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Sewerage & Water Board of NEW ORLEANS

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Addendum No. 1

Date: 9/24/20

Your reference is directed to **Request for Proposal DRAINAGE PUMP STATION 13 ASBESTOS ABATEMENT** which is scheduled to open at **11:00 a.m. CST** on **October 16, 2020** for SWBNO

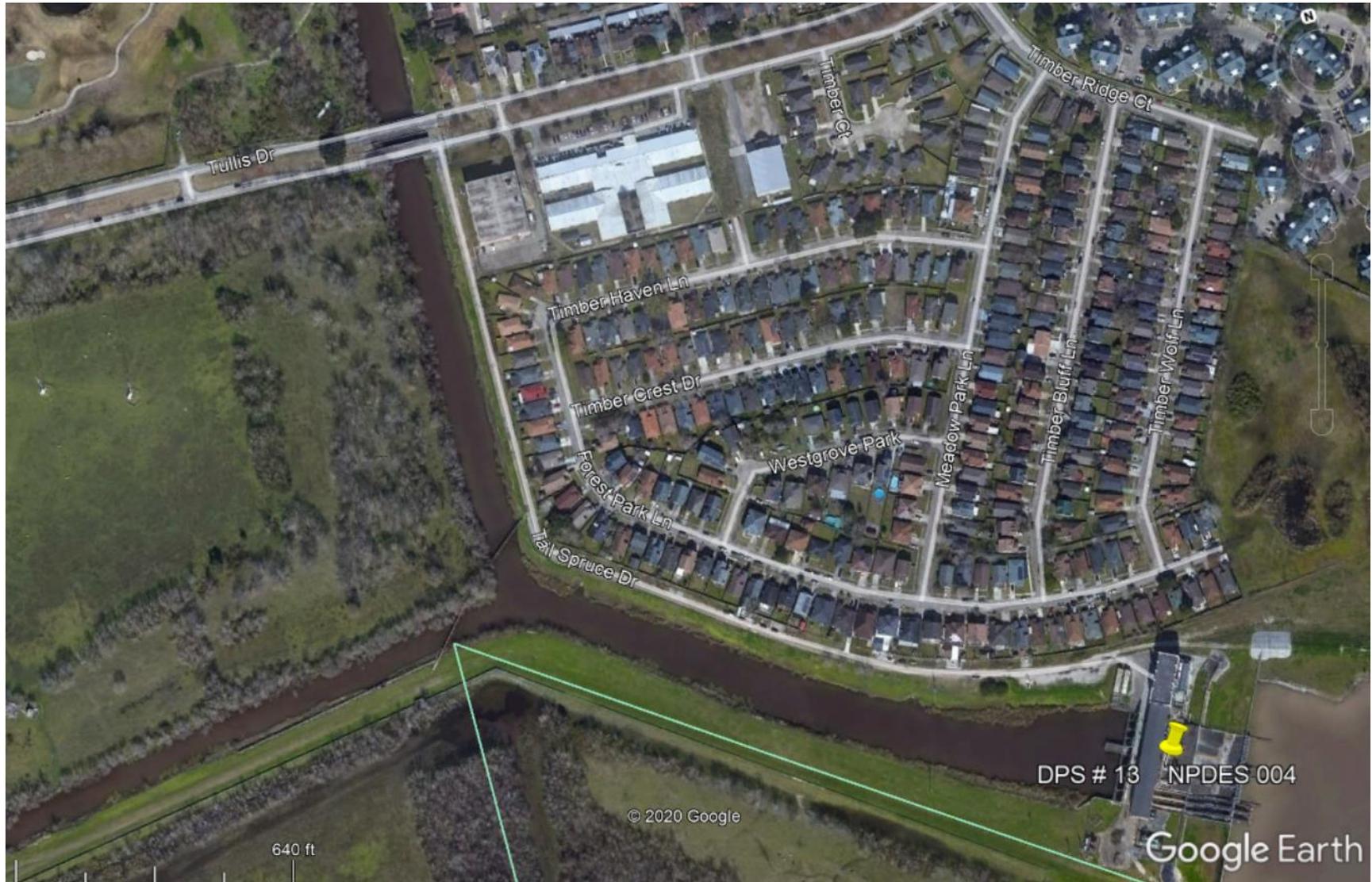
This addendum provides for the following:

1. Map of Drainage Pump Station 13 Location
2. Terracon's Asbestos Survey Report

This addendum consists of one (48) pages.

***** END OF ADDENDUM *****

Drainage Pump Station 13 located 4201 Tall Spruce, New Orleans, 70131.



Asbestos Survey Report

Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana

August 15, 2019
Terracon Project No. ET197047



Prepared for:
Sewerage & Water Board of New Orleans
New Orleans, Louisiana

Prepared by:
Terracon Consultants, Inc.
New Orleans, Louisiana

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials



August 15, 2019

Sewerage & Water Board of New Orleans
625 St. Joseph Street
New Orleans, Louisiana 70165

Attn: Ms. Ann Wilson

Re: Asbestos Survey Report
Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana
Terracon Project No. ET197047

Dear Ms. Wilson:

The purpose of this report is to present the results of an asbestos survey performed on August 2, 2019 at the above referenced structure located at 4201 Tall Spruce Drive in New Orleans, Louisiana. This work was completed in accordance with the Professional Service Agreement between Sewerage and Water Board of New Orleans and Terracon Consultants, Inc (RFP Number 660) dated July 2, 2019.

Asbestos-containing materials were identified at the subject site. Please refer to the attached report for details.

Terracon appreciates the opportunity to provide this service. If you have any questions regarding this report, please contact the undersigned at (504) 818-3638.

Sincerely,
Terracon Consultants, Inc.

Steven Latiolais
Staff Industrial Hygienist

for Zack L. Dial, P.E.
Senior Engineer



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ABESTOS SURVEY REPORT
Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana
Terracon Project No. ET197047
August 15, 2019

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos survey of the above referenced building located at 4201 Tall Spruce Drive in New Orleans, Louisiana. The survey was conducted on August 2, 2019 by Mr. Steven Latiolais (LDEQ AI# 200658) and Mr. Jason Maloney (LDEQ AI# 178742), Louisiana Department of Environmental Quality (LDEQ) accredited asbestos inspectors. This work was completed in accordance with the Professional Service Agreement between Sewerage and Water Board of New Orleans and Terracon Consultants, Inc (RFP Number 660) dated July 2, 2019.

1.1 Project Objective

The scope of services included a survey for asbestos-containing materials (ACM). This included a condition and assessment of ACM found at the subject property.

Because of the United States Environmental Protection Agency (USEPA) regulation 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), and Louisiana Environmental Regulatory Code (ERC) Title 33, Part III, Section 5151 (Chapter 51), prohibits the release of asbestos fibers to the atmosphere during renovation or demolition activities, the asbestos NESHAP and Chapter 51 requires that potentially regulated asbestos-containing building materials be identified, classified and quantified prior to planned disturbances.

1.2 Building Description

The subject structure is an approximately 18,750-square foot, steel-framed building actively used as a drainage pump station (DPS). The general work area is split-level with a cat walk along the perimeter and outfitted with electric/diesel powered pumps/vacuum pumps and generators at ground level. There is also an enclosed two-story office within the general work area.

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2.0 ASBESTOS SURVEY

2.1 Field Activities

The survey was conducted on August 2, 2019 by Mr. Steven Latiolais (LDEQ AI# 200658) and Mr. Jason Maloney (LDEQ AI# 178742), Louisiana Department of Environmental Quality (LDEQ) accredited asbestos inspectors. A copy of their asbestos inspector's certificates are attached as Appendix E. The survey was conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763, the Asbestos Hazard Emergency Response Act (AHERA). A summary of survey activities is provided below.

2.1.1 Visual Assessment

Our survey activities began with visual observation of the interior and exterior of the building to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials that appear similar throughout in terms of color, and texture with consideration given to the date of application. The assessment was conducted throughout visually accessible areas of the building. Building materials identified as concrete, glass, wood, masonry, metal or rubber were not considered suspect ACM.

Terracon lifted floor covering; however, as Terracon could not assess above all ceilings and beneath all floor covering, there may be isolated areas of additional suspect material present in the structure.

2.1.2 Physical Assessment

A physical assessment of each homogeneous area (HA) 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.

Materials observed to be damaged or considered to be at risk for damage were also documented.

2.1.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with AHERA sampling protocols. Random samples of suspect materials were collected in each homogeneous area. The inspector collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

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Forty-five (45) samples were collected from fifteen (15) homogeneous areas of suspect ACM from the structure. A summary of suspected ACM materials collected during the survey is included as Appendix A. Select photographs of each HA is presented in Appendix C.

2.1.4 Sample Analysis

Bulk samples were submitted under chain of custody to EMSL Analytical, Inc. of Cinnaminson, New Jersey (NVLAP Accreditation No 101048-0; LELAP Accreditation No 04127) for analysis by polarized light microscopy with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart E). The percentage of asbestos, where applicable, was determined by microscopic visual estimation. The laboratory analytical report is included in Appendix B.

3.0 REGULATORY OVERVIEW

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. The asbestos NESHAP regulation also requires the identification and classification of existing ACM according to friability prior to demolition or renovation activity. Under NESHAP, ACM is identified as either friable, Category I non-friable or Category II non-friable ACM. Friable ACM is a material containing more than 1% asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. All friable ACM is considered regulated asbestos containing material (RACM).

RACM includes all friable ACM, along with Category I and Category II non-friable ACM that has become friable, will be or has been subjected to sanding, grinding, cutting or abrading, or ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder in the course of renovation or demolition activity.

Category I non-friable ACM are exclusively asbestos-containing packings, gaskets, resilient floor coverings, resilient floor covering mastics and asphalt roofing products that contain more than 1% asbestos. Category II non-friable ACM are all other non-friable materials other than Category I non-friable ACM that contain more than 1% asbestos. Category II non-friable ACM generally includes but is not limited to cementitious material such as: cement pipes, cement siding, cement panels, glazing, mortar and grouts.

The State of Louisiana has established Chapter 27 of the ERC (LAC 33:III.Chapter 27) to regulate the identification, management, and abatement of ACM in schools and state buildings. Chapter 27 requires any asbestos-related activity in a school or state building to be performed by an individual or company accredited by the State of Louisiana, through the LDEQ. An asbestos-related activity consists of the disturbance (whether intentional or unintentional) or abatement of ACM, the

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performance of asbestos surveys, the development of management plans and response actions, asbestos project design, the collection or analysis of asbestos samples, monitoring for airborne asbestos or any other activity required to be accredited under Louisiana Department of Environmental Quality Chapter 27 Appendix A.

In non-state, non-school buildings, the State of Louisiana sets forth emission standards for asbestos under Chapter 51 of the ERC (LAC 33:III.Chapter 51). Per Chapter 51 Section P, the following activities, when conducted, must be performed by accredited individuals: asbestos surveys, asbestos abatement, and monitoring for airborne asbestos.

