

Asbestos Survey Report

El Camino East/West Cor, Route LA 6

SPN: H.001061, Parcel 2-7

Louisiana Department of Transportation and Development
Natchitoches, Natchitoches Parish, Louisiana

March 14, 2017

Terracon Project No. BB177014



Prepared for:

LA DOTD

Baton Rouge, Louisiana

Prepared by:

Terracon Consultants, Inc.

Shreveport, Louisiana

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

March 14, 2017

State of Louisiana
Department of Transportation and Development
PO Box 94245
Baton Rouge, Louisiana 70804-9245

Attn: Mr. Hubert Graves

Re: SPN: H.001061
Asbestos Survey
Parcel 2-7
El Camino East/West Cor, Route LA 6
Natchitoches, Natchitoches Parish, Louisiana
Terracon Project No. BB177014

Dear Mr. Graves:

The purpose of this report is to present the results of an asbestos survey performed on February 24, 2017, at the above referenced structure in Natchitoches, Natchitoches Parish, Louisiana. This survey was conducted in accordance with the Right of Way Consultant Task Order Assignment, dated February 10, 2017, between the State of Louisiana Department of Transportation and Development (LADOTD) and Terracon Consultants, Inc. (Terracon). We understand this survey was requested due to the planned demolition of the structure as part of the LADOTD construction project in Natchitoches Parish.

Asbestos containing materials (ACM) were identified. Please refer to the attached report for details.

Terracon appreciates the opportunity to provide this service to the LADOTD. If you have any questions regarding this report, please contact the undersigned at 225.239.2657.

Sincerely,
Terracon Consultants, Inc.



Aaron Deglandon
Industrial Hygienist



Zack L. Dial, P.E.
Office Manager

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EXECUTIVE SUMMARY – SPN: H.001061, PARCEL 2-7

Terracon Consultants, Inc. (Terracon) conducted an asbestos survey of the vacant residential structure located on Parcel 2-7, in Natchitoches, Natchitoches Parish, Louisiana. The property address is 6953 Highway 6 and Terracon understands the State of Louisiana Department of Transportation and Development (LADOTD) is the property owner. It is our understanding that LADOTD is planning to demolish the structure as part of the El Camino East/West Cor construction project in Natchitoches Parish. The purpose of this survey was to identify and sample suspect asbestos-containing materials (ACM) and provide information regarding the identity, location, condition and approximate quantities of ACM in building components.

The survey was conducted on February 24, 2017, by Mr. Aaron Deglandon, a Louisiana Department of Environmental Quality (LDEQ) certified asbestos inspector, in general accordance with the sampling protocols established in Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. Thirty-six (36) bulk samples were collected from twelve (12) homogeneous areas of suspect ACM. Asbestos in concentrations of more than one percent (>1%) was identified in the following sampled materials:

- Tan sheet flooring with associated brown mastic (3rd layer of flooring)
- White sink undercoat
- White texture / joint compound applied to drywall walls
- Gray exterior cement panels
- White exterior window caulk

The tan sheet flooring with associated brown mastic (3rd layer) is located in the living room, dining room, kitchen, hallway and bathroom and the white texture / joint compound applied to drywall walls is located throughout the residence (most drywall walls are located behind wood paneling) and is considered Friable ACM in good condition. 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) and is required to be abated prior to demolition.

The white sink undercoat is located on the kitchen double sink, the gray exterior cement panels are located along the lower perimeter of the residence and the white exterior window caulk is located on the exterior of the windows of the residence and is considered Category II non-friable ACM in good condition. 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 forced expected to act on the material in the course of demolition operations are considered RACM and are required to be abated prior to demolition.

