



## **Asbestos & Lead Based Paint Assessment**

City of Spartanburg  
620 Humphrey Street  
Spartanburg, South Carolina

***Prepared for:***

The City of Spartanburg  
440 South Church St., Suite B  
Spartanburg, SC 29306

***Prepared by:***

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

Project Number: 0815-163

January 24, 2018





7 Winchester Court  
Mauldin, SC 29662  
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[www.apex-ehs.com](http://www.apex-ehs.com)

### SERVICES

- Indoor Air Quality
- Mold Remediation
- Asbestos & Lead
- Industrial Hygiene
- Worker Health & Safety
- Mold Consulting
- Moisture Management Plans
- Safety Assessment
- Environmental Site Assessments
- Hazard Communication

### Apex Project Number 0815-163

January 24, 2018

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

Reference: Asbestos and Lead-Based Paint Assessment Services  
620 Humphrey Street  
Spartanburg, South Carolina

Dear Mr. Tillerson:

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.**

Ted Shultz  
Project Manager  
Appendices

**ASBESTOS AND LEAD BASED PAINT ASSESSMENT**

**CITY OF SPARTANBURG  
620 HUMPHREY STREET  
SPARTANBURG, SOUTH CAROLINA**

**APEX PROJECT NO. 0815-163**

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**SECTION I**

**Asbestos & Lead Evaluation Report**

<b>ASBESTOS/LEAD EVALUATION REPORT</b> <b>APEX PROJECT NUMBER: 0815-163</b>
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Date:	1/24/2018	Page Number:	1 of 4
Client:	City of Spartanburg	Client Contact:	Mr. Jeff Tillerson
Client Address:	440 South Church Street Suite B Spartanburg, SC 29306	Client Phone Number:	(864) 596-2911
Project:	Asbestos and Lead Evaluation		
Property Address:	620 Humphrey Street Spartanburg, SC		
Assessor:	Ted Shultz	Date of Assessment:	11/21/2016
Company:	Apex Environmental Management 7 Winchester Court Mauldin, SC 29662	Phone Number:	(864) 404-3210
Purpose of Assessment:	Demolition	Age of Structure:	50+ years
Building Type:	Residential	Number of Stories:	1
Foundation:	Block	Approximate Square Footage:	1,100 SF

**EXTERIOR BUILDING MATERIALS**

- Pitched wooden roof with shingles and no felt.
- Rear porch with shingles and felt.
- Metal windows.
- One chimney with tar assumed.

**INTERIOR BUILDING MATERIALS**

- Wood floors.
- Panel walls.
- Drywall walls and ceilings.
- Multiple types and layers of flooring with and without mastic.
- Most of the ceiling has collapsed.
- Unstable flooring is some areas.

## 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 CEI Labs (CEI) as an NVLAP certified laboratory, their accreditation number is 101768-0.
- 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 (20) bulk samples were collected during the survey and submitted to CEI in Cary, 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 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 located in Appendix II of this report and identifies positive materials and designates approximate quantities.

Apex performed a full assessment within the residence at the time of the survey. During the assessment, a portion of the floors and ceilings were observed to be collapsed. Due to safety concerns during abatement activities and the feasibility of building a full containment due to the

condition of the residence, Apex recommends that the building be demolished in place and materials be treated and disposed of as friable ACM.

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

- Joint Compound.
- Window glazing.
- Chimney Caulk – assumed
- Approximately 1,100 SF of building materials and contaminated debris within the structure.

### 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

- White wooden back porch door frame.

#### Interior

- White sheet rock ceiling in the kitchen.

## **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. Demolish the residence with ACM in place and dispose of the waste stream as friable Regulated Asbestos Containing Materials (RACM) and delivered to an asbestos approved hazardous waste landfill for disposal.

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 South Carolina Department of Health and Environmental Control (SCDHEC) define LBP as paint containing greater than 1 milligram per square centimeter ( $\text{mg}/\text{cm}^2$ ) 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  $0.1 \text{ mg}/\text{cm}^2$  or above to satisfy the OSHA requirements. If a baseline exposure lower than the OSHA Action Level of 30 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) 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.**



**SECTION II**

**Asbestos & LBP Data Tables**

**ASBESTOS SURVEY FIELD DATA SHEET  
PLM & TEM ANALYSIS**

Project Name: COS 620 Humphrey Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 620 Humphrey Street, Spartanburg, SC