The Louisiana Air Quality Regulations (LAC 33:III.Chapter 51, Subchapter M) require that an inspection be conducted by a person currently accredited as an LDEQ asbestos inspector. LDEQ requires a notification by submitting either an AAC-2 (a) form or AAC-2 (b) form. An AAC-2 (a) form is required when requesting Asbestos Disposal Verification Forms (ADVF) for Asbestos Contaminated Debris Activities (ACDA), Demolition, Renovation, and/or Response Action projects where Regulated Asbestos Containing Material (RACM) is present, or assumed to be present, above the established thresholds or as otherwise required by LAC 33:III.5151.F.1. The AAC-2 (a) form must be either postmarked or hand delivered to the Department at least 10 working days prior to the scheduled dates of asbestos removal. An AAC-2 (b) form is required when greater than 64 square feet of Vinyl Asbestos Tile (VAT) is removed without the intent of making it RACM, or when lab analysis of properly sampled materials indicates that no ACM is present; that ACM present is not RACM and will not be made RACM by the demolition; or that all RACM present is less than established thresholds. The established thresholds per LAC 33:III.5151.F.1 include the combined amount of RACM less than 60 linear feet on pipes, 64 square feet on other facility components or 27 cubic feet of material where length or area could not be measured previously. A Form AAC-2 (b) must be postmarked or hand delivered to the Department at least 5 working days prior to the scheduled date of asbestos removal or 3 working days if the removal only includes resilient floor covering per LAC 33:III.5151.F.2.c.

Any individual or company contracted to perform a demolition or renovation activity which disturbs RACM must be recognized by the Louisiana Licensing Board for Contractors to perform asbestos abatement.

The United States Occupational Safety and Health Administration (USOSHA) asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The USOSHA standard requires that employee exposure to airborne asbestos must not exceed 0.1 fibers per cubic centimeter of air (0.1 f/cc) as an eight-hour time weighted average (TWA) and not exceed 1.0 fibers per cubic centimeter of air (1.0 f/cc) over a 30-minute time period known as an excursion limit (EL). The TWA and EL are known as USOSHA's asbestos permissible exposure limits (PELs). The USOSHA standard classifies construction and maintenance activities which could disturb ACM and

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specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

4.0 FINDINGS AND RECOMMENDATIONS

4.1 Category I Non-Friable Materials

According to LDEQ and EPA NESHAP regulations, packings, gaskets, resilient floor coverings, and asphalt roofing products are considered Category I non-friable materials unless they are damaged to the extent that they could be crumbled, pulverized or reduced to powder by hand pressure when dry. Such Category I non-friable ACM need not be removed unless demolition or renovation activities will involve intentional scraping, burning, grinding, mechanically chipping, drilling, sand or bead blasting, explosive demolition or other methods which could mechanically powder the material or otherwise render it friable.

Laboratory analysis confirmed the following asbestos-containing Category I non-friable materials:

- Gray 9"x9" striped floor tile and black mastic within Level 2 of the Office

The gray 9"x9" striped floor tile and associated black mastic within Level 2 of the Office was observed to be in good condition with a low potential for damage.

4.2 Category II Non-Friable Materials

According to LDEQ and EPA NESHAP regulations, Category II non-friable ACM is any material, excluding Category I non-friable ACM, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the force expected to act on the material in the course of demolition operations are considered Regulated Asbestos Containing Materials (RACM) and are required to be abated prior to demolition.

Laboratory analysis confirmed the following asbestos-containing Category II non-friable materials:

- White sink bottom coating within Level 2 of the Office

The white sink bottom coating within Level 2 of the Office was observed to be in good condition with a low potential for damage.

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4.3 Regulated Asbestos Containing Material

According to LDEQ and EPA NESHAP regulations, friable ACM is considered regulated asbestos containing material (RACM).

Laboratory analysis confirmed the following asbestos-containing friable materials:

- White 8" TSI between Pumps 5 & 6
- White 18" TSI between Pumps 4 & 5

The 8" TSI associated with air compressor 3's (AC3) exhaust was observed to be significantly damaged at the time of the assessment. This is the only of the set of three air compressors that is diesel powered and therefore has an exhaust leading towards the building's exterior via a wall penetration.

The two 18" TSI runs associated with Pump 4 & 5's exhausts were observed to be significantly damaged at the time of the assessment.

4.4 Assumed Asbestos Containing Materials

It should be noted that clutch pads associated with Pumps 4 and 5 have been assumed asbestos containing. Therefore, these materials should be treated Category II non-friable ACM until sampling and analysis and an assessment of the materials can be performed. Materials classified as Category II non-friable have a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forced expected to act on the material. Considering these materials are concealed and inaccessible, it is possible they have been significantly damaged and have become RACM.

4.5 Recommendations

Based on the findings of this asbestos survey, Terracon offers the following recommendations:

- Category I Non-friable gray 9"x9" striped floor tile and black mastic within Level 2 of the Office: Terracon does not consider its presence an existing hazard at this time and noted a low potential for damage. These materials can be managed in-place such that they remain in good condition. The eventual abatement is recommended.
- Category II Non-friable white sink bottom coating within Level 2 of the Office: Terracon does not consider its presence an existing hazard at this time and noted

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a low potential for damage. This material can be managed in-place such that it remains in good condition. The eventual abatement is recommended.

- RACM white 8" TSI between Pumps 5 & 6 and 18" TSI between Pumps 4 & 5: It is suspected that the mounting bracket penetrations through the TSI's jacket and vibration during operation caused this damage and could continue to release fibers into the environment. Therefore, Terracon recommends immediate repair and/or abatement of this material.
- The clutch pads associated with Pumps 4 and 5 are assumed ACM. The equipment associated with these materials is reportedly damaged and/or no longer in use. Due to their location, removal will require coordination between a licensed abatement contractor and SWBNO staff to access, remove, and dispose. It is recommended these materials be removed under the guidance of an operations and maintenance plan in conjunction with a specification.

As the results of this survey indicated the structure contains RACM, all section of the AAC-2 (a) Form must be completed and submitted to LDEQ prior to abatement activities and an Asbestos Disposal Verification Form (ADVF) requested. Upon proper notification the Department will issue an ADVF to provide approval to begin abatement activities and to ensure that the ACM is removed and disposed of properly. The AAC-2 form must be on site during all RACM removal activities.

Terracon recommends that the identified ACM be removed and disposed of by a Louisiana-licensed asbestos abatement contractor prior to any activity that will disturb the asbestos-containing materials identified.

It should be noted that suspect materials, other than those identified during this survey may exist within the building. Should suspect materials other than those which were identified during this survey be uncovered during the demolition process, those materials should be assumed asbestos-containing until sampling and analysis can prove otherwise.

A summary of the suspected materials collected is presented in Appendix A. Laboratory analytical reports are presented in Appendix B. Exhibits are presented in Appendix D.

5.0 GENERAL COMMENTS

This asbestos 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. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the building. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to

Asbestos Survey Report

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represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the Sewerage & Water Board of New Orleans for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon 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
ASBESTOS SURVEY SAMPLE SUMMARY

TABLE 1.0
CONFIRMED & ASSUMED ASBESTOS CONTAINING MATERIALS
Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana

HA	Material Description	Material Location	NESHAP Category	Condition Assessment	Potential for Damage/Further Damage	Lab Results	Approximate Quantity
06	Gray 9"x9" striped floor tile and black mastic	Office Level 2	Cat I NF	Good	Low	Tile – 2% Chrysotile Mastic – 5% Chrysotile	250 SF
09	White sink bottom coating	Office Level 2 common area	Cat II NF	Good	Low	14% Chrysotile	1 Sink
13	White 8" TSI	AC3's Exhaust Between Pumps 5 & 6	RACM	Significantly Damaged	High	50% Chrysotile	13 LF
14	White 18" TSI	Pumps 4 & 5 Exhausts	RACM	Damaged	High	25% Amosite	2 runs totaling 30 LF
16	Clutch Pads	Pumps 4 & 5	Cat II NF	Unknown	High	Assumed ACM	2 pads

RACM = Regulated Asbestos Containing Material
Cat I NF = Category I Non-Friable Asbestos Containing Material
Cat II NF = Category II Non-Friable Asbestos Containing Material
SF = Square Feet
LF = Linear Feet

TABLE 2.0
ASBESTOS SURVEY SAMPLE SUMMARY
Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana

HA	Sample Number	Material Description	Material Location	Friable – Yes/No	Lab Results
01	01-1	Black waterproofing on slab	Exterior where slabs meet auxiliary structures	Yes	None Detected
	01-2				None Detected
	01-3				None Detected
02	02-1	White 10" TSI	CAT generator exhausts near Pumps 1, 2, & 3	Yes	None Detected
	02-2				None Detected
	02-3				None Detected
03	03-1	Yellow 10" TSI with white wrap	Southeastern wall running north to south	Yes	Wrap – None Detected TSI – None Detected
	03-2				Wrap – None Detected TSI – None Detected
	03-3				Wrap – None Detected TSI – None Detected
04	04-1	Tan 10" pipe elbow under metal jacket	CAT generator exhausts near Pumps 1, 2, & 3	Yes	None Detected
	04-2				None Detected
	04-3				None Detected
05	05-1	Tan 12"x12" striped floor tile with brown mastic	Office Level 1	No	Tile – None Detected Mastic – None Detected
	05-2				Tile – None Detected Mastic – None Detected
	05-3				Tile – None Detected Mastic – None Detected
06	06-1	Gray 9"x9" striped floor tile and black mastic	Office Level 2	No	Tile – 2% Chrysotile Mastic – 3% Chrysotile
	06-2				Tile – 2% Chrysotile Mastic – 5% Chrysotile
	06-3				Tile – 2% Chrysotile Mastic – 5% Chrysotile

TABLE 2.0 cont.
ASBESTOS SURVEY SAMPLE SUMMARY
Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana

HA	Sample Number	Material Description	Material Location	Friable – Yes/No	Lab Results
07	07-1	White 2'x4' ceiling tiles	Office Level 1	Yes	None Detected
	07-2				None Detected
	07-3				None Detected
08	08-1	Brown cove base mastic	Office Level 1	No	None Detected
	08-2				None Detected
	08-3				None Detected
10	10-1	Light brown 3" cove base with brown mastic	Office Level 2	No	Cove Base – None Detected Mastic – None Detected
	10-2				Cove Base – None Detected Mastic – None Detected
	10-3				Cove Base – None Detected Mastic – None Detected
09	09-1	White sink bottom coating	Office Level 2 in common area	No	13% Chrysotile
	09-2				14% Chrysotile
	09-3				10% Chrysotile
11	11-1	White drywall and joint compound	Office Level 1	No	Drywall – None Detected Joint Compound – None Detected
	11-2				Drywall – None Detected Joint Compound – None Detected
	11-3				Drywall – None Detected Joint Compound – None Detected

TABLE 2.0 cont.
ASBESTOS SURVEY SAMPLE SUMMARY
Drainage Pump Station 13
4201 Tall Spruce Drive
New Orleans, Louisiana