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

The following material was found to contain asbestos at a concentration of less than one percent (<1%) and is therefore not considered asbestos-containing per applicable EPA and State of Louisiana guidelines:

- Drywall ceilings / joint compound composite

The drywall ceilings with joint compound are located throughout the residence. The United States Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 requires that workers performing construction-related activities (including demolition) be protected from asbestos fibers in excess of the permissible exposure limit of 0.1 fibers per cubic centimeter of air. The owners should notify the demolition contractor of the findings of this survey and the potential for asbestos fiber exposure during removal of this material during demolition activities. Demolition contractors are advised to comply with applicable provisions of OSHA 29 CFR 1926.1101 during demolition activities.

Please refer to the attached report for details.

ASBESTOS SURVEY REPORT

**EL CAMINO EAST/WEST COR, ROUTE LA 6
SPN: H.001061, PARCEL 2-7
NATCHITOCHEs, NATCHITOCHEs PARISH, LOUISIANA**

TERRACON PROJECT NO. BB177014

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos survey of the vacant residential structure located on Parcel 2-7 in Natchitoches, Natchitoches Parish, Louisiana. The survey was conducted on February 24, 2017, by Mr. Aaron Deglandon, a LDEQ certified asbestos inspector, in accordance with the State of Louisiana Department of Transportation and Development (LADOTD) Right of Way Consultant Task Order Assignment, dated February 10, 2017, between Terracon and LADOTD. Interior and exterior building components were surveyed and homogeneous areas of suspect asbestos-containing materials (ACM) were visually identified and documented. Suspect ACM samples were collected in general accordance with the sampling protocols outlined in Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Asbestos Hazard Emergency Response Act, (AHERA). Samples were delivered to an accredited laboratory for analysis by polarized light microscopy (PLM).

1.1 Project Objective

We understand this asbestos survey was requested due to the planned demolition of the structure. EPA 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, prohibits the release of asbestos fibers to the atmosphere during renovation or demolition activities. The EPA NESHAP and LDEQ regulations requires that potentially regulated asbestos-containing building materials be identified, classified and quantified prior to planned disturbances or demolition activities.

2.0 BUILDING DESCRIPTION

The structure is an approximate 1,000-square foot stand-alone one-story, wood-frame vacant residence on a pier and beam foundation with unknown construction date. The exterior consists of siding with wood frame windows and doors. Interior walls consist of wood paneling, some of which is installed over drywall walls. Interior ceilings consist of 12"x12" suspended ceiling tile some of which is installed over drywall ceilings. No heating, ventilation, air-conditioning system (HVAC) was observed. The roof is constructed of asphalt shingles.

3.0 FIELD ACTIVITIES

The survey was conducted by Mr. Aaron Deglandon, a LDEQ certified asbestos inspector. A copy of Mr. Deglandon's asbestos inspector certificate is attached in Appendix D. The survey was conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763, AHERA. A summary of survey activities is provided below.

3.1 Visual Assessment

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

Where applicable, Terracon lifted flooring in several areas in the structure and did not observe additional floor coverings/layers except where noted in this report; however, as Terracon could not assess beneath all areas with flooring present, there may be isolated areas of additional suspect material present beneath the wood flooring.

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. 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. Thirty-six (36) bulk samples were collected from twelve (12) homogeneous areas of suspect ACM.

3.4 Sample Analysis

Bulk samples were submitted under chain of custody to QuanTEM Laboratories (QL) of Oklahoma City, Oklahoma, for analysis by PLM with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart E). The percentage of asbestos, where applicable, was determined by microscopic visual estimation or point counting. QL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 101959-0) and Louisiana Environmental Laboratory Accreditation Program (LELAP Accreditation No. 04118).

4.0 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. 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).

The asbestos NESHAP regulation classifies ACM as either RACM, Category I non-friable ACM or Category II non-friable ACM. 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 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 must be performed by accredited individuals: asbestos surveys, asbestos abatement, monitoring for airborne asbestos, and project design.

