP Results – Shelter

Sample No.	Material Description	Total Lead Concentration (mg/kg)	TCLP Lab Results (mg/L)	Max Toxicity Characteristic for Lead (mg/L)
PC-1	Olive green, mint green with red base coating on steel AST	0.98 I	Not Tested	5
PC-2	White coating on aerator tank	1.8 I	Not Tested	5
PC-2	Yellow ladder paint	1.8 I	Not Tested	5

**NESHAP Asbestos Demolition Survey and Lead-Based Paint
Little Manatee River State Park – One AST at WTP
215 Lightfoot Road
Wimauma, Florida
Project No. 6511-23-153E**

I – The reported value is between the laboratory Method Detection Limit and the laboratory Practical Quantitation Limit

ND=Indicated analyte was not detected at the reporting limit

mg/kg=milligrams per kilogram (equivalent to parts per million)

Maximum Concentration of Contaminants for the Toxicity Characteristic (mg/L) column values based on
40 CFR 261.24 Table 1

Bold – meets the EPA definition of Lead Based Paint

Lead-based paint is defined as a surface coating or paint containing lead in excess of 1.0 milligram per square centimeter (mg/cm²) or 5000 parts per million (ppm) (0.5% by weight) (EPA Toxic Substance Control Act, Section 401). Note 5,000 ppm is equivalent to 5,000 mg/kg. Therefore, based on laboratory results the paint chip samples do not meet the EPA definition of Lead Based Paint. No further testing is recommended.

6.0 GENERAL COMMENTS

It should be noted that suspect materials, other than those identified during the survey, could exist within the structure in areas not accessible to the inspector at the time of the survey. Should suspect materials other than those which were identified during this survey be uncovered during the renovation/demolition process, those materials should be assumed to be ACM until sampling and analysis can confirm or refute their asbestos content.

This survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale, for the exclusive use of the client. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the subject structure. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. Tierra does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied, is made.

APPENDIX A

Certifications



Ron DeSantis, Governor

Julie I. Brown, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS LICENSING UNIT

THE ASBESTOS BUSINESS ORGANIZATION HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

TIERRA INC

SCOTT S CRANDALL
7351 TEMPLE TERRACE HWY
TAMPA FL 33637

LICENSE NUMBER: ZA405

EXPIRATION DATE: NOVEMBER 30, 2023

Always verify licenses online at MyFloridaLicense.com



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Ron DeSantis, Governor

Melanie S. Griffin, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS LICENSING UNIT

THE ASBESTOS CONSULTANT - ENGINEER HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

CRANDALL, SCOTT S

DIVERSIFIED PROFESSIONAL SERVICES CORP
3600 10TH ST NE
ST PETERSBURG FL 33704

LICENSE NUMBER: EA0000060

EXPIRATION DATE: NOVEMBER 30, 2024

Always verify licenses online at MyFloridaLicense.com



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Certificate # DOSVJ6TK17Q

Chris Garth

*has on 7/19/2022, in Tampa, FL
completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646*

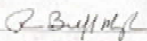
Asbestos Inspector Refresher

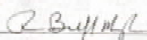
*as approved by FL
and the US EPA under 40 CFR 763 (AHERA)
from 7/19/2022 to 7/19/2022 and passed the associated exam on 7/19/2022
with a score of at least 70%*



Training Provider #: FL49-0001221
Course #: 0004718
FL License #:
SSN: XXX-XX-9190
Expiration: 7/19/2023

P.O. Box 786 - Lawrence, KS. 66044 - 800.444.6382
www.metaenvironmental.net


Thomas Mayhew
Instructor


Thomas Mayhew
President

**United States Department of Commerce
National Institute of Standards and Technology**



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200759-0

Air Quality Environmental, Inc.