Project Manager: Ted Shultz

Project Number: 0815-163

Date: 11/21/2016

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	<b>Throughout ceilings and a quarter of the walls</b>	<b>Drywall, joint compound and tape</b>	<b>2% Chrysotile - Joint Compound</b>	<b>Friable</b>	<b>Damaged</b>	<b>800 SF</b>
2						
3						
4						
5						
6	Bathroom	12"x12" tan pattern self-stick flooring	PLM - NAD	Non-Friable	Good	35 SF
7			TEM - TBD			
8						
9	Kitchen	12"x12" beige flooring, grey roll vinyl with mastic	PLM - NAD	Friable	Damaged	100 SF
10			TEM - TBD			
11						
12	Rear porch	Roofing shingles (1 layer) and felt	PLM - NAD	Non-Friable	Damaged	50 SF
13			TEM - TBD			
14						
15	Main roof	Roofing shingles (2 layer) and felt	PLM - NAD	Non-Friable	Damaged	1,250 SF
16			TEM - TBD			
17						
18	<b>Windows</b>	<b>Window glazing</b>	<b>2% Chrysotile</b>	<b>Friable</b>	<b>Damaged</b>	<b>10 EA</b>
19						
20						
	<b>Chimney Mastic Assumed Positive</b>			<b>Non-Friable</b>	<b>Good</b>	<b>6 LF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

**Bold = Positive For Asbestos**

SF = Square Feet

TBD = To Be Determined

**FIELD DATA SHEET  
LBP XRF ANALYSIS**

Project Name: COS 620 Humphrey Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 620 Humphrey Street, Spartanburg, SC

Project Manager: Ted Shultz

Project Number: 0815-163

Date: 12/8/2016

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/m <sup>3</sup> )
52	Outside	Block/wall	White	Block	0.00
<b>53</b>	<b>Outside</b>	<b>Back porch door frame</b>	<b>White</b>	<b>Wood</b>	<b>1.53</b>
54	Kitchen	Cabinet	Tan	Wood	0.00
55	Kitchen	Window frame	Black	Metal	0.16
56	Kitchen	Door frame	White	Wood	0.00
<b>57</b>	<b>Kitchen</b>	<b>Ceiling</b>	<b>White</b>	<b>Sheet rock</b>	<b>1.57</b>
58	Living room	Wall	Tan	Sheet rock	0.00
59	Living room	Mantel	Red	Wood	0.13
60	Living room	Closet	Blue	Sheet rock	0.01

**SECTION III**

**Laboratory Analytical Results**



November 28, 2016

Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**CLIENT PROJECT:** COS 620 Humphrey St; 0815-163  
**CEI LAB CODE:** A16-9970

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on November 23, 2016. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

A handwritten signature in black ink, appearing to read "Tianbao Bai".

Tianbao Bai, Ph.D., CIH  
Laboratory Director





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**ASBESTOS ANALYTICAL REPORT**  
**By: Polarized Light Microscopy**

Prepared for

**Apex Environmental Management**

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CLIENT PROJECT: COS 620 Humphrey St; 0815-163

CEI LAB CODE: A16-9970

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 11/28/16

TOTAL SAMPLES ANALYZED: 10

# SAMPLES >1% ASBESTOS: 2

**TEL: 866-481-1412**

*[www.ceilabs.com](http://www.ceilabs.com)*



# Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: COS 620 Humphrey St; 0815-163

CEI LAB CODE: A16-9970

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
1	Layer 1	A2271176	Gray	Joint Compound	<b>Chrysotile 2%</b>
	Layer 2	A2271176	Gray,Tan	Drywall & Tape	None Detected
2		A2271177		Sample Not Analyzed per COC	
3		A2271178		Sample Not Analyzed per COC	
4		A2271179		Sample Not Analyzed per COC	
5		A2271180		Sample Not Analyzed per COC	
6		A2271181A	Tan	Tile	None Detected
		A2271181B	Clear	Mastic	None Detected
7		A2271182A	Tan	Tile	None Detected
		A2271182B	Clear	Mastic	None Detected
8		A2271183		Sample Submitted for TEM Analysis	
9		A2271184A	Beige	Tile	None Detected
		A2271184B	Clear	Mastic	None Detected
		A2271184C	Gray,Red	Vinyl	None Detected
10		A2271185A	Beige	Tile	None Detected
		A2271185B	Clear	Mastic	None Detected
		A2271185C	Gray,Red	Vinyl	None Detected
11		A2271186		Sample Submitted for TEM Analysis	
12	Layer 1	A2271187	Black	Shingle	None Detected
	Layer 2	A2271187	Black	Felt	None Detected
13	Layer 1	A2271188	Black	Shingle	None Detected
	Layer 2	A2271188	Black	Felt	None Detected
14		A2271189		Sample Submitted for TEM Analysis	
15	Layer 1	A2271190	Black	Shingle	None Detected
	Layer 2	A2271190	Black	Shingle	None Detected
	Layer 3	A2271190	Black	Felt	None Detected
16	Layer 1	A2271191	Black	Shingle	None Detected
	Layer 2	A2271191	Black	Shingle	None Detected
	Layer 3	A2271191	Black	Felt	None Detected



# Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: COS 620 Humphrey St; 0815-163

CEI LAB CODE: A16-9970

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METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
17		A2271192		Sample Submitted for TEM Analysis	
18		A2271193	Gray	Window Glazing	<b>Chrysotile 2%</b>
19		A2271194		Sample Not Analyzed per COC	
20		A2271195		Sample Not Analyzed per COC	





# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** Apex Environmental Management  
 7 Winchester Court  
 Mauldin, SC 29662

**CEI Lab Code:** A16-9970  
**Date Received:** 11-23-16  
**Date Analyzed:** 11-28-16  
**Date Reported:** 11-28-16

**Project:** COS 620 Humphrey St; 0815-163

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS		ASBESTOS %
			Fibrous	Non-Fibrous	
1 Layer 1 A2271176	Joint Compound	Heterogeneous	5%	Paint	<b>2% Chrysotile</b>
		Gray	35%	Calc Carb	
		Non-fibrous Bound	58%	Binder	
Layer 2 A2271176	Drywall & Tape	Heterogeneous Gray, Tan Fibrous Bound	20%	Cellulose 80% Gypsum	None Detected
2 A2271177	Sample Not Analyzed per COC				
3 A2271178	Sample Not Analyzed per COC				
4 A2271179	Sample Not Analyzed per COC				
5 A2271180	Sample Not Analyzed per COC				
6 A2271181A	Tile	Heterogeneous Tan Non-fibrous Bound	100%	Vinyl	None Detected
A2271181B	Mastic	Heterogeneous Clear Non-fibrous Bound	100%	Mastic	None Detected
7 A2271182A	Tile	Heterogeneous Tan Non-fibrous Bound	100%	Vinyl	None Detected



# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

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 7 Winchester Court  
 Mauldin, SC 29662

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**Date Reported:** 11-28-16

**Project:** COS 620 Humphrey St; 0815-163

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS			ASBESTOS %
			Fibrous		Non-Fibrous	
A2271182B	Mastic	Heterogeneous Clear Non-fibrous Bound	100%		Mastic	None Detected
<b>8</b> A2271183	Sample Submitted for TEM Analysis					
<b>9</b> A2271184A	Tile	Heterogeneous Beige Non-fibrous Bound	100%		Vinyl	None Detected
A2271184B	Mastic	Heterogeneous Clear Non-fibrous Bound	100%		Mastic	None Detected
A2271184C	Vinyl	Heterogeneous Gray,Red Non-fibrous Bound	40%	Cellulose	35% 25% Vinyl Vinyl	None Detected
<b>10</b> A2271185A	Tile	Heterogeneous Beige Non-fibrous Bound	100%		Vinyl	None Detected
A2271185B	Mastic	Heterogeneous Clear Non-fibrous Bound	100%		Mastic	None Detected
A2271185C	Vinyl	Heterogeneous Gray,Red Non-fibrous Bound	40%	Cellulose	35% 25% Vinyl Vinyl	None Detected



# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** Apex Environmental Management  
 7 Winchester Court  
 Mauldin, SC 29662