Under Chapter 51, Section F, RACM must be removed prior to renovation or demolition activities that will disturb the materials. LDEQ requires a 10-working day notification (Form AAC-2) of any demolition activity, regardless of whether the building contains asbestos, and any renovation activity which disturbs RACM. In addition, LDEQ requires a 3-working day notification prior to the start of the removal of resilient floor covering by using dry ice, heat, wet methods, and chemicals where the tiles or sheeting are removed intact or asbestos-containing mastic removed by chemical or other means that results in the waste material being bound within a macro

substrate and cannot reasonable become airborne. 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 specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

5.0 FINDINGS AND RECOMMENDATIONS

Asbestos in concentrations of more than one percent (>1%) was identified in the following sampled materials:

- Tan sheet flooring with associated brown mastic (3rd layer of flooring)
- White sink undercoat
- White texture / joint compound applied to drywall walls
- Gray exterior cement panels
- White exterior window caulk

The tan sheet flooring with associated brown mastic (3rd layer) is located in the living room, dining room, kitchen, hallway and bathroom and the white texture / joint compound applied to drywall walls is located throughout the residence (most drywall walls are located behind wood paneling) and is considered Friable ACM in good condition. 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 RACM and are required to be abated prior to demolition.

The white sink undercoat is located on the kitchen double sink, the gray exterior cement panels are located along the lower perimeter of the residence and the white exterior window caulk is located on the exterior of the windows of the residence and is considered Category II non-friable ACM in good condition. 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 forced expected to act on the material in the course of demolition operations are considered RACM and are required to be abated prior to demolition.

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

The following material was found to contain asbestos at a concentration of less than one percent (<1%) and is therefore not considered asbestos-containing per applicable EPA and State of Louisiana guidelines:

- Drywall ceilings / joint compound composite

The drywall ceilings / joint compound are located throughout the residence. OSHA 29 CFR 1926.1101 requires that workers performing construction-related activities (including demolition) be protected from asbestos fibers in excess of the permissible exposure limit of 0.1 fibers/cc air. The owners should notify the demolition contractor of the findings of this survey and the potential for asbestos fiber exposure during removal of this material during demolition activities. Demolition contractors are advised to comply with applicable provisions of OSHA 29 CFR 1926.1101 during demolition activities.

It should be noted that suspect materials, other than those identified during this survey may exist within the structure. 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 confirm or deny their asbestos content.

Terracon recommends that the identified friable and non-friable ACM, as outlined above, be removed and disposed of by a State of Louisiana licensed asbestos abatement contractor prior to renovation activities. Licensed asbestos abatement contractors should be contacted to obtain competitive bids for removal of the identified ACM. Quantities are estimates only and must be verified by the abatement contractor.

A summary of the survey sample descriptions and locations is presented in Appendix A. A summary of the classification, condition and approximate quantity of identified ACM are presented in Appendix B. The laboratory analytical report is included in Appendix C. Photographic documentation is included as Appendix D.

6.0 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 residence. 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. This report has been prepared on behalf of and exclusively for use by the Louisiana Department of Transportation and Development 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, expressed or implied is made.

**APPENDIX A
ASBESTOS SURVEY SAMPLE SUMMARY
EL CAMINO EAST/WEST COR, ROUTE LA 6
SPN: H.001061, PARCEL 2-7
NATCHITOCHEs, NATCHITOCHEs PARISH, LOUISIANA
TERRACON PROJECT NO. BB177014**