HA	Sample Number	Material Description	Material Location	Friable – Yes/No	Lab Results
12	12-1	White 6" TSI	Between Pumps 5 & 6	Yes	None Detected
	12-2				None Detected
	12-3				None Detected
13	13-1	White 8" TSI	AC3's Exhaust Between Pumps 5 & 6	Yes	50% Chrysotile
	13-2				50% Chrysotile
	13-3				40% Chrysotile
14	14-1	White 18" TSI	Pumps 4 & 5 Exhausts	Yes	25% Amosite
	14-2				25% Amosite
	14-3				20% Amosite
15	15-1	White 8" TSI with coarse wrap	New Area	No	None Detected
	15-2				None Detected
	15-3				None Detected
16	N/A	Clutch pads	Pumps 4 & 5	Unknown	Assumed ACM
	N/A				
	N/A				

APPENDIX B
ASBESTOS LABORATORY ANALYTICAL REPORT



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041922620

Customer ID: TCNL25

Customer PO: ET197047

Project ID:

Attention: Steven Latiolais
Terracon Consultants
524 Elmwood Park Blvd.
Ste. 170
New Orleans, LA 70123

Phone: (504) 818-3638

Fax:

Received Date: 08/05/2019 9:00 AM

Analysis Date: 08/05/2019 - 08/08/2019

Collected Date: 08/02/2019

Project: ET197047 - Sewage Water Board - 4201 Tall Spruce - Pump Station 13

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01-01 041922620-0001	Exterior where Slabs Join - Black Waterproofing on Slab	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
01-02 041922620-0002	Exterior where Slabs Join - Black Waterproofing on Slab	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
01-03 041922620-0003	Exterior where Slabs Join - Black Waterproofing on Slab	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
02-01 041922620-0004	Generators near Vertical Pumps - White 10" TSI	White Fibrous Homogeneous	15% Cellulose 3% Glass 10% Hair	72% Non-fibrous (Other)	None Detected
02-02 041922620-0005	Generators near Vertical Pumps - White 10" TSI	White Fibrous Homogeneous	15% Cellulose 3% Glass 10% Hair	72% Non-fibrous (Other)	None Detected
02-03 041922620-0006	Generators near Vertical Pumps - White 10" TSI	White Fibrous Homogeneous	10% Cellulose 15% Glass	75% Non-fibrous (Other)	None Detected
03-01-TSI 041922620-0007	Yellow 10" TSI	Yellow Fibrous Homogeneous	85% Min. Wool	15% Non-fibrous (Other)	None Detected
03-01-Wrap 041922620-0007A	White Wrap	White Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (Other)	None Detected
03-02-TSI 041922620-0008	Yellow 10" TSI	Yellow Fibrous Homogeneous	85% Min. Wool	15% Non-fibrous (Other)	None Detected
03-02-Wrap 041922620-0008A	White Wrap	White Fibrous Homogeneous	35% Cellulose	65% Non-fibrous (Other)	None Detected
03-03-TSI 041922620-0009	Yellow 10" TSI	Yellow Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
03-03-Wrap 041922620-0009A	White Wrap	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04-01 041922620-0010	Generators near Vertical Pumps - Tan 10" Pipe Elbow under Metal Jacket	Tan Fibrous Homogeneous	15% Cellulose 4% Glass	81% Non-fibrous (Other)	None Detected
04-02 041922620-0011	Generators near Vertical Pumps - Tan 10" Pipe Elbow under Metal Jacket	Tan Fibrous Homogeneous	15% Cellulose 4% Glass	81% Non-fibrous (Other)	None Detected

Initial report from: 08/05/2019 12:15:44



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041922620
Customer ID: TCNL25
Customer PO: ET197047
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
04-03 <i>041922620-0012</i>	Generators near Vertical Pumps - Tan 10" Pipe Elbow under Metal Jacket	Tan Fibrous Homogeneous	15% Cellulose 4% Glass	81% Non-fibrous (Other)	None Detected
05-01-Floor Tile <i>041922620-0013</i>	Office Level 1 - Tan 12" x 12" Striped Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05-01-Mastic <i>041922620-0013A</i>	Office Level 1 - Brown Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05-02-Floor Tile <i>041922620-0014</i>	Office Level 1 - Tan 12" x 12" Striped Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05-02-Mastic <i>041922620-0014A</i>	Office Level 1 - Brown Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05-03-Floor Tile <i>041922620-0015</i>	Office Level 1 - Tan 12" x 12" Striped Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05-03-Mastic <i>041922620-0015A</i>	Office Level 1 - Brown Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06-01-Floor Tile <i>041922620-0016</i>	Office Level 2 - Gray 9" x 9" Striped Floor Tile	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
06-01-Mastic <i>041922620-0016A</i>	Office Level 2 - Black Mastic	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
06-02-Floor Tile <i>041922620-0017</i>	Office Level 2 - Gray 9" x 9" Striped Floor Tile	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
06-02-Mastic <i>041922620-0017A</i>	Office Level 2 - Black Mastic	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
06-03-Floor Tile <i>041922620-0018</i>	Office Level 2 - Gray 9" x 9" Striped Floor Tile	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
06-03-Mastic <i>041922620-0018A</i>	Office Level 2 - Black Mastic	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
07-01 <i>041922620-0019</i>	Office Level 1 - White 2' x 4' Ceiling Tiles	White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
07-02 <i>041922620-0020</i>	Office Level 1 - White 2' x 4' Ceiling Tiles	White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
07-03 <i>041922620-0021</i>	Office Level 1 - White 2' x 4' Ceiling Tiles	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
08-01 <i>041922620-0022</i>	Office Level 1 - Brown Cove Base Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08-02 <i>041922620-0023</i>	Office Level 1 - Brown Cove Base Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08-03 <i>041922620-0024</i>	Office Level 1 - Brown Cove Base Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 08/05/2019 12:15:44



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041922620
Customer ID: TCNL25
Customer PO: ET197047
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
10-01-Cove Base <small>041922620-0025</small>	Office Level 2 - Light Brown 3" Cove Base	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-01-Mastic <small>041922620-0025A</small>	Office Level 2 - Brown Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-02-Cove Base <small>041922620-0026</small>	Office Level 2 - Light Brown 3" Cove Base	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-02-Mastic <small>041922620-0026A</small>	Office Level 2 - Brown Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-03-Cove Base <small>041922620-0027</small>	Office Level 2 - Light Brown 3" Cove Base	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-03-Mastic <small>041922620-0027A</small>	Office Level 2 - Brown Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09-01 <small>041922620-0028</small>	Office Level 2 - White Sink Bottom	White Non-Fibrous Homogeneous		87% Non-fibrous (Other)	13% Chrysotile
09-02 <small>041922620-0029</small>	Office Level 2 - White Sink Bottom	White Non-Fibrous Homogeneous		86% Non-fibrous (Other)	14% Chrysotile
09-03 <small>041922620-0030</small>	Office Level 2 - White Sink Bottom	White Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
11-01-Drywall <small>041922620-0031</small>	Office - White Drywall	White Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (Other)	None Detected
11-01-Joint Compound <small>041922620-0031A</small>	Office - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-02-Drywall <small>041922620-0032</small>	Office - White Drywall	White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
11-02-Joint Compound <small>041922620-0032A</small>	Office - Joint Compound				Not Submitted
11-03-Drywall <small>041922620-0033</small>	Office - White Drywall	Brown/White Fibrous Homogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
11-03-Joint Compound <small>041922620-0033A</small>	Office - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-01 <small>041922620-0034</small>	Between 6 and 5 - White 6" TSI	White Fibrous Homogeneous	80% Min. Wool	20% Non-fibrous (Other)	None Detected
12-02 <small>041922620-0035</small>	Between 6 and 5 - White 6" TSI	White Fibrous Homogeneous	10% Cellulose 20% Glass 3% Hair	67% Non-fibrous (Other)	None Detected
12-03 <small>041922620-0036</small>	Between 6 and 5 - White 6" TSI	White Fibrous Homogeneous	20% Cellulose 30% Glass	50% Non-fibrous (Other)	None Detected
13-01 <small>041922620-0037</small>	Between 6 and 5 - White 8" TSI	White Fibrous Homogeneous	15% Glass	35% Non-fibrous (Other)	50% Chrysotile

Initial report from: 08/05/2019 12:15:44



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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EMSL Order: 041922620
Customer ID: TCNL25
Customer PO: ET197047
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
13-02 <small>041922620-0038</small>	Between 6 and 5 - White 8" TSI	White Fibrous Homogeneous		50% Non-fibrous (Other)	50% Chrysotile
13-03 <small>041922620-0039</small>	Between 6 and 5 - White 8" TSI	White Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
14-01 <small>041922620-0040</small>	Between 5 and 4 - White 18" TSI	White Fibrous Homogeneous		75% Non-fibrous (Other)	25% Amosite
14-02 <small>041922620-0041</small>	Between 5 and 4 - White 18" TSI	White Fibrous Homogeneous	15% Glass	60% Non-fibrous (Other)	25% Amosite
14-03 <small>041922620-0042</small>	Between 5 and 4 - White 18" TSI	White Fibrous Homogeneous		80% Non-fibrous (Other)	20% Amosite
15-01 <small>041922620-0043</small>	Newer Area - White 8" TSI w/Course White Wrap	White Fibrous Homogeneous	10% Cellulose 15% Glass	75% Non-fibrous (Other)	None Detected
15-02 <small>041922620-0044</small>	Newer Area - White 8" TSI w/Course White Wrap	White Fibrous Homogeneous	10% Cellulose 15% Glass	75% Non-fibrous (Other)	None Detected
15-03 <small>041922620-0045</small>	Newer Area - White 8" TSI w/Course White Wrap	White Fibrous Homogeneous	20% Cellulose 20% Glass	60% Non-fibrous (Other)	None Detected

Analyst(s)

Daniel Fricker (21)

Lucy Um (38)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 08/05/2019 12:15:44



EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos Chain of Custody
EMSL Order Number (Lab Use Only):

041922620

RECEIVED
EMSL
CINNAMINSON, N.J.
PHONE:
2019 AUG 5 AM 10:23

Company Name : Terracon		EMSL Customer ID:	
Street: 524 Elmwood Park Blvd #170		City: New Orleans	State/Province: LA
Zip/Postal Code: 70123	Country: USA	Telephone #:	Fax #:
Report To (Name): Steven Latiolais		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: Steven.Latiolais@terracon.com		Purchase Order:	
Project Name/Number:		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: Louisiana		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to: Same Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part <input type="checkbox"/> 763 NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	Soil/Rock/Vermiculite <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: *Steven Latiolais* Samplers Signature: *SL*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	<i>Please See Attached</i>		

Client Sample # (s):	Total # of Samples:
Relinquished (Client): <i>Steven Latiolais to FedEx</i> Date: <i>8/2/19</i>	Time: <i>1700</i>
Received (Lab): <i>[Signature]</i> Date: <i>8-5-19</i>	Time: <i>9:00</i>
Comments/Special Instructions:	

