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Apex Project Number 0120-17

February 10, 2020

Mr. Jeff Tillerson
City of Spartanburg
440 South Church Street, Suite B
Spartanburg, SC 29306

Reference: Asbestos Reassessment and Lead-Based Paint Services
124 Georgia Street
Spartanburg, South Carolina 29306

Dear Mr. Tillerson:

Apex Environmental Management, Inc. (Apex) has completed the asbestos reassessment survey at the above-referenced property. The survey consisted of a reassessment of the residence in accordance with National Emission Standard for Hazardous Air Pollutants (NESHAP) and the South Carolina Department of Health and Environmental Control (SC DHEC) which requires the identification of friable ACM and non-friable ACM likely to become friable during demolition and/or renovation activities. Furthermore, according to NESHAP and SC DHEC the building inspection shall have been performed no earlier than three years prior to the renovation or demolition, or, if more than three years have elapsed since the most recent inspection, the previous inspection shall be confirmed and verified by a licensed asbestos building inspector or management planner.

The residence was previously assessed on July 15, 2016 by Apex. A copy of the previous report is provided at the conclusion of this report. Included in this report is a summary of our field activities and the information obtained. The objectives of the survey included the following:

SCOPE OF THE SURVEY

The objectives of the asbestos assessment included the following:

- Review of existing asbestos documentation.
- Asbestos reassessment by a South Carolina accredited inspector.
- Documentation of current condition, friability and location of identified asbestos containing materials, identification and sampling of previously unidentified suspect materials and documentation of abatement of asbestos materials.
- Laboratory analysis of newly identified materials, if observed, by a NVLAP accredited laboratory.
- Presenting the results in a report identifying confirmed ACMs.

METHODS

Apex conducted a visual evaluation of the residence located at 124 Georgia Street in Spartanburg, South Carolina. The previous report was utilized to note which materials were previously identified as asbestos containing and note presence and/or current condition. The asbestos assessment was performed by Mr. Ted Shultz (SC inspector license # BI-00971, exp. 01/16/2020) on January 7, 2020. Apex was not required to perform additional sampling.

RESULTS

Asbestos Results

The EPA defines an asbestos-containing material (ACM) as a material containing more than 1% asbestos. OSHA defines ACM as a material containing detectable amounts of asbestos. A specific *PLM and TEM Data Table* is included with the previous report in Appendix I and identifies positive materials and designates approximate quantities.

Portions of the residence have collapsed floors or floors that are collapsing. These areas were fully assessed, however, if additional suspect ACM should be discovered during demolition activities, Apex recommends that work activities stop until the suspect building materials may be sampled and analyzed.

Suspect asbestos containing materials that were identified to be asbestos containing include:

- Approximately 15 SF of self-stick tile under linoleum and wood in the bathroom.
- Approximately 6 LF of chimney caulk, assumed positive.

Lead Based Paint

OSHA does not recognize a threshold level of lead for definition purposes, only the presence or absence of lead. The current OSHA regulations recognize an airborne action level of thirty micrograms per cubic meter (30 $\mu\text{g}/\text{m}^3$) during an eight-hour workday and a permissible exposure level of fifty micrograms per cubic meter (50 $\mu\text{g}/\text{m}^3$) for employees.

Currently, EPA defines LBP as paint containing in excess of, or equal to, 1.0 mg/cm². *XRF LBP Data Sheets* providing XRF results for testing combinations can be found in the Appendices at the conclusion of this report. Paint-chip sampling was not required for XRF inconclusive values.

Several surfaces in the building tested positive for lead in excess of the regulatory definition:

Exterior:

- White concrete porch column base.
- Grey wooden porch ceiling & siding.
- White wood window casing.
- Grey concrete front steps

Interior:

- No LBP was identified in the sampled areas.

RECOMMENDATIONS AND DISCUSSION

Asbestos Containing Materials

If the above referenced asbestos materials are to be disturbed by renovations or demolition, the asbestos must be removed in accordance with EPA, State of South Carolina and OSHA asbestos regulations. The State of South Carolina, Department of Health and Environmental Control (DHEC) has specific regulations that must be adhered to during asbestos removal/abatement projects.