HA	Sample No.	Description	Sample Location
01	01-FC1-01	Brown 12" Pattern Sheet Flooring over 3 Additional Layers of Sheet Flooring (4 Layers Total)	Dining Room
	01-FC1-02		Hallway
	01-FC1-03		Kitchen
02	02-FC1-04	Tan Sheet Flooring (5 th Layer)	Kitchen
	02-FC1-05		Kitchen
	02-FC1-06		Kitchen
03	03-FC1-07	Tan Sheet Flooring (5 th Layer)	Hallway
	03-FC1-08		Bathroom
	03-FC1-09		Hallway
04	04-CT5-10	White 12"x12" Ceiling Tile over Drywall Ceilings	Bedroom 1
	04-CT5-11		Bedroom 2
	04-CT5-12		Bedroom 3
05	05-WB4-13	Newer White Textured Drywall Ceiling over Drywall Ceilings	Living Room
	05-WB4-14		Dining Room
	05-WB4-15		Kitchen
06	06-FT5-16	White Ceramic Tile with Grout	Bathroom Shower
	06-FT5-17		Bathroom Shower
	06-FT5-18		Bathroom Shower
07	07-SC6-19	White Sink Undercoat	Kitchen
	07-SC6-20		Kitchen
	07-SC6-21		Kitchen
08	08-WB1-22	White Drywall Walls	Bedroom 1
	08-WB1-23		Bedroom 2
	08-WB1-24		Bathroom
09	09-CP4-25	Gray Exterior Siding	North Side
	09-CP4-26		East Side
	09-CP4-27		South Side
10	10-CP1-28	Gray Exterior Panels	North Side
	10-CP1-29		East Side
	10-CP1-30		South Side
11	11-CA1-31	White Exterior Window Caulk	North Side
	11-CA1-32		East Side
	11-CA1-33		West Side
12	12-RF3-34	Black Roof Shingles with Tar Paper	North Side
	12-RF3-35		East Side
	12-RF3-36		West Side

APPENDIX B
CONFIRMED ASBESTOS CONTAINING MATERIAL
EL CAMINO EAST/WEST COR, ROUTE LA 6
SPN: H.001061, PARCEL 2-7
NATCHITOCHEs, NATCHITOCHEs PARISH, LOUISIANA
TERRACON PROJECT NO. BB177014

HA	Description	Material Location	Percent/Type Asbestos	NESHAP Classification	Condition	Estimated Quantity*
01	3 rd Layer of Tan Sheet Flooring with Brown Mastic below Brown 12" Pattern Sheet Flooring	Living room, Dining room, Kitchen, Hallway and Bathroom	¹ Brown Sheet Vinyl – ANP ¹ Yellow Mastic – ANP ² White Floor Tile – ANP ² Yellow Mastic – ANP ³ Tan Sheet Vinyl – 20% C ³ Brown Mastic – 3% C ⁴ Cream Sheet Vinyl - ANP	Friable	Good	410 SF
04	White Drywall Ceiling and Tan Joint Compound	Throughout (located above 12" Ceiling Tile in Bedrooms 1, 2, 3 and above newer Textured Drywall Ceiling in Living Room, Dining Room, Kitchen)	White 12" Ceiling Tile – ANP White Sheetrock – ANP Tan Joint Compound – 3% C Composite – <1% C Point Count – 0.25 – 0.5 % C**	Non-ACM per NESHAP	Good	1,000 SF
07	White Sink Undercoat	Kitchen Double Sink	White Undercoat – 5% C	Category II Non-Friable ACM	Good	1 Double Sink
08	White Texture and Joint Compound applied to Drywall Walls	Throughout (located mostly behind Wood Wall Paneling)	White Texture – 3% C Point Count – 1.5% - 1.75% C White Sheetrock – ANP White Joint Compound – 3% C	Friable	Good	2,100 SF
10	Gray Exterior Panels	Along the lower exterior perimeter of the entire residence	Gray Transite – 25% C	Category II Non-Friable ACM	Good	100 SF

HA	Description	Material Location	Percent/Type Asbestos	NESHAP Classification	Condition	Estimated Quantity*
11	White Exterior Window Caulk	Perimeter of exterior windows	White Caulk – 4% C	Category II Non-Friable ACM	Good	50 LF

*Quantities are estimates only.