45



Asbestos Bulk Sample Log & Chain of Custody Form

Lab Use Only: 041922620

Select a Laboratory:

New Orleans: 524 Elmwood Park Blvd., Ste. 170, New Orleans, LA 70123 (504) 818 3638

Lab Location:

Page _____ of _____

Project Name: Sewage Water Bond
 Project Address: 4209 Tall Spruce

Project Number: ET197047
 City/State / Zip: New Orleans, LA

Inspector: Steven Latiolais
 Email Results To: Steven.Latiolais@terracon.com

Site/Building: Pump Station 13

Sample Number	Sample Location	HA Description (Color, Dimensions, Descriptor, then Type)	HA General Location	Estimated Quantity	Condition ¹
01-1		Black waterproofing on slab	Exterior where slabs join		G D SD
01-2					
01-3					
02-1		White 10" TSI	Generators near vertical pumps	30	G D SD
02-2					
02-3					
03-1		Yellow 10" TSI w/ white wrap		1000	G D SD
03-2					
03-3					
04-1		Tan 10" pipe elbow under metal jacket	Generators near vertical pumps	2	G D SD
04-2					
04-3					
05-1		Tan 12'x12" striped floor tile w/ Brown Mastic	Office Level 1	250	G D SD
05-2					
05-3					

RECEIVED
 TEMS
 MINSON, N.J.
 2019 AUG - 5 AM 10:23

Sampling Date: 8/2/19 Collected by (print): Steven Latiolais Inspector's Signature: [Signature]
 Relinquished by: _____ Date/Time: _____
 Analysis: PLM EPA 600/R-93/116 PLM 400 Point Count - TEM - Other _____
 Turnaround Time: 6 Hrs - 24 Hrs - 2 Days - 3 Days - 5 Days - Other 3
 Instructions: Terracon ARMS: Stop Positive: Number of samples: 3

¹ G = Good (no damage); D = Damaged (<10% distributed or <25% localized); or SD = Significantly Damaged (>10% distributed or >25% localized)



Asbestos Bulk Sample Log & Chain of Custody Form

New Orleans: 524 Elmwood Park Blvd., Ste. 170, New Orleans, LA 70123 (504) 818 3638

Lab Use Only:

041922620

Select a Laboratory:

Lab Location:

Page _____ of _____

Sample Number	Sample Location	HA Description (Color, Dimensions, Descriptor, then Type)	HA General Location	Estimated Quantity	Condition ¹
06-1		Gray 9"x9" Striped Floor tile + Black mastic	Office Level 2	250	G D SD
06-2					
06-3					
07-1		White 2'x4' Ceiling tiles	Office Level 1	250	G D SD
07-2					
07-3					
08-1		Brown Cove base mastic	Office Level 1	50 LF	G D SD
08-2					
08-3					
10-1		Lt. Brown 3" Cove base w/ Brown mastic	Office Level 2	50 LF	G D SD
10-2					
10-3					
09-1		White sink bottom	Office Level 2	1	G D SD
09-2					
09-3					
11-1		White Drywall w/ wtk joint compound	Office	300	G D SD
11-2					
11-3					
12-1		White 6" TSI	Between 4 + 5	300	G D SD
12-2					
12-3					

RECEIVED
BMSL
CINNAMONSON, M.J.
2019 AUG -5 AM 10:23



Asbestos Bulk Sample Log & Chain of Custody Form

New Orleans: 524 Elmwood Park Blvd., Ste. 170, New Orleans, LA 70123 (504) 818 3638

Project Name: _____
 Project Address: _____
 Site/Building: _____

Project Number: _____
 City/State / Zip: _____

Lab Use Only: 041922620
 Select a Laboratory:

Lab Location: _____ of _____
 Inspector: Steven Latiolais
 Email Results To: Steven.Latiolais@terracon.com

Sample Number	Sample Location	HA Description (Color, Dimensions, Descriptor, then Type)	HA General Location	Estimated Quantity	Condition ¹
13-1		White 8" TSI	Between 6-5	13	G D SD
13-2					
13-3					
14-1		White 18" TSI	Between 5-4	30	G D SD
14-2					
14-3					
15-1		White 8" TSI w/ Coarse white wrap	Newer area	40	G D SD
15-2					
15-3					

RECEIVED
 TSI
 CINNAMINSON, N.J.
 2019 AUG -5 AM 10:23

Sampling Date: _____ Collected by (print): _____ Inspector's Signature: _____
 Relinquished by: _____ Date/Time: _____
 Analysis: PLM EPA 600/R-93/116 - PLM 400 Point Count - TEM - Other _____
 Turnaround Time: 6 Hrs - 24 Hrs - 2 Days - 3 Days - 5 Days - Other _____
 Instructions: Terracon ARMS: Stop Positive: Number of samples: _____

¹ G = Good (no damage); D = Damaged (<10% distributed or <25% localized); or SD = Significantly Damaged (>10% distributed or >25% localized)

APPENDIX C
PHOTOGRAPH LOG



Photograph No. 1
View of HA – 01: Black waterproofing on slab.



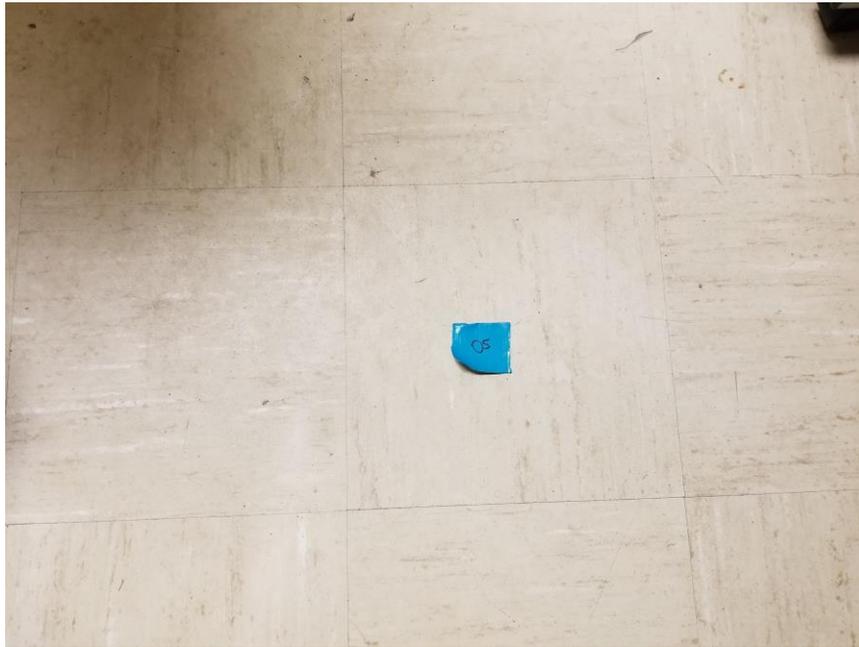
Photograph No. 2
View of HA – 02: White 10" TSI.



Photograph No. 3
View of HA – 03: Yellow 10" TSI with white wrap.



Photograph No. 4
View of HA – 04: Tan 10" pipe elbow under metal jacket



Photograph No. 5

View of HA – 05: Tan 12"x12" striped floor tile with brown mastic.



Photograph No. 6

View of HA – 06: Gray 9"x9" striped floor tile and black mastic. Confirmed ACM.



Photograph No. 7

View of HA – 07: White 2'x4' ceiling tiles.



Photograph No. 8

View of HA – 08: Brown cove base mastic.



Photograph No. 9

View of HA - 09: White sink bottom coating. Confirmed ACM.



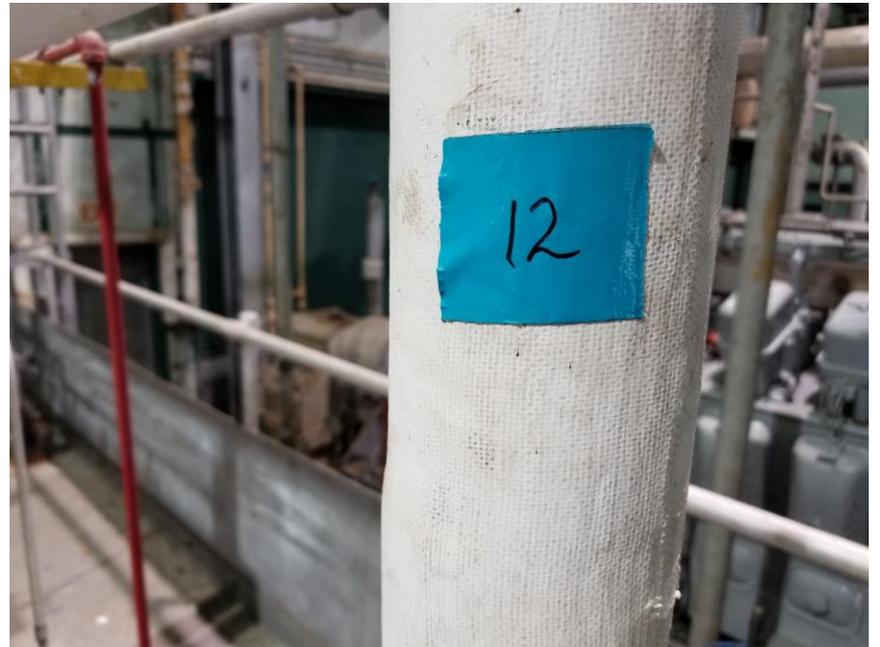
Photograph No. 10

View of HA - 10: Light brown 3" cove base with brown mastic.



Photograph No. 11

View of HA - 11: White drywall and joint compound.