Seminole, FL

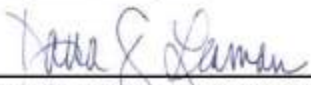
*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2022-07-01 through 2023-06-30
Effective Dates




For the National Voluntary Laboratory Accreditation Program



State of Florida
Department of Health, Bureau of Public Health Laboratories
This is to certify that



E83079

PACE ANALYTICAL SERVICES, LLC - ORMOND BEACH FL
8 EAST TOWER CIRCLE
ORMOND BEACH, FL 32174

has complied with Florida Administrative Code 64E-1,
for the examination of environmental samples in the following categories

DRINKING WATER - GROUP I UNREGULATED CONTAMINANTS, DRINKING WATER - GROUP II UNREGULATED CONTAMINANTS, DRINKING
WATER - OTHER REGULATED CONTAMINANTS, DRINKING WATER - GROUP III UNREGULATED CONTAMINANTS, DRINKING WATER -
MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS,
DRINKING WATER - RADIOCHEMISTRY, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE
ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY,
NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS -
EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND
CHEMICAL MATERIALS - MICROBIOLOGY, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL
MATERIALS - VOLATILE ORGANICS, BIOLOGICAL TISSUE - METALS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1
regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and
are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are
urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

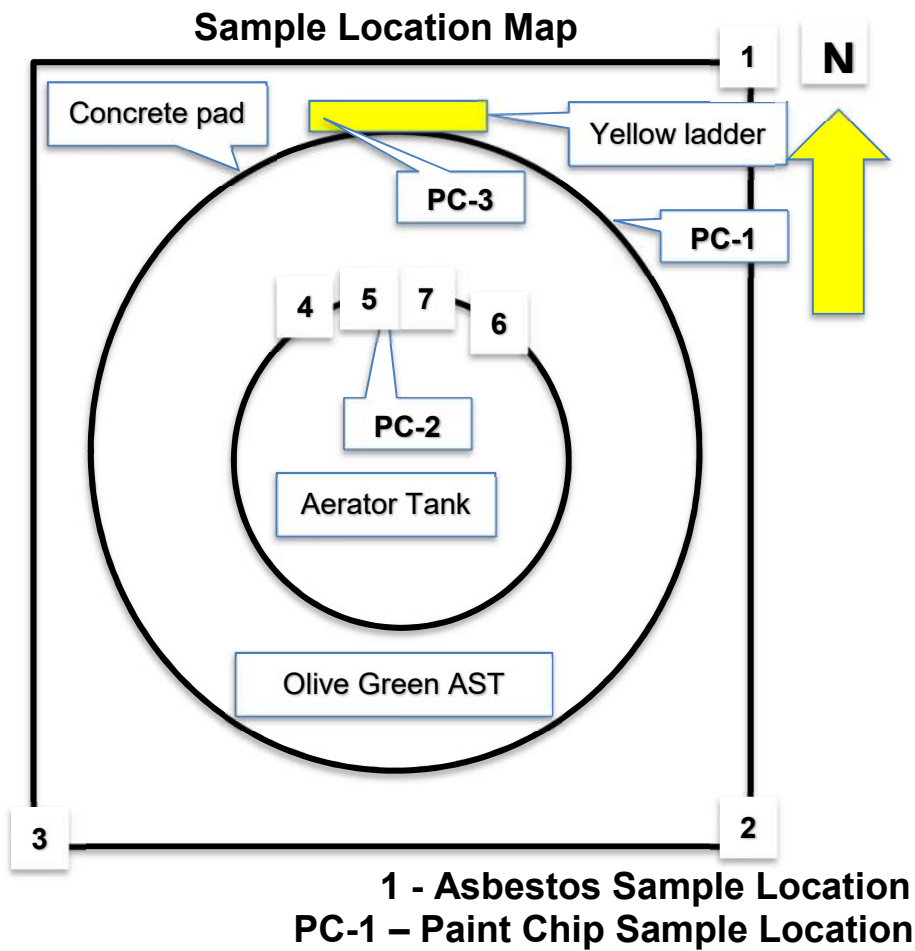
Date Issued: August 05, 2022 Expiration Date: June 30, 2023



Susanne Crowe

Susanne Crowe, MHA
Interim Chief Bureau of Public Health Laboratories
DH Form 1697, 7/04
NON-TRANSFERABLE E83079-92-08/05/2022
Supersedes all previously issued certificates

APPENDIX B
Sample Location Map



APPENDIX C
Laboratory Report



Air Quality Environmental, Inc.