** Point count analysis performed.

ANP = Asbestos Not Present

C = Chrysotile asbestos

SF = square feet

LF = linear feet

APPENDIX C

ASBESTOS LABORATORY ANALYTICAL REPORT



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 276838	Client: Terracon - Shreveport
Account Number: C065	Aaron Deglandon
Date Received: 02/27/2017	3007 Knight St. STE 101
Received By: Karen Braley	Shreveport, LA 71105
Date Analyzed: 03/04/2017	Project: H.001061
Analyzed By: Dee Ammerman	Project Location: Natchitoches, LA
Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-FC1-01	Layered	Brown Sheet Vinyl	Asbestos Not Present	Glass Fiber	5 CaCO3 Vinyl
001a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
001b		Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
001c		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
001d		Layered	Tan Sheet Vinyl	Asbestos Present Chrysotile 20	Cellulose	10 CaCO3 Vinyl
001e		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
001f		Layered	Cream Sheet Vinyl	Asbestos Not Present	Cellulose	20 CaCO3 Vinyl

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Analyzed By: Dee Ammerman	Project Location: Natchitoches, LA
Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
002	01-FC1-02	Layered	Brown Sheet Vinyl	Asbestos Not Present	Glass Fiber	5 CaCO3 Vinyl
002a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002b		Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
002c		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002d		Layered	Tan Sheet Vinyl	Asbestos Present Chrysotile 20	Cellulose	10 CaCO3 Vinyl
002e		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 276838	Client: Terracon - Shreveport
Account Number: C065	Aaron Deglandon
Date Received: 02/27/2017	3007 Knight St. STE 101
Received By: Karen Braley	Shreveport, LA 71105
Date Analyzed: 03/04/2017	Project: H.001061
Analyzed By: Dee Ammerman	Project Location: Natchitoches, LA
Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
002f		Layered	Cream Sheet Vinyl	Asbestos Not Present	Cellulose 20	CaCO3 Vinyl
003	01-FC1-03	Layered	Brown Sheet Vinyl	Asbestos Not Present	Glass Fiber 5	CaCO3 Vinyl
003a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
003b		Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
003c		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
003d		Layered	Tan Sheet Vinyl	Asbestos Present Chrysotile 20	Cellulose 10	CaCO3 Vinyl
003e		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
003f		Layered	Cream Sheet Vinyl	Asbestos Not Present	Cellulose 20	CaCO3 Vinyl
004	02-FC1-04	Layered	Tan Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
004a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
004b		Layered	Black Backing	Asbestos Not Present	Cellulose 70	Tar
005	02-FC1-05	Layered	Tan Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
005a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Analyzed By: Dee Ammerman	Project Location: Natchitoches, LA
Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
005b		Layered	Black Backing	Asbestos Not Present	Cellulose 70	Tar
006	02-FC1-06	Layered	Tan Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
006a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
006b		Layered	Black Backing	Asbestos Not Present	Cellulose 70	Tar
007	03-FC1-07	Homogeneous	Tan Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
008	03-FC1-08	Homogeneous	Tan Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar

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Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 276838	Client: Terracon - Shreveport
Account Number: C065	Aaron Deglandon
Date Received: 02/27/2017	3007 Knight St. STE 101
Received By: Karen Braley	Shreveport, LA 71105
Date Analyzed: 03/04/2017	Project: H.001061
Analyzed By: Dee Ammerman	Project Location: Natchitoches, LA
Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
009	03-FC1-09	Homogeneous	Tan Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
010	04-CT5-10	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
010a		Layered	Tan Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
010b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
010c		Composite	Tan Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
010d		Composite	Tan Joint Compound / Sheetrock	Asbestos Present Chrysotile 0.50 400 Point Count	NA	

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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 276838	Client: Terracon - Shreveport
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Received By: Karen Braley	Shreveport, LA 71105
Date Analyzed: 03/04/2017	Project: H.001061
Analyzed By: Dee Ammerman	Project Location: Natchitoches, LA
Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
011	04-CT5-11	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
011a		Layered	Tan Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
011b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
011c		Composite	Tan Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
011d		Composite	Tan Joint Compound / Sheetrock	Asbestos Present Chrysotile 0.25 400 Point Count	NA	
012	04-CT5-12	Layered	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012a		Layered	Tan Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
012b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
012c		Composite	Tan Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
012d		Composite	Tan Joint Compound / Sheetrock	Asbestos Present Chrysotile 0.25 400 Point Count	NA	
013	05-WB4-13	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Paint
013a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
014	05-WB4-14	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Paint
014a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
015	05-WB4-15	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Paint
015a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
016	06-FT5-16	Layered	White Ceramic Tile	Asbestos Not Present	NA	Clay Sand
016a		Layered	Brown Grout	Asbestos Not Present	NA	CaCO3 Sand
017	06-FT5-17	Layered	White Ceramic Tile	Asbestos Not Present	NA	Clay Sand