APEX recommends the following:

1. Abate the asbestos containing materials in the structure prior to renovation or demolition.
2. Follow applicable asbestos regulations during renovation or demolition of the structure. You should be aware that stringent requirements are imposed upon anyone renovating or demolishing a structure in which ACM will be disturbed. This work must be performed in accordance with OSHA asbestos regulations, 29 CFR 1910 & 1926, and NESHAP asbestos regulations 40 CFR 61, subpart M. South Carolina regulations require the accreditation of personnel who work in the asbestos field and notification and permitting fees for asbestos removal projects. There is a 10-working day notification period required prior to abatement of asbestos in a facility. Failure to take proper precautions and actions to protect human health and the environment can result in penalties, danger to personnel, and construction delays.

Lead-Based Paint

Currently the Environmental Protection Agency (EPA) define LBP as paint containing greater than 1.0 milligrams per square centimeter (mg/cm²) lead or in excess of, or equal to, 0.5 percent lead. Building materials identified as being painted with LBP should be segregated from the other building materials and recycled or disposed of in a municipal lined landfill. The removed wastes would need to be containerized and further tested by Toxic Characteristic Leaching procedures (TCLP) to determine if the waste is classified as hazardous. The remaining building materials that are not painted with LBP may be disposed of in a construction and demolition landfill. However, the landfills should be contacted to determine their specific disposal requirements.

Occupational Safety and Health Administration Lead Regulations apply to actions initiated on lead containing materials. This regulation applies to lead concentrations greater than the analytical limit of detection. This regulation sets exposure levels on airborne lead and does not reference the percent lead in paint. Therefore, initial personal air monitoring should be conducted on workers performing work on surfaces which have a lead concentration of 0.1 mg/cm² or above to satisfy the OSHA requirements. If a baseline exposure lower than the OSHA Action Level of 30 micrograms per cubic meter (µg/m³) is established, personal air monitoring may be terminated. The full OSHA lead standard should be referenced for compliance.

A copy of this report must be submitted to SCDHEC at least ten (10) working days prior to demolition when applying for a demolition permit.

*Report of Asbestos Reassessment
124 Georgia Street
Spartanburg, SC 29306
February 10, 2020*

CLOSING

Apex appreciates the opportunity to provide you with our asbestos consulting services and looks forward to our continued association. If you have any questions about this report or any other industrial hygiene concerns please contact us at (864) 404-3210.

Sincerely,
Apex Environmental Management, Inc.



Tom Oliver
Vice President

Appendix I: Previous Asbestos Inspection Report
Appendix II: SC DHEC Asbestos Inspector License

Appendix I

Previous Asbestos Inspection Report



Asbestos & Lead Based Paint Assessment

City of Spartanburg
124 Georgia Street
Spartanburg, South Carolina

Prepared for:

The City of Spartanburg
440 South Church Street, Suite B
Spartanburg, SC 29306-5234

Prepared by:

Apex Environmental Management, Inc.
7 Winchester Court
Mauldin, South Carolina 29662

Project Number: 0815-163

August 4, 2015





Apex Project Number 0815-163

August 4, 2016

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Mr. Lynn Coggins
City of Spartanburg
440 South Church Street, Suite B
Spartanburg, SC 29306-5234

Reference: Asbestos and Lead-Based Paint Assessment Services
124 Georgia Street
Spartanburg, South Carolina

SERVICES

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Dear Mr. Coggins:

Apex Environmental Management, Inc. (Apex) is pleased to provide the results of our assessment services for the referenced property.

This report and the associated attachments summarize our evaluation of the conditions observed at the project site. The findings presented by Apex are based upon sampling performed in the subject building. There is a chance that undetected ACM may exist in the building between walls or in other areas that would only be exposed during demolition or structural renovations. Should material be discovered that could potentially contain asbestos during the demolition process, additional samples of the material should be collected by a licensed asbestos inspector and submitted to an accredited laboratory for analytical interpretation. Our recommendations are based on the guidelines presented in EPA and/or OSHA regulations.

Please note that this document is not a specification for asbestos removal. It does not contain means and methods for abatement. Quantities are estimates and contractors must verify amounts prior to bidding or removal. If you are planning an abatement project, please contact Apex to discuss the requirements. Use of this document without the express written consent of Apex is at the sole risk of the user and or/abatement contractor.

The conclusions and/or recommendations contained in this report are based on our understanding of the applicable standards at the time this report was prepared. No warranty, expressed or implied, is made. If you have any questions please feel free to contact us at (864) 404-3210.