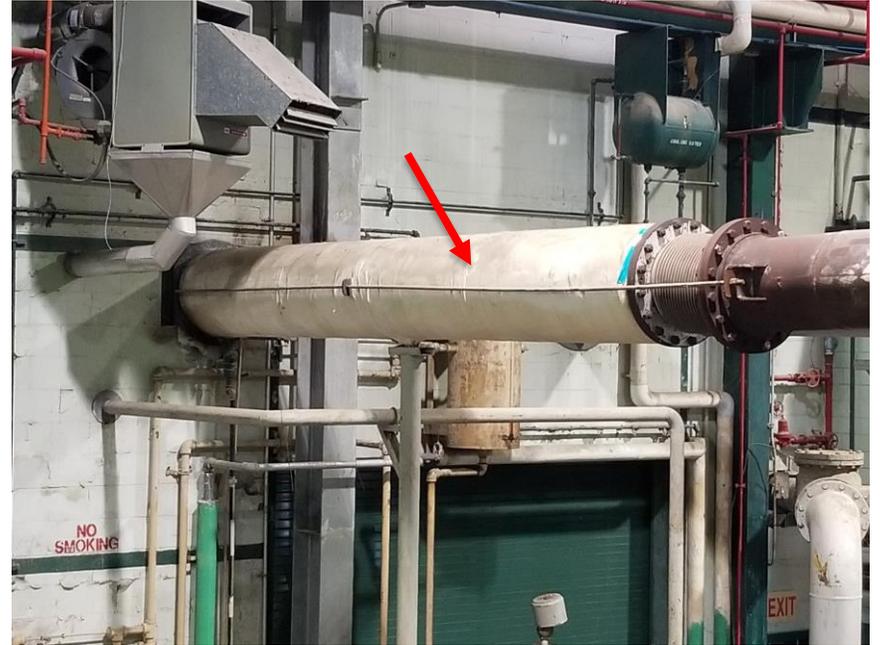


Photograph No. 12

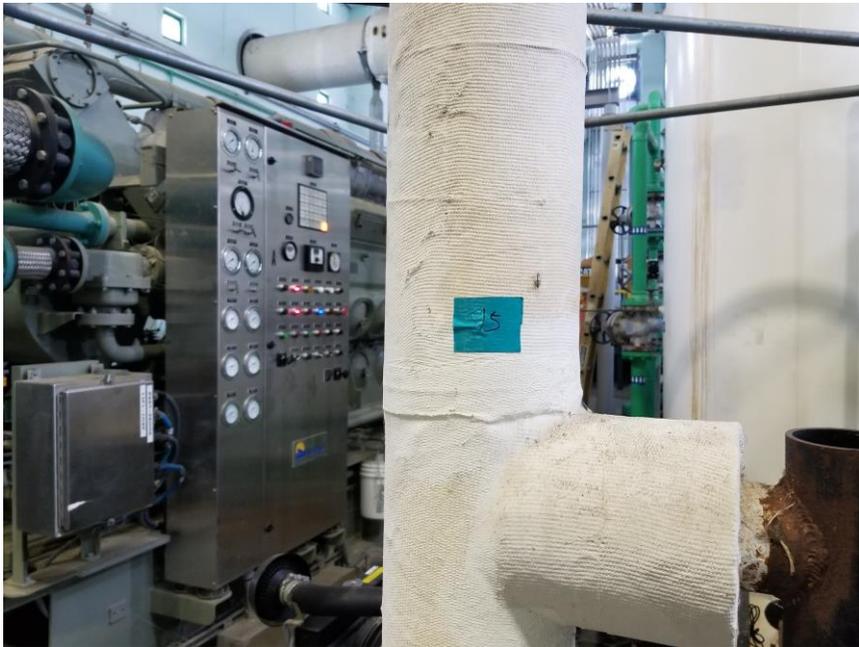
View of HA - 12: White 6" TSI.



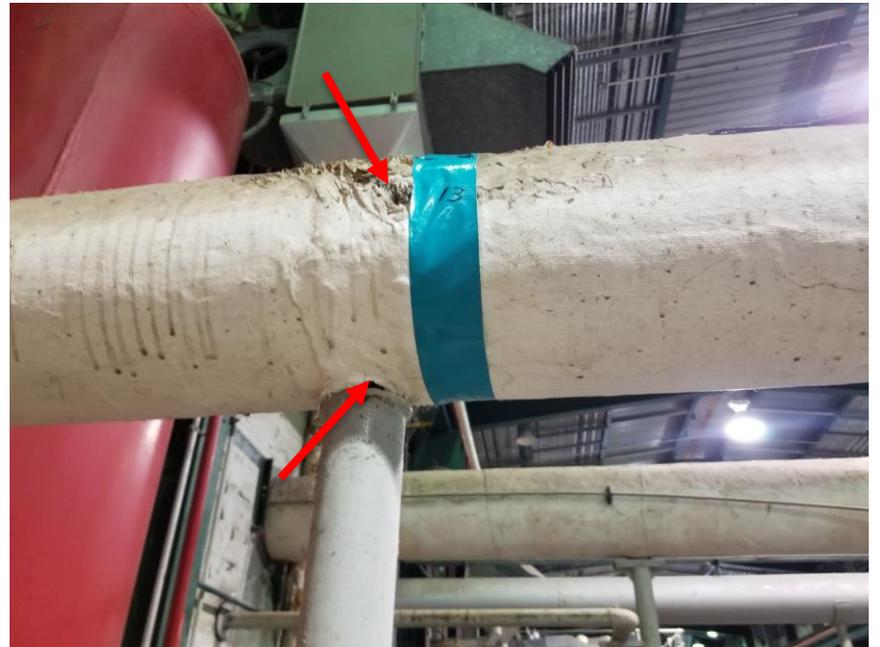
Photograph No. 13
View of HA - 13: White 8" TSI. Confirmed ACM.



Photograph No. 14
View of HA - 14: White 18" TSI. Confirmed ACM.



Photograph No. 15
View of HA - 15: White 8" TSI with coarse wrap.



Photograph No. 16
View of damage in connection with white 8" TSI. Note support bracket penetration.



Photograph No. 17

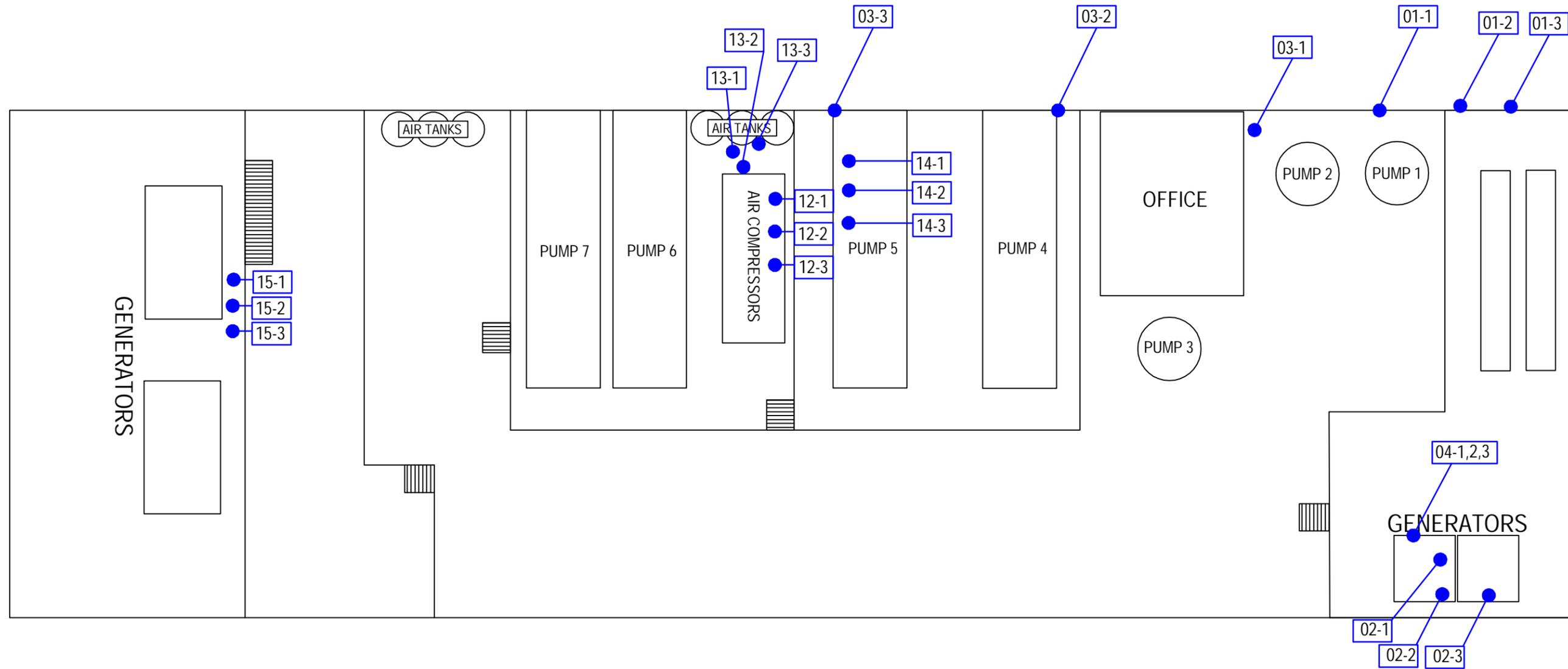
View of white 18" TSI wall penetration. This is the area where undermining of ACM was observed.



Photograph No. 18

View of debris beneath white 18" TSI associated with Pumps 4 and 5's exhausts.