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
017a		Layered	Brown Grout	Asbestos Not Present	NA	CaCO3 Sand
018	06-FT5-18	Layered	White Ceramic Tile	Asbestos Not Present	NA	Clay Sand
018a		Layered	Brown Grout	Asbestos Not Present	NA	CaCO3 Sand
019	07-SC6-19	Homogeneous	White Under Sink Coating	Asbestos Present Chrysotile 5	NA	CaCO3 Gypsum
020	07-SC6-20	Homogeneous	White Under Sink Coating	Asbestos Present Chrysotile 5	NA	CaCO3 Gypsum
021	07-SC6-21	Homogeneous	White Under Sink Coating	Asbestos Present Chrysotile 5	NA	CaCO3 Gypsum

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
022	08-WB1-22	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
022a		Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
022b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
023	08-WB1-23	Layered	White Texture	Asbestos Present Chrysotile 3	NA	CaCO3 Paint
023a		Layered	White Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
023b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
023c		Layered	White Texture	Asbestos Present Chrysotile 1.50 400 Point Count	NA	

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
024	08-WB1-24	Layered	White Texture	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
024a		Layered	White Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
024b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
024c		Layered	White Texture	Asbestos Present Chrysotile 1.75 400 Point Count	NA	
025	09-CP4-25	Homogeneous	Gray Siding	Asbestos Not Present	Cellulose 60	CaCO3 Sand Tar
026	09-CP4-26	Homogeneous	Gray Siding	Asbestos Not Present	Cellulose 60	CaCO3 Sand Tar

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
027	09-CP4-27	Homogeneous	Gray Siding	Asbestos Not Present	Cellulose 60	CaCO3 Sand Tar
028	10-CP1-28	Homogeneous	Gray Transite	Asbestos Present Chrysotile 25	NA	CaCO3 Binder
029	10-CP1-29	Homogeneous	Gray Transite	Asbestos Present Chrysotile 25	NA	CaCO3 Binder
030	10-CP1-30	Homogeneous	Gray Transite	Asbestos Present Chrysotile 25	NA	CaCO3 Binder
031	11-CA1-31	Homogeneous	White Caulk	Asbestos Present Chrysotile 4	NA	CaCO3
032	11-CA1-32	Homogeneous	White Caulk	Asbestos Present Chrysotile 4	NA	CaCO3

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
033	11-CA1-33	Homogeneous	White Caulk	Asbestos Present Chrysotile 4	NA	CaCO3
034	12-RF3-34	Layered	Gray Shingle	Asbestos Not Present	Glass Fiber 25	Tar Sand
034a		Layered	Brown Shingle	Asbestos Not Present	Glass Fiber 25	Tar Sand
034b		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 70	Tar
035	12-RF3-35	Layered	Gray Shingle	Asbestos Not Present	Glass Fiber 25	Tar Sand
035a		Layered	Brown Shingle	Asbestos Not Present	Glass Fiber 25	Tar Sand
035b		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 70	Tar

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Methodology: EPA/600/R-93/116	Project Number: BB177014, REVISED

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
036	12-RF3-36	Layered	Gray Shingle	Asbestos Not Present	Glass Fiber 25	Tar Sand
036a		Layered	Brown Shingle	Asbestos Not Present	Glass Fiber 25	Tar Sand
036b		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 70	Tar

Revised 3/13/2017

Dee Ammerman, Analyst

3/13/2017

Date of Report

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