Respectfully submitted,
APEX ENVIRONMENTAL MANAGEMENT, INC.

Nick Neerhof
Project Manager

Thomas Oliver
Director of Operations

Appendices

ASBESTOS AND LEAD BASED PAINT ASSESSMENT

**CITY OF SPARTANBURG
124 GEORGIA STREET
SPARTANBURG, SOUTH CAROLINA**

APEX PROJECT NO. 0815-163

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SECTION I

Asbestos & Lead Evaluation Report

ASBESTOS/LEAD EVALUATION REPORT
APEX PROJECT NUMBER: 0815-163

Date:	8/11/2016	Page Number:	1 of 4
Client:	City of Spartanburg	Client Contact:	Mr. Lynn Coggins
Client Address:	440 South Church St., Suite B Spartanburg, SC 29306-5234	Client Phone Number:	(864) 596-2914
Project:	Asbestos and Lead Evaluation		
Property Address:	124 Georgia Street Spartanburg, SC		
Assessor:	Ted Shultz	Date of Assessment:	7/15/2016
Company:	Apex Environmental Management 7 Winchester Court Mauldin, SC 29662	Phone Number:	
Purpose of Assessment:	Demolition	Age of Structure:	+50
Building Type:	Residential	Number of Stories:	1
Foundation:	Block	Approximate Square Footage:	820 SF

EXTERIOR BUILDING MATERIALS

- Wood siding
- Pitched wooden roof with metal shingles and four layers of different kinds of shingles and one layer of felt underneath
- Wood windows with glazing
- One chimney, caulk is assumed positive

INTERIOR BUILDING MATERIALS

- Wood Ceilings and walls
- Plaster with skim coat
- Drywall with joint compound
- Linoleum under wood
- Multiple types and layers of self-stick vinyl flooring
- Wood doors

SCOPE OF THE SURVEY

The objectives of the asbestos and lead assessment included the following:

- Identification of suspect asbestos-containing material (ACM) and lead based paints (LBP) in readily observable locations. Limited demolition of building finishes was conducted.
- Asbestos survey with sample collection by a South Carolina accredited inspector.
- Suspect ACM analysis by polarized light microscopy (PLM) utilizing EMSL Analytical (EMSL) as an NVLAP certified laboratory, their accreditation number is 200841-0.
- Transmission electron microscopy (TEM) analysis of non-friable organically bound materials suspected to contain asbestos and testing negatively by PLM analysis.
- Lead inspection by a lead inspector certified by the Environmental Protection Agency and licensed to conduct LBP surveys in South Carolina.
- In situ analysis of suspected lead based paints by X-ray fluorescence (XRF).
- Presenting the results in a report identifying confirmed ACMs and LBPs.

METHODS

Asbestos Containing Materials

In order to determine if the suspect materials observed during the visual survey contained asbestos, representative bulk samples were collected and placed in sealed packages. Twenty-one (21) bulk samples were collected during the survey and submitted to EMSL in Charlotte, North Carolina for analysis using the EPA recommended method of Polarized Light Microscopy (PLM) coupled with dispersion staining (Method No. EPA 600/M4-82-020, Dec. 1982). CEI participates in the National Voluntary Laboratory Accreditation Program (NVLAP). Their NVLAP accreditation number is 101768-0. EPA regulations require that multiple samples of each homogeneous material be collected for laboratory analysis. In accordance with South Carolina Regulation 61-86.1, non-friable organically bound materials that are reported to be non-asbestos containing by PLM analysis must also be analyzed by Transmission Electron Microscopy (TEM). Ten (10) samples were analyzed using TEM.

Lead-Based Paint

Lead painted surfaces were analyzed in place using X-ray fluorescence. Painted surfaces were selected based on color of topcoat, underlying layers and substrate on which it was painted.

RESULTS

Asbestos Containing Materials

The EPA defines an asbestos-containing material (ACM) as a material containing more than 1% asbestos. OSHA defines ACM as a material containing any amount of asbestos. The *Asbestos PLM & TEM Data Table* is provided in Appendix II. Portions of the residence have collapsed floors or floors that are collapsing. These areas were fully assessed, however, if additional suspect ACM should be discovered during demolition activities, Apex recommends that work activities stop until the suspect building materials may be sampled and analyzed.

