



**Apex Project Number 0317-55**

June 14, 2017

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Martin L. Livingston, Jr., AICP, CPM  
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City of Spartanburg  
PO Box 1749  
Spartanburg, SC 29304

Reference: Asbestos Assessment Services  
Cammie Clagett Courts  
Phase 1 - 28 Buildings  
Highland Street Area  
Spartanburg, South Carolina

**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

Dear Mr. Livingston:

Apex Environmental Management, Inc. (Apex) has completed an asbestos containing materials assessment at the above-referenced property. The survey was limited in that demolition, such as jack/sledge hammering or cutting into walls, ceilings, floors, or structural members to expose possible concealed ACM was not performed. Included in this report is a summary of our field activities and the results obtained. Roof sampling was performed as part of this assessment. The objectives of the survey included the following:

- Identification of suspect asbestos-containing material (ACM) in readily observable locations. Limited demolition of building finishes was conducted in the building and associated exteriors included in the assessment.
- Asbestos survey with sample collection by South Carolina licensed inspectors.
- Suspect ACM analysis by polarized light microscopy (PLM) utilizing EMSL Analytical, Inc. (EMSL) 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.
- Presenting the results in a report identifying confirmed ACMs.

**PROJECT INFORMATION**

Cammie Clagett Courts is a residential apartment community located in the Highland Street area of Spartanburg, South Carolina. The original construction in the early 1970's includes the neighborhood administrative office and approximately fifty (50) residential apartment and duplex style buildings. Apex

was requested to perform asbestos assessment services on twenty-eight (28) residential buildings and the administrative office building during phase 1 of the above referenced project. The one story duplexes are one bedroom with one bathroom and each have the same layout. The apartment buildings include two story, two unit and four unit designs with a four bedroom and one and one half bathroom layout, and a three bedroom and one bathroom layout.

The administrative office building, which also served as the community center, is approximately 3,225 square feet including a pitched wooden roof with shingles and felt; and was built on a concrete slab foundation. The roofing system includes metal flashing with silicone caulk, grey putty, and black mastic on roof penetrations. Exterior walls are brick and mortar. Metal windows with glazing and caulk and metal doors with caulk exist on the exterior. The interior building materials consist of CMU block walls and drywall with joint compound and tape in the ceilings and office partition walls. Multiple types of cove base with mastic and multiple types of floor tile with mastic exist over concrete floors. Additionally, bathrooms contain ceramic tile with grout and caulk, and window caulk exists in the reception area. Tan HVAC tape exists on ducts above the ceiling.

Building # 8 was burned by the fire department as part of a training exercise. Due to safety concerns and structural damage no samples were collected from this building. It is assumed positive for asbestos and considered RACM (regulated asbestos containing materials).

The residential exterior building materials include caulks on the gable vents, windows and doors. The pitched wooden roofs and awnings consist of shingles, felt, black mastic, tar and paint on the roof penetrations, and caulk on the awnings/flashing. Black caulk found on the exterior windows is the same black caulk found on portions of the interior windows. Red wall penetration filler/mastic exists on the exterior brick walls and OSB board with felt backing is located beneath vinyl siding and brick.

Interior building materials within the duplex and apartment style residences include multiple types and layers of floor tile and mastic over concrete and beneath wood. Additionally, vinyl flooring with mastic exists above and beneath wood and beneath ceramic tile in a portion of the bathrooms. 12"x12" brown streaked floor tile with mastic exists beneath a top layer of 12"x12" tan speckled floor tile and mastic in most downstairs and one story portions of the residences. The majority portions of upstairs flooring consist of 12"x12" tan speckled floor tile with mastic over wood with 12"x12" brown streaked floor tile with mastic under wood. The CMU block walls do not contain filler, and bathroom walls and ceilings consist of plaster with finish over unfinished drywall. Portions of bathroom walls were thicker plaster with finish with no unfinished drywall beneath. Drywall with joint compound and tape exists throughout the interior of the residences. Portions of walls and ceilings contain drywall, joint compound and tape patches. Additionally, multiple types of caulk exist within the bathrooms, kitchens, windows, HVAC closets and portions of the doors. HVAC mastic and tape exists within the HVAC closets and on ducts above the ceiling. Kitchen double sinks contain white and black coatings and wall backsplashes with mastic exist within the residences.

## **METHODS**

Apex was requested to perform a limited asbestos assessment to identify asbestos-containing materials (ACM) which could be disturbed prior to or during scheduled demolition activities. The National Emission Standard for Hazardous Air Pollutants (NESHAP) requires the identification



of friable ACM and non-friable ACM likely to become friable during demolition and/or renovation activities. NESHAP requires that the identified ACM be removed prior to initiating activities likely to disturb the ACM.

As per AHERA regulations, bulk asbestos samples were collected from random locations of each homogeneous area, with the material's number of samples based upon the following criteria:

- Thermal Insulation Materials (piping, breeching, boiler insulation, etc.) – A minimum of three (3) samples are required. Only patch areas (less than 6 square or linear feet) may have one (1) sample collected.
- Surfacing Materials (plaster, fireproofing, sheetrock and joint compound, etc.) – A minimum of seven (7) samples are to be taken for areas greater than 5,000 square feet; five (5) for areas greater than 1,000 square feet, but less than 5,000 square feet; three (3) for areas less than 1,000 square feet.
- Miscellaneous Materials (flooring, adhesives, roofing, floor tiles, etc.) – A minimum of three (3) samples are required.
  - If samples of non-friable organically bound (NOB) materials were collected and reported by the laboratory to contain less than 1% asbestos by PLM, these materials were re-analyzed in accordance with SCDHEC requirements for NOB's by transmission electron microscopy (TEM).

The asbestos survey was performed by Mr. Tom Oliver (SC DHEC asbestos inspector license # BI-00680, exp. 01/18/2018), Mr. Ted Shultz (SC/DHEC inspector license # BI-00971, exp. 01/18/2018), Mr. Ben Oliver (SC/DHEC inspector license # BI-01528, exp. 03/22/2018) and Mr. Nicholas Neerhof (SC/DHEC inspector license # BI-01545, exp. 08/10/2017) on April 26<sup>th</sup> to May 12<sup>th</sup>, 2017. The survey consisted of observing the accessible areas throughout the interiors, exteriors and roofs of the Cammie Clagett Court administrative office and residential buildings that may potentially be disturbed during renovation/demolition activities for the presence of suspect materials which may contain asbestos. The survey involved detecting both friable materials (materials which can be crumbled, pulverized or reduced to a powder by hand pressure when dry) and non-friable materials (materials which pose a hazard when sawn, sanded, drilled or pulverized). Homogeneous materials (based on material type, color, texture, etc.) were identified in various functional spaces during the survey.

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. One thousand five hundred fifty-three (1,553) 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). EMSL participates in the National Voluntary Laboratory Accreditation Program (NVLAP). Their NVLAP accreditation number is 200841-0. Due to EPA regulations, samples are split into homogeneous layers and each layer is analyzed separately. One thousand nine hundred twenty-one (1,921) samples were analyzed due to layering by PLM and positive stop methods. 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). Five hundred thirty-seven

(537) samples were analyzed using TEM.

## RESULTS

The EPA defines an asbestos-containing material (ACM) as a material containing greater than 1% asbestos. OSHA defines ACM as a material containing any amount of asbestos. Multiple materials were analyzed to contain less than 1% asbestos and it should be noted that OSHA asbestos regulations will apply. The *Asbestos PLM & TEM Data Table* is provided in Appendix II.

The following materials identified to contain asbestos at greater than 1% include:

<b>Building # 7</b>			
<b>Units 201 &amp; 203 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
7-1 – 7-5	201 & 203 Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
7-17 – 7-19	203-Throughout except in 1/2 bathroom, HVAC closet & 2nd floor front bedroom	Mastic on 12" x 12" cream floor tile (bottom layer)	805 SF
7-32 – 7-34	Kitchen on double sinks	White sink coating	2 EA
Assumed	201-Throughout except in bathrooms & HVAC closet; 203-2nd floor front bedroom	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,150 SF

<b>Building # 8</b>			
<b>Units 521 &amp; 523 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
Assumed	Building/Debris Pile	Building/Debris Pile	2,800 SF

<b>Building # 9</b>			
<b>Units 517 &amp; 519 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
9-1 – 9-5	517 & 519 Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF
9-12 – 9-14	519-Living Room	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	150 SF
9-15 – 9-17	517 & 519-Throughout except in bathrooms & HVAC closets	Mastic on 12" x 12" tan speckled floor tile (top layer)	950 SF
9-24 – 9-26	Kitchen on double sinks	White Coating	2 EA
Assumed	517-Throughout except in kitchen, bathroom & HVAC closet; 519-throughout except living room, bathroom & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	635 SF

<b>Building # 10</b>			
<b>Units 513 &amp; 515 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
10-1 – 10-5	513 & 515 Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF
10-21 – 10-23	Kitchen on double sinks	White Coating	2 EA
Assumed	513 & 515-Throughout except for bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	950 SF

<b>Building # 11</b>			
<b>Units 509 &amp; 511 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
11-1 – 11-5	509 & 511 Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF

Assumed	509 & 511-Throughout except for bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	950 SF
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<b>Building # 12</b>			
<b>Units 501, 503, 505 &amp; 507 - Two Story, Three Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
12-1 – 12-7	501,503,505,507-Throughout Interior	Drywall with Joint Compound and Tape	12,000 SF
12-18 – 12-20	501 & 503-bathrooms; 505 & 507-kitchens	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	475 SF
12-21 – 12-23	507-2nd floor middle bedroom (1/2 of floor in checker pattern)	Mastic on 12" x 12" brown streaked floor tile (bottom layer)	950 SF
12-36 – 12-38	507 & 505-Kitchens (double sinks)	Black Coating	2 EA
Assumed	501, 503, 505 & 507-Throughout except bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	3,525 SF

<b>Building # 13</b>			
<b>Units 300, 302, 304 &amp; 306 - Two Story, Three Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
13-1 – 13-7	300,302,304,306- Throughout Interior	Drywall with Joint Compound and Tape	12,000 SF
13-20 – 13-22	302-2nd floor bathroom and hallway; 306-2nd floor bathroom	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	90 SF
Assumed	300-Throughout downstairs, 2nd floor back bedroom, bathroom & hallway; 302-throughout downstairs & 2nd floor middle bedroom; 304-throughout; 306-throughout except bathroom	12" x 12" brown streaked floor tile and mastic (bottom layer)	950 SF

<b>Building # 14</b>			
<b>Units 308, 310, 312 &amp; 314 - Two Story, Three Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
14-1 – 14-7	308,310,312,314- Throughout Interior	Drywall with Joint Compound and Tape	12,000 SF
14-29 – 14-31	310, 312 & 314-kitchens (double sinks)	White Coating	3 EA
Assumed	308, 310, 312 & 314- Throughout except bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	3,525 SF

<b>Building # 15</b>			
<b>Units 205, 207, 209 &amp; 211 - Two Story, Two and Three Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
15-1 – 15-7	205,207,209,211- Throughout Interior	Drywall with Joint Compound and Tape	12,000 SF
15-14 – 15-16	207, 209 & 211-Bathrooms	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	75 SF
15-29 – 15-31	205,207,209 & 211- Kitchens on double sinks	White Coating	4 EA
Assumed	205, 207, 209 & 211- Throughout except bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	3,025 SF

<b>Building # 16</b>			
<b>Units 525 &amp; 527 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
16-1 – 16-7	525 & 527 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF

16-14 – 16-16	525-Throughout 1st floor except in 1/2 bathroom & HVAC closet	Bottom mastic on 12" x 12" orange/yellow speckled floor tile (bottom layer)	480 SF
16-38 – 16-40	525 & 527-Kitchens on double sinks	White Coating	2 EA
Assumed	525-Throughout 2nd floor including bathroom; 527-throughout except bathrooms & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,480 SF

<b>Building # 17</b>			
<b>Units 529 &amp; 531 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
17-1 – 17-7	529 & 531 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
17-32 – 17-34	531-Kitchen Sink	Black Coating	1 EA
Assumed	529-Throughout except in bathrooms & HVAC closet; 531-Throughout except in 1/2 bathroom & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,985 SF

<b>Building # 18</b>			
<b>Units 533 &amp; 535 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
18-1 – 18-7	533 & 535 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
18-14 – 18-16	533-2nd floor middle bedroom; 535-throughout 1st floor except in 1/2 bathroom & HVAC closet	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	605 SF
18-17 – 18-19	533-Throughout 1st floor except in 1/2 bathroom & HVAC closet	Mastic on 12" x 12" yellow floor tile (bottom layer)	480 SF

Assumed	533-Throughout 2nd floor & full bathroom except in middle bedroom; 535-throughout 2nd floor & full bathroom	12" x 12" brown streaked floor tile and mastic (bottom layer)	925 SF
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<b>Building # 19</b>			
<b>Units 333 &amp; 331 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
19-1 – 19-7	331 & 333 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
19-16 – 19-18	331 & 333-Kitchens	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	325 SF
19-19 – 19-21	331-Downstairs hallway	Mastic on 12" x 12" cream speckled floor tile (bottom layer)	60 SF
19-22 – 19-24	331 & 333-Kitchens	White Coating	2 EA
Assumed	331-1st floor bedroom & living room & 2nd floor bedrooms (3); 333-throughout except in kitchen, bathrooms & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,030 SF

<b>Building # 20</b>			
<b>Units 335 &amp; 337 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
20-1 – 20-7	335 & 337 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
20-28 – 20-30	335 & 337-Kitchens on double sinks	White Coating	2 EA
Assumed	335 & 337-throughout except in bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,960 SF

<b>Building # 21</b>			
<b>Units 339 &amp; 341 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
21-1 – 21-7	339 & 341 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
21-16 – 21-18	339-Kitchen	Mastic on 12" x 12" yellow speckled floor tile (bottom layer)	160 SF
21-22 – 21-24	339-2nd floor bathroom under wood; 341-kitchen	Mastic on 12" x 12" brown/orange speckled floor tile (bottom layer)	185 SF
Assumed	339-Throughout except in kitchen, bathrooms & HVAC closet; 341-throughout except in kitchen & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,675 SF

<b>Building # 22</b>			
<b>Units 351 &amp; 353 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
22-1 – 22-7	351 & 353 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
22-14 – 22-16	351-kitchen & downstairs bedroom; 353-kitchen	12" x 12" cream floor tile and mastic (bottom layer)	425 SF
22-35 – 22-37	351 & 353-Kitchen double sinks	Coating on sinks	2 EA
Assumed	351-throughout except in kitchen, downstairs bedroom, bathrooms & HVAC closet; 353-throughout except in kitchen, bathrooms & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,540 SF



<b>Building # 23</b>			
<b>Units 347 &amp; 349 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
23-1 – 23-7	347 & 349 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
23-16 – 23-18	347 & 349-Kitchens	Mastic on 12" x 12" cream floor tile (bottom layer)	180 SF
23-31 – 23-33	349-Kitchen	12" x 12" thin cream floor tile and mastic (bottom layer)	120 SF
Assumed	347 & 349-throughout except in kitchens, bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,640 SF

<b>Building # 24</b>			
<b>Units 343 &amp; 345 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
24-1 – 24-7	343 & 345 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
24-29 – 24-31	343 & 345-Kitchen double sinks	White Coating	2 EA
24-32 – 24-34	343-Kitchen	Mastic on 12" x 12" white floor tile (bottom layer)	160 SF
Assumed	343-throughout except in kitchen, bathrooms & HVAC closet; 345-throughout except in bathrooms & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,800 SF

<b>Building # 25</b>			
<b>Units 319, 321, 323 &amp; 325 - Two Story, Three Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
25-1 – 25-7	319,321,323 & 325 - Throughout Interior	Drywall with Joint Compound and Tape	12,000 SF
25-20 – 25-22	319-2nd floor hallway; 321 & 323-2nd floor bathroom; 325-2nd floor bathroom & hallway	Floor tile, mastic and leveler	125 SF
25-47 – 25-49	319,321,323 & 325 –Kitchen double sinks	White Coating	4 EA
Assumed	319-throughout except in bathroom, HVAC closet & 2nd floor hallway; 321 & 323-throughout except in bathroom & HVAC closets; 325-throughout except in bathroom, HVAC closet, 2nd floor hallway & front bedroom	12" x 12" brown streaked floor tile and mastic (bottom layer)	3,315 SF

<b>Building # 26</b>			
<b>Units 311, 313, 315 &amp; 317 - Two Story, Three Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
26-1 – 26-7	311,313,315 & 317 - Throughout Interior	Drywall with Joint Compound and Tape	12,000 SF
26-14 – 26-16	317-2nd floor bathroom	Mastic on 12" x 12" cream floor tile (bottom layer)	25 SF
26-29 – 26-31	311 & 317-Kitchens on double sinks	White Coating	2 EA
26-44 – 26-46	317-Kitchen and living room; 313-Bathroom	Mastic on 12" x 12" brown/orange floor tile (bottom layer)	600 SF
26-50 – 26-52	313 & 315-Kitchens on double sinks	White Coating	2 EA
Assumed	311-throughout except in bathroom & HVAC closet; 313 & 315-throughout except in bathrooms & HVAC closets; 317-throughout except in kitchen, living room, bathroom & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	3,000 SF

<b>Building # 27</b>			
<b>Units 409 &amp; 411 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
27-1 – 27-7	311,313,315 & 317 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
27-14 – 27-16	409 & 411-Kitchens	Mastic on 12" x 12" yellow speckled floor tile (bottom layer)	315 SF
27-20 – 27-22	409 & 411-2nd floor bathrooms	Mastic on 12" x 12" brown/orange floor tile (bottom layer)	50 SF
Assumed	409 & 411-Throughout except in kitchen, bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,650 SF

<b>Building # 28</b>			
<b>Units 405 &amp; 407 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
28-1 – 28-7	405 & 407 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
28-14 – 28-16	407-Kitchen	Mastic on 12" x 12" yellow speckled floor tile (bottom layer)	160 SF
28-26 – 28-28	405 & 407-2nd floor bathrooms	Mastic on 12" x 12" brown/orange floor tile (bottom layer)	50 SF
28-35 – 28-37	405 & 407-Kitchens on double sinks	Black Coating	2 EA
Assumed	405-Throughout except in bathrooms & HVAC closet; 407-throughout except in kitchen, bathrooms & HVAC closet	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,800 SF

<b>Building # 29</b>			
<b>Units 411 &amp; 413 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
29-1 – 29-7	411 & 413 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
29-14 – 29-16	411 & 413-Kitchens	12" x 12" thin brown floor tile and mastic (bottom layer)	120 SF
29-26 – 29-28	411-2nd floor bathroom	12" x 12" brown/orange floor tile and mastic (bottom layer)	25 SF
29-32 – 29-34	411-Kitchen on double sink	Black Coating	1 EA
Assumed	411 & 413-throughout except in kitchens, bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,650 SF

<b>Building # 30</b>			
<b>Community Administrative Office Building</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
30-1 – 30-5	Throughout ceilings and partition walls in large back office area	Drywall with Joint Compound and Tape	4,000 SF
30-12 – 30-14	Lobby, large back office area with partition walls & large open room	12" x 12" tan streaked floor tile with mastic	1,950 SF
30-15 – 30-17	Office with key box	12" x 12" brown streaked floor tile with mastic	135 SF
30-18 – 30-20	Hallway	Mastic on 12" x 12" beige speckled floor tile	20 SF
30-21 – 30-23	Reception area	12" x 12" tan speckled floor tile with mastic	165 SF
30-24 – 30-26	Lobby, hallway & reception area	Black and tan/brown cove base mastic	60 LF
30-27 – 30-29	Large back office area with partition walls & large open room	Mastic on 12" x 12" white/cream speckled floor tile (patches)	28 SF

<b>Building # 31</b>			
<b>Units 351 &amp; 353 - Two Story, Four Bedroom, One and One Half Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
31-1 – 31-7	351 & 353 - Throughout Interior	Drywall with Joint Compound and Tape	7,000 SF
31-20 – 31-22	351-2nd floor front bedroom	Mastic on 12" x 12" brown/orange floor tile (bottom layer)	175 SF
31-35 – 31-37	351-Kitchen	Leveling compound & mastic	160 SF
31-44 – 31-46	353-Kitchen on double sink	Black Coating	1 EA
Assumed	351 & 353-Throughout except in bathrooms & HVAC closets	12" x 12" brown streaked floor tile and mastic (bottom layer)	1,960 SF

<b>Building # 32</b>			
<b>Units 420 &amp; 422 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
32-1 – 32-5	420 & 422 - Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF
32-12 – 32-14	420 & 422-Throughout except for bathrooms & HVAC closets	12" x 12" thin brown floor tile and mastic (bottom layer)	950 SF
32-21 – 32-23	507 & 505-Kitchens on double sinks	White Coating	2 EA

<b>Building # 33</b>			
<b>Units 456 &amp; 458 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
33-1 – 33-5	456 & 458 - Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF

33-15 – 33-17	458-Hallway	Leveling compound & mastics	20 SF
33-48 – 33-50	456 & 458-Kitchens on double sinks	Black Coating	2 EA
Assumed	456 & 458-Throughout except for bathrooms & HVAC closets	12" x 12" brown streaked floor tile & mastic	950 SF

<b>Building # 34</b>			
<b>Units 105 &amp; 107 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
34-10 – 34-14	105 & 107 - Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF
34-12 – 34-14	105 & 107-Throughout except for bathrooms & HVAC closets	12" x 12" thin brown floor tile and mastic (bottom layer)	950 SF
34-31 – 34-33	107-Kitchen on double sink	Black Coating	1 EA

<b>Building # 35</b>			
<b>Units 447 &amp; 449 - One Story, One Bedroom, One Bathroom</b>			
<b>Sample #</b>	<b>Location of ACM</b>	<b>Description of ACM</b>	<b>Estimated Quantities</b>
35-10 – 35-14	447 & 449 - Throughout Interior	Drywall with Joint Compound and Tape	3,400 SF
35-24 – 35-26	447-Throughout except in bathroom & HVAC closet; 449-throughout except in kitchen entry, bathroom & HVAC closet	12" x 12" thin brown floor tile and mastic (bottom layer)	940 SF
35-27 – 35-29	449-Kitchen entry by the washing machine hook-up	Mastic on 12" x 12" thick brown speckled floor tile (bottom layer)	10 SF
35-39 – 35-41	447 & 449-Kitchens on double sinks	Black Coating	2 EA

## **RECOMMENDATIONS AND DISCUSSION**

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.