Laboratory Services

9325 Seminole Boulevard, Seminole, Florida 33772 (727) 398-0900 FAX (727) 398-0996

Client Name: Tierra Inc
7351 Temple Terrace Highway
Tampa, FL, 33637

Project Name: One AST @ WTP Little Manatee River 6511-23-153E
215 Lightfoot Road, Wimauma, Florida
Date Analyzed: June 15, 2023

Asbestos, Bulk Sample Analysis

Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
603213	1	Concrete	grey	NAD		100% Quartz and Binders
603214	2	Concrete	grey	NAD		100% Quartz and Binders
603215	3	Concrete	grey	NAD		100% Quartz and Binders
603216	4	Building Material	white coat white material	NAD NAD	60% Glass Fibers	100% Carbonates and Binders 40% Carbonates and Binders
603217	5	Building Material	white coat white material	NAD NAD	60% Glass Fibers	100% Carbonates and Binders 40% Carbonates and Binders
603218	6	Building Material	white coat white material	NAD NAD	60% Glass Fibers	100% Carbonates and Binders 40% Carbonates and Binders
603219	7	Gasket	green coating red gasket	NAD NAD		100% Binders 100% Carbonates and Binders

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.

†Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AQE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by:

Giancarlo Arambulo
Microscopist

Lab File Number: 66811

NVLAP Lab Code 200759-0

June 19, 2023

Chris Garth
Tierra, Inc.
7351 Temple Terrace Hwy
Tampa, FL 33637

RE: Project: One AST at Little Manatee Rive
Pace Project No.: 35806003

Dear Chris Garth:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lori Palmer
lori.palmer@pacelabs.com
813-855-1844
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

DoD-ANAB #:ADE-3199

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maine Certification #: FL01264

Maryland Certification: #346

Massachusetts Certification #: M-FL1264

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35806003001	PC-1	Other	06/13/23 10:30	06/13/23 14:00
35806003002	PC-2	Other	06/13/23 11:00	06/13/23 14:00
35806003003	PC-3	Other	06/13/23 11:10	06/13/23 14:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35806003001	PC-1	EPA 6010	TMA	1	PASI-O
35806003002	PC-2	EPA 6010	TMA	1	PASI-O
35806003003	PC-3	EPA 6010	TMA	1	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Sample: PC-1 **Lab ID: 35806003001** Collected: 06/13/23 10:30 Received: 06/13/23 14:00 Matrix: Other

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach									
Lead	0.98 I	mg/kg	3.0	0.63	1	06/14/23 05:03	06/15/23 16:14	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Sample: PC-2 **Lab ID: 35806003002** Collected: 06/13/23 11:00 Received: 06/13/23 14:00 Matrix: Other

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach									
Lead	1.8 I	mg/kg	3.2	0.68	1	06/14/23 05:03	06/15/23 16:18	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Sample: PC-3 **Lab ID: 35806003003** Collected: 06/13/23 11:10 Received: 06/13/23 14:00 Matrix: Other

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Ormond Beach									
Lead	1.8 I	mg/kg	4.5	0.95	1	06/14/23 05:03	06/15/23 16:22	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

QC Batch: 925626

Analysis Method: EPA 6010

QC Batch Method: EPA 3050

Analysis Description: 6010 MET Solid

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35806003001, 35806003002, 35806003003