Suspect asbestos containing materials that were identified to be asbestos containing include:

- Approximately 15 SF of self-stick tile under linoleum and wood in the bathroom.
- Approximately 6 LF of chimney caulk, assumed positive.

Lead Based Paint

OSHA does not recognize a threshold level of lead for definition purposes, only the presence or absence of lead. The current OSHA regulations recognize an airborne action level of thirty micrograms per cubic meter ($30 \mu\text{g}/\text{m}^3$) during an eight-hour workday and a permissible exposure level of fifty micrograms per cubic meter ($50 \mu\text{g}/\text{m}^3$) for employees.

Currently, SCDHEC defines LBP as paint containing in excess of, or equal to, $1.0 \text{ mg}/\text{cm}^2$. The laboratory analytical results and chain-of-custody are included in the Lead Analysis Reports in Appendix A. The approximate locations of the paint samples collected and analytical results are presented in the Tables included with this report .

Several surfaces in the building tested positive for lead in excess of the regulatory definition:

- Exterior porch white wooden siding.
- Exterior porch white wooden column.
- Exterior porch white wooden beam.
- Interior front right room grey wooden ceiling.

RECOMMENDATIONS AND DISCUSSION

Asbestos Containing Materials

If the above referenced asbestos materials are to be disturbed by renovations or demolition, the asbestos must be removed in accordance with EPA, State of South Carolina and OSHA asbestos regulations. The State of South Carolina, Department of Health and Environmental Control (DHEC) has specific regulations that must be adhered to during asbestos removal/abatement projects.

Apex recommends the following:

1. Abate the asbestos containing materials in the structure prior to renovation or demolition.
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Lead Based Paint

Currently the South Carolina Department of Health and Environmental Control (SCDHEC) define LBP as paint containing greater than 1.0 milligrams per square centimeter (mg/cm²) lead or in excess of, or equal to, 0.5 percent lead. Building materials identified as being painted with LBP should be segregated from the other building materials and recycled or disposed of in a municipal lined landfill. The removed wastes would need to be containerized and further tested by Toxic Characteristic Leaching procedures (TCLP) to determine if the waste is classified as hazardous. The remaining building materials that are not painted with LBP may be disposed of in a construction and demolition landfill. However, the landfills should be contacted to determine their specific disposal requirements.

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A copy of this report must be submitted to SCDHEC at least ten (10) working days prior to demolition when applying for a demolition permit.

SECTION II

Tables

ASBESTOS SURVEY FIELD DATA SHEET

Project Name: COS 124 Georgia Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 124 Georgia Street, Spartanburg SC

Project Manager: Ted Shultz

Project Number: 0815-163

Date: 7/15/2016

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Kitchen	Two layers of self stick tile under wood	PLM - NAD	Non-Friable	Good	180 SF
2			TEM - NAD			
3						
4	Bathroom	Three layers of self stick tile, under linoleum and wood	PLM - Red Flooring - 5% Chrysotile	Non-Friable	Good	15 SF
5			TEM - NAD (mastic)			
6						
7	Back Room	Green Sheet Flooring	PLM - NAD	Non-Friable	Good	83 SF
8			TEM - NAD			
9						
10	Left Room	Plaster	PLM - NAD	Friable	Good	500 SF
11						
12						
13	Back Room	Drywall with joint compound	PLM - NAD	Friable	Good	210 SF
14						
15						
16	Exterior	Window Glazing	PLM - NAD	Non-Friable	Good	13 EA
17			TEM - NAD			
18						
19	Exterior	Shingles(4) and Felt(1)	PLM - NAD	Non-Friable	Good	1,250 SF
20			TEM - NAD			
21						
Assumed	Chimney	Chimney mastic on 1 chimney	Assumed	Non-Friable	Good	6 LF

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Bold = Positive For Asbestos

SF = Square Feet

FIELD DATA SHEET LBP ANALYSIS

Project Name: COS 124 Georgia Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 124 Georgia Street Spartanburg SC