Please note that this document is not a specification for asbestos removal. It does not contain means and methods for asbestos abatement. If you are planning an asbestos 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. Quantities provided in this report are estimated. Contractors must verify material amounts prior to bidding or removal.

This report summarizes our evaluation of the conditions observed at the site. The findings prepared by Apex are based upon testing performed within the Cammie Clagett Courts Apartment Community located at 422 Concord Avenue in Spartanburg, South Carolina. Our assessment procedures and recommendations are based on the guidelines presented in EPA, State of South Carolina or OSHA asbestos regulations.

**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.**

*Cammie Clagett Courts*  
*Asbestos Containing Materials Assessment*  
*Apex Project No. 0317-55*  
*June 14, 2017*

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.**



Ben Oliver  
Project Manager



Rebecca W. Shultz, CIH, CSP  
President

Appendix I – Photographic Log  
Appendix II – Asbestos PLM & TEM Data Table  
Appendix III – Laboratory Results & Chain of Custody  
Appendix IV – SC DHEC Asbestos Inspector Licenses



**APPENDIX I**  
**PHOTOGRAPHIC LOG**



Photo 1 – Typical view of a 2-story duplex.



Photo 2 – Typical view of drywall with joint compound and tape throughout buildings 7 to 35.



Photo 3 – Typical view of plaster with finish over unfinished drywall in the bathrooms of buildings 7 to 35.



Photo 4 – Typical view of leveling compound with mastics in portions of Building 7 to 35.



Photo 5 – Typical view of the top layer of 12''x12'' tan speckled floor tile and mastic/adhesive throughout buildings 7 to 35.



Photo 6 – Typical view of the 2<sup>nd</sup> layer of floor tiles in over concrete in the 1<sup>st</sup> floors of Building 7 to 35.





Photo 7 – Typical view of caulk on the kitchen counters throughout buildings 7 to 35.



Photo 8 – Typical view of stove back splash mastic in a portion of Buildings 7 to 35.



Photo 9 – Typical view of interior white window caulk in a portion of Buildings 7 to 35.



Photo 10 – Typical view of a kitchen sink with white undercoating throughout buildings 7 to 35.



Photo 11 – Typical view of exterior grey door caulk throughout buildings 7 to 35.



Photo 12 – Typical view of interior and exterior black window caulk throughout buildings 7 to 35.





Photo 13 – Typical view of grey wall penetration mastic a portion of Buildings 7 to 35.



Photo 14 – Building 8, units 521 and 523. Building has fire damage.

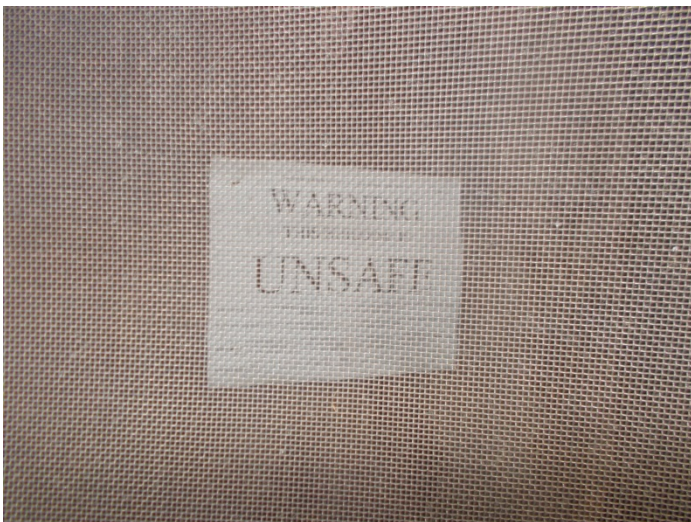


Photo 15 – Building 8, unsafe to enter building signage posted.



Photo 16 – Fire damage throughout Building 8.



Photo 17 – Fire damage throughout Building 8.



Photo 18 – Fire damage throughout Building 8.



*Cammie Clagett Housing Complex ACM*  
*422 Concord Avenue*  
*Spartanburg, South Carolina*  
*Apex Project # 0317-55*



Photo 19 – Typical view of Buildings 9, 10, 11, 32, 33, 34 and 35. 1-story duplexes.



Photo 20 – Typical view beige HVAC mastic in HVAC closets and above drywall ceilings throughout the 1-story duplexes.



Photo 21 – Typical view of 12"x12" brown/orange floor tile and mastic (bottom layer) throughout buildings 7 to 35.



Photo 22 – Typical view of caulks on roof gable vents throughout Buildings 7 to 35.



Photo 23 – Typical view of 12"x12" brown streaked floor tile and mastic (bottom layer) assumed positive in Buildings 7 to 35.



Photo 24 – Typical view of a 2-story, 4-unit building.





Photo 25 – Typical view of cove base and mastic in a portion of Building 7 to 35.



Photo 26 – Typical view of shower stall mastic in portions of Buildings 7 to 35.



Photo 27 – Typical view of HVAC caulk in the HVAC closets throughout Buildings 7 to 35.



Photo 28 – Typical view of kitchen sink with black undercoating throughout Buildings 7 to 35.



Photo 29 – Typical view of floor tile and mastic under wood on the 2<sup>nd</sup> floors of Buildings 7 to 35.



Photo 30 – Typical view of red cementitious filler on exterior wall penetrations on portions of Buildings 7 to 35.





Photo 31 – Typical view of HVAC tape on HVAC ducts throughout Buildings 8 and 12 to 35.



Photo 32 – Typical view of awning/flashing caulk and silicone throughout buildings 7 to 35. Some buildings have no caulk.



Photo 33 – Typical view of roof shingles and felt on main roofs and awning throughout Building 7 to 35.



Photo 34 – Typical view of paint coated metal pipe throughout buildings 7 to 35. Some buildings have no metal pipe.



Photo 35 – Typical view of additional layers of felt on awning roofs throughout a portion of buildings 7 to 35.



Photo 36 – Typical view drywall patches throughout buildings 7 to 35. Buildings exist with no patches.





Photo 37 – Typical view of bathroom caulk on sinks throughout Buildings 7 to 35.



Photo 38 – Typical view of bathroom caulk and silicone on shower stalls throughout Buildings 7 to 35.



Photo 39 – Typical view of roof mastic/tar on roof penetrations throughout a portion of the buildings.



Photo 40 – Typical picture of red HVAC caulk in the HVCA closets throughout Buildings 7 to 35.



Photo 41 – Typical view floor tile and mastic under ceramic tiles in bathrooms throughout Buildings 7 to 35.



Photo 42 – Administration building No. 30.



**APPENDIX II**

**ASBESTOS PLM & TEM DATA TABLE**

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 7

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 201 & 203

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	800 SF
9						
10						
11	201-kitchen; 203-kitchen & 1/2 bathroom	Leveling compound	PLM - NAD	Friable	Good	340 SF
12						
13						
14	201 & 203-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tiles and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
15						
16						
17	203-throughout except in 1/2 bathroom, HVAC closet & 2nd floor front bedroom	12" x 12" cream floor tile and mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	805 SF
18						
19						
20	Kitchen counters	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
21						
22						
			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 7

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 201 & 203

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
24			TEM - NAD			
25						
26	201-Kitchen stove back splash	Stove backsplash mastic	PLM - NAD	Non-Friable	Good	5 SF
27			TEM - NAD			
28						
29	201 & 203-2nd floor front bedrooms	Interior window caulk	PLM - NAD	Non-Friable	Good	4 EA
30			TEM - NAD			
31						
<b>32</b>	<b>Kitchens (double sinks)</b>	<b>White sink coating</b>	<b>PLM - 4% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>2 EA</b>
<b>33</b>						
<b>34</b>						
35	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
36			TEM - NAD			
37						
38	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
39			TEM - NAD			
40						
41	Brick wall penetrations	Red wall penetration mastic	PLM - NAD	Non-Friable	Good	2 SF
42			TEM - NAD			
43						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 7

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 201 & 203

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
44	Roof gable vents	Roof gable caulk - white	PLM - NAD	Non-Friable	Good	2 EA
45			TEM - NAD			
46						
47	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
48			TEM - NAD			
49						
50	Roof gable vents	Roof gable caulk - cream	PLM - NAD	Non-Friable	Good	2 EA
51			TEM - NAD			
52						
53	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
54			TEM - NAD			
55						
56	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
57			TEM - NAD			
58						
<b>Assumed</b>	<b>201-throughout except in bathrooms &amp; HVAC closet; 203-2nd floor front bedroom</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,150 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 8

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 512 & 523

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
<b>Assumed</b>	<b>Building/Debris Piles</b>	<b>Building/Debris Piles</b>	<b>Assumed Positive</b>	<b>Friable</b>	<b>Significantly Damaged</b>	<b>2,800 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 9

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 517 & 519

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
2						
3						
4						
5						
6	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
7						
8						
9	HVAC closets and above the drywall ceiling	Beige HVAC mastic	PLM - NAD	Friable	Good	60 SF
10			TEM - NAD			
11						
12	519-living room	12" x 12" brown/orange speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	150 SF
13			TEM - NAD (tile)			
14						
15	517 & 519-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	950 SF
16			TEM - NAD (tile)			
17						
18	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
19			TEM - NAD			
20						
21	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
22			TEM - NAD			
23						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 9

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 517 & 519

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	<b>Kitchens (double sinks)</b>	<b>White sink coating</b>	<b>PLM - 4% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>2 EA</b>
25						
26						
27	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
28			TEM - NAD			
29						
30	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
31			TEM - NAD			
32						
33	Main roof	Roof shingles (3) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
34			TEM - NAD			
35						
36	Roof gable vents	Roof gable caulk - white	PLM - NAD	Non-Friable	Good	2 EA
37			TEM - NAD			
38						
39	Roof penetrations	Black roof mastic	PLM - NAD	Non-Friable	Good	4 EA
40			TEM - NAD			
41						
<b>Assumed</b>	<b>517-throughout except in kitchen, bathroom &amp; HVAC closet; 519-throughout except living room, bathroom &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>635 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 10

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 513 & 515

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
2						
3						
4						
5						
6	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
7						
8						
9	513 & 515-throughout except for bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Friable	Good	950 SF
10			TEM - NAD			
11						
12	HVAC closets and above the drywall ceiling	Beige HVAC mastic	PLM - NAD	Non-Friable	Good	60 SF
13			TEM - NAD			
14						
15	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
16			TEM - NAD			
17						
18	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
19			TEM - NAD			
20						
21	Kitchens (double sinks)	White sink coating	PLM - 4% Chrysotile	Friable	Good	2 EA
22						
23						



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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 10

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 513 & 515

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
25			TEM - NAD			
26			TEM - NAD			
27	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
28			TEM - NAD			
29			TEM - NAD			
30	Main roof	Roof shingles (3) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
31			TEM - NAD			
32			TEM - NAD			
33	Roof gable vents	Roof gable caulk - white	PLM - NAD	Non-Friable	Good	2 EA
34			TEM - NAD			
35			TEM - NAD			
36	Roof penetrations	Black roof mastic	PLM - NAD	Non-Friable	Good	4 EA
37			TEM - NAD			
38			TEM - NAD			
<b>Assumed</b>	<b>513 &amp; 515-throughout except for bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>950 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 11

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 509 & 511

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
2						
3						
4						
5						
6	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
7						
8						
9	509 & 511-throughout except for bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Friable	Good	950 SF
10			TEM - NAD			
11						
12	HVAC closets and above the drywall ceiling	Beige HVAC mastic	PLM - NAD	Non-Friable	Good	60 SF
13			TEM - NAD			
14						
15	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
16			TEM - NAD			
17						
18	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
19			TEM - NAD			
20						
21	Kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	2 EA
22			TEM - NAD			
23						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 11

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 509 & 511

Project Number: 0317-55

Date: 4/26/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
25			TEM - NAD			
26			TEM - NAD			
27	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
28			TEM - NAD			
29			TEM - NAD			
30	Main roof	Roof shingles (3) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
31			TEM - NAD			
32			TEM - NAD			
33	Roof gable vents	Roof gable caulk - white	PLM - NAD	Non-Friable	Good	2 EA
34			TEM - NAD			
35			TEM - NAD			
36	Roof penetrations	Black roof mastic	PLM - NAD	Non-Friable	Good	4 EA
37			TEM - NAD			
38			TEM - NAD			
<b>Assumed</b>	<b>509 &amp; 511-throughout except for bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>950 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 12

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 501, 503, 505, 507

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	12,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	900 SF
9						
10						
11						
12	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	80 SF
13						
14						
15	501 & 505-throughout except in HVAC closets; 503 & 507-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	3,535 SF
16						
17						
18	501 & 503- bathrooms; 505 & 507- kitchens	12" x 12" brown/orange speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	475 SF
19						
20						
21	507-2nd floor middle bedroom (1/2 of floor in checker pattern)	12" x 12" cream floor tile and mastic (bottom layer)	PLM - NAD (tile); 4% Chry (mastic)	Non-Friable	Good	75 SF
22						
23						

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

Project Name: Cammiel Clagett Housing Complex ACM

Building Number: 12

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 501, 503, 505, 507

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	505-bathroom	12" x 12" white speckled floor tile with no mastic (bottom layer)	PLM - NAD	Non-Friable	Good	25 SF
25			TEM - NAD			
26						
27	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	25 LF
28			TEM - NAD			
29						
30	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	55 LF
31			TEM - NAD			
32						
33	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	160 LF
34			TEM - NAD			
35						
<b>36</b>	<b>507 &amp; 505-kitchens (double sinks)</b>	<b>Black sink coating</b>	<b>3% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>2 EA</b>
<b>37</b>						
<b>38</b>						
39	505-kitchen, living room, 2nd floor middle & back bedrooms; 507-2nd floor middle & back bedrooms	Interior window caulk	PLM - NAD	Non-Friable	Good	8 EA
40			TEM - NAD			
41						
42	501 & 503-kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	2 EA
43			TEM - NAD			
44						
45	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	8 EA
46			TEM - NAD			
47						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 12

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 501, 503, 505, 507

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
48	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	28 EA
49			TEM - NAD			
50						
51	SAMPLES NUMBERS NOT USED					
52						
53						
54	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
55			TEM - NAD			
56						
57	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,500 SF
58			TEM - NAD			
59						
60	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	100 SF
61			TEM - NAD			
62						
63	Roof gable vents	Roof gable caulk	PLM - NAD	Non-Friable	Good	2 EA
64			TEM - NAD			
65						
<b>Assumed</b>	<b>501, 503, 505 &amp; 507-throughout except bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>3,525 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 13

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 300, 302, 304, 306

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	12,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	900 SF
9						
10						
11	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	80 SF
12						
13						
14	300, 302, 304 & 306-throughout except bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	3,525 SF
15						
16						
17	300-2nd floor front & middle bedrooms; 302-2nd floor front and back bedrooms	12" x 12" grey floor tile and mastic (bottom layer)	PLM - NAD (tile); <1% Chry (mastic)	Non-Friable	Good	540 SF
18						
19						
20	302-2nd floor bathroom and hallway; 306-2nd floor bathroom	12" x 12" brown/orange speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	90 SF
21						
22						

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

Project Name:     Cammie Clagett Housing Complex ACM    

Building Number:     13    

Project Location:     422 Concord Avenue, Spartanburg, South Carolina    

Building Unit No.:     300, 302, 304, 306    

Project Number:     0317-55    

Date:     4/27/2017    

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	55 LF
24			TEM - NAD			
25			TEM - NAD			
26	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	25 LF
27			TEM - NAD			
28			TEM - NAD			
29	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	160 SF
30			TEM - NAD			
31			TEM - NAD			
32	Kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	4 EA
33			TEM - NAD			
34			TEM - NAD			
35	300-kitchen stove back splash	Back splash mastic	PLM - NAD	Friable	Good	5 SF
36			TEM - NAD			
37			TEM - NAD			
38	306-living room	Interior window caulk	PLM - NAD	Non-Friable	Good	1 EA
39			TEM - NAD			
40			TEM - NAD			
41	Windows	Black window caulk	PLM - NAD	Friable	Good	28 EA
42			TEM - NAD			
43			TEM - NAD			
44	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	8 EA
45			TEM - NAD			
46			TEM - NAD			



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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 13

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 300, 302, 304, 306

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Roof gable vents	Roof gable caulks - cream and white	PLM - NAD	Non-Friable	Good	2 EA
48			TEM - NAD			
49						
50	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,500 SF
51			TEM - NAD			
52						
53	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	100 SF
54			TEM - NAD			
55						
56	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
57			TEM - NAD			
58						
<b>Assumed</b>	<b>300-throughout downstairs, 2nd floor back bedroom, bathroom &amp; hallway; 302-throughout downstairs &amp; 2nd floor middle bedroom; 304-throughout; 306-throughout except bathroom</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>3,000 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 14