APPENDIX D
EXHIBITS



LEGEND

● BULK SAMPLE LOCATIONS

Terracon
Consulting Engineers and Scientists

524 ELMWOOD PARK BOULEVARD #170 NEW ORLEANS, LA 70123
PH. (504) 818-3638 FAX. (504) 818-3890

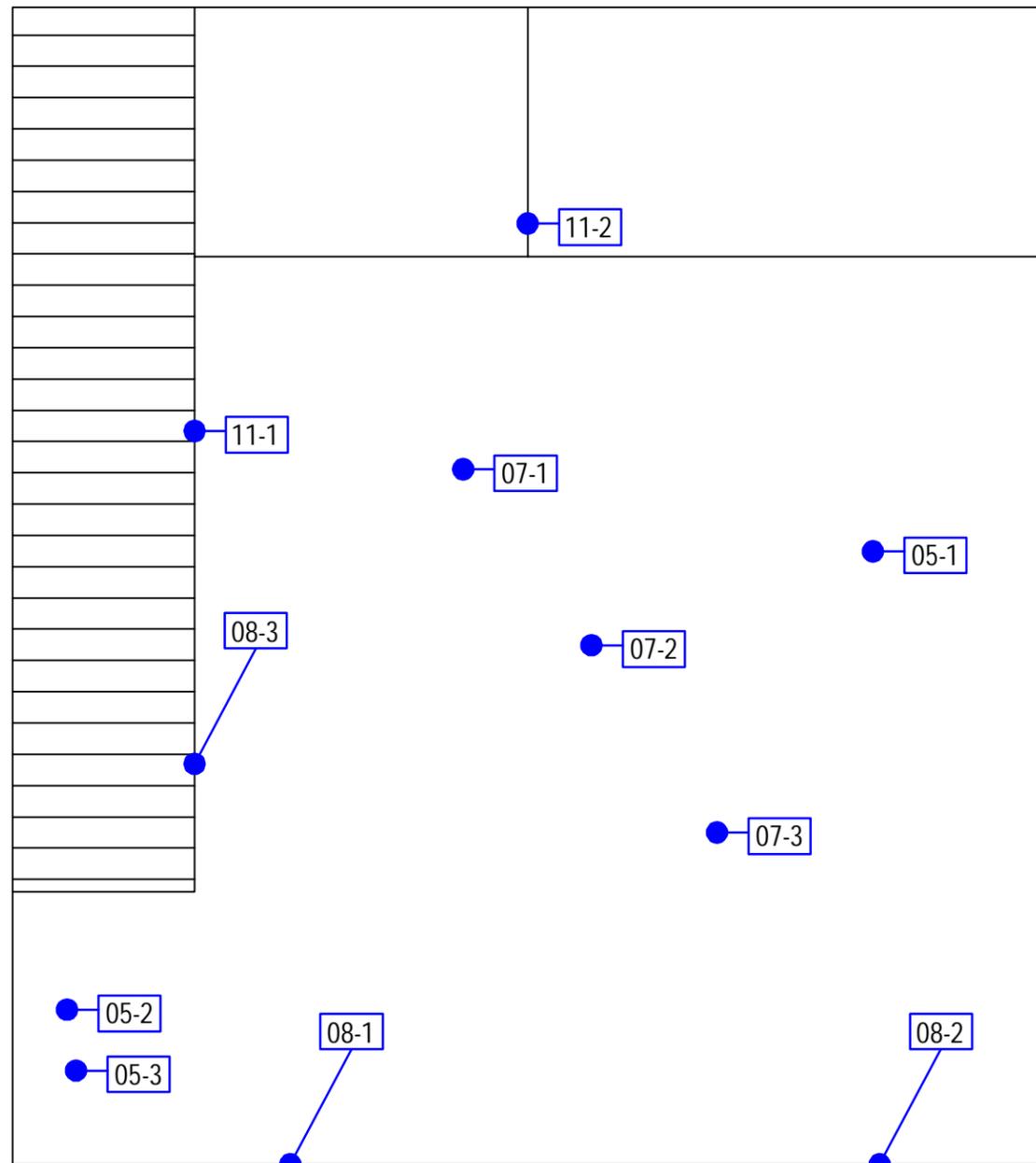
SCALE: NOT TO SCALE
PROJECT NO: ET197047
DATE: AUGUST 2019
APPROVED BY: ZLD

SUSPECT ACM SAMPLE LOCATIONS - OPERATIONS AREA

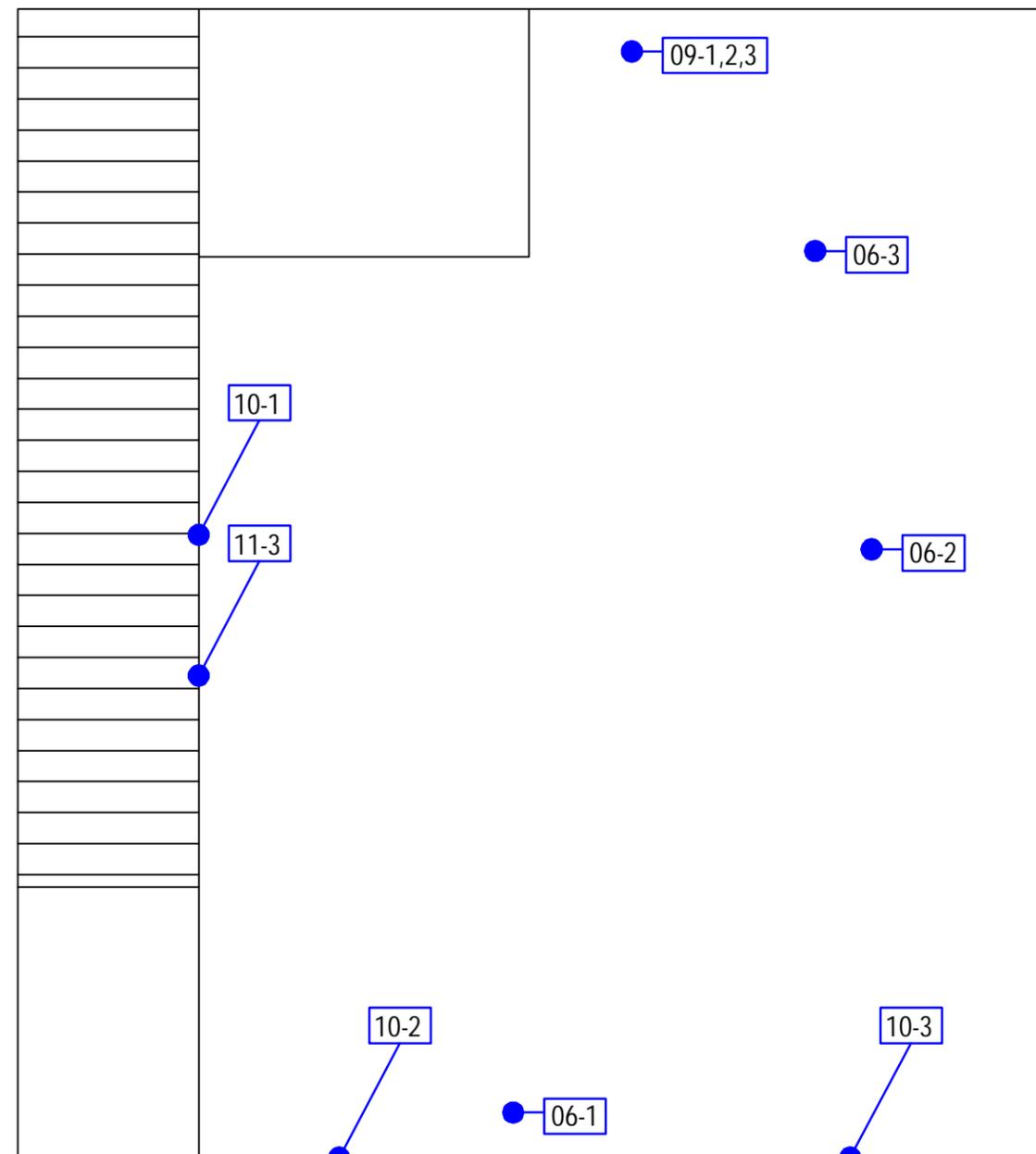
ASBESTOS SURVEY AND ASSESSMENT
SWBNO - DRAINAGE PUMP STATION 13
4201 TALL SPRUCE DRIVE
NEW ORLEANS, LOUISIANA

EXHIBIT

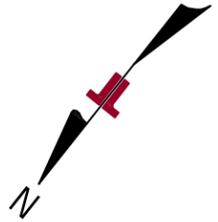
1.0



LEVEL 1



LEVEL 2



LEGEND

● BULK SAMPLE LOCATIONS



Consulting Engineers and Scientists

524 ELMWOOD PARK BOULEVARD #170
PH. (504) 818-3638

NEW ORLEANS, LA 70123
FAX. (504) 818-3890

SCALE: NOT TO SCALE

PROJECT NO: ET197047

DATE: AUGUST 2019

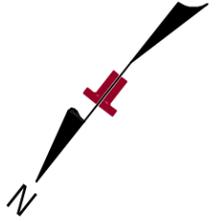
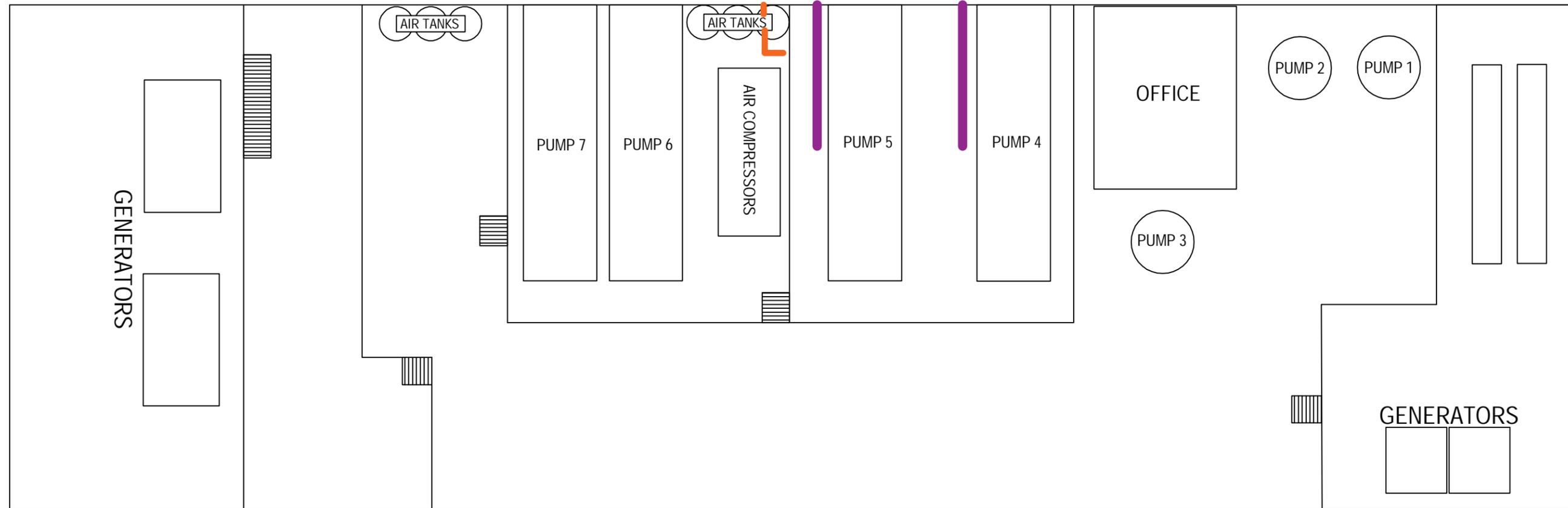
APPROVED BY: ZLD

SUSPECT ACM SAMPLE LOCATIONS - OFFICE

ASBESTOS SURVEY AND ASSESSMENT
SWBNO - DRAINAGE PUMP STATION 13
4201 TALL SPRUCE DRIVE
NEW ORLEANS, LOUISIANA

EXHIBIT

1.1



LEGEND

-  WHITE 8" TSI (HA-13)
-  WHITE 18" TSI (HA-14)