Project Manager: Ted Shultz

Project Number: 0815-163

Date: 7/26/2016

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/m ³)
117	Porch	Siding	White	Wood	4.06
118	Porch	Column	White	Wood	2.89
119	Porch	Floor	Grey	Wood	0.02
120	Porch	Beam	White	Wood	Insufficient
121	Porch	Beam	White	Wood	2.59
122	Front right room	xrf - dead battery restart	Purple	Plaster	Fail
123	Test				1.08
124	Test				1.12
125	Test				0.96
126	Front right room	Wall	Purple	Plaster	0.00
127	Front right room	Ceiling	Blue	Wood	Abort
128	Front right room	Door frame	Tan	Wood	0.08
129	Front left room	Wall paneling	Blue	Wood	0.00
130	Front left room	Bead board	White	Wood	0.80
131	Front right room	Ceiling	Grey	Wood	4.33

Bold is Lead Based Paint

SECTION III

Laboratory Analytical Results



EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411605613

Customer ID: AXEM25

Customer PO:

Project ID:

Attention: Ted Shultz
Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

Phone: (803) 348-4921

Fax:

Received Date: 07/19/2016 9:45 AM

Analysis Date: 07/21/2016

Collected Date:

Project: 124 Georgia St./ 0815-163

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
1-Brown Flooring <small>411605613-0001</small>	Kitchen - Two Layers of Self Stick Tile under Wood	Brown Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
1-Gray Flooring <small>411605613-0001A</small>	Kitchen - Two Layers of Self Stick Tile under Wood	Gray Non-Fibrous Homogeneous	2% Cellulose	30% Ca Carbonate 68% Non-fibrous (Other)	None Detected
2-Brown Flooring <small>411605613-0002</small>	Kitchen - Two Layers of Self Stick Tile under Wood	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
2-Gray Flooring <small>411605613-0002A</small>	Kitchen - Two Layers of Self Stick Tile under Wood	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
4-Brown Flooring <small>411605613-0003</small>	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	Brown Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4-Gray Flooring <small>411605613-0003A</small>	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	Gray/Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
4-Red Flooring <small>411605613-0003B</small>	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	White/Red Fibrous Homogeneous	8% Cellulose	87% Non-fibrous (Other)	5% Chrysotile
5-Brown Flooring <small>411605613-0004</small>	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
5-Gray Flooring <small>411605613-0004A</small>	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	Gray Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
5-Red Flooring <small>411605613-0004B</small>	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood				Positive Stop (Not Analyzed)
7 <small>411605613-0005</small>	Back Room - Green Sheet Flooring	Green Fibrous Homogeneous	50% Cellulose 5% Synthetic	45% Non-fibrous (Other)	None Detected
8 <small>411605613-0006</small>	Back Room - Green Sheet Flooring	Green Fibrous Homogeneous	45% Cellulose 5% Synthetic	50% Non-fibrous (Other)	None Detected
10-Skim Coat <small>411605613-0007</small>	Left Room - Plaster	White Non-Fibrous Homogeneous		5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
10-Rough Coat <small>411605613-0007A</small>	Left Room - Plaster	Beige Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected

Initial Report From: 07/22/2016 08:05:26



EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411605613
Customer ID: AXEM25
Customer PO:
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
11-Skim Coat <i>411605613-0008</i>	Left Room - Plaster	White Non-Fibrous Homogeneous		5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
11-Rough Coat <i>411605613-0008A</i>	Left Room - Plaster	Beige Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
12-Skim Coat <i>411605613-0009</i>	Left Room - Plaster	White Non-Fibrous Homogeneous		8% Quartz 5% Ca Carbonate 87% Non-fibrous (Other)	None Detected
12-Rough Coat <i>411605613-0009A</i>	Left Room - Plaster	Gray Non-Fibrous Homogeneous	1% Cellulose	35% Ca Carbonate 64% Non-fibrous (Other)	None Detected
13-Drywall <i>411605613-0010</i> <i>No joint compound present</i>	Back Room - Drywall with Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
14-Drywall <i>411605613-0011</i> <i>No joint compound present</i>	Back Room - Drywall with Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
15-Drywall <i>411605613-0012</i> <i>No joint compound present</i>	Back Room - Drywall with Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16 <i>411605613-0013</i>	Exterior - Window Glazing	Gray Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
17 <i>411605613-0014</i>	Exterior - Window Glazing	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
19-Green Shingle <i>411605613-0015</i> <i>No felt present</i>	Exterior Roof - Shingles (4) and Felt (1)	Black/Green Fibrous Homogeneous	25% Cellulose 2% Synthetic	5% Quartz 68% Non-fibrous (Other)	None Detected
19-White Shingle <i>411605613-0015A</i>	Exterior Roof - Shingles (4) and Felt (1)	White/Black Fibrous Homogeneous	25% Cellulose	8% Quartz 67% Non-fibrous (Other)	None Detected
19-Gray Shingle <i>411605613-0015B</i>	Exterior Roof - Shingles (4) and Felt (1)	Gray/Black Fibrous Homogeneous	35% Cellulose 3% Synthetic	5% Quartz 57% Non-fibrous (Other)	None Detected
19-Black Shingle <i>411605613-0015C</i>	Exterior Roof - Shingles (4) and Felt (1)	Black Fibrous Homogeneous	30% Cellulose 3% Synthetic	5% Quartz 62% Non-fibrous (Other)	None Detected
20-Green Shingle <i>411605613-0016</i> <i>No felt present</i>	Exterior Roof - Shingles (4) and Felt (1)	Green Fibrous Homogeneous	20% Cellulose 1% Synthetic	79% Non-fibrous (Other)	None Detected
20-White Shingle <i>411605613-0016A</i>	Exterior Roof - Shingles (4) and Felt (1)	White Fibrous Homogeneous	20% Cellulose	5% Quartz 75% Non-fibrous (Other)	None Detected
20-Gray Shingle <i>411605613-0016B</i>	Exterior Roof - Shingles (4) and Felt (1)	Gray Fibrous Homogeneous	20% Cellulose 2% Synthetic	78% Non-fibrous (Other)	None Detected
20-Black Shingle <i>411605613-0016C</i>	Exterior Roof - Shingles (4) and Felt (1)	Black Fibrous Homogeneous	15% Cellulose 2% Synthetic	83% Non-fibrous (Other)	None Detected

Initial Report From: 07/22/2016 08:05:26



EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411605613

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (17)

Eric Loomis (1)

Lytterra Barrow (12)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported 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. 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. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Charlotte, NC NVLAP Lab Code 200841-0, VA 3333 00312

Initial Report From: 07/22/2016 08:05:26

**EMSL Analytical, Inc.**

376 Crompton Street, Charlotte, NC 28273
 Phone/Fax: (704) 525-2205 / (704) 525-2382
<http://www.EMSL.com> charlottelab@emsl.com

EMSL Order: 411605613
 CustomerID: AXEM25
 CustomerPO:
 ProjectID:

Attn: **Ted Shultz**
Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

Phone: (864) 640-5274
 Fax:
 Received: 07/22/16 9:10 AM
 Analysis Date: 7/26/2016
 Collected:

Project: 124 Georgia St./ 0815-163

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM
via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
3-Brown Flooring 411605613-0017	Kitchen - Two Layers of Self Stick Tile under Wood	Brown/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
3-Gray Flooring 411605613-0018	Kitchen - Two Layers of Self Stick Tile under Wood	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
6-Brown Flooring 411605613-0019	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	Brown/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
6-Gray Flooring 411605613-0020	Bathroom - Three Layers of Self Stick Tile with Linoleum under Wood	Gray/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
9 411605613-0021	Back Room - Green Sheet Flooring	Red/Black/Green Fibrous Heterogeneous	99.7	0.30 Fibrous (other)	No Asbestos Detected
18 411605613-0022	Exterior - Window Glazing	Gray/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
21-Green Shingle 411605613-0023	Exterior Roof - Shingles (4) and Felt (1)	Black/Green Fibrous Heterogeneous	100	None	No Asbestos Detected
21-White Shingle 411605613-0024	Exterior Roof - Shingles (4) and Felt (1)	White/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
21-Gray Shingle 411605613-0025	Exterior Roof - Shingles (4) and Felt (1)	Gray/Black Fibrous Heterogeneous	99.7	0.27 Fibrous (other)	No Asbestos Detected

Analyst(s)
 Aaron Hartley (10)

Lee Plumley, Laboratory Manager
 or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
 Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from 07/27/2016 08:23:14



EMSL Analytical, Inc.