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 308, 310, 312, 314

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	12,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	900 SF
9						
10						
11	308, 310, 312 & 314-throughout except bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	3,525 SF
12			TEM - NAD			
13						
14	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	55 SF
15			TEM - NAD			
16						
17	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	160 LF
18			TEM - NAD			
19						
20	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	25 LF
21			TEM - NAD			
22						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 14

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 308, 310, 312, 314

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	80 SF
24			TEM - NAD			
25			TEM - NAD			
26	308-kitchen (double sink)	Black sink coating	PLM - NAD	Friable	Good	1 EA
27			TEM - NAD			
28			TEM - NAD			
29	310, 312 & 314-kitchens (double sinks)	White sink coating	PLM - 3% Chrysotile	Friable	Good	3 EA
30						
31						
32	314--2nd floor front bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	1 EA
33			TEM - NAD			
34			TEM - NAD			
35	314-kitchen stove back splash	Back splash mastic	PLM - NAD	Friable	Good	5 SF
36			TEM - NAD			
37			TEM - NAD			
38	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,500 SF
39			TEM - NAD			
40			TEM - NAD			
41	Awning roofs	2nd layer of felt paper	PLM - NAD	Friable	Good	100 SF
42			TEM - NAD			
43			TEM - NAD			
44	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
45			TEM - NAD			
46			TEM - NAD			

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 14

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 308, 310, 312, 314

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	28 EA
48			TEM - NAD			
49						
50	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	8 EA
51			TEM - NAD			
52						
53	Roof gable vents	Roof gable caulk	PLM - NAD	Non-Friable	Good	2 EA
54			TEM - NAD			
55						
56	Brick wall penetrations	Red wall penetration mastic	PLM - NAD	Non-Friable	Good	4 SF
57			TEM - NAD			
58						
<b>Assumed</b>	<b>308, 310, 312 &amp; 314-throughout except bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>3,525 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 15

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 205, 207, 209, 211

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	12,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	205, 207, 209 & 211-throughout except bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	3,025 SF
12			TEM - NAD			
13						
14	207, 209 & 211-bathrooms	12" x 12" brown/orange speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	75 SF
15			TEM - NAD (tile)			
16						
17	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	50 LF
18			TEM - NAD			
19						
20	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	160 LF
21			TEM - NAD			
22						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 15

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 205, 207, 209, 211

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	25 LF
24			TEM - NAD			
25			TEM - NAD			
26	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	80 SF
27			TEM - NAD			
28			TEM - NAD			
<b>29</b>	<b>Kitchens (double sinks)</b>	<b>White sink coating</b>	<b>PLM - 4% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>4 EA</b>
<b>30</b>						
<b>31</b>						
32	205, 207 & 209-2nd floor front bedrooms	Interior window caulk	PLM - NAD	Non-Friable	Good	5 EA
33			TEM - NAD			
34			TEM - NAD			
35	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Friable	Good	2,500 SF
36			TEM - NAD			
37			TEM - NAD			
38	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	100 SF
39			TEM - NAD			
40			TEM - NAD			
41	Windows	Black window caulk	PLM - NAD	Friable	Good	28 EA
42			TEM - NAD			
43			TEM - NAD			
44	Doors	White and grey door caulk	PLM - NAD	Non-Friable	Good	8 EA
45			TEM - NAD			
46			TEM - NAD			

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 15

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 205, 207, 209, 211

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
48			TEM - NAD			
49						
50	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
51			TEM - NAD			
52						
53	Brick wall penetrations	Red wall penetration mastic	PLM - NAD	Non-Friable	Good	4 SF
54			TEM - NAD			
55						
56	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
57			TEM - NAD			
58						
<b>Assumed</b>	<b>205, 207, 209 &amp; 211-throughout except bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>3,025 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 16

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 525 & 527

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	525 & 527-throughout except bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	525-throughout 1st floor except in 1/2 bathroom & HVAC closet	12" x 12" orange/yellow speckled floor tile and mastic (bottom layer)	PLM - NAD (tile & top mastic); 5% Chry (bottom mastic)	Non-Friable	Good	480 SF
15			TEM - NAD (tile & top mastic)			
16						
17	525- 2nd floor bathroom	Grey square pattern vinyl floor with mastic	PLM - NAD	Non-Friable	Good	25 SF
18			TEM - NAD			
19						
20	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
21			TEM - NAD			
22						



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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 16

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 525 & 527

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
24			TEM - NAD			
25			TEM - NAD			
26	527-2nd floor bathroom	Bathroom shower stall mastic	PLM - NAD	Non-Friable	Good	40 SF
27			TEM - NAD			
28			TEM - NAD			
29	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
30			TEM - NAD			
31			TEM - NAD			
32	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	40 SF
33			TEM - NAD			
34			TEM - NAD			
35	525 & 527-front & back doors	Interior door caulk	PLM - NAD	Friable	Good	4 EA
36			TEM - NAD			
37			TEM - NAD			
38	Kitchens (double sinks)	White sink coating	PLM - 4% Chrysotile	Friable	Good	2 EA
39						
40						
41	Windows	Black window caulk	PLM - NAD	Friable	Good	16 EA
42			TEM - NAD			
43			TEM - NAD			
44	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
45			TEM - NAD			
46			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 16

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 525 & 527

Project Number: 0317-55

Date: 4/27/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
48			TEM - NAD			
49						
50	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
51			TEM - NAD			
52						
53	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
54			TEM - NAD			
55						
56	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
57			TEM - NAD			
58						
<b>Assumed</b>	<b>525-throughout 2nd floor including bathroom; 527-throughout except bathrooms &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,480 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 17

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 529 & 531

Project Number: 0317-55

Date: 5/11/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	529 & 531-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	531-stairwell	Drywall wall patches	PLM - NAD	Friable	Good	10 SF
15						
16						
17	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
18			TEM - NAD			
19						
20	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
21			TEM - NAD			
22						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 17

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 529 & 531

Project Number: 0317-55

Date: 5/11/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	40 SF
24						
25						
26	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
27						
28			TEM - NAD			
29	529-2nd floor bathroom	12" x 12" red floor tile and mastic (bottom layer)	PLM - NAD	Non-Friable	Good	25 SF
30						
31			TEM - NAD			
<b>32</b>	<b>531-kitchens (double sink)</b>	<b>Black sink coating</b>	<b>PLM - 3% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>1 EA</b>
<b>33</b>						
<b>34</b>						
35	529-kitchen (double sink)	White sink coating	PLM - NAD	Friable	Good	1 EA
36						
37			TEM - NAD			
38	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
39						
40			TEM - NAD			
41	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
42						
43			TEM - NAD			
44	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
45						
46			TEM - NAD			

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 17

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 529 & 531

Project Number: 0317-55

Date: 5/11/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
48			TEM - NAD			
49						
50	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
51			TEM - NAD			
52						
53	Brick wall penetrations	white wall penetration mastic	PLM - NAD	Non-Friable	Good	2 SF
54			TEM - NAD			
55						
56	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
57			TEM - NAD			
58						
<b>Assumed</b>	<b>529-throughout except in bathrooms &amp; HVAC closet; 531-throughout except in 1/2 bathroom &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,985 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 18

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 533 & 535

Project Number: 0317-55

Date: 4/28/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	533 & 535-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	533-2nd floor middle bedroom; 535-throughout 1st floor except in 1/2 bathroom & HVAC closet	12" x 12" brown/orange floor tile & mastic (bottom layer)	PLM - NAD (tile); 4% Chry (mastic)	Non-Friable	Good	605 SF
15			TEM - NAD (tile)			
16						
17	533-throughout 1st floor except in 1/2 bathroom & HVAC closet	12" x 12" yellow floor tile & mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	480 SF
18			TEM - NAD (tile)			
19						
20	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	40 SF
21						
22						
23	Kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	2 EA
24			TEM - NAD			
25						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 18

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 533 & 535

Project Number: 0317-55

Date: 4/28/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
26	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
27			TEM - NAD			
28						
29	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
30			TEM - NAD			
31						
32	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
33			TEM - NAD			
34						
35	535 - stairwell	Drywall wall patches	PLM - NAD	Friable	Good	10 SF
36						
37						
38	533-2nd floor middle bedroom; 535-2nd floor front, middle & back bedrooms	Interior window caulk	PLM - NAD	Non-Friable	Good	8 EA
39			TEM - NAD			
40						
41	SAMPLE NUMBERS NOT USED					
42						
43						
44	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
45			TEM - NAD			
46						
47	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
48			TEM - NAD			
49						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 18

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 533 & 535

Project Number: 0317-55

Date: 4/28/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
50	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
51			TEM - NAD			
52						
53	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
54			TEM - NAD			
55						
56	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
57			TEM - NAD			
58						
59	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
60			TEM - NAD			
61						
62	Brick wall penetrations	Red wall penetration mastic	PLM - NAD	Non-Friable	Good	4 SF
63			TEM - NAD			
64						
65	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
66			TEM - NAD			
67						
<b>Assumed</b>	<b>533-throughout 2nd floor &amp; full bathroom except in middle bedroom; 535-throughout 2nd floor &amp; full bathroom</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>925 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile



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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 19

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 331 & 333

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 3% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11						
12						
13	331 & 333-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
14			TEM - NAD			
15						
16	331 & 333-kitchens	12" x 12" brown/orange floor tile & mastic (bottom layer)	PLM - NAD (tile); 4% Chry (mastic)	Non-Friable	Good	325 SF
17			TEM - NAD (tile)			
18						
19	331-downstairs hallway	12" x 12" cream speckled floor tile & mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	60 SF
20			TEM - NAD (tile)			
21						
22	Kitchens (double sinks)	White sink coating	PLM - 5% Chrysotile	Friable	Good	2 EA
23						
24						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 19

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 331 & 333

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
25	Above ceilings	Tan HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
26			TEM - NAD			
27			TEM - NAD			
28	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
29			TEM - NAD			
30			TEM - NAD			
31	331-2nd floor front bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	1 EA
32			TEM - NAD			
33			TEM - NAD			
34	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
35			TEM - NAD			
36			TEM - NAD			
37	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
38			TEM - NAD			
39			TEM - NAD			
40	333-2nd floor bathroom under ceramic tile	12" x 12" cream streaked floor tile & mastic (bottom layer)	PLM - NAD	Non-Friable	Good	25 SF
41			TEM - NAD			
42			TEM - NAD			
43	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
44			TEM - NAD			
45			TEM - NAD			
46	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	2 EA
47			TEM - NAD			
48			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 19

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 331 & 333

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
49	Doors	White door caulk	PLM - NAD	Non-Friable	Good	2 EA
50			TEM - NAD			
51						
52	Roof gable vents	Roof gable caulks - white and tan	PLM - NAD	Non-Friable	Good	2 EA
53			TEM - NAD			
54						
55	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
56			TEM - NAD			
57						
58	Awning roofs	2nd and 3rd layers of felt paper	PLM - NAD	Non-Friable	Good	50 SF
59			TEM - NAD			
60						
61	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
62			TEM - NAD			
63						
64	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
65						
66						
<b>Assumed</b>	<b>331-1st floor bedroom &amp; living room &amp; 2nd floor bedrooms (3); 333-throughout except in kitchen, bathrooms &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,030 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 20

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 335 & 337

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 3% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11						
12						
13	335 & 337-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960
14			TEM - NAD			
15						
16	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
17			TEM - NAD			
18						
19	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
20			TEM - NAD			
21						
22	Above ceilings	Tan HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
23			TEM - NAD			
24						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 20

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 335 & 337

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
25	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
26			TEM - NAD			
27						
<b>28</b>	<b>Kitchens (double sinks)</b>	<b>White sink coating</b>	<b>PLM - 5% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>2 EA</b>
<b>29</b>						
<b>30</b>						
31	337-2nd floor front bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	1 EA
32			TEM - NAD			
33						
34	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
35			TEM - NAD			
36						
37	Roof gable vents	Roof gable caulks - white and tan	PLM - NAD	Non-Friable	Good	2 EA
38			TEM - NAD			
39						
40	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
41			TEM - NAD			
42						
43	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
44			TEM - NAD			
45						
46	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
47			TEM - NAD			
48						

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

Project Name: Cammiel Claggett Housing Complex ACM

Building Number: 20

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 335 & 337

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
49	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
50			TEM - NAD			
51						
52	Under brick & vinyl siding	OSB board with felt	PLM - NAD	Non-Friable	Good	2,000 SF
53			TEM - NAD			
54						
55	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
56						
57						
<b>Assumed</b>	<b>335 &amp; 337-throughout except in bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,960 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 21

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 339 & 341

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11						
12						
13	339 & 341-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
14			TEM - NAD			
15						
16	339-kitchen	12" x 12" yellow speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	160 SF
17			TEM - NAD (tile)			
18						
19	339-2nd floor bathroom	Stone square pattern vinyl floor with mastic (top layer)	PLM - NAD	Non-Friable	Good	25 SF
20			TEM - NAD			
21						
22	339-2nd floor bathroom under wood; 341-kitchen	12" x 12" brown/orange speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	185 SF
23			TEM - NAD (tile)			
24						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 21

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 339 & 341

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
25	339-kitchen stove back splash	Back splash mastic	PLM - NAD	Non-Friable	Good	5 SF
26			TEM - NAD			
27			TEM - NAD			
28	441-kitchen stove back splash	Back splash mastic	PLM - NAD	Non-Friable	Good	5 SF
29			TEM - NAD			
30			TEM - NAD			
31	339 & 341-throughout	Black interior window caulk	PLM - NAD	Non-Friable	Good	16 EA
32			TEM - NAD			
33			TEM - NAD			
34	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
35			TEM - NAD			
36			TEM - NAD			
37	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
38			TEM - NAD			
39			TEM - NAD			
40	339 & 341-2nd floor bedrooms	White interior window caulk	PLM - NAD	Non-Friable	Good	6 EA
41			TEM - NAD			
42			TEM - NAD			
43	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
44			TEM - NAD			
45			TEM - NAD			
46	Kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	2 EA
47			TEM - NAD			
48			TEM - NAD			



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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 21

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 339 & 341

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
49	Above ceilings	Tan HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
50			TEM - NAD			
51			TEM - NAD			
52	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
53			TEM - NAD			
54			TEM - NAD			
55	Doors	Door caulk	PLM - NAD	Non-Friable	Good	4 EA
56			TEM - NAD			
57			TEM - NAD			
58	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
59			TEM - NAD			
60			TEM - NAD			
61	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
62			TEM - NAD			
63			TEM - NAD			
64	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
65			TEM - NAD			
66			TEM - NAD			
67	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
68			TEM - NAD			
69			TEM - NAD			
70	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
71			TEM - NAD			
72			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 21

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 339 & 341

Project Number: 0317-55

Date: 5/3/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
73	Under brick & vinyl siding	OSB board with felt	PLM - NAD	Non-Friable	Good	2,000 SF
74			TEM - NAD			
75						
<b>Assumed</b>	<b>339-throughout except in kitchen, bathrooms &amp; HVAC closet; 341-throughout except in kitchen &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,675 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 22

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 3% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	351 & 353-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	351-kitchen & downstairs bedroom; 353-kitchen	12" x 12" cream floor tile and mastic (bottom layer)	PLM - 3% (tile & mastic)	Non-Friable	Good	425 SF
15						
16						
17	351 & 353-downstairs 1/2 bathrooms	Adhesive and leveling compound beneath ceramic tile	PLM - NAD	Non-Friable	Good	50 SF
18			TEM - NAD			
19						
20	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
21			TEM - NAD			
22						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 22

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	353-2nd floor front bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	2 EA
24			TEM - NAD			
25			TEM - NAD			
26	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
27			TEM - NAD			
28			TEM - NAD			
29	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
30			TEM - NAD			
31			TEM - NAD			
32	Above ceilings	Tan HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
33			TEM - NAD			
34			TEM - NAD			
<b>35</b>	<b>Kitchen (double sinks)</b>	<b>Coating on kitchen sinks</b>	<b>PLM - 6% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>2 EA</b>
<b>36</b>						
<b>37</b>						
38	353-2nd floor middle & back bedrooms	Interior window caulk	PLM - NAD	Non-Friable	Good	2 EA
39			TEM - NAD			
40			TEM - NAD			
41	353-living room & downstairs hallway	Drywall wall patches	PLM - NAD	Friable	Good	5 SF
42						
43						
44	351-downtown hallway, stairwell & kitchen hallway	Drywall wall patches	PLM - NAD	Friable	Good	5 SF
45						
46						

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

Project Name: Cammiel Claggett Housing Complex ACM

Building Number: 22

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	351-2nd floor bathroom shower stall	Mastic beneath shower stall	PLM - NAD	Non-Friable	Good	40 SF
48			TEM - NAD			
49						
50	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
51						
52						
53	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
54			TEM - NAD			
55						
56	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
57			TEM - NAD			
58						
59	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
60			TEM - NAD			
61						
62	Doors	Door caulk	PLM - NAD	Non-Friable	Good	4 EA
63			TEM - NAD			
64						
65	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
66			TEM - NAD			
67						
68	Under brick & vinyl siding	OSB board with felt	PLM - NAD	Non-Friable	Good	2,000 SF
69			TEM - NAD			
70						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 22

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
71	Awning roofs	4 layers of felt paper	PLM - NAD	Non-Friable	Good	50 SF
72			TEM - NAD			
73						
<b>Assumed</b>	<b>351-throughout except in kitchen, downstairs bedroom, bathrooms &amp; HVAC closet; 353-throughout except in kitchen, bathrooms &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,540 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Claggett Housing Complex ACM

Building Number: 23

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 347 & 349

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 3% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11						
12						
13	347 & 349-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
14			TEM - NAD			
15						
16	347 & 349-kitchen	12" x 12" cream floor tile and mastic (bottom layer)	PLM - NAD (tile); 4% Chry (mastic)	Non-Friable	Good	180 SF
17			TEM - NAD (tile)			
18						
19	347-HVAC closet	HVAC caulk	PLM - NAD	Non-Friable	Good	6 LF
20			TEM - NAD			
21						
22	Above ceilings	Yellow HVAC tape	PLM - NAD	Friable	Damaged	40 SF
23			TEM - NAD			
24						

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

Project Name: Cammie Claggett Housing Complex ACM

Building Number: 23

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 347 & 349

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
25	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
26			TEM - NAD			
27						
28	Kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	2 EA
29			TEM - NAD			
30						
31	349-kitchen	12" x 12" thin cream floor tile and mastic (bottom layer)	PLM-NAD (top mastic);	Non-Friable	Good	140 SF
32			3% Chry (tile); 5% Chry (bottom mastic)			
33			TEM - NAD (top mastic)			
34	347 & 349-throughout	Black interior window caulk	PLM - NAD	Non-Friable	Good	16 EA
35			TEM - NAD			
36						
37	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
38			TEM - NAD			
39						
40	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
41						
42						
43	Under brick & vinyl siding	OSB board with felt	PLM - NAD	Non-Friable	Good	2,000 SF
44			TEM - NAD			
45						
46	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
47			TEM - NAD			
48						



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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 23

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 347 & 349

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
49	Doors	Door caulk	PLM - NAD	Non-Friable	Good	4 EA
50			TEM - NAD			
51						
52	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
53			TEM - NAD			
54						
55	Main roof and awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
56			TEM - NAD			
57						
58	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
59			TEM - NAD			
60						
61	Awnings/flushing	Awning/flushing caulk	PLM - NAD	Non-Friable	Good	10 LF
62			TEM - NAD			
63						
<b>Assumed</b>	<b>347 &amp; 349-throughout except in kitchens, bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,640 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 24

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 343 & 345

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 3% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	343 & 345-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
15			TEM - NAD			
16						
17	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 LF
18			TEM - NAD			
19						
20	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 LF
21			TEM - NAD			
22						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 24