524 ELMWOOD PARK BOULEVARD #170 NEW ORLEANS, LA 70123
 PH. (504) 818-3638 FAX. (504) 818-3890

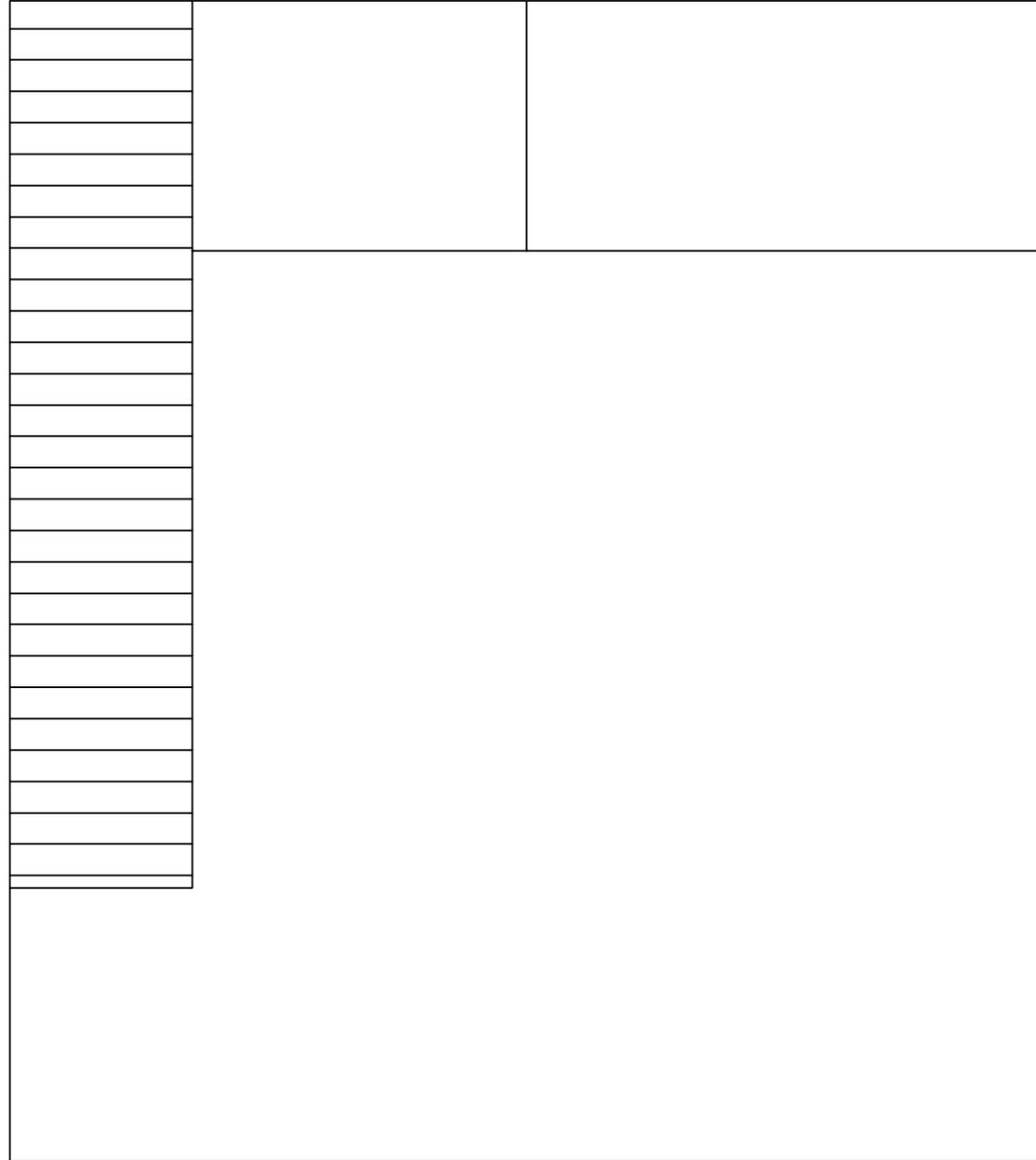
SCALE: NOT TO SCALE
 PROJECT NO: ET197047
 DATE: AUGUST 2019
 APPROVED BY: ZLD

CONFIRMED ACM LOCATIONS - OPERATIONS AREA

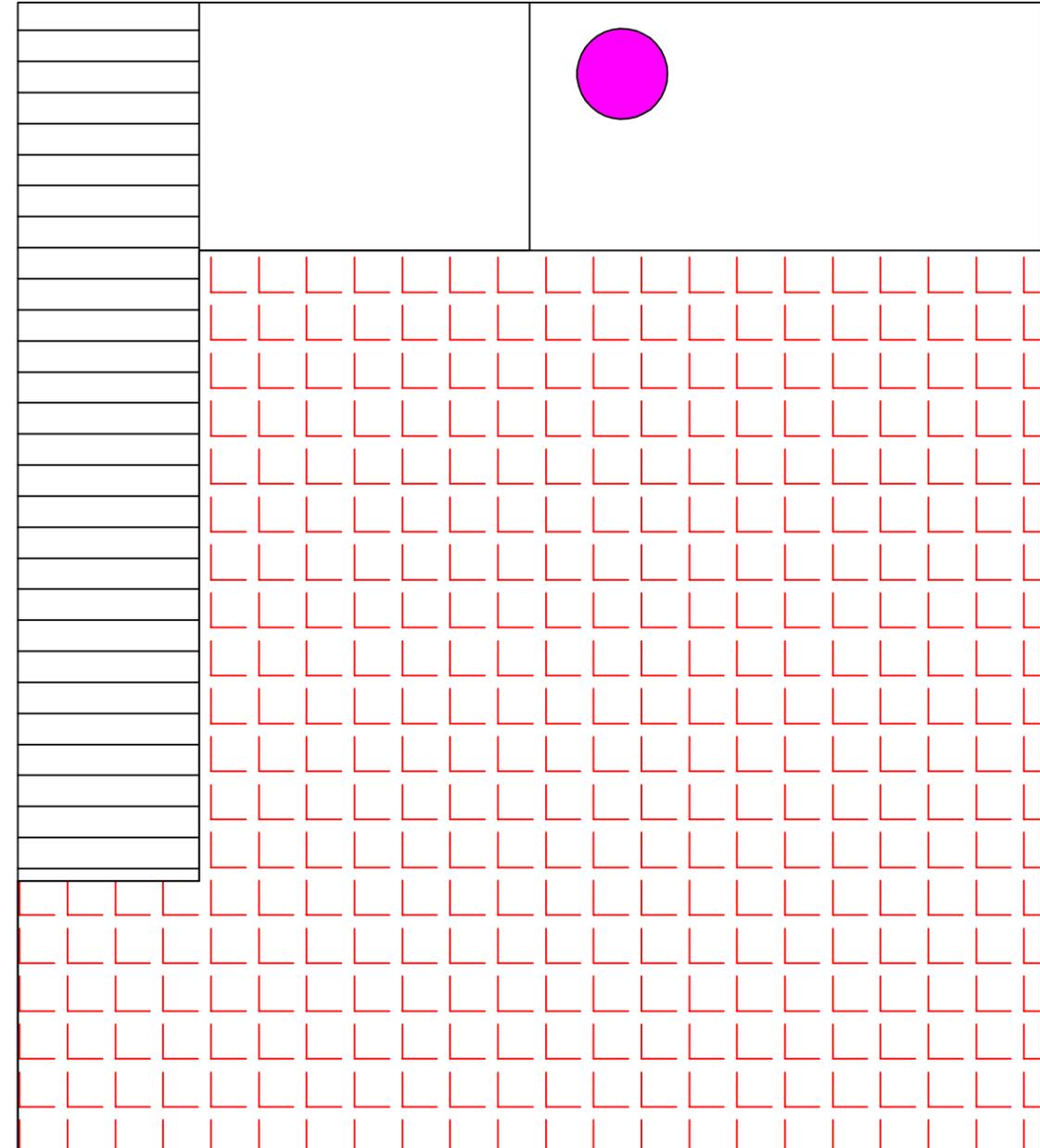
ASBESTOS SURVEY AND ASSESSMENT
 SWBNO - DRAINAGE PUMP STATION 13
 4201 TALL SPRUCE DRIVE
 NEW ORLEANS, LOUISIANA

EXHIBIT

2.1



LEVEL 1



LEVEL 2



LEGEND

-  WHITE SINK BOTTOM COATING (HA-09)
-  GRAY 9"X9" FLOOR TILE WITH BLACK MASTIC (HA-09)

Terracon
 Consulting Engineers and Scientists

524 ELMWOOD PARK BOULEVARD #170 NEW ORLEANS, LA 70123
 PH. (504) 818-3638 FAX. (504) 818-3890

SCALE: NOT TO SCALE
 PROJECT NO: ET197047
 DATE: AUGUST 2019
 APPROVED BY: ZLD

CONFIRMED ACM LOCATIONS - OFFICE
 ASBESTOS SURVEY AND ASSESSMENT
 SWBNO - DRAINAGE PUMP STATION 13
 4201 TALL SPRUCE DRIVE
 NEW ORLEANS, LOUISIANA

EXHIBIT

2.2

**APPENDIX E
CERTIFICATION**

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Jason M Maloney

Has complied with all requirements of the Louisiana Department of Environmental Quality
and is authorized to perform the duties of

ASBESTOS INSPECTOR

Accreditation No. 0I178742

AI No. 178742

Date of Issuance 2/22/2019

Expiration 1/31/2020

Failure to comply with all applicable provisions of La. R.S. 2025.E. (1)(a) and La. R.S. 2025.F. (2)(a)
may result in civil and/or criminal enforcement actions by the State.

Christopher Mangum
Permit Support Services Division
Office of Environmental Services

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Steven Latiolais

Has complied with all requirements of the Louisiana Department of Environmental Quality
and is authorized to perform the duties of

Asbestos Inspector

Accreditation No. MI200658

AI No. 200658

Date of Issuance March 13, 2019

Expiration March 21, 2020

Failure to comply with all applicable provisions of La. R.S. 2025.E. (1)(a) and La. R.S. 2025.F. (2)(a)
may result in civil and/or criminal enforcement actions by the State.

Paul Bergeron

Permit Support Services Division
Office of Environmental Services



**STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY**

Is hereby granting a Louisiana Environmental Laboratory Accreditation to



**EMSL Analytical Inc
200 Rt 130 N
Cinnaminson, New Jersey 08077**

**Agency Interest No. 131900
Activity No. ACC20190002**

According to the Louisiana Administrative Code, Title 33, Part I, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part I, Subpart 3 requirements and agrees to adapt to any changes in the requirements. It also acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I and the 2009 TNI Standard by which the laboratory was assessed. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status.

Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory. Accreditation of the environmental laboratory does not imply that a product, process, system, or person is approved by LELAP. To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:I.4711.