METHOD BLANK: 5087227

Matrix: Solid

Associated Lab Samples: 35806003001, 35806003002, 35806003003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lead	mg/kg	0.14	0.61	0.13	06/15/23 15:10	

LABORATORY CONTROL SAMPLE: 5087228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	13.9	13.6	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5087229 5087230

Parameter	Units	35805962001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/kg	3.9	16.9	17.3	19.9	20.3	94	95	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: One AST at Little Manatee Rive

Pace Project No.: 35806003

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35806003001	PC-1	EPA 3050	925626	EPA 6010	925746
35806003002	PC-2	EPA 3050	925626	EPA 6010	925746
35806003003	PC-3	EPA 3050	925626	EPA 6010	925746

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY Analytical Request Document

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://mto.pacelabs.com/hubfs/pas-standard-terms.pdf>
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Tierra, Inc.
Address: 7351 Temple Terrace Highway
Tampa, Florida 33637

Report To: Chris Garth

Billing Information:
7351 Temple Terrace Highway
Tampa, Florida 33637
Email To: cgarth@tierraeng.com

Copy To:

Site Collection Info/Address: 215 Lightfoot Road
Wimauma, Florida

Customer Project Number/Nr: 6511-23-153E
One AST at Little Manatee River State Park WTP

State: FL County/City: Time Zone Collected:
Hillsborough/Wimauma [] PT [] MT [] CT [] ET

Phone: (813) 989-1354 office

Site/Facility ID #: NA

Compliance Monitoring?

Email: cgarth@tierraeng.com

Purchase Order #: LMRSP WTP-AST

DW PWS ID #:

Collected By (print):

Quote #:

DW Location Code:

Chris Garth

Collected By (signature):

Immediately Packed on Ice:

Sample Disposal:

Rush: (Expedite Charges Apply)

Field Filtered (if applicable):

[] Dispose as appropriate

[] Same Day [] Next Day

[] Yes [] No

[] Return

[] 2 Day [] 3 Day

[] Archive: _____

[] 4 Day [] 5 Day

Analysis: _____

Lead Method 6010

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix *

Comp / Grab

Collected (or Composite Start) Date Time

Composite End Date Time

Res CI

of Chns

Container Type: Plastic (P) or Glass (G)

PC-1

OT

Grab

6/13/2013 1030

I

1

P

X

PC-2

OT

Grab

6-13-23 1100

I

1

P

X

PC-3

OT

Grab

6-13-23 1110

I

1

P

X

Customer Remarks / Special Conditions / Possible Hazards:

Type office Used:

Wet

Blue

Dry

None

Y

N

NA

Packing Material Used:

Radchem sample(s) screened (<500 ppm): Y N NA

Relinquished by/Company: (Signature)

Date/Time: 6-13-23 1400

Received by/Company: (Signature)

Date/Time: 6/13/23 1400

Table #: MILL LAB USE ONLY

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Table #: MILL LAB USE ONLY

Relinquished by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Table #: MILL LAB USE ONLY

LAB USE ONLY- AFTER WORK
ALL BOLD OUT
Container Preservative



MO# : 35806003

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:
Custody Seals Present/Intact Y N
Custody Signatures Present Y N
Collector Signature Present Y N
Bottles Intact Y N
Correct Bottles Y N
Sufficient Volume Y N
Samples Received on Ice Y N
VDA - Headspace Acceptable Y N
USDA - Regulated Soils Y N
Samples in Holding Time Y N
Residual Chlorine Present Y N
CI Strips: Y N
Sample pH Acceptable Y N
pH Strips: Y N
Sulfide Present Y N
Lead Acetate Strips: Y N

LAB USE ONLY:
Lab Sample # / Comments:

Olive green/mint green w/red base coat

Yellow

LAB Sample Temperature Info:
Temp Blank Received: Y N

Therm ID#: _____

Cooler 1 Temp Upon Receipt: _____

Cooler 1 Therm Corr. Factor: _____

Cooler 1 Corrected Temp: _____

Comments:

Temp Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s):

Page: _____ of: _____



Sample Condition Upon Receipt Form (SCUR)

WO#: 35806003

PM: LAP

Due Date: 06/20/23

CLIENT: 37-TIETPA

Project #

Project Manager:

Client:

Date and Initials of person:

Examining contents: EC 6/13/23

Label: _____

Deliver: _____

pH: _____

Thermometer Used: T-202

Date: 6/13/23

Time: 1400

Initials: EC

State of Origin: FL

☐ For WV projects, all containers verified to $\leq 6^{\circ}\text{C}$

Cooler #1 Temp. $^{\circ}\text{C}$ 24.5 (Visual) +0.2 (Correction Factor) 24.7 (Actual)

Cooler #2 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #3 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #4 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #5 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Cooler #6 Temp. $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

Recheck for OOT $^{\circ}\text{C}$ _____ (Visual) _____ (Correction Factor) _____ (Actual)

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

Time: _____ Initials: _____

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace ☐ Other: _____

Shipping Method: ☐ Standard Overnight ☐ First Overnight ☐ Priority Overnight ☐ Ground ☐ International Priority ☐ Other: _____

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking # _____

Custody Seal Present: ☐ Yes ☒ No Seal properly placed and intact: ☐ Yes ☐ No

Ice: ☐ Wet ☐ Blue ☐ Dry ☒ None ☐ Melted

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other: _____

Samples shorted to lab: ☐ Yes ☐ No (If yes, complete the following)

Shorted Date: _____

Shorted Time: _____

Bottle Quantity / Type: _____

Chain of Custody:	Present: ☒ Yes ☐ No	Filled Out: ☒ Yes ☐ No ☐ N/A	Relinquished From Pace: ☐ Yes ☒ No ☐ N/A	Sampler Name: ☐ Yes ☒ No ☐ N/A								
	Relinquished To Pace: ☐ Yes ☐ No ☐ N/A Sampling Date(s): ☒ Yes ☐ No ☐ N/A Sampling Time(s): ☒ Yes ☐ No ☐ N/A											
Samples Arrived within Hold Time.	☒ Yes ☐ No ☐ N/A	Comments:										
Rush Turnaround Requested on COC.	☐ Yes ☒ No ☐ N/A	Comments:										
Sufficient Volume.	☒ Yes ☐ No ☐ N/A	Comments:										
Correct Containers Used.	☒ Yes ☐ No ☐ N/A	Comments:										
Containers Intact.	☒ Yes ☐ No ☐ N/A	Comments:										
Sample Labels Match COC (Sample ID, Date/Time of Collection).	☒ Yes ☐ No ☐ N/A	Comments:										
All containers needing acid / base preservation have been checked.	☐ Yes ☐ No ☒ N/A	<table border="1"><thead><tr><th colspan="2">Preservation Information</th></tr></thead><tbody><tr><td>Preservative: _____</td><td>Date: _____</td></tr><tr><td>Lot / Trace: _____</td><td>Time: _____</td></tr><tr><td>Amount added (mL): _____</td><td>Initials: _____</td></tr></tbody></table>			Preservation Information		Preservative: _____	Date: _____	Lot / Trace: _____	Time: _____	Amount added (mL): _____	Initials: _____
Preservation Information												
Preservative: _____	Date: _____											
Lot / Trace: _____	Time: _____											
Amount added (mL): _____	Initials: _____											
All containers needing preservation are found to be in compliance with EPA recommendation:	☐ Yes ☐ No ☒ N/A											
Exceptions: Vials, Microbiology, O&G, PFAS												
Headspace in Volatile Vials? (>6mm):	☐ Yes ☐ No ☒ N/A											
Trip Blank Present:	☐ Yes ☐ No ☒ N/A											

Comments / Resolutions (use back for additional comments):

APPENDIX D

Photographs