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 343 & 345

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Above ceilings	Tan HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
24			TEM - NAD			
25			TEM - NAD			
26	345-2nd floor front bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	2 EA
27			TEM - NAD			
28			TEM - NAD			
29	Kitchen (double sinks)	Coating on kitchen sinks	PLM - 6% Chrysotile	Friable	Good	2 EA
30						
31						
32	343-kitchen	12" x 12" white floor tile and mastic (bottom layer)	PLM - NAD (tile); 4% Chry (mastic)	Non-Friable	Good	160 SF
33			TEM - NAD (tile)			
34						
35	343-2nd floor front & middle bedrooms	Interior window caulk	PLM - NAD	Non-Friable	Good	2 EA
36			TEM - NAD			
37			TEM - NAD			
38	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
39						
40						
41	Main roof and awning roofs	Roof shingles (2) with tar and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
42			TEM - NAD			
43			TEM - NAD			
44	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
45			TEM - NAD			
46			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 24

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 343 & 345

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	10 LF
48			TEM - NAD			
49						
50	Under brick & vinyl siding	OSB board with felt	PLM - NAD	Non-Friable	Good	2,000 SF
51			TEM - NAD			
52						
53	Doors	Door caulk	PLM - NAD	Non-Friable	Good	4 EA
54			TEM - NAD			
55						
56	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
57			TEM - NAD			
58						
59	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
60			TEM - NAD			
61						
<b>Assumed</b>	<b>343-throughout except in kitchen, bathrooms &amp; HVAC closet; 345-throughout except in bathrooms &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,800 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 25

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 319, 321, 323, 325

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	12,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	900 SF
9						
10						
11	319, 321, 323 & 325-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	3,525 SF
12			TEM - NAD			
13						
14	325-living room	Drywall wall patch	PLM - NAD	Friable	Good	5 SF
15						
16						
17	319-2nd floor bathroom & a portion into hallway; 325-2nd floor front bedroom	12" x 12" grey speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); <1% Chry (mastic)	Non-Friable	Good	160 SF
18			TEM - NAD (mastic)			
19						
20	319-2nd floor hallway; 321 & 323-2nd floor bathroom; 325-2nd floor bathroom & hallway	12" x 12" brown/orange floor tile and mastic (bottom layer)	PLM - 2% Chrysotile (tile, mastic & leveler)	Non-Friable	Good	125 SF
21						
22						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 25

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 319, 321, 323, 325

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	323-downstairs hallway	Drywall wall patch	PLM - NAD	Friable	Good	5 SF
24						
25						
26	321-downstairs hallway	Drywall wall patch	PLM - NAD	Friable	Good	5 SF
27						
28						
29	319-2nd floor bathroom	Stone square pattern vinyl floor with mastic (top layer)	PLM - NAD	Non-Friable	Good	25 SF
30			TEM - NAD			
31						
32	319-2nd floor hallway (bottom layer under wood)	Brown mastic under 12" x 12" brown/orange floor tiles (mastic only)	PLM - NAD	Non-Friable	Good	40 SF
33			TEM - <1% Chrysotile			
34						
35	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	55 LF
36			TEM - NAD			
37						
38	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	25 LF
39			TEM - NAD			
40						
41	Above ceilings	Tan HVAC tape	PLM - NAD	Friable	Damaged	80 SF
42			TEM - NAD			
43						
44	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	160 SF
45			TEM - NAD			
46						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 25

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 319, 321, 323, 325

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Kitchens (double sinks)	White sink coating	PLM - 5% Chrysotile	Friable	Good	4 EA
48						
49						
50	319, 321 & 323-kitchen stove back splash	Back splash mastic	PLM - NAD	Non-Friable	Good	15 SF
51			TEM - NAD			
52						
53	319-2nd floor front & back bedrooms; 321-2nd floor middle bedroom; 323-2nd floor middle bedroom; 325-2nd floor front bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	5 EA
54			TEM - NAD			
55						
56	321-front & back doors; 323-front door; 325-front door	Interior door caulk	PLM - NAD	Non-Friable	Good	4 EA
57			TEM - NAD			
58						
59	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
60						
61						
62	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,500 SF
63			TEM - NAD			
64						
65	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
66			TEM - NAD			
67						
68	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	8 EA
69			TEM - NAD			
70						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 25

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 319, 321, 323, 325

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
71	Windows	Black window caulk	PLM - NAD	Friable	Good	28 EA
72			TEM - NAD			
73						
74	Roof gable vents	Roof gable caulks - grey and tan	PLM - NAD	Non-Friable	Good	2 EA
75			TEM - NAD			
76						
77	Roof penetrations	Black roof tar	PLM - NAD	Non-Friable	Good	7 SF
78			TEM - NAD			
79						
80	Under brick & vinyl siding	OSB board with felt	PLM - NAD	Non-Friable	Good	3,000 SF
81			TEM - NAD			
82						
<b>Assumed</b>	<b>319-throughout except in bathroom, HVAC closet &amp; 2nd floor hallway; 321 &amp; 323-throughout except in bathroom &amp; HVAC closets; 325-throughout except in bathroom, HVAC closet, 2nd floor hallway &amp; front bedroom</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>3,315 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile



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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 26

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 311, 313, 315 & 317

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	12,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	900 SF
9						
10						
11	311, 313, 315 & 3175-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	3,525 SF
12			TEM - NAD			
13						
14	317-2nd floor bathroom	12" x 12" cream floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	25 SF
15			TEM - NAD (tile)			
16						
17	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	25 LF
18			TEM - NAD			
19						
20	Above ceilings	Yellow HVAC tape	PLM - NAD	Friable	Damaged	80 SF
21			TEM - NAD			
22						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 26

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 311, 313, 315 & 317

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	160 SF
24			TEM - NAD			
25						
26	SAMPLES NUMBERS NOT USED					
27						
28						
29						
30	311 & 317-kitchens (double sinks)	White sink coating	PLM - 4% Chrysotile	Friable	Good	2 EA
31						
32						
33	311, 313, 315 & 317-throughout	Black interior window caulk	PLM - NAD	Non-Friable	Good	28 EA
34			TEM - NAD			
35						
36	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	55 LF
37			TEM - NAD			
38						
39	315-2nd floor bathroom	Brown mastic beneath shower stall	PLM - NAD	Non-Friable	Good	40 SF
40			TEM - NAD			
41						
42	315-stairway	Drywall wall patch	PLM - NAD	Friable	Good	5 SF
43						
44						
45	313 & 315-2nd floor bathroom; 317-kitchen & living room	12" x 12" brown/orange floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	500 SF
46			TEM - NAD (tile)			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 26

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 311, 313, 315 & 317

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	SAMPLE NUMBERS NOT USED					
48						
49						
50	313 & 315-kitchens (double sinks)	White sink coating	PLM - 3% Chrysotile	Friable	Good	2 EA
51						
52						
53	311-2nd floor bathroom under ceramic tile	12" x 12" white speckled floor tile and mastic (bottom layer)	PLM - NAD	Non-Friable	Good	25 SF
54			TEM - NAD			
55						
56	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
57						
58						
59	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,500 SF
60			TEM - NAD			
61						
62	SAMPLE NUMBERS NOT USED					
63						
64						
65	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
66			TEM - NAD			
67						
68	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
69			TEM - NAD			
70						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 26

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 311, 313, 315 & 317

Project Number: 0317-55

Date: 5/4/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
71	SAMPLE NUMBERS NOT USED					
72						
73						
74	Windows	Black window caulk	PLM - NAD	Friable	Good	28 EA
75			TEM - NAD			
76						
77	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	8 EA
78			TEM - NAD			
79						
<b>Assumed</b>	<b>311-throughout except in bathroom &amp; HVAC closet; 313 &amp; 315-throughout except in bathrooms &amp; HVAC closets; 317-throughout except in kitchen, living room, bathroom &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>3,000 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 27

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 409 & 411

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	409 & 411-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	409 & 411-kitchens	12" x 12" yellow speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	315 SF
15			TEM - NAD (tile)			
16						
17	Above ceilings	HVAC tape with mastic	PLM - NAD	Friable	Damaged	40 SF
18			TEM - NAD			
19						
20	409 & 411-2nd floor bathrooms	12" x 12" brown/orange floor tile and mastic (bottom layer)	PLM - NAD (tile); 4% Chry (mastic)	Non-Friable	Good	50 SF
21			TEM - NAD (tile)			
22						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 27

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 409 & 411

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	409-2nd floor bathroom	Tan square pattern vinyl floor and mastic (top layer)	PLM - NAD	Non-Friable	Good	25 SF
24			TEM - NAD			
25						
26	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 SF
27			TEM - NAD			
28						
29	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
30			TEM - NAD			
31						
32	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 SF
33			TEM - NAD			
34						
35	Kitchens (double sinks)	White sink coating	PLM - NAD	Friable	Good	2 EA
36			TEM - NAD			
37						
38	411-2nd floor middle bedroom	Interior window caulk	PLM - NAD	Non-Friable	Good	1 EA
39			TEM - NAD			
40						
41	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
42			TEM - NAD			
43						
44	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
45						
46						

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

Project Name: Cammiel Clagett Housing Complex ACM

Building Number: 27

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 409 & 411

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
48			TEM - NAD			
49			TEM - NAD			
50	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
51			TEM - NAD			
52			TEM - NAD			
53	Doors	Door caulk	PLM - NAD	Non-Friable	Good	4 EA
54			TEM - NAD			
55			TEM - NAD			
56	Windows	Black window caulk	PLM - NAD	Friable	Good	16 EA
57			TEM - NAD			
58			TEM - NAD			
<b>Assumed</b>	<b>409 &amp; 411-throughout except in kitchen, bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,650 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 28

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 405 & 407

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	405 & 407-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	407-kitchen	12" x 12" yellow speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	160 SF
15			TEM - NAD (tile)			
16						
17	407-downstairs 1/2 bathroom	Leveling compound under ceramic tile	PLM - NAD	Friable	Good	25 SF
18						
19						
20	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 SF
21			TEM - NAD			
22						



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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 28

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 405 & 407

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Above ceilings	HVAC tape with mastic	PLM - NAD	Friable	Damaged	40 SF
24			TEM - NAD			
25						
26	405 & 407-2nd floor bathrooms	12" x 12" brown/orange floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	50 SF
27			TEM - NAD (tile)			
28						
29	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
30			TEM - NAD			
31						
32	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 SF
33			TEM - NAD			
34						
35	Kitchens (double sinks)	Black sink coating	PLM - 5% Chrysotile	Friable	Good	2 EA
36						
37						
38	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
39						
40						
41	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
42			TEM - NAD			
43						
44	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
45			TEM - NAD			
46						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 28

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 405 & 407

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
48			TEM - NAD			
49						
50	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
51			TEM - NAD			
52						
53	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
54			TEM - NAD			
55						
56	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
57			TEM - NAD			
58						
<b>Assumed</b>	<b>405-throughout except in bathrooms &amp; HVAC closet; 407-throughout except in kitchen, bathrooms &amp; HVAC closet</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,800 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 29

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 411 & 413

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	411 & 413-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	1,960 SF
12			TEM - NAD			
13						
14	411 & 413-kitchens	12" x 12" thin brown floor tile and mastic (bottom layer)	PLM - 3% Chry (tile) 4% Chry (mastic)	Non-Friable	Good	325 SF
15						
16						
17	Above ceilings	HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
18			TEM - NAD			
19						
20	413-2nd floor bathroom	12" x 12" white speckled floor tile and mastic (bottom layer)	PLM - NAD	Non-Friable	Good	25 SF
21			TEM - NAD			
22						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 29

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 411 & 413

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 SF
24			TEM - NAD			
25						
26	411-2nd floor bathroom	12" x 12" brown/orange floor tile and mastic (bottom layer)	PLM - 5% Chry (tile)	Non-Friable	Good	25 SF
27			4% Chry (mastic)			
28						
29	413-kitchen (double sink)	White sink coating	PLM - NAD	Friable	Good	1 EA
30			TEM - NAD			
31						
32	411-kitchen (double sink)	Black sink coating	PLM - 4% Chrysotile	Friable	Good	1 EA
33						
34						
35	411-kitchen stove back splash	Back splash mastic	PLM - NAD	Non-Friable	Good	5 SF
36			TEM - NAD			
37						
38	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
39			TEM - NAD			
40						
41	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 SF
42			TEM - NAD			
43						
44	411 & 413-throughout	Black interior window caulk	PLM - NAD	Non-Friable	Good	16 EA
45			TEM - NAD			
46						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 29

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 411 & 413

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
48						
49						
50	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
51						
52			TEM - NAD			
53	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
54						
55			TEM - NAD			
56	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
57						
58			TEM - NAD			
59	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
60						
61			TEM - NAD			
62	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
63						
64			TEM - NAD			
65	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
66						
67			TEM - NAD			
<b>Assumed</b>	<b>411 &amp; 413-throughout except in kitchens, bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,650 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 30

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: Office Building

Project Number: 0317-55

Date: 5/10/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout ceilings and partition walls in large back office area	Drywall with joint compound & tape	2% Chrysotile	Friable	Good	4,000 SF
2						
3						
4						
5						
6	Large back office area with partition walls	Black cove base mastic	PLM - NAD	Non-Friable	Good	80 LF
7			TEM - NAD			
8						
9	Office with key box	Painted cove base mastic	PLM - NAD	Non-Friable	Good	18 LF
10			TEM - NAD			
11						
12	Lobby, large back office area with partition walls & large open room	12" x 12" tan streaked floor tile with mastic	PLM - 3% Chry (tile) 5% Chry (mastic)	Non-Friable	Good	1,950 SF
13						
14						
15	Office with key box	12" x 12" brown streaked floor tile with mastic	PLM - 3% Chry (tile) 5% Chry (mastic)	Non-Friable	Good	135 SF
16						
17						
18	Hallway	12" x 12" beige speckled floor tile with mastic	PLM - NAD (tile); 2% Chry (mastic)	Non-Friable	Good	20 SF
19			TEM - NAD (tile)			
20						
21	Reception area	12" x 12" tan speckled floor tile with mastic	PLM - 6% Chry (tile) 4% Chry (mastic)	Non-Friable	Good	165 SF
22						
23						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 30

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: Office Building

Project Number: 0317-55

Date: 5/10/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	Lobby, hallway & reception area	Black and tan/brown cove base mastic	PLM - 2% Chrysotile	Non-Friable	Good	60 LF
25						
26						
27	Large back office area with partition walls & large open room	12" x 12" white/cream speckled floor tile with mastic (patches)	PLM - NAD (tile);	Non-Friable	Good	28 SF
28			3% Chry (mastic)			
29			TEM - NAD (tile)			
30	Large reception window	Interior window caulk	PLM - NAD	Non-Friable	Good	20 LF
31			TEM - NAD			
32						
33	Above ceilings	Tan HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
34			TEM - NAD			
35						
36	Hallway bathroom on sink and ceramic tile kick plate	Bathroom caulk	PLM - NAD	Non-Friable	Good	17 LF
37			TEM - NAD			
38						
39	Roof	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	3,500 SF
40			TEM - NAD			
41						
42	Metal windows	Window glazing	PLM - NAD	Non-Friable	Good	16 EA
43			TEM - NAD			
44						
45	Metal windows	Window caulk - tan	PLM - NAD	Non-Friable	Good	16 EA
46			TEM - NAD			
47						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 30

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: Office Building

Project Number: 0317-55

Date: 5/10/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
48	Metal windows and doors	Window and door caulk - grey	PLM - NAD	Non-Friable	Good	30 EA
49			TEM - NAD			
50						
51	Roof penetrations	Mastic on roof penetrations	PLM - NAD	Non-Friable	Good	20 SF
52			TEM - NAD			
53						
54	Roof flashing	Grey flashing putty	PLM - NAD	Non-Friable	Good	35 LF
55			TEM - NAD			
56						

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile



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

Project Name: Cammiel Claggett Housing Complex ACM

Building Number: 31

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	7,000 SF
2						
3						
4						
5						
6						
7						
8	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	875 SF
9						
10						
11	Above ceilings	HVAC tape and mastic	PLM - NAD	Friable	Damaged	40 SF
12			TEM - NAD			
13						
14	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	90 SF
15			TEM - NAD			
16						
17	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	20 LF
18			TEM - NAD			
19						
20	351-2nd floor front bedroom	12" x 12" brown/orange floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	175 SF
21			TEM - NAD (tile)			
22						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 31

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	HVAC closets	HVAC caulk	PLM - NAD	Non-Friable	Good	15 SF
24			TEM - NAD			
25			TEM - NAD			
26	351-2nd floor bathroom under ceramic tile	12" x 12" white speckled floor tile and mastic (bottom layer)	PLM - NAD	Non-Friable	Good	25 SF
27			TEM - NAD			
28			TEM - NAD			
29	351-2nd floor bathroom	Tan square pattern vinyl floor with mastic (top layer)	PLM - NAD	Non-Friable	Good	25 SF
30			TEM - NAD			
31			TEM - NAD			
32	351 & 353-throughout except in bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (bottom layer)	PLM - NAD	Non-Friable	Good	1,960 SF
33			TEM - NAD			
34			TEM - NAD			
<b>35</b>	<b>351-kitchen</b>	<b>Leveling compound &amp; mastic</b>	<b>PLM - 3% Chrysotile</b>	<b>Non-Friable</b>	<b>Good</b>	<b>160 SF</b>
<b>36</b>						
<b>37</b>						
38	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
39			TEM - NAD			
40			TEM - NAD			
41	Windows	Black window caulk	PLM - NAD	Non-Friable	Good	16 EA
42			TEM - NAD			
43			TEM - NAD			
<b>44</b>	<b>353-kitchen (double sink)</b>	<b>Black sink coating</b>	<b>PLM - 4% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>1 EA</b>
<b>45</b>						
<b>46</b>						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 31

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 351 & 353

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
47	353-kitchen (double sink)	White sink coating	PLM - NAD	Friable	Good	1 EA
48			TEM - NAD			
49						
50	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
51						
52						
53	Roof gable vents	Roof gable caulks - white and cream	PLM - NAD	Non-Friable	Good	2 EA
54			TEM - NAD			
55						
56	Main roof & awning roofs	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	2,000 SF
57			TEM - NAD			
58						
59	Awning roofs	2nd layer of felt paper	PLM - NAD	Non-Friable	Good	50 SF
60			TEM - NAD			
61						
62	Awnings/flashing	Awning/flashing caulk	PLM - NAD	Non-Friable	Good	20 LF
63			TEM - NAD			
64						
<b>Assumed</b>	<b>351 &amp; 353-throughout except in bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile and mastic (bottom layer)</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>1,960 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 32

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 420 & 422

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
2						
3						
4						
5						
6	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
7						
8						
9	420 & 422-throughout except for bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	950 SF
10			TEM - NAD			
11						
12	420 & 422-throughout except for bathrooms & HVAC closets	12" x 12" thin brown floor tile and mastic (bottom layer)	PLM - 3% Chrysotile (tile & mastic)	Non-Friable	Good	950 SF
13						
14						
15	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
16			TEM - NAD			
17						
18	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
19			TEM - NAD			
20						
21	507 & 505-kitchens (double sinks)	White sink coating	PLM - 4% Chrysotile	Friable	Good	2 EA
22						
23						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 32