**Cheryl Sonnier Nolan
Administrator
Public Participation and Permit Support Services Division**

Issued Date: 21 June 2019
Effective Date: July 1, 2019
Expiration Date: June 30, 2020
Certificate Number: 04127



STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

EMSL Analytical Inc
AI Number: 131900
Activity No.: ACC20190002
Expiration Date: June 30, 2020

Effective Date: July 1, 2019

200 Rt 130 N, Cinnaminson, New Jersey 08077

Certificate Number: 04127

Air Emissions

Analyte	Method Name	Method Code	Type	AB
100173 - Asbestos by Phase Contrast Microscopy	NIOSH 7400 (A Rules)	899	NELAP	NJ
100131 - Airborne Asbestos	40 CFR Part 763, Subpart E, Appendix A (Mandatory TEM)	2062	NELAP	NJ
100683 - Fungal - Direct Examination (Air)	EMSL 05-TP-003.5	2885	AIHA	LA
100679 - Fungal Growth in Culturable Air Samples	EMSL SOP M005	2887	AIHA	LA
100231 - Lead in Paint	EPA 7420	10164406	AIHA	LA
100233 - Lead in Soil	EPA 7420	10164406	AIHA	LA
100232 - Lead in Wipes	EPA 7420	10164406	AIHA	LA
100230 - Lead in Airborne Dust	NIOSH 7082, Rev.2	90012230	AIHA	LA
1000 - Aluminum	NIOSH 7300	90012401	AIHA	LA
1005 - Antimony	NIOSH 7300	90012401	AIHA	LA
1010 - Arsenic	NIOSH 7300	90012401	AIHA	LA
1015 - Barium	NIOSH 7300	90012401	AIHA	LA
1020 - Beryllium	NIOSH 7300	90012401	AIHA	LA
1023 - Bismuth	NIOSH 7300	90012401	AIHA	LA
1025 - Boron	NIOSH 7300	90012401	AIHA	LA
1030 - Cadmium	NIOSH 7300	90012401	AIHA	LA
1035 - Calcium	NIOSH 7300	90012401	AIHA	LA
1040 - Chromium	NIOSH 7300	90012401	AIHA	LA
1050 - Cobalt	NIOSH 7300	90012401	AIHA	LA
1055 - Copper	NIOSH 7300	90012401	AIHA	LA
1057 - Gallium	NIOSH 7300	90012401	AIHA	LA
1060 - Gold	NIOSH 7300	90012401	AIHA	LA
1070 - Iron	NIOSH 7300	90012401	AIHA	LA
1075 - Lead	NIOSH 7300	90012401	AIHA	LA
1080 - Lithium	NIOSH 7300	90012401	AIHA	LA
1085 - Magnesium	NIOSH 7300	90012401	AIHA	LA
1090 - Manganese	NIOSH 7300	90012401	AIHA	LA
1100 - Molybdenum	NIOSH 7300	90012401	AIHA	LA
1105 - Nickel	NIOSH 7300	90012401	AIHA	LA
1115 - Palladium	NIOSH 7300	90012401	AIHA	LA
1909 - Phosphorus	NIOSH 7300	90012401	AIHA	LA
1120 - Platinum	NIOSH 7300	90012401	AIHA	LA
1125 - Potassium	NIOSH 7300	90012401	AIHA	LA
1140 - Selenium	NIOSH 7300	90012401	AIHA	LA
1150 - Silver	NIOSH 7300	90012401	AIHA	LA
1162 - Tellurium	NIOSH 7300	90012401	AIHA	LA
1165 - Thallium	NIOSH 7300	90012401	AIHA	LA
1175 - Tin	NIOSH 7300	90012401	AIHA	LA
1180 - Titanium	NIOSH 7300	90012401	AIHA	LA
1183 - Tungsten	NIOSH 7300	90012401	AIHA	LA
1185 - Vanadium	NIOSH 7300	90012401	AIHA	LA
1190 - Zinc	NIOSH 7300	90012401	AIHA	LA
1192 - Zirconium	NIOSH 7300	90012401	AIHA	LA
100131 - Airborne Asbestos	NIOSH 7402, Rev.2	90018023	NELAP	NJ

Clients and Customers are urged to verify the laboratory's current certification status with the Louisiana Environmental Laboratory Accreditation Program.

Non Potable Water

Analyte	Method Name	Method Code	Type	AB
1000 - Aluminum	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1005 - Antimony	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1010 - Arsenic	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1015 - Barium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1020 - Beryllium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1025 - Boron	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1030 - Cadmium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1035 - Calcium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1040 - Chromium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1050 - Cobalt	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1055 - Copper	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1070 - Iron	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1075 - Lead	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1085 - Magnesium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1090 - Manganese	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1100 - Molybdenum	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1105 - Nickel	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1125 - Potassium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1140 - Selenium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1150 - Silver	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1155 - Sodium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1165 - Thallium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1175 - Tin	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1180 - Titanium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1185 - Vanadium	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1190 - Zinc	EPA 200.7, Rev.4.4	10013806	NELAP	NJ
1000 - Aluminum	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1005 - Antimony	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1010 - Arsenic	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1015 - Barium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1020 - Beryllium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1030 - Cadmium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1035 - Calcium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1040 - Chromium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1050 - Cobalt	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1055 - Copper	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1070 - Iron	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1075 - Lead	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1085 - Magnesium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1090 - Manganese	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1100 - Molybdenum	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1105 - Nickel	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1125 - Potassium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1140 - Selenium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1150 - Silver	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1155 - Sodium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1165 - Thallium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1175 - Tin	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1180 - Titanium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1185 - Vanadium	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1190 - Zinc	EPA 200.8, Rev.5.4	10014605	NELAP	NJ
1075 - Lead	EPA 200.9, Rev.2.2	10015404	NELAP	NJ
1095 - Mercury	EPA 245.1	10036609	NELAP	NJ
1045 - Chromium VI	SM 3500-Cr D, 18th ED	20009001	NELAP	NJ

EMSL Analytical Inc

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Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
100095 - Asbestos in Bulk Insulation	EPA 600/M4-82-020 (PLM)	1488	NELAP	NJ
100030 - Asbestos in Friable Material	EPA 600/M4-82-020 (PLM)	1488	NELAP	NJ
100171 - Asbestos by Transmission Electron Microscopy	NYS DOH ELAP 198.4	2015	State	NY
100172 - Asbestos by Polarized Light Microscopy	NYS DOH ELAP 198.6	2223	State	NY
100681 - Fungal - Direct Examination (Bulk)	EMSL SOP M041	2886	AIHA	LA
100682 - Fungal - Direct Examination (Surface)	EMSL SOP M041	2886	AIHA	LA
100674 - Fungal Growth in Culturable Bulk Samples	EMSL SOP M005	2887	AIHA	LA
100676 - Fungal Growth in Culturable Surface Bulk Samples	EMSL SOP M005	2887	AIHA	LA
1466 - Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	10118806	NELAP	NJ
1400 - Acid Digestion of Sediments, Sludges, and soils	EPA 3050B	10135601	NELAP	NJ
1000 - Aluminum	EPA 6010D	10155916	NELAP	NJ
1005 - Antimony	EPA 6010D	10155916	NELAP	NJ
1010 - Arsenic	EPA 6010D	10155916	NELAP	NJ
1015 - Barium	EPA 6010D	10155916	NELAP	NJ
1020 - Beryllium	EPA 6010D	10155916	NELAP	NJ
1025 - Boron	EPA 6010D	10155916	NELAP	NJ
1030 - Cadmium	EPA 6010D	10155916	NELAP	NJ
1035 - Calcium	EPA 6010D	10155916	NELAP	NJ
1040 - Chromium	EPA 6010D	10155916	NELAP	NJ
1050 - Cobalt	EPA 6010D	10155916	NELAP	NJ
1055 - Copper	EPA 6010D	10155916	NELAP	NJ
1070 - Iron	EPA 6010D	10155916	NELAP	NJ
1075 - Lead	EPA 6010D	10155916	NELAP	NJ
1080 - Lithium	EPA 6010D	10155916	NELAP	NJ
1085 - Magnesium	EPA 6010D	10155916	NELAP	NJ
1090 - Manganese	EPA 6010D	10155916	NELAP	NJ
1100 - Molybdenum	EPA 6010D	10155916	NELAP	NJ
1105 - Nickel	EPA 6010D	10155916	NELAP	NJ
1125 - Potassium	EPA 6010D	10155916	NELAP	NJ
1140 - Selenium	EPA 6010D	10155916	NELAP	NJ
1150 - Silver	EPA 6010D	10155916	NELAP	NJ
1155 - Sodium	EPA 6010D	10155916	NELAP	NJ
1160 - Strontium	EPA 6010D	10155916	NELAP	NJ
1165 - Thallium	EPA 6010D	10155916	NELAP	NJ
1175 - Tin	EPA 6010D	10155916	NELAP	NJ
1180 - Titanium	EPA 6010D	10155916	NELAP	NJ
1185 - Vanadium	EPA 6010D	10155916	NELAP	NJ
1190 - Zinc	EPA 6010D	10155916	NELAP	NJ
1000 - Aluminum	EPA 6020B	10156420	NELAP	NJ
1005 - Antimony	EPA 6020B	10156420	NELAP	NJ
1010 - Arsenic	EPA 6020B	10156420	NELAP	NJ
1015 - Barium	EPA 6020B	10156420	NELAP	NJ
1020 - Beryllium	EPA 6020B	10156420	NELAP	NJ
1025 - Boron	EPA 6020B	10156420	NELAP	NJ
1030 - Cadmium	EPA 6020B	10156420	NELAP	NJ
1035 - Calcium	EPA 6020B	10156420	NELAP	NJ

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Solid Chemical Materials

Analyte	Method Name	Method Code	Type	AB
1040 - Chromium	EPA 6020B	10156420	NELAP	NJ
1050 - Cobalt	EPA 6020B	10156420	NELAP	NJ
1055 - Copper	EPA 6020B	10156420	NELAP	NJ
1070 - Iron	EPA 6020B	10156420	NELAP	NJ
1075 - Lead	EPA 6020B	10156420	NELAP	NJ
1085 - Magnesium	EPA 6020B	10156420	NELAP	NJ
1090 - Manganese	EPA 6020B	10156420	NELAP	NJ
1100 - Molybdenum	EPA 6020B	10156420	NELAP	NJ
1105 - Nickel	EPA 6020B	10156420	NELAP	NJ
1125 - Potassium	EPA 6020B	10156420	NELAP	NJ
1140 - Selenium	EPA 6020B	10156420	NELAP	NJ
1150 - Silver	EPA 6020B	10156420	NELAP	NJ
1155 - Sodium	EPA 6020B	10156420	NELAP	NJ
1160 - Strontium	EPA 6020B	10156420	NELAP	NJ
1165 - Thallium	EPA 6020B	10156420	NELAP	NJ
1175 - Tin	EPA 6020B	10156420	NELAP	NJ
1180 - Titanium	EPA 6020B	10156420	NELAP	NJ
1185 - Vanadium	EPA 6020B	10156420	NELAP	NJ
1190 - Zinc	EPA 6020B	10156420	NELAP	NJ
1075 - Lead	EPA 7000B	10157707	NELAP	NJ
1045 - Chromium VI	EPA 7196A	10162400	NELAP	NJ
1075 - Lead	EPA 7420	10164406	NELAP	NJ
1075 - Lead	EPA 7421	10164600	NELAP	NJ
1095 - Mercury	EPA 7471B	10166402	NELAP	NJ
100172 - Asbestos by Polarized Light Microscopy	EPA 600/R-93/116	10294583	NELAP	NJ

Biological Tissue

Analyte	Method Name	Method Code	Type	AB
NONE	NONE	NONE	NONE	NONE

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101048-0

EMSL Analytical, Inc.
Cinnaminson, NJ

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

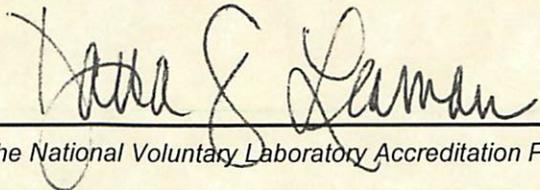
Asbestos Fiber Analysis

*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 Communique dated January 2009).*

2019-07-01 through 2020-06-30

Effective Dates




For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Mr. Ben Ellis
Phone: 800-220-3675 Fax: 856-786-5973
Email: bellis@emsl.com
<http://www.emsl.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101048-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

A handwritten signature in black ink, appearing to read "Dana S. Laman".

For the National Voluntary Laboratory Accreditation Program