**CEI Lab Code:** A16-9970  
**Date Received:** 11-23-16  
**Date Analyzed:** 11-28-16  
**Date Reported:** 11-28-16

**Project:** COS 620 Humphrey St; 0815-163

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
<b>11</b> A2271186	Sample Submitted for TEM Analysis						
<b>12</b> Layer 1 A2271187	Shingle	Heterogeneous Black Fibrous Bound	45%	Fiberglass	15%	Gravel 40% Tar	None Detected
Layer 2 A2271187	Felt	Heterogeneous Black Fibrous Bound	70%	Cellulose	30%	Tar	None Detected
<b>13</b> Layer 1 A2271188	Shingle	Heterogeneous Black Fibrous Bound	45%	Fiberglass	15%	Gravel 40% Tar	None Detected
Layer 2 A2271188	Felt	Heterogeneous Black Fibrous Bound	70%	Cellulose	30%	Tar	None Detected
<b>14</b> A2271189	Sample Submitted for TEM Analysis						
<b>15</b> Layer 1 A2271190	Shingle	Heterogeneous Black Fibrous Bound	45%	Fiberglass	15%	Gravel 40% Tar	None Detected
Layer 2 A2271190	Shingle	Heterogeneous Black Fibrous Bound	45%	Cellulose	15%	Gravel 40% Tar	None Detected



# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** Apex Environmental Management  
 7 Winchester Court  
 Mauldin, SC 29662

**CEI Lab Code:** A16-9970  
**Date Received:** 11-23-16  
**Date Analyzed:** 11-28-16  
**Date Reported:** 11-28-16

**Project:** COS 620 Humphrey St; 0815-163

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
Layer 3 A2271190	Felt	Heterogeneous Black Fibrous Bound	70%	Cellulose	30%	Tar	None Detected
<b>16</b> Layer 1 A2271191	Shingle	Heterogeneous Black Fibrous Bound	45%	Fiberglass	15%	Gravel 40% Tar	None Detected
Layer 2 A2271191	Shingle	Heterogeneous Black Fibrous Bound	45%	Cellulose	15%	Gravel 40% Tar	None Detected
Layer 3 A2271191	Felt	Heterogeneous Black Fibrous Bound	70%	Cellulose	30%	Tar	None Detected
<b>17</b> A2271192	Sample Submitted for TEM Analysis						
<b>18</b> A2271193	Window Glazing	Heterogeneous Gray Fibrous Bound			5%	Paint 83% Binder 10% Silicates	<b>2% Chrysotile</b>
<b>19</b> A2271194	Sample Not Analyzed per COC						
<b>20</b> A2271195	Sample Not Analyzed per COC						



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**LEGEND:**    Non-Anth        = Non-Asbestiform Anthophyllite  
                 Non-Trem        = Non-Asbestiform Tremolite  
                 Calc Carb        = Calcium Carbonate

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**METHOD:** EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

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**LIMIT OF DETECTION:** <1% by visual estimation

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**REGULATORY LIMIT:** >1% by weight

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Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation.

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by CEI Labs, Inc. CEI Labs makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

**ANALYST:** Candace Burrus  
Candace Burrus

**APPROVED BY:** Tianbao Bai  
Tianbao Bai, Ph.D., CIH  
Laboratory Director





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

(26) A16-9970  
 A227 1176-  
 A227 1195

# 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: Rebecca Shultz
Mauldin, SC 29662	Email:
	Tel: 864-404-3210
Project Name: COS 620 Humphrey 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"/>	X	<input type="checkbox"/>
TEM BULK	CHATFIELD		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600		<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	X
SOUTH CAROLINA SAMPLES	X

TEM INSTRUCTIONS	
BEGIN TEM ANALYSIS AFTER NEGATIVE PLM	X
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.		<input checked="" type="checkbox"/> Accept Samples <input type="checkbox"/> Reject Samples	
<b>Relinquished By:</b>	<b>Date/Time</b>	<b>Received By:</b>	<b>Date/Time</b>
Rebecca Shultz	11/22/2016		11 23 16
			9:20

\* Call to confirm RUSH analysis. Samples will be disposed of 30 days after analysis



**SECTION IV**  
**Photographic Log**





Photo 1 – 620 Humphrey Street in Spartanburg, South Carolina.



Photo 2 – Drywall, joint compound and tape throughout the ceilings and a quarter of the walls.



Photo 3 – Roofing shingles and felt on the roof and chimney mastic assumed positive.



Photo 4 – Exterior windows with glazing.



Photo 5 – 12"x12" tan pattern self-stick flooring in the bathroom.



Photo 6 – Typical view of collapsed drywall, joint compound and tape ceiling.



Photo 7 – Drywall with joint compound and tape throughout the ceilings and a quarter of the walls.



Photo 8 – Typical view of collapsed and unstable flooring in portions of the residence.



Photo 9 – 12"x12" beige flooring over grey roll vinyl with mastic in the kitchen.



Photo 10 – Typical view of collapsed and unstable flooring in portions of the residence.

**SECTION V**

**SC DHEC 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**