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 420 & 422

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	420-kitchen stove back splash	Back splash mastic	PLM - NAD	Non-Friable	Good	5 SF
25			TEM - <0.1% Chry			
26						
27	HVAC closets and above the drywall ceiling	HVAC tape and mastic	PLM - NAD	Friable	Damaged	50 SF
28			TEM - NAD			
29						
30	HVAC closets	HVAC caulk-red	PLM - NAD	Non-Friable	Good	25 LF
31			TEM - NAD			
32						
33	HVAC vents	HVAC vent caulk	PLM - NAD	Non-Friable	Good	10 LF
34			TEM - NAD			
35						
36	Main roof	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
37			TEM - NAD			
38						
39	Exterior doors and behind window frames	Exterior door and window caulk	PLM - NAD	Non-Friable	Good	12 EA
40			TEM - NAD			
41						
42	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
43			TEM - NAD			
44						
45	Brick wall penetrations	Cementitious brick wall filler	PLM - NAD	Friable	Good	4 SF
46						
47						

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

Project Name:     Cammie Clagett Housing Complex ACM    

Building Number:     32    

Project Location:     422 Concord Avenue, Spartanburg, South Carolina    

Building Unit No.:     420 & 422    

Project Number:     0317-55    

Date:     5/8/2017    

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
48	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
49						
50						
51	Roof penetrations	Black roof mastic	PLM - NAD	Non-Friable	Good	4 EA
52			TEM - NAD			
53						
54	Roof gable vents	Roof gable caulks - tan and grey	PLM - NAD	Non-Friable	Good	2 EA
55			TEM - NAD			
56						

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 33

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 456 & 458

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
2						
3						
4						
5						
6	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
7						
8						
9	456 & 458-throughout except for bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	950 SF
10						
11						
12	HVAC closets	HVAC caulk-red	PLM - NAD	Non-Friable	Good	25 LF
13						
14						
15	458-hallway	Leveling compound & mastics	PLM - 4% Chrysotile	Non-Friable	Good	20 SF
16						
17						
18	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
19						
20						
21	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
22						
23						

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 33

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 456 & 458

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	456 & 458-throughout	Interior window caulk	PLM - NAD	Non-Friable	Good	8 EA
25			TEM - NAD			
26						
27	Main roof	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
28			TEM - NAD			
29						
30	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
31			TEM - NAD			
32						
33	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
34			TEM - NAD			
35						
36	HVAC vents	HVAC vent caulk	PLM - NAD	Non-Friable	Good	10 LF
37			TEM - NAD			
38						
39	Windows	White window caulk	PLM - NAD	Friable	Good	8 EA
40			TEM - NAD			
41						
42	Brick wall penetrations	Cementitious brick wall filler	PLM - NAD	Friable	Good	4 SF
43						
44						
45	HVAC closets and above the drywall ceiling	Mud on HVAC duct insulation	PLM - NAD	Non-Friable	Good	60 SF
46			TEM - NAD			
47						



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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 33

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 456 & 458

Project Number: 0317-55

Date: 5/8/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
48	<b>456 &amp; 458-kitchens (double sinks)</b>	<b>Black sink coating</b>	<b>PLM - 4% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>2 EA</b>
49						
50						
51	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
52						
53						
54	Roof penetrations	Black roof mastic	PLM - NAD	Non-Friable	Good	4 EA
55			TEM - NAD			
56						
57	Roof gable vents	Roof gable caulks - tan and grey	PLM - NAD	Non-Friable	Good	2 EA
58			TEM - NAD			
59						
<b>Assumed</b>	<b>456 &amp; 458-throughout except for bathrooms &amp; HVAC closets</b>	<b>12" x 12" brown streaked floor tile &amp; mastic</b>	<b>Assumed Positive</b>	<b>Non-Friable</b>	<b>Good</b>	<b>950 SF</b>

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 34

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 105 & 107

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
2						
3						
4						
5						
6	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
7						
8						
9	105 & 107-throughout except for bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	950 SF
10			TEM - NAD			
11						
12	105 & 107-throughout except for bathrooms & HVAC closets	12" x 12" thin brown floor tile and mastic (bottom layer)	PLM - 2% Chry (tile) 4% Chry (mastic)	Non-Friable	Good	950 SF
13						
14						
15	SAMPLE NUMBER NOT USED					
16	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
17			TEM - NAD			
18						
19	Main roof	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
20			TEM - NAD			
21						
22	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
23			TEM - NAD			
24						

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

Project Name: Cammi Clagett Housing Complex ACM

Building Number: 34

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 105 & 107

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
25	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
26			TEM - NAD			
27						
28	HVAC closets	HVAC caulk-red	PLM - NAD	Non-Friable	Good	25 LF
29			TEM - NAD			
30						
<b>31</b>	<b>107-kitchen (double sink)</b>	<b>Black sink coating</b>	<b>PLM - 2% Chrysotile</b>	<b>Friable</b>	<b>Good</b>	<b>1 EA</b>
<b>32</b>						
<b>33</b>						
34	105-kitchen (double sink)	White sink coating	PLM - NAD	Friable	Good	1 EA
35			TEM - NAD			
36						
37	HVAC vents	HVAC vent caulk-white	PLM - NAD	Non-Friable	Good	10 LF
38			TEM - NAD			
39						
40	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
41			TEM - NAD			
42						
43	105 & 107-throughout	Interior window caulk	PLM - NAD	Non-Friable	Good	8 EA
44			TEM - NAD			
45						
46	HVAC closets and above the drywall ceiling	Beige HVAC mastic	PLM - NAD	Non-Friable	Good	60 SF
47			TEM - NAD			
48						

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

Project Name:     Cammie Clagett Housing Complex ACM    

Building Number:     34    

Project Location:     422 Concord Avenue, Spartanburg, South Carolina    

Building Unit No.:     105 & 107    

Project Number:     0317-55    

Date:     5/5/2017    

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
49	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
50						
51						
52	Roof penetrations	Black roof mastic and caulk	PLM - NAD	Non-Friable	Good	4 EA
53			TEM - NAD			
54						
55	Roof gable vents	Roof gable caulks - tan and grey	PLM - NAD	Non-Friable	Good	2 EA
56			TEM - NAD			
57						

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 35

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 447 & 449

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Main roof	Roof shingles (2) and felt (1)	PLM - NAD	Non-Friable	Good	1,350 SF
2			TEM - NAD			
3			TEM - NAD			
4	Windows	Black window caulk	PLM - NAD	Friable	Good	8 EA
5			TEM - NAD			
6			TEM - NAD			
7	Doors	Grey door caulk	PLM - NAD	Non-Friable	Good	4 EA
8			TEM - NAD			
9			TEM - NAD			
10	Throughout interior	Drywall with joint compound and tape	PLM - 2% Chrysotile	Friable	Good	3,400 SF
11						
12						
13						
14						
15	Bathrooms	Plaster with finish over unfinished drywall	PLM - NAD	Friable	Good	400 SF
16						
17						
18	Bathrooms	Bathroom shower stall and sink caulk	PLM - NAD	Non-Friable	Good	80 LF
19			TEM - NAD			
20			TEM - NAD			
21	447 & 449-throughout except for bathrooms & HVAC closets	12" x 12" tan speckled floor tile and mastic (top layer)	PLM - NAD	Non-Friable	Good	950 SF
22			TEM - NAD			
23			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 35

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 447 & 449

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
24	447-throughout except in bathroom & HVAC closet; 449-throughout except in kitchen entry, bathroom & HVAC closet	12" x 12" thin brown floor tile and mastic (bottom layer)	PLM - 5% Chry (tile) 8% Chry (mastic)	Non-Friable	Good	940 SF
25						
26						
27	449-kitchen entry by the washing machine hook-up	12" x 12" thick brown speckled floor tile and mastic (bottom layer)	PLM - NAD (tile); 3% Chry (mastic)	Non-Friable	Good	10 SF
28						
29			TEM - NAD (tile)			
30	Kitchens	Kitchen counter caulk	PLM - NAD	Non-Friable	Good	25 LF
31						
32			TEM - NAD			
33	HVAC closets	HVAC caulk-red	PLM - NAD	Non-Friable	Good	25 LF
34						
35			TEM - NAD			
36	447 & 449-throughout	Interior window caulk	PLM - NAD	Non-Friable	Good	8 EA
37						
38			TEM - NAD			
39	447 & 449-kitchens (double sinks)	Black sink coating	PLM - 4% Chrysotile	Friable	Good	2 EA
40						
41						
42	HVAC vents	HVAC vent caulk-white	PLM - NAD	Non-Friable	Good	10 LF
43						
44			TEM - NAD			
45	HVAC closets and above the drywall ceiling	Beige HVAC mastic	PLM - NAD	Non-Friable	Good	60 SF
46						
47			TEM - NAD			

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

Project Name: Cammie Clagett Housing Complex ACM

Building Number: 35

Project Location: 422 Concord Avenue, Spartanburg, South Carolina

Building Unit No.: 447 & 449

Project Number: 0317-55

Date: 5/5/2017

Sample No.	Unit No. / Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
48	Roof penetrations	Paint coated metal	PLM - NAD	Non-Friable	Good	6 SF
49						
50						
51	Roof penetrations	Black roof mastic and caulk	PLM - NAD	Non-Friable	Good	4 EA
52			TEM - NAD			
53						
54	Roof gable vents	Roof gable caulks - white and grey	PLM - NAD	Non-Friable	Good	2 EA
55			TEM - NAD			
56						

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

Amos = Amosite

**Bold = Positive For Asbestos**

SF = Square Feet

Chry = Chrysotile

**APPENDIX III**

**LABORATORY RESULTS & CHAIN OF CUSTODY**





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703308

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagett Bldg #1</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method		<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique	
		<b>Other</b>	
		<input type="checkbox"/>	

Check For Positive Stop - Clearly Identify Homogenous Group    Date Sampled: 4-24-17

Samplers Name: *Ted Shultz*    Samplers Signature: *Ted Shultz*

Sample #	HA #	Sample Location	Material Description	
1-1		440 - Living Rm	Drywall & Joint compound	
1-2		440 - Rear bedroom		
1-3		442 - Kitchen		
1-4		444 - Front bedroom		
1-5		448 - Living Rm closet		
1-6		448 - HVAC & water heater closet		
1-7		450 - middle bedroom		
1-9		446 - kitchen		dry wall w/ text. walls & ceilings
1-10		446 - Living Rm		
1-11		446 - front closet		

Client Sample # (s): 1-75    Total # of Samples: 75

Relinquished (Client): *Ted Shultz*    Date: 4-26-17    Time: 10:00 am

Received (Lab): *Paul Nelson*    Date: 4/27/17    Time: 10:00 AM F/x

Comments/Special Instructions: Please utilize positive stop analysis.    7952 7822 3708

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

411703308

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
1-12		446 - Front bedroom	Dry wall w/ texture
1-13		446 - middle bedroom	walls & ceilings
1-14		440 - Bath rm	Plaster w/ finish over
1-15		444 - Bath rm	unfinished dry wall
1-16		446 - Bath rm (no dry wall)	↓
1-17		448 - Bath rm	↓
1-18		450 - Bath rm	↓
1-19		446 - Bath rm	mastic under shower
1-20		↓	stall ↓
1-21		↓	↓
1-22		440 - Kitchen	Kitchen counter caulk
1-23		442 - ↓	↓
1-24		450 - ↓	↓
1-25		440 - <del>whit</del> HVAC closet	whit HVAC caulk
1-26		446 - ↓	↓
1-27		450 - ↓	↓
1-28		442 - HVAC closet	yellow HVAC mastic
1-29		448 - ↓	↓
1-30		450 - ↓	↓
1-31		440 - Bath rm	Shower stall caulk
1-32		444 - ↓	↓
1-33		450 - ↓	↓
<del>1-34</del>			
<del>1-35</del>			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703308

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
1-34		442 - Bath rm	Fiberglass shower stall
1-35		↓	caulk
1-36		↓	↓
1-37		442 - Kitchen	Mastic under stainless
1-38		↓	backsplash
1-39		↓	↓
1-40		442 - Throughout upstairs	Black cover base
1-41		↓	w/ tan & wht mastic
1-42		↓	↓
1-43		446 - Kitchen	Mastic under stainless
1-44		↓	backsplash
1-45		↓	↓
1-46		446 - Bath rm	Black cover base
1-47		↓	w/ tan mastic
1-48		↓	↓
49 1-49		448 Front bedrm	window caulk
1-50		446 Front bedrm	↓
1-51 A		442 Back bedrm	↓
1-51 B		446 <del>bed</del> front door	door caulk
1-52		446	↓
1-53		446	↓
1-54		440 <del>bed</del> Back bedrm	Window caulk

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703308

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
1-55		<del>440</del> 440 - Kitchen	12x12 Tan speckled F.T.
1-56		446 - Living Rm	+ mastic over 12 x 12
1-57		448 - Living Rm	brown speckled F.T. + mastic
1-58		440 - Kitchen	Black coating under
1-59		448 - Kitchen	sink ↓
1-60		446 - Kitchen	↓
1-61		442 - 3 bedrms and	12x12 Grey speckled F.T.
1-62		Hall way top layer	+ mastic ↓
1-63		↓	↓
1-64		442 - Bathrm	Grey square pattern
1-65		↓	vinyl floor w/ mastic
1-66		↓	↓
1-67		442 - Kitchen	white coating under
1-68		444 - ↓	sink ↓
1-69		446 - ↓	↓
1-70		446 - Bath rm	Grey square stone pattern
1-71		top layer	vinyl floor no mastic
1-72		↓	↓
1-73		446 - Bathrm under	Felt paper + cream square
1-74		wood ↓	pattern vinyl floor
1-75		↓	w/ mastic

**\*Comments/Special Instructions:**  
Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703308

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/27/2017 10:00 AM

**Analysis Date:** 05/02/2017 - 05/03/2017

**Collected Date:** 04/24/2017

**Project:** Cammie Clagett #1 Building

## 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
1-1-Drywall <small>411703308-0001</small>	440 - Living Room - Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
1-1-Joint Compound <small>411703308-0001A</small>	440 - Living Room - Drywall & Joint Compound	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 63% Non-fibrous (Other)	2% Chrysotile
1-1-Tape <small>411703308-0001B</small>	440 - Living Room - Drywall & Joint Compound	Tan Non-Fibrous Homogeneous	100% Cellulose		None Detected
1-2-Drywall <small>411703308-0002</small>	440 - Rear Bedroom - Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-2-Joint Compound <small>411703308-0002A</small>	440 - Rear Bedroom - Drywall & Joint Compound				Positive Stop (Not Analyzed)
1-2-Tape <small>411703308-0002B</small>	440 - Rear Bedroom - Drywall & Joint Compound	Tan Non-Fibrous Homogeneous	100% Cellulose		None Detected
1-3-Drywall <small>411703308-0003</small>	442 - Kitchen - Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-3-Joint Compound <small>411703308-0003A</small>	442 - Kitchen - Drywall & Joint Compound				Positive Stop (Not Analyzed)
1-3-Tape <small>411703308-0003B</small>	442 - Kitchen - Drywall & Joint Compound	Tan Non-Fibrous Homogeneous	100% Cellulose		None Detected
1-4-Drywall <small>411703308-0004</small>	444 - Front Bedroom - Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-4-Joint Compound <small>411703308-0004A</small>	444 - Front Bedroom - Drywall & Joint Compound				Positive Stop (Not Analyzed)
1-4-Tape <small>411703308-0004B</small>	444 - Front Bedroom - Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
1-5-Drywall <small>411703308-0005</small>	448 - Living Room Closet - Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-5-Joint Compound <small>411703308-0005A</small>	448 - Living Room Closet - Drywall & Joint Compound				Positive Stop (Not Analyzed)
1-5-Tape <small>411703308-0005B</small>	448 - Living Room Closet - Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
1-6-Drywall <small>411703308-0006</small>	448 - HVAC & Water Heater Closet - Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 12:53:17



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703308  
**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
1-6-Joint Compound 411703308-0006A	448 - HVAC & Water Heater Closet - Drywall & Joint Compound				Positive Stop (Not Analyzed)
1-6-Tape 411703308-0006B	448 - HVAC & Water Heater Closet - Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
1-7-Drywall 411703308-0007	450 - Middle Bedroom - Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
1-7-Joint Compound 411703308-0007A	450 - Middle Bedroom - Drywall & Joint Compound				Positive Stop (Not Analyzed)
1-7-Tape 411703308-0007B	450 - Middle Bedroom - Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
1-9-Drywall 411703308-0008	446 - Kitchen - Drywall w/ Text. Walls & Ceilings	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-9-Joint Compound 411703308-0008A	446 - Kitchen - Drywall w/ Text. Walls & Ceilings	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 63% Non-fibrous (Other)	2% Chrysotile
1-9-Tape 411703308-0008B	446 - Kitchen - Drywall w/ Text. Walls & Ceilings	Tan Fibrous Homogeneous	100% Cellulose		None Detected
1-9-Texture 411703308-0008C	446 - Kitchen - Drywall w/ Text. Walls & Ceilings	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile
1-10-Drywall 411703308-0009	446 - Living Room - Drywall w/ Text. Walls & Ceilings	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-10-Joint Compound 411703308-0009A	446 - Living Room - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-10-Texture 411703308-0009B	446 - Living Room - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-11-Drywall 411703308-0010	446 - Front Closet - Drywall w/ Text. Walls & Ceilings	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
1-11-Joint Compound 411703308-0010A	446 - Front Closet - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-11-Tape 411703308-0010B	446 - Front Closet - Drywall w/ Text. Walls & Ceilings	Tan Fibrous Homogeneous	100% Cellulose		None Detected
1-11-Texture 411703308-0010C	446 - Front Closet - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-12-Drywall 411703308-0011	446 - Front Bedroom - Drywall w/ Text. Walls & Ceilings	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
1-12-Joint Compound 411703308-0011A	446 - Front Bedroom - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)

Initial report from: 05/03/2017 12:53:17



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703308  
**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
1-12-Tape <small>411703308-0011B</small>	446 - Front Bedroom - Drywall w/ Text. Walls & Ceilings	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
1-12-Texture <small>411703308-0011C</small>	446 - Front Bedroom - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-13-Drywall <small>411703308-0012</small>	446 - Middle Bedroom - Drywall w/ Text. Walls & Ceilings	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
1-13-Joint Compound <small>411703308-0012A</small>	446 - Middle Bedroom - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-13-Tape <small>411703308-0012B</small>	446 - Middle Bedroom - Drywall w/ Text. Walls & Ceilings	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
1-13-Texture <small>411703308-0012C</small>	446 - Middle Bedroom - Drywall w/ Text. Walls & Ceilings				Positive Stop (Not Analyzed)
1-14-Skim Coat <small>411703308-0013</small>	440 - Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-14-Rough Coat <small>411703308-0013A</small>	440 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
1-14-Drywall <small>411703308-0013B</small>	440 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
1-15-Skim Coat <small>411703308-0014</small>	444 - Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-15-Rough Coat <small>411703308-0014A</small>	444 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
1-15-Drywall <small>411703308-0014B</small>	444 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-16-Skim Coat <small>411703308-0015</small>	446 - Bathroom (No Drywall) - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-16-Rough Coat <small>411703308-0015A</small>	446 - Bathroom (No Drywall) - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
1-17-Drywall <small>411703308-0016</small>	448 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
1-17-Skim Coat <small>411703308-0016A</small>	448 - Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-17-Rough Coat <small>411703308-0016B</small>	448 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
1-18-Drywall <small>411703308-0017</small>	450 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 12:53:17