376 Crompton Street, Charlotte, NC 28273
Phone/Fax: (704) 525-2205 / (704) 525-2382
<http://www.EMSL.com> charlottelab@emsl.com

EMSL Order: 411605613
CustomerID: AXEM25
CustomerPO:
ProjectID:

Attn: **Ted Shultz**
Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

Phone: (864) 640-5274
Fax:
Received: 07/22/16 9:10 AM
Analysis Date: 7/26/2016
Collected:

Project: 124 Georgia St./ 0815-163

**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM
via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
21-Black Shingle 411605613-0026	Exterior Roof - Shingles (4) and Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s) _____
Aaron Hartley (10)

Lee Plumley, Laboratory Manager
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from 07/27/2016 08:23:14

411605613



107 New Edition Court, Cary, NC 27511
 Tel: 866-481-1412; Fax: 919-481-1442

CHAIN OF CUSTODY

LAB USE ONLY:
CEI Lab Code:
CEI Lab I.D. Range:

COMPANY CONTACT INFORMATION	
Company: Apex Environmental Management	Client #:
Address: 7 Winchester Court	Job Contact: Ted Shultz
Mauldin, SC 29662	Email: tshultz@apex-ehs
	Tel: 864-404-3210
Project Name: 124 Georgia St	Fax:
Project ID #: 0815-163	P.O. #:

ASBESTOS	METHOD	4 HR*	8 HR*	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAVIMETRIC	EPA 600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

POSITIVE STOP ANALYSIS	<input checked="" type="checkbox"/>
SOUTH CAROLINA SAMPLES	<input checked="" type="checkbox"/>

TEM INSTRUCTIONS	
BEGIN TEM ANALYSIS AFTER NEGATIVE PLM	<input checked="" type="checkbox"/>
ANALYZE TEM SAMPLES SIMULTANEOUSLY WITH PLM	<input type="checkbox"/>

REMARKS: If needed, combine samples from the same group to achieve sufficient weight for TEM analysis.

Accept Samples
 Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
Nick Neerhof	7/18/2016	Kyle Nelson	7/19/16 9:45AM
		EMSL FR 8989 8875 2066	

*Call to confirm RUSH analysis.

Samples will be disposed of 30 days after analysis

411605613



SAMPLING FORM

COMPANY CONTACT INFORMATION

Company: Apex Env. Mgmt.	Job Contact: Ted Shultz
Project Name: 124 Georgia St	
Project ID #: 0815-163	Tel:803-404-3210

SAMPLE ID#	DESCRIPTION / LOCATION	TEST	
1	Kitchen/ two layers of self stick tile under wood	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
2		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
3		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
4	Bathroom/ three layers of self stick tile with linoleum under wood	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
5		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
6		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
7	Back room/ Green sheet flooring	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
8		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
9		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
10	Left Room/ Plaster	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
11		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
12		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
13	Back room/ drywall with joint compound	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
14		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
15		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
16	Exterior/ Window Glazing	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
17		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
18		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
19	Exterior roof/ Shingles(4) and Felt(1)	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
20		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
21		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
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		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>

SECTION IV
Photographs



Photo 1 -- 124 Georgia Street Spartanburg, SC.



Photo 2 – Two layers of self-stick tile under wood in the kitchen.



Photo 3 – Three layers of self-stick tile, under linoleum and wood in the bathroom.



Photo 4 – Green sheet flooring in the back room.



Photo 5 – Plaster with skim coat walls in the left room.



Photo 6 – Drywall with joint compound in the back room.



Photo 7 - Window glazing on the exterior windows.



Photo 8 - Four layers of shingles and a layer of felt on the pitched wooden roof.

SECTION V

SC Asbestos Inspector License

**North Carolina
Asbestos Accreditation**



Tedman K Shultz
201 Cannon Circle
Greenville, SC 29607

110723

EXPIRATION			
02-28-2017			
DOB	SEX	HT	WT
03-16-1972	M	5'10"	270
CLASS		#	EXP
AIR MONITOR		80864	02-17
INSPECTOR		12900	01-17

SCDHEC ISSUED
Asbestos ID Card

Tedman K Shultz

Expiration Date



AIR SAMPLER AS-00355 02/02/17
CONSULT BI-00971 01/20/17

Appendix II

SC DHEC Asbestos Inspector License

SCDHEC ISSUED

Asbestos ID Card

Tedman K Shultz



CONSULTBI	BI-00971	01/14/21
AIRSAMPLER	AS-00355	03/06/20

Expiration Date:

#