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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**EMSL Order:** 411703308  
**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
1-18-Skim Coat <small>411703308-0017A</small>	450 - Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-18-Rough Coat <small>411703308-0017B</small>	450 - Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
1-19 <small>411703308-0018</small>	446 - Bathroom - Mastic under Shower Stall	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-20 <small>411703308-0019</small>	446 - Bathroom - Mastic under Shower Stall	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-22-Caulk <small>411703308-0020</small>	440 - Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-22-Black Layer <small>411703308-0020A</small>	440 - Kitchen - Kitchen Counter Caulk	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
1-23 <small>411703308-0021</small>	442 - Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-25 <small>411703308-0022</small>	440 - HVAC Closet - Wht HVAC Caulk	Tan/White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
1-26 <small>411703308-0023</small>	446 - HVAC Closet - Wht HVAC Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-28 <small>411703308-0024</small>	442 - HVAC Closet - Yellow HVAC Mastic	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
1-29 <small>411703308-0025</small>	448 - HVAC Closet - Yellow HVAC Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-31 <small>411703308-0026</small>	440 - Bathroom - Shower Stall Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-32 <small>411703308-0027</small>	444 - Bathroom - Shower Stall Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-34 <small>411703308-0028</small>	442 - Bathroom - Fiberglass Shower Stall Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
1-35 <small>411703308-0029</small>	442 - Bathroom - Fiberglass Shower Stall Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1-37 <small>411703308-0030</small>	442 - Kitchen - Mastic under Stainless Backsplash	Tan Non-Fibrous Homogeneous	2% Cellulose	8% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-38 <small>411703308-0031</small>	442 - Kitchen - Mastic under Stainless Backsplash	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-40-Cove Base <small>411703308-0032</small>	442 - Throughout Upstairs - Black Cove Base w/ Tar & Wht Mastic	Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

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**EMSL Order:** 411703308  
**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
1-40-Mastic 411703308-0032A	442 - Throughout Upstairs - Black Cove Base w/ Tar & Wht Mastic	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-41-Cove Base 411703308-0033	442 - Throughout Upstairs - Black Cove Base w/ Tar & Wht Mastic	Black Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-41-Mastic 411703308-0033A	442 - Throughout Upstairs - Black Cove Base w/ Tar & Wht Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
1-43 411703308-0034	446 - Kitchen - Mastic under Stainless Backsplash	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
1-44 411703308-0035	446 - Kitchen - Mastic under Stainless Backsplash	Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-46-Cove Base 411703308-0036	446 - Bathroom - Black Cove Base w/ Tan Mastic	Black Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-46-Mastic 411703308-0036A	446 - Bathroom - Black Cove Base w/ Tan Mastic	Beige Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-47-Cove Base 411703308-0037	446 - Bathroom - Black Cove Base w/ Tan Mastic	Black Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-47-Mastic 411703308-0037A	446 - Bathroom - Black Cove Base w/ Tan Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
1-49 411703308-0038	448 - Front Bedroom - Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-50 411703308-0039	446 - Front Bedroom - Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-51B 411703308-0040	446 - Front Door - Door Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-52 411703308-0041	446 - Front Door - Door Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-54 411703308-0042	440 - Back Bedroom - Window Caulk	White/Black Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
1-55- Tan Floor Tile 411703308-0043	440 - Kitchen - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
1-55-Mastic 411703308-0043A	440 - Kitchen - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected

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**EMSL Order:** 411703308  
**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
1-55-Brown Floor Tile <small>411703308-0043B</small>	440 - Kitchen - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Brown Non-Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (Other)	3% Chrysotile
1-55-Mastic <small>411703308-0043C</small>	440 - Kitchen - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Black Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	3% Chrysotile
1-56-Tan Floor Tile <small>411703308-0044</small>	446 - Living Room - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
1-56-Mastic <small>411703308-0044A</small>	446 - Living Room - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
1-56-Brown Floor Tile <small>411703308-0044B</small>	446 - Living Room - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic				Positive Stop (Not Analyzed)
1-56-Mastic <small>411703308-0044C</small>	446 - Living Room - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic				Positive Stop (Not Analyzed)
1-58 <small>411703308-0045</small>	440 - Kitchen - Black Coating under Sink	Black Non-Fibrous Homogeneous		8% Ca Carbonate 89% Non-fibrous (Other)	3% Chrysotile
1-59 <small>411703308-0046</small>	448 - Kitchen - Black Coating under Sink				Positive Stop (Not Analyzed)
1-61-Floor Tile <small>411703308-0047</small>	442 - 3 Bedrooms and Hallway Top Layer - 12x12 Grey Speckled F.T. & Mastic	Gray Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
1-61-Mastic <small>411703308-0047A</small>	442 - 3 Bedrooms and Hallway Top Layer - 12x12 Grey Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	5% Ca Carbonate 92% Non-fibrous (Other)	None Detected
1-62-Floor Tile <small>411703308-0048</small>	442 - 3 Bedrooms and Hallway Top Layer - 12x12 Grey Speckled F.T. & Mastic	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
1-62-Mastic <small>411703308-0048A</small>	442 - 3 Bedrooms and Hallway Top Layer - 12x12 Grey Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 12:53:17



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**EMSL Order:** 411703308  
**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
1-64-Flooring <small>411703308-0049</small>	442 - Bathroom - Grey Square Pattern Vinyl Floor w/ Mastic	Gray Non-Fibrous Homogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected
1-64-Mastic <small>411703308-0049A</small>	442 - Bathroom - Grey Square Pattern Vinyl Floor w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
1-65-Flooring <small>411703308-0050</small>	442 - Bathroom - Grey Square Pattern Vinyl Floor w/ Mastic	Gray Fibrous Homogeneous	15% Cellulose	8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
1-65-Mastic <small>411703308-0050A</small>	442 - Bathroom - Grey Square Pattern Vinyl Floor w/ Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
1-67 <small>411703308-0051</small>	442 - Kitchen - White Coating under Sink	White Non-Fibrous Homogeneous	3% Cellulose	10% Ca Carbonate 87% Non-fibrous (Other)	None Detected
1-68 <small>411703308-0052</small>	444 - Kitchen - White Coating under Sink	Tan Fibrous Homogeneous	8% Cellulose	10% Ca Carbonate 8% Mica 74% Non-fibrous (Other)	None Detected
1-70 <small>411703308-0053</small>	446 - Bathroom - Top Layer - Grey Square Stone Pattern Vinyl Floor, No Mastic	Gray Fibrous Homogeneous	3% Glass	10% Ca Carbonate 87% Non-fibrous (Other)	None Detected
1-71 <small>411703308-0054</small>	446 - Bathroom - Top Layer - Grey Square Stone Pattern Vinyl Floor, No Mastic	Gray Fibrous Homogeneous	4% Glass	96% Non-fibrous (Other)	None Detected
1-73-Flooring <small>411703308-0055</small>	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Beige Non-Fibrous Homogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected
1-73-Mastic <small>411703308-0055A</small>	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
1-73-Felt <small>411703308-0055B</small>	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
1-74-Flooring <small>411703308-0056</small>	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Tan Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
1-74-Mastic <small>411703308-0056A</small>	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
1-74-Felt <small>411703308-0056B</small>	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 12:53:17



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EMSL Order: 411703308

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Anupriya Tyagi (39)*

*Lytterra Barrow (56)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/03/2017 12:53:17



# EMSL Analytical, Inc.

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**EMSL Order:** 411703308  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/09/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett #1 Building

## 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
1-21 411703308-0057	446 - Bathroom - Mastic under Shower Stall	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-24-Caulk 411703308-0058	450 - Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-24-Black Layer 411703308-0059	450 - Kitchen - Kitchen Counter Caulk	Black Non-Fibrous Homogeneous	99.2	0.78 Fibrous_Other	No Asbestos Detected
1-27 411703308-0060	450 - HVAC Closet - Wht HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-30 411703308-0061	450 - HVAC Closet - Yellow HVAC Mastic	Yellow Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-33 411703308-0062	450 - Bathroom - Shower Stall Caulk	White Non-Fibrous Homogeneous	99.8	0.23 Fibrous_Other	No Asbestos Detected
1-36 411703308-0063	442 - Bathroom - Fiberglass Shower Stall Caulk	White Non-Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
1-39 411703308-0064	442 - Kitchen - Mastic under Stainless Backsplash	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-42-Cove Base 411703308-0065	442 - Throughout Upstairs - Black Cove Base w/ Tar & Wht Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-42-Mastic 411703308-0066	442 - Throughout Upstairs - Black Cove Base w/ Tar & Wht Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-45 411703308-0067	446 - Kitchen - Mastic under Stainless Backsplash	Beige Non-Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
1-48-Cove Base 411703308-0068	446 - Bathroom - Black Cove Base w/ Tan Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/09/2017 12:31:41



# EMSL Analytical, Inc.

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**EMSL Order:** 411703308  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/09/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett #1 Building

## 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
1-48-Mastic 411703308-0069	446 - Bathroom - Black Cove Base w/ Tan Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-51A 411703308-0070	442 - Back Bedroom - Window Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-53 411703308-0071	446 - Front Door - Door Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-57-Tan Floor Tile 411703308-0072	448 - Living Room - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-57-Mastic 411703308-0073	448 - Living Room - 12x12 Tan Speckled F.T. & Mastic over 12x12 Brown Speckled F.T. & Mastic	Brown Non-Fibrous Homogeneous	100	<0.57 Fibrous_Other	No Asbestos Detected
1-63-Floor Tile 411703308-0074	442 - 3 Bedrooms and Hallway - Top Layer - 12x12 Grey Speckled F.T. & Mastic	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-63-Mastic 411703308-0075	442 - 3 Bedrooms and Hallway - Top Layer - 12x12 Grey Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	100	<0.40 Fibrous_Other	No Asbestos Detected
1-66-Flooring 411703308-0076	442 - Bathroom - Grey Square Pattern Vinyl Floor w/ Mastic	Gray Fibrous Homogeneous	100	None	No Asbestos Detected
1-66-Mastic 411703308-0077	442 - Bathroom - Grey Square Pattern Vinyl Floor w/ Mastic	White/Yellow Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-69 411703308-0078	446 - Kitchen - White Coating under Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-72 411703308-0079	446 - Top Layer - Grey Square Stone Pattern Vinyl Floor, No Mastic	Brown/Gray Fibrous Homogeneous	100	None	No Asbestos Detected
1-75-Flooring 411703308-0080	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Beige Fibrous Homogeneous	100	None	No Asbestos Detected

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 05/09/2017 12:31:41



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**Received Date:** 04/27/2017 10:00 AM  
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**Project:** Cammie Clagett #1 Building

## 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
1-75-Mastic 411703308-0081	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-75-Felt 411703308-0082	446 - Bathroom under Wood - Felt Paper & Cream Square Pattern Vinyl Floor w/ Mastic	Black Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (26)

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: 05/09/2017 12:31:41





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703363

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company : Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagett Building 1,4,5 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: 4-25-17

Samplers Name: *Nicholas Neerhof*      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
1-76		doors <del>windows</del>	Grey door caulk
1-77			
1-78			
1-79		windows	Black window caulk
1-80			
1-81			
1-82		Brick penetrations	Grey penetration mastic
1-83			
1-84			
4-39		doors	Grey door caulk

Client Sample # (s):	1-76 - 5-38	Total # of Samples:	
Relinquished (Client):	<i>Nicholas Neerhof</i>	Date:	4-27-17
Received (Lab):	<i>Rh Neer</i>	Date:	4/28/17
Comments/Special Instructions:	Please utilize positive stop analysis.		
Bill To:	Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US		
Attention:	Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:		
			7952 7865 6126





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703363

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
4-40		doors ↓	Grey door caulk ↓
4-41			
4-42		windows ↓	Black window caulk ↓
4-43			
4-44			
4-45	V-353	windows ↓	Brown caulk (hard) ↓
4-46			
4-47			
4-48		Brick penetrations ↓	Grey penetration mastic ↓
4-49			
4-50			
5-30		<del>windows</del> doors ↓	Grey door caulk ↓
5-31			
5-32			
5-33		windows ↓	Black window caulk ↓
<del>5-34</del>			
5-35			
5-36		Brick penetrations ↓	Grey penetration mastic ↓
5-37			
5-38			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703363

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/28/2017 11:00 AM

**Analysis Date:** 05/04/2017

**Collected Date:** 04/25/2017

**Project:** Cammie Clagett Building 1, 4, 5 Ext.

## 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
1-76 <small>411703363-0001</small>	Doors - Grey Door Caulk	Gray/White Non-Fibrous Homogeneous	<1% Fibrous (Other)	5% Ca Carbonate 95% Non-fibrous (Other)	<1% Chrysotile
1-77 <small>411703363-0002</small>	Doors - Grey Door Caulk	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
1-79 <small>411703363-0003</small>	Windows - Black Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-80 <small>411703363-0004</small>	Windows - Black Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-82 <small>411703363-0005</small>	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	3% Glass	40% Quartz 5% Ca Carbonate 52% Non-fibrous (Other)	None Detected
1-83 <small>411703363-0006</small>	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	5% Glass	35% Quartz 60% Non-fibrous (Other)	None Detected
4-39 <small>411703363-0007</small>	Doors - Grey Door Caulk	Gray/Beige Non-Fibrous Homogeneous	<1% Cellulose <1% Glass	100% Non-fibrous (Other)	None Detected
4-40 <small>411703363-0008</small>	Doors - Grey Door Caulk	Gray Non-Fibrous Homogeneous	3% Glass	5% Quartz 92% Non-fibrous (Other)	None Detected
4-42 <small>411703363-0009</small>	Windows - Black Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-43 <small>411703363-0010</small>	Windows - Black Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-45 <small>411703363-0011</small>	U-353 Windows - Brown Caulk (Hard)	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4-46 <small>411703363-0012</small>	U-353 Windows - Brown Caulk (Hard)	Brown Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-48 <small>411703363-0013</small>	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	3% Glass	40% Quartz 5% Ca Carbonate 52% Non-fibrous (Other)	None Detected
4-49 <small>411703363-0014</small>	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	5% Glass	35% Quartz 60% Non-fibrous (Other)	None Detected
5-30 <small>411703363-0015</small>	Doors - Grey Door Caulk	Gray Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (Other)	None Detected
5-31 <small>411703363-0016</small>	Doors - Grey Door Caulk	Gray Non-Fibrous Homogeneous	4% Glass	96% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 07:57:31



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703363  
**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
5-33 <i>411703363-0017</i>	Windows - Black Window Caulk	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-34 <i>411703363-0018</i>	Windows - Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-36 <i>411703363-0019</i>	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	3% Glass	40% Quartz 10% Ca Carbonate 47% Non-fibrous (Other)	None Detected
5-37 <i>411703363-0020</i>	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	8% Glass	35% Quartz 57% Non-fibrous (Other)	None Detected

Analyst(s)

Aaron Hartley (10)

Kristie Elliott (10)

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: 05/05/2017 07:57:31



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703363  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/25/2017  
**Project:** Cammie Clagett Building 1, 4, 5 Ext.

## 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
1-78 411703363-0021	Doors - Grey Door Caulk	Gray Non-Fibrous Homogeneous	92.3	None	7.7% Chrysotile
1-81 411703363-0022	Windows - Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
1-84 411703363-0023	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	100	None	No Asbestos Detected
4-41 411703363-0024	Doors - Grey Door Caulk	Gray Non-Fibrous Homogeneous	99.8	None	0.23% Chrysotile
4-44 411703363-0025	Windows - Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-47 411703363-0026	U-353 Windows - Brown Caulk (Hard)	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-50 411703363-0027	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	100	None	No Asbestos Detected
5-32 411703363-0028	Doors - Grey Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-35 411703363-0029	Windows - Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-38 411703363-0030	Brick Penetrations - Grey Penetration Mastic	Gray Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 15:14:00



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411703363  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/25/2017  
**Project:** Cammie Clagett Building 1, 4, 5 Ext.

**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**

---

Analyst(s) \_\_\_\_\_

Derrick Young (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: 05/10/2017 15:14:00





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703312

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: Cammie Clagett Building 2		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

<p style="text-align: center;"><b>PLM - Bulk (reporting limit)</b></p> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	<p style="text-align: center;"><b>TEM - Bulk</b></p> <input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <p style="text-align: center;"><b>Other</b></p> <input type="checkbox"/>
---	--

Check For Positive Stop - Clearly Identify Homogenous Group    Date Sampled: 4-24-17

Samplers Name: Nicholas Neerhof    Samplers Signature:

Sample #	HA #	Sample Location	Material Description
2-1		interior metal window casings	Black caulk
2-2			
2-3			
2-4		wooden door casings - exterior	Grey caulk
2-5			
2-6			
2-7		kitchen counter	white caulk
2-8			
2-9			
2-10		kitchen sink	Black coatings on sink

Client Sample # (s): 2-1 - 2-62    Total # of Samples: 56

Relinquished (Client): Date: 4-26-17    Time: 10:00am

Received (Lab): Date: 4/27/17    Time: 10:00am Fk

Comments/Special Instructions: 7952 7822 3693  
Please utilize positive stop analysis.  
 Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
 Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703312

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
2-11		Kitchen sink ↓	Black coating on sink ↓
2-13			
2-20		HVAC system closet ↓	Hvac mastic
2-21			
2-22			
2-23		throughout interior ↓	Drywall, JC and tape ↓
2-24			
2-25			
2-26			
2-27			
2-28			
2-29			
2-30		under kitchen sink ↓	white coating on sink ↓
2-31			
2-32			
2-33		exterior window casings ↓	Black caulk ↓
2-34		metal	
2-35			
2-36		Kitchen ↓	white mastic on back splash ↓
2-37			
2-38			
2-39		Kitchen ↓	wall covering behind back splash ↓
2-40			
2-41			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

41170 3312

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
2-42		upstairs bathroom floor	Large Square rock pattern
2-43		↓	vinyl floor w/ mastic
2-44		↓	↓
2-45		upstairs bathroom	Bathroom stall plastic
2-46		↓	w/ mastic
2-47		↓	↓
2-48		upstairs bathroom	Tan large square pattern
2-49		↓	vinyl floor w/ mastic
2-50		↓	↓
2-51		upstairs bathroom	cove base mastic
2-52		↓	↓
2-53		↓	↓
2-54		upstairs bathroom	plaster w/ finish
2-55		↓	↓
2-56		↓	↓
2-57		<del>upstairs</del> bathroom shower	white caulk
2-58		stall ↓	↓
2-59		↓	↓
2-60		exterior <del>brick</del> brick	grey penetration caulk
2-61		penetration by awning	↓
2-62		↓	↓

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703312

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/27/2017 10:00 AM

**Analysis Date:** 05/02/2017 - 05/03/2017

**Collected Date:** 04/24/2017

**Project:** Cammie Clagett Building #2

## 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
2-1 411703312-0001	Interior Metal Window Casings - Black Caulk	Tan/Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-2 411703312-0002	Interior Metal Window Casings - Black Caulk	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-4 411703312-0003	Wooden Door Casings - Exterior - Grey Caulk	Gray Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
2-5 411703312-0004	Wooden Door Casings - Exterior - Grey Caulk				Positive Stop (Not Analyzed)
2-7 411703312-0005	Kitchen Counter - White Caulk	Tan/White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-8 411703312-0006	Kitchen Counter - White Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
2-10 411703312-0007	Kitchen Sink - Black Coating on Sink	Black Fibrous Homogeneous		30% Ca Carbonate 66% Non-fibrous (Other)	4% Chrysotile
2-11 411703312-0008	Kitchen Sink - Black Coating on Sink				Positive Stop (Not Analyzed)
2-20 411703312-0009	HVAC System Closet - HVAC Mastic	Tan/White Fibrous Homogeneous		25% Ca Carbonate 70% Non-fibrous (Other)	5% Chrysotile
2-21 411703312-0010	HVAC System Closet - HVAC Mastic				Positive Stop (Not Analyzed)
2-23-Drywall 411703312-0011 No tape present	Throughout Interior - Drywall, JC and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-23-Joint Compound 411703312-0011A	Throughout Interior - Drywall, JC and Tape	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	<1% Chrysotile
2-24-Drywall 411703312-0012 No tape present	Throughout Interior - Drywall, JC and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-24-Joint Compound 411703312-0012A	Throughout Interior - Drywall, JC and Tape	Tan Fibrous Homogeneous		35% Ca Carbonate 63% Non-fibrous (Other)	2% Chrysotile
2-25-Drywall 411703312-0013	Throughout Interior - Drywall, JC and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/04/2017 08:00:17



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703312  
**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
2-25-Joint Compound <i>411703312-0013A</i>	Throughout Interior - Drywall, JC and Tape				Positive Stop (Not Analyzed)
2-25-Tape <i>411703312-0013B</i>	Throughout Interior - Drywall, JC and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
2-26-Drywall <i>411703312-0014</i> <i>No tape present</i>	Throughout Interior - Drywall, JC and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-26-Joint Compound <i>411703312-0014A</i>	Throughout Interior - Drywall, JC and Tape				Positive Stop (Not Analyzed)
2-27-Drywall <i>411703312-0015</i>	Throughout Interior - Drywall, JC and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-27-Joint Compound <i>411703312-0015A</i>	Throughout Interior - Drywall, JC and Tape				Positive Stop (Not Analyzed)
2-28-Drywall <i>411703312-0016</i> <i>No tape present</i>	Throughout Interior - Drywall, JC and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-28-Joint Compound <i>411703312-0016A</i>	Throughout Interior - Drywall, JC and Tape				Positive Stop (Not Analyzed)
2-29-Drywall <i>411703312-0017</i> <i>No joint compound/tape present</i>	Throughout Interior - Drywall, JC and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-30 <i>411703312-0018</i>	Under Kitchen Sink - White Coating on Sink	White Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
2-31 <i>411703312-0019</i>	Under Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	5% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
2-33 <i>411703312-0020</i>	Exterior Metal Window Casings - Black Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-34 <i>411703312-0021</i>	Exterior Metal Window Casings - Black Caulk	Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-36 <i>411703312-0022</i>	Kitchen - White Mastic on Backsplash	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-37 <i>411703312-0023</i>	Kitchen - White Mastic on Backsplash	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
2-39-Drywall <i>411703312-0024</i>	Kitchen - Wall Covering behind Backsplash	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-39-Joint Compound <i>411703312-0024A</i>	Kitchen - Wall Covering behind Backsplash	White Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
2-39-Tape <i>411703312-0024B</i>	Kitchen - Wall Covering behind Backsplash	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

Initial report from: 05/04/2017 08:00:17



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**EMSL Order:** 411703312  
**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
2-40-Drywall <small>411703312-0025</small>	Kitchen - Wall Covering behind Backsplash	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
2-40-Joint Compound <small>411703312-0025A</small>	Kitchen - Wall Covering behind Backsplash				Positive Stop (Not Analyzed)
2-40-Tape <small>411703312-0025B</small>	Kitchen - Wall Covering behind Backsplash	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
2-41-Drywall <small>411703312-0026</small>	Kitchen - Wall Covering behind Backsplash	Brown/Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-41-Joint Compound <small>411703312-0026A</small>	Kitchen - Wall Covering behind Backsplash				Positive Stop (Not Analyzed)
2-41-Tape <small>411703312-0026B</small>	Kitchen - Wall Covering behind Backsplash	Tan Fibrous Homogeneous	100% Cellulose		None Detected
2-42-Flooring <small>411703312-0027</small>	Upstairs Bathroom Floor - Large Square Rock Pattern Vinyl Floor w/ Mastic	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
2-42-Mastic <small>411703312-0027A</small>	Upstairs Bathroom Floor - Large Square Rock Pattern Vinyl Floor w/ Mastic	Tan/Clear Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
2-43 <small>411703312-0028</small>	Upstairs Bathroom Floor - Large Square Rock Pattern Vinyl Floor w/ Mastic				Not Submitted
2-45-Flooring <small>411703312-0029</small>	Upstairs Bathroom - Bathroom Stall Plastic w/ Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-45-Mastic <small>411703312-0029A</small>	Upstairs Bathroom - Bathroom Stall Plastic w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
2-46-Flooring <small>411703312-0030</small>	Upstairs Bathroom - Bathroom Stall Plastic w/ Mastic	White/Beige Fibrous Homogeneous	3% Glass	8% Ca Carbonate 89% Non-fibrous (Other)	None Detected
2-46-Mastic <small>411703312-0030A</small>	Upstairs Bathroom - Bathroom Stall Plastic w/ Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-48-Flooring <small>411703312-0031</small>	Upstairs Bathroom - Tan Large Square Pattern Vinyl Floor w/ Mastic	Tan Fibrous Homogeneous	4% Cellulose	5% Ca Carbonate 91% Non-fibrous (Other)	None Detected
2-48-Mastic <small>411703312-0031A</small>	Upstairs Bathroom - Tan Large Square Pattern Vinyl Floor w/ Mastic	Tan Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
2-49-Flooring <small>411703312-0032</small>	Upstairs Bathroom - Tan Large Square Pattern Vinyl Floor w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-49-Mastic <small>411703312-0032A</small>	Upstairs Bathroom - Tan Large Square Pattern Vinyl Floor w/ Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

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**EMSL Order:** 411703312  
**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
2-51-Cove Base <small>411703312-0033</small>	Upstairs Bathroom - Cove Base Mastic	Black Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
2-51-Mastic <small>411703312-0033A</small>	Upstairs Bathroom - Cove Base Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-52-Cove Base <small>411703312-0034</small>	Upstairs Bathroom - Cove Base Mastic	Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-52-Mastic <small>411703312-0034A</small>	Upstairs Bathroom - Cove Base Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-54-Skim Coat <small>411703312-0035</small>	Upstairs Bathroom - Plaster w/ Finish	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-54-Rough Coat <small>411703312-0035A</small>	Upstairs Bathroom - Plaster w/ Finish	Gray Non-Fibrous Homogeneous		25% Quartz 75% Non-fibrous (Other)	None Detected
2-54-Drywall <small>411703312-0035B</small>	Upstairs Bathroom - Plaster w/ Finish	Brown Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-55-Skim Coat <small>411703312-0036</small>	Upstairs Bathroom - Plaster w/ Finish	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-55-Rough Coat <small>411703312-0036A</small>	Upstairs Bathroom - Plaster w/ Finish	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
2-55-Drywall <small>411703312-0036B</small>	Upstairs Bathroom - Plaster w/ Finish	Brown Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-56-Skim Coat <small>411703312-0037</small>	Upstairs Bathroom - Plaster w/ Finish	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
2-56-Rough Coat <small>411703312-0037A</small>	Upstairs Bathroom - Plaster w/ Finish	Gray Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
2-56-Drywall <small>411703312-0037B</small>	Upstairs Bathroom - Plaster w/ Finish	Brown/Gray Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
2-57 <small>411703312-0038</small>	Bathroom Shower Stall - White Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
2-58 <small>411703312-0039</small>	Bathroom Shower Stall - White Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
2-60 <small>411703312-0040</small>	Exterior Brick Penetration by Awning - Grey Penetration Caulk	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-61 <small>411703312-0041</small>	Exterior Brick Penetration by Awning - Grey Penetration Caulk	Gray Non-Fibrous Homogeneous		10% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Initial report from: 05/04/2017 08:00:17



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**EMSL Order:** 411703312

**Customer ID:** AXEM25

**Customer PO:**

**Project ID:**

Analyst(s)

*Eric Loomis (24)*

*Lacy Searcy (33)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/04/2017 08:00:17



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703312  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett Building #2

## 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
2-3 411703312-0042	Interior Metal Window Casings - Black Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-9 411703312-0043	Kitchen Counter - White Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-32 411703312-0044	Under Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-35 411703312-0045	Exterior Metal Window Casings - Black Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-38 411703312-0046	Kitchen - White Mastic on Backsplash	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-47-Flooring 411703312-0047	Upstairs Bathroom - Bathroom Stall Plastic w/ Mastic	Brown/White Fibrous Homogeneous	100	None	No Asbestos Detected
2-47-Mastic 411703312-0048	Upstairs Bathroom - Bathroom Stall Plastic w/ Mastic	Clear Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-50-Flooring 411703312-0049	Upstairs Bathroom - Tan Large Square Pattern Vinyl Floor w/ Mastic	Tan Fibrous Homogeneous	100	None	No Asbestos Detected
2-50-Mastic 411703312-0050	Upstairs Bathroom - Tan Large Square Pattern Vinyl Floor w/ Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-53-Cove Base 411703312-0051	Upstairs Bathroom - Cove Base Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-53-Mastic 411703312-0052	Upstairs Bathroom - Cove Base Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
2-59 411703312-0053	Bathroom Shower Stall - White Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 11:51:02



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703312  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett Building #2

## 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
2-62 411703312-0054	Exterior Brick Penetration by Awning - Grey Penetration Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (13)

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: 05/10/2017 11:51:02





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703303

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: Cammie Clagett B-2 and 4 Floors		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

<p><b>PLM - Bulk (reporting limit)</b></p> <p><input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (&lt;1%)</p> <p><input type="checkbox"/> PLM EPA NOB (&lt;1%)</p> <p>Point Count <input type="checkbox"/> 400 (&lt;0.25%) <input type="checkbox"/> 1000 (&lt;0.1%)</p> <p>Point Count w/Gravimetric <input type="checkbox"/> 400 (&lt;0.25%) <input type="checkbox"/> 1000 (&lt;0.1%)</p> <p><input type="checkbox"/> NIOSH 9002 (&lt;1%)</p> <p><input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)</p> <p><input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)</p> <p><input type="checkbox"/> OSHA ID-191 Modified</p> <p><input type="checkbox"/> Standard Addition Method</p>	<p><b>TEM - Bulk</b></p> <p><input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1</p> <p><input type="checkbox"/> NY ELAP Method 198.4 (TEM)</p> <p><input type="checkbox"/> Chatfield Protocol (semi-quantitative)</p> <p><input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2</p> <p><input type="checkbox"/> TEM Qualitative via Filtration Prep Technique</p> <p><input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique</p> <p style="text-align: center;"><b>Other</b></p> <p><input type="checkbox"/></p>
---	---

Check For Positive Stop - Clearly Identify Homogenous Group    Date Sampled: 4-24-17

Samplers Name: Nicholas Neerhof    Samplers Signature: *[Signature]*

Sample #	HA #	material description <del>Sample Location</del>	Sample Location Material Description
2-14		Top layer - cream speckled 12x12" Floor tile with mastic	Throughout down stairs floors
2-15		Second layer - tan 12"x12" floor tile with mastic	
2-16			
2-17		Top - Cream speckled pattern floor tile with mastic	Throughout upstairs floors
2-18		Second layer under wood - grey floor tile with mastic	
2-19			
4-12		12"x12" tan speckled floor tile with adhesive	Kitchen - 351
4-13		over 12"x12" brown <del>streaked</del> floor tile with mastic	Living room - 355
4-14			Front bedroom - 357

Client Sample # (s): 2-14 - 4-14	Total # of Samples: 9
Relinquished (Client): Nicholas Neerhof	Date: 4-26-17
Received (Lab): <i>[Signature]</i>	Date: 4/27/17
Comments/Special Instructions: <small>Please utilize positive stop analysis.</small>	Time: 10:00 AM Fx
<small>Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:</small>	7952 7822 3708





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**EMSL Order:** 411703303  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 04/27/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett B-2 and 4 Floors

## 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
2-14-White Floor Tile <small>411703303-0001</small>	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-14-Mastic <small>411703303-0001A</small>	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	Yellow Non-Fibrous Homogeneous		5% Ca Carbonate 5% Mica 90% Non-fibrous (Other)	None Detected
2-14-Tan Floor Tile <small>411703303-0001B</small>	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	Tan Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (Other)	3% Chrysotile
2-14-Mastic <small>411703303-0001C</small>	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	Black Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
2-15-White Floor Tile <small>411703303-0002</small>	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-15-Mastic <small>411703303-0002A</small>	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	Yellow Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 04/27/2017 14:11:50



# EMSL Analytical, Inc.

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703303  
**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
2-15-Tan Floor Tile  411703303-0002B	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic				Positive Stop (Not Analyzed)
2-15-Mastic  411703303-0002C	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic				Positive Stop (Not Analyzed)
2-17-White Floor Tile  411703303-0003	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-17-Mastic  411703303-0003A	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	Yellow Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
2-17-Gray Floor Tile  411703303-0003B	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	Gray Fibrous Homogeneous		30% Ca Carbonate 66% Non-fibrous (Other)	4% Chrysotile
2-17-Mastic  411703303-0003C	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	Black Fibrous Homogeneous		5% Ca Carbonate 89% Non-fibrous (Other)	6% Chrysotile
2-18-White Floor Tile  411703303-0004	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-18-Mastic  411703303-0004A	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	Yellow Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 04/27/2017 14:11:50



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703303  
**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
2-18-Gray Floor Tile  411703303-0004B	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic				Positive Stop (Not Analyzed)
2-18-Mastic  411703303-0004C	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic				Positive Stop (Not Analyzed)
4-12-Tan Floor Tile  411703303-0005	Kitchen - 351 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
4-12-Mastic  411703303-0005A	Kitchen - 351 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Yellow Non-Fibrous Homogeneous		5% Ca Carbonate 5% Mica 90% Non-fibrous (Other)	None Detected
4-12-Brown Floor Tile  411703303-0005B	Kitchen - 351 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Brown Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile
4-12-Mastic  411703303-0005C	Kitchen - 351 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Black Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
4-13-Tan Floor Tile  411703303-0006	Living Room - 355 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
4-13-Mastic  411703303-0006A	Living Room - 355 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 04/27/2017 14:11:50



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**EMSL Order:** 411703303  
**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
4-13-Brown Floor Tile  411703303-0006B	Living Room - 355 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic				Positive Stop (Not Analyzed)
4-13-Mastic  411703303-0006C	Living Room - 355 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic				Positive Stop (Not Analyzed)

Analyst(s) \_\_\_\_\_

Eric Loomis (6)

Lacy Searcy (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: 04/27/2017 14:11:50



# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703303  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 04/28/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett B-2 and 4 Floors

## 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
2-16-White Floor Tile 411703303-0007	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
2-16-Mastic 411703303-0008	Throughout Downstairs Floors - Top Layer - Cream Speckled 12"x12" Floor Tile with Mastic/ Second Layer - Tan 12"x12" Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
2-19-White Floor Tile 411703303-0009	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
2-19-Mastic 411703303-0010	Throughout Upstairs Floors - Top - Cream Speckled Pattern Floor Tile with Mastic/ Second Layer under Wood - Grey Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
4-14-Tan Floor Tile 411703303-0011	Front Bedroom - 357 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
4-14-Mastic 411703303-0012	Front Bedroom - 357 - 12"x12" Tan Speckled Floor Tile with Adhesive over 12"x12" Brown Streaked Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 04/28/2017 14:11:38



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411703303  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 04/28/2017  
**Collected Date:** 04/24/2017  
**Project:** Cammie Clagett B-2 and 4 Floors

**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
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Analyst(s)

Derrick Young (6)

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: 04/28/2017 14:11:38





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703309

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Commie Clayett Building 3</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: 4-25-17

Samplers Name: *Nicholas Neerhof*      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
3-1		exterior metal window casings	Black casing caulk
3-2			
3-3			
3-4		interior metal window casings	Black caulk
3-5			
3-6			
3-7		exterior wooden door frames	Door caulk
3-8			
3-9			
3-10		Kitchen <del>to</del> Sink	Black coating on Sink

Client Sample # (s): 3-1 - 3-64      Total # of Samples: 58

Relinquished (Client): *Nicholas Neerhof*      Date: 4-26-17      Time:

Received (Lab): *Kyle Nbo*      Date: 4/27/17      Time: 10:00 AM Fk

Comments/Special Instructions:  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: 7952 7822 3693





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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703309

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
3-11		Kitchen Sink	Black coating on sink
3-12			
3-13		Kitchen counter	white caulk
3-14			
3-15			
3-16		Exterior brick penetration by <sup>swinging</sup> <del>cutting</del>	Brown caulk
3-17			
3-18			
<del>3-19</del>		U-350 Throughout	Drywall with joint compound and tape
3-20		U-352	
3-21		U-354	
3-22		U-356	
3-23		U-358	
3-24		U-360	
3-25		U-360	
3-26		throughout downstairs flooring	Top-tan speckled 12"x12" floor tile with mastic
3-27			Second-cream 12"x12" floor tile with mastic
<del>3-28</del>			
3-29		throughout upstairs flooring	Top-tan speckled 12"x12" floor tile with mastic
3-30			Second-brown 12"x12" floor tile with mastic
3-31			
3-32		upstairs bedroom	Drywall patch joint compound
3-33			
3-34			

**\*Comments/Special Instructions:**

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Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





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### Asbestos Bulk Building Material Chain of Custody

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376 Crompton Street

Charlotte, NC 28273  
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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
3-35		upstairs bathroom shower stall and sink	white caulk
3-36			
3-37			
3-38		upstairs bathroom flooring	brown mastic under ceramic tile
3-39		U-350	with grey leveling compound beneath
3-40			
3-44		HVAC system downstairs	HVAC mastic - white
3-45			
3-46			
3-47		upstairs bathroom flooring	Square stone pattern Vinyl
3-48		U-352	
3-49			
3-53		underneath kitchen sink	white coating on sink
3-54			
3-55			
3-56		exterior brick <del>penetration</del> <sup>penetration</sup> by awning	Grey mastic
3-57			
3-58			
3-59		Bathroom floor U-360	Stone pattern vinyl floor with mastic
3-60			
3-61			
3-62		Bathroom wet wall	plaster with finish
3-63			
3-64			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
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EMSL Order: 411703309

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/27/2017 10:00 AM

**Analysis Date:** 05/02/2017 - 05/03/2017

**Collected Date:** 04/25/2017

**Project:** Cammie Clagett Building #3

## 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
3-1 411703309-0001	Exterior Metal Window Casings - Black Casing Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-2 411703309-0002	Exterior Metal Window Casings - Black Casing Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-4 411703309-0003	Interior Metal Window Casings - Black Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-5 411703309-0004	Interior Metal Window Casings - Black Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-7 411703309-0005	Exterior Wooden Door Frames - Door Caulk	Gray Non-Fibrous Homogeneous		5% Quartz 93% Non-fibrous (Other)	2% Chrysotile
3-8 411703309-0006	Exterior Wooden Door Frames - Door Caulk				Positive Stop (Not Analyzed)
3-10 411703309-0007	Kitchen Sink - Black Coating on Sink	Black Non-Fibrous Homogeneous		20% Ca Carbonate 76% Non-fibrous (Other)	4% Chrysotile
3-11 411703309-0008	Kitchen Sink - Black Coating on Sink				Positive Stop (Not Analyzed)
3-13 411703309-0009	Kitchen Counter - White Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
3-14 411703309-0010	Kitchen Counter - White Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
3-16 411703309-0011	Exterior Brick Penetration by Awning - Brown Caulk	Brown Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
3-17 411703309-0012	Exterior Brick Penetration by Awning - Brown Caulk	Brown Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
3-19-Drywall 411703309-0013 <i>No tape present</i>	U-350 Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
3-19-Joint Compound 411703309-0013A	U-350 Throughout - Drywall with Joint Compound and Tape	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 93% Non-fibrous (Other)	2% Chrysotile
3-20-Drywall 411703309-0014	U-352 Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
3-20-Joint Compound 411703309-0014A	U-352 Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)

Initial report from: 05/03/2017 13:38:32



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703309  
**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
3-20-Tape <i>411703309-0014B</i>	U-352 Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
3-21-Drywall <i>411703309-0015</i> <i>No tape present</i>	U-354 Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
3-21-Joint Compound <i>411703309-0015A</i>	U-354 Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
3-22-Drywall <i>411703309-0016</i>	U-356 Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
3-22-Joint Compound <i>411703309-0016A</i>	U-356 Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
3-22-Tape <i>411703309-0016B</i>	U-356 Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
3-23-Drywall <i>411703309-0017</i> <i>No tape present</i>	U-358 Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
3-23-Joint Compound <i>411703309-0017A</i>	U-358 Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
3-24-Drywall <i>411703309-0018</i> <i>No tape present</i>	U-360 Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
3-24-Joint Compound <i>411703309-0018A</i>	U-360 Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
3-25-Drywall <i>411703309-0019</i> <i>No tape present</i>	U-360 Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
3-25-Joint Compound <i>411703309-0019A</i>	U-360 Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
3-26-Top Floor Tile <i>411703309-0020</i>	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Tan/White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
3-26-Mastic <i>411703309-0020A</i>	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 13:38:32



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

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**EMSL Order:** 411703309  
**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
3-26-Bottom Floor Tile  411703309-0020B	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Beige Non-Fibrous Homogeneous	4% Fibrous (Other)	8% Ca Carbonate 86% Non-fibrous (Other)	2% Chrysotile
3-26-Mastic  411703309-0020C	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
3-27-Top Floor Tile  411703309-0021	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
3-27-Mastic  411703309-0021A	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
3-27-Bottom Floor Tile  411703309-0021B	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic				Positive Stop (Not Analyzed)
3-27-Mastic  411703309-0021C	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic				Positive Stop (Not Analyzed)
3-29-Top Floor Tile  411703309-0022	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Tan/White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
3-29-Mastic  411703309-0022A	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Gray/Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 13:38:32





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703309  
**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
3-29-Bottom Floor Tile  411703309-0022B	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Beige Non-Fibrous Homogeneous	4% Fibrous (Other)	8% Ca Carbonate 86% Non-fibrous (Other)	2% Chrysotile
3-29-Mastic  411703309-0022C	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Black Non-Fibrous Homogeneous	3% Cellulose	93% Non-fibrous (Other)	4% Chrysotile
3-30-Top Floor Tile  411703309-0023	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
3-30-Mastic  411703309-0023A	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
3-30-Bottom Floor Tile  411703309-0023B	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic				Positive Stop (Not Analyzed)
3-30-Mastic  411703309-0023C	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic				Positive Stop (Not Analyzed)
3-32  411703309-0024	Upstairs Bedroom - Drywall Patch Joint Compound	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
3-33  411703309-0025	Upstairs Bedroom - Drywall Patch Joint Compound	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
3-34  411703309-0026	Upstairs Bedroom - Drywall Patch Joint Compound	White Non-Fibrous Homogeneous		45% Ca Carbonate 55% Non-fibrous (Other)	None Detected
3-35  411703309-0027	Upstairs Bathroom Shower Stall and Sink - White Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
3-36  411703309-0028	Upstairs Bathroom Shower Stall and Sink - White Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 13:38:32



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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703309  
**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
3-38-Ceramic Tile 411703309-0029	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	White Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
3-38-Mastic 411703309-0029A	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	Brown/Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
3-38-Leveler 411703309-0029B	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	Gray Fibrous Homogeneous	10% Cellulose	10% Quartz 80% Non-fibrous (Other)	None Detected
3-39-Ceramic Tile 411703309-0030	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	White Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
3-39-Mastic 411703309-0030A	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	Brown/Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
3-39-Leveler 411703309-0030B	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	Gray Non-Fibrous Homogeneous	5% Cellulose	10% Ca Carbonate 85% Non-fibrous (Other)	None Detected
3-40-Ceramic Tile 411703309-0030C	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-40-Leveler 411703309-0030D	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
3-44 411703309-0031	HVAC System Downstairs - HVAC Mastic - White	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
3-45 411703309-0032	HVAC System Downstairs - HVAC Mastic - White	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
3-47 411703309-0033	Upstairs Bathroom Flooring - U-352 - Square Stone Pattern Vinyl	Gray Fibrous Homogeneous	4% Glass	96% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 13:38:32



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**EMSL Order:** 411703309  
**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
3-48 411703309-0034	Upstairs Bathroom Flooring - U-352 - Square Stone Pattern Vinyl	Tan Fibrous Homogeneous	3% Glass	5% Ca Carbonate 92% Non-fibrous (Other)	None Detected
3-53 411703309-0035	nderneath Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	15% Cellulose	8% Ca Carbonate 5% Mica 72% Non-fibrous (Other)	None Detected
3-54 411703309-0036	nderneath Kitchen Sink - White Coating on Sink	Tan Fibrous Homogeneous	10% Cellulose	8% Ca Carbonate 5% Mica 77% Non-fibrous (Other)	None Detected
3-56 411703309-0037	Exterior Brick Penetration by Awning - Grey Mastic	Gray Fibrous Homogeneous	10% Glass	25% Quartz 65% Non-fibrous (Other)	None Detected
3-57 411703309-0038	Exterior Brick Penetration by Awning - Grey Mastic	Gray Fibrous Homogeneous	8% Glass	30% Quartz 62% Non-fibrous (Other)	None Detected
3-59-Flooring 411703309-0039	Bathroom Floor - U-360 - Stone Pattern Vinyl Floor with Mastic	Beige Fibrous Homogeneous	15% Cellulose 2% Glass	10% Ca Carbonate 73% Non-fibrous (Other)	None Detected
3-59-Mastic 411703309-0039A	Bathroom Floor - U-360 - Stone Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
3-60-Flooring 411703309-0040	Bathroom Floor - U-360 - Stone Pattern Vinyl Floor with Mastic	Beige Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
3-60-Mastic 411703309-0040A	Bathroom Floor - U-360 - Stone Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
3-62-Skim Coat 411703309-0041	Bathroom Wet Wall - Plaster with Finish	White Non-Fibrous Homogeneous		5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
3-62-Rough Coat 411703309-0041A	Bathroom Wet Wall - Plaster with Finish	Gray Non-Fibrous Homogeneous	2% Cellulose <1% Glass	35% Quartz 63% Non-fibrous (Other)	None Detected
3-63-Skim Coat 411703309-0042	Bathroom Wet Wall - Plaster with Finish	White Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
3-63-Rough Coat 411703309-0042A	Bathroom Wet Wall - Plaster with Finish	Gray Non-Fibrous Homogeneous	1% Cellulose 1% Glass	35% Quartz 63% Non-fibrous (Other)	None Detected
3-64-Skim Coat 411703309-0043	Bathroom Wet Wall - Plaster with Finish	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
3-64-Rough Coat 411703309-0043A	Bathroom Wet Wall - Plaster with Finish	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 13:38:32





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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703309

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Aaron Hartley (38)*

*Anupriya Tyagi (19)*

*Travis Hartney (6)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/03/2017 13:38:32



# EMSL Analytical, Inc.

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Tel/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703309  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/09/2017  
**Collected Date:** 04/25/2017  
**Project:** Cammie Clagett Building #3

## 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
3-3 411703309-0044	Exterior Metal Window Casings - Black Casing Caulk	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-6 411703309-0045	Interior Metal Window Casings - Black Caulk	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-15 411703309-0046	Kitchen Counter - White Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-18 411703309-0047	Exterior Brick Penetration by Awning - Brown Caulk	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-28-Top Floor Tile 411703309-0048	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-28-Mastic 411703309-0049	Throughout Downstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Cream 12"x12" Floor Tile with Mastic	Yellow Non-Fibrous Homogeneous	99.3	0.71 Fibrous_Other	No Asbestos Detected
3-31-Top Floor Tile 411703309-0050	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-31-Mastic 411703309-0051	Throughout Upstairs Flooring - Top - Tan Speckled 12"x12" Floor Tile with Mastic/ Second - Brown 12"x12" Floor Tile with Mastic	Yellow Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-37 411703309-0052	Upstairs Bathroom Shower Stall and Sink - White Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/09/2017 12:35:43



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703309  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/09/2017  
**Collected Date:** 04/25/2017  
**Project:** Cammie Clagett Building #3

## 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
3-40-Mastic 411703309-0053	Upstairs Bathroom Flooring - U-350 - Brown Mastic under Ceramic Tile with Grey Leveling Compound Beneath	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-46 411703309-0054	HVAC System Downstairs - HVAC Mastic - White	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-49 411703309-0055	Upstairs Bathroom Flooring - U-352 - Square Stone Pattern Vinyl	Brown/Beige Fibrous Homogeneous	100	None	No Asbestos Detected
3-55 411703309-0056	Underneath Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-58 411703309-0057	Exterior Brick Penetration by Awning - Grey Mastic	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-61-Flooring 411703309-0058	Bathroom Floor - U-360 - Stone Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	100	None	No Asbestos Detected
3-61-Mastic 411703309-0059	Bathroom Floor - U-360 - Stone Pattern Vinyl Floor with Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (16)

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: 05/09/2017 12:35:43





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703310

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company : Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: Cammie Cluggett building 4		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: 4-25-17

Samplers Name: ~~XXXX~~ Nicholas Neerhof      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
4-1		Throughout	Dry wall with Joint compound and tape
4-2			
4-3			
4-4			
<del>4-5</del>			
4-6			
4-7			
4-8		Bathroom wall	plaster with finish over unfinished dry wall
4-9			
4-10			

Client Sample # (s): 4-1 - 4-38      Total # of Samples: 35

Relinquished (Client): Nicholas Neerhof      Date: 4-26-17      Time:

Received (Lab): *[Signature]*      Date: 4/27/17      Time: 10:00am Fx

Comments/Special Instructions: Please utilize positive stop analysis.      7952 7822 3708

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Bulk Building Material Chain of Custody**

EMSL Order Number (Lab Use Only):

411703310

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
4-11		Bathroom wall	Plaster with finish over unfinished dry wall
<del>4-12</del>			
4-15		Bathroom floor U-351	Grey large square pattern vinyl floor with mastic
4-16			
4-17			
4-18		under kitchen sink	white coating on sink
4-19			
4-20			
4-21		Kitchen counter	kitchen counter caulk
4-22			
4-23			
4-24		Bathroom shower stall and sink	shower stall and sink caulk
4-25			
4-26			
4-27		HVAC closet	white HVAC caulk
4-28			
4-29			
4-30		Front bedroom	interior window caulk
4-31			
4-32			
4-33		Kitchen - under sink	Black <del>cat</del> coating on sink
4-34			
4-35			

**\*Comments/Special Instructions:**  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703310

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/27/2017 10:00 AM

**Analysis Date:** 05/02/2017

**Collected Date:** 04/25/2017

**Project:** Cammie Clagett Building #4

## 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
4-1-Drywall <i>411703310-0001</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
4-1-Joint Compound <i>411703310-0001A</i>	Throughout - Drywall with Joint Compound and Tape	Beige Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
4-2-Drywall <i>411703310-0002</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
4-2-Joint Compound <i>411703310-0002A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
4-2-Tape <i>411703310-0002B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
4-3-Drywall <i>411703310-0003</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
4-3-Joint Compound <i>411703310-0003A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
4-3-Tape <i>411703310-0003B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
4-4-Drywall <i>411703310-0004</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
4-4-Joint Compound <i>411703310-0004A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
4-4-Tape <i>411703310-0004B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
4-5-Drywall <i>411703310-0005</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
4-5-Joint Compound <i>411703310-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
4-5-Tape <i>411703310-0005B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
4-6-Drywall <i>411703310-0006</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
4-6-Joint Compound <i>411703310-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)

Initial report from: 05/03/2017 14:39:09





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703310  
**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
4-6-Tape <small>411703310-0006B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
4-7-Drywall <small>411703310-0007</small>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
4-7-Joint Compound <small>411703310-0007A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
4-7-Tape <small>411703310-0007B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Glass		None Detected
4-8-Drywall <small>411703310-0008</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
4-8-Skim Coat <small>411703310-0008A</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
4-8-Rough Coat <small>411703310-0008B</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
4-9-Drywall <small>411703310-0009</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
4-9-Skim Coat <small>411703310-0009A</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-9-Rough Coat <small>411703310-0009B</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4-10-Skim Coat <small>411703310-0010</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-10-Rough Coat <small>411703310-0010A</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
4-11-Drywall <small>411703310-0011</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
4-11-Skim Coat <small>411703310-0011A</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4-11-Rough Coat <small>411703310-0011B</small>	Bathroom Wall - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected

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**EMSL Order:** 411703310  
**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
4-15-Flooring <small>411703310-0012</small>	Bathroom Floor - U-351 - Grey Large Square Pattern Vinyl Floor with Mastic	Gray Fibrous Homogeneous	20% Cellulose 2% Glass	78% Non-fibrous (Other)	None Detected
4-15-Mastic <small>411703310-0012A</small>	Bathroom Floor - U-351 - Grey Large Square Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4-16-Floor Tile <small>411703310-0013</small>	Bathroom Floor - U-351 - Grey Large Square Pattern Vinyl Floor with Mastic	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
4-16-Mastic <small>411703310-0013A</small>	Bathroom Floor - U-351 - Grey Large Square Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
4-18 <small>411703310-0014</small>	Under Kitchen Sink - White Coating on Sink	Tan Fibrous Homogeneous	15% Cellulose	8% Ca Carbonate 5% Mica 72% Non-fibrous (Other)	None Detected
4-19 <small>411703310-0015</small>	Under Kitchen Sink - White Coating on Sink	Tan Fibrous Homogeneous	30% Cellulose	5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4-21 <small>411703310-0016</small>	Kitchen Counter - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
4-22 <small>411703310-0017</small>	Kitchen Counter - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-24 <small>411703310-0018</small>	Bathroom Shower Stall and Sink - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-25 <small>411703310-0019</small>	Bathroom Shower Stall and Sink - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-27 <small>411703310-0020</small>	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-28 <small>411703310-0021</small>	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-30 <small>411703310-0022</small>	Front Bedroom - Interior Window Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
4-31 <small>411703310-0023</small>	Front Bedroom - Interior Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-33 <small>411703310-0024</small>	Kitchen - Under Sink - Black Coating on Sink	Black Fibrous Homogeneous		8% Ca Carbonate 90% Non-fibrous (Other)	2% Chrysotile
4-34 <small>411703310-0025</small>	Kitchen - Under Sink - Black Coating on Sink				Positive Stop (Not Analyzed)
4-36 <small>411703310-0026</small>	Kitchen - Backsplash (Underneath) - Mastic under Stove Backsplash	White/Clear Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 14:39:09



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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703310  
**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
4-37	Kitchen - Backsplash (Underneath) - Mastic under Stove Backsplash	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703310-0027					

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (27)

Lacy Searcy (15)

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: 05/03/2017 14:39:09



# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703310  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/09/2017  
**Collected Date:** 04/25/2017  
**Project:** Cammie Clagett Building #4

## 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
4-17-Floor Tile 411703310-0028	Bathroom Floor - U-351 - Grey Large Square Pattern Vinyl Floor with Mastic	Brown/Gray Fibrous Heterogeneous	100	None	No Asbestos Detected
4-17-Mastic 411703310-0029	Bathroom Floor - U-351 - Grey Large Square Pattern Vinyl Floor with Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-20 411703310-0030	Under Kitchen Sink - White Coating on Sink	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-23 411703310-0031	Kitchen Counter - Kitchen Counter Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-26 411703310-0032	Bathroom Shower Stall and Sink - Shower Stall and Sink Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-29 411703310-0033	HVAC Closet - White HVAC Caulk	Beige Non-Fibrous Homogeneous	99.9	0.11 Fibrous_Other	No Asbestos Detected
4-32 411703310-0034	Front Bedroom - Interior Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
4-38 411703310-0035	Kitchen - Backsplash (Underneath) - Mastic under Stove Backsplash	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (8)

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: 05/09/2017 12:36:33



EMSL Analytical, Inc.  
376 Crompton Street



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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703311

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com #5		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagett Build-</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <p style="text-align: center;"><u>Other</u></p> <input type="checkbox"/>

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: *4-25-17*

Samplers Name: *Red Shultz*      Samplers Signature: *Josh K...*

Sample #	HA #	Sample Location	Material Description
5-1			<i>Drywall &amp; joint compound</i>
5-2			
5-3			
5-4			
5-5			
5-6			
5-7			
<del>5-8</del>			

Client Sample # (s): <i>1-29</i>	Total # of Samples:
Relinquished (Client): <i>Josh K...</i> Date: <i>4-25-17</i> Time: <i>10:00am</i>	
Received (Lab): <i>Rebecca Nelson</i> Date: <i>4/27/17</i> Time: <i>10:00am FTX</i>	
Comments/Special Instructions: <small>Please utilize positive stop analysis.</small> BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:	<i>7952 7822 3693</i>





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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703311

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
5-8			Plaster w/ finish over
5-9			unfinished dry wall
5-10		(no drywall)	┆
5-11			
5-12			12x12 tan speckled F.T.
5-13			w/mastic over 12x12 Brown
5-14			streaked F.T. w/ mastic
5-15			white HVAC mastic
5-16			┆
5-17			
5-18			kitchen counter caulk
5-19			┆
5-20			
5-21			Bathroom shower stall
5-22			caulk
5-23			┆
5-24			
5-25			Black coating under
5-26			kitchen sink
5-27			┆
5-28			
5-29			Interior window caulk
			┆

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



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EMSL Order: 411703311

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/27/2017 10:00 AM

**Analysis Date:** 05/02/2017 - 05/03/2017

**Collected Date:** 04/25/2017

**Project:** Cammie Clagett Building #5

## 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
5-1-Drywall <small>411703311-0001</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
5-1-Beige Joint Compound <small>411703311-0001A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
5-1-Tape <small>411703311-0001B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
5-2-Drywall <small>411703311-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
5-2-Beige Joint Compound <small>411703311-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
5-3-Drywall <small>411703311-0003</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
5-3-Beige Joint Compound <small>411703311-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
5-4-Drywall <small>411703311-0004</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
5-4-Beige Joint Compound <small>411703311-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
5-4-White Joint Compound <small>411703311-0004B</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
5-4-Tape <small>411703311-0004C</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
5-5-Drywall <small>411703311-0005</small>	Drywall & Joint Compound	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
5-5-White Joint Compound <small>411703311-0005A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
5-5-Tape <small>411703311-0005B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 11:01:45





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**EMSL Order:** 411703311  
**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
5-6-Drywall <small>411703311-0006</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
5-6-Beige Joint Compound <small>411703311-0006A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
5-6-Tape <small>411703311-0006B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
5-7-Drywall <small>411703311-0007</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
5-7-Beige Joint Compound <small>411703311-0007A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
5-7-White Joint Compound <small>411703311-0007B</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
5-8-Drywall <small>411703311-0008</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
5-8-Skim Coat <small>411703311-0008A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
5-8-Rough Coat <small>411703311-0008B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		35% Quartz 8% Ca Carbonate 57% Non-fibrous (Other)	None Detected
5-9-Drywall <small>411703311-0009</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
5-9-Skim Coat <small>411703311-0009A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
5-9-Rough Coat <small>411703311-0009B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
5-10-Skim Coat <small>411703311-0010</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
5-10-Rough Coat <small>411703311-0010A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
5-11-Drywall <small>411703311-0011</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
5-11-Skim Coat <small>411703311-0011A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
5-11-Rough Coat <small>411703311-0011B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 11:01:45



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376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703311  
**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
5-12-Tan Floor Tile <small>411703311-0012</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
5-12-Mastic <small>411703311-0012A</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
5-12-Brown Floor Tile <small>411703311-0012B</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Brown Fibrous Homogeneous		30% Ca Carbonate 66% Non-fibrous (Other)	4% Chrysotile
5-12-Mastic <small>411703311-0012C</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Black Non-Fibrous Homogeneous	2% Cellulose	94% Non-fibrous (Other)	4% Chrysotile
5-13-Tan Floor Tile <small>411703311-0013</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
5-13-Mastic <small>411703311-0013A</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
5-13-Brown Floor Tile <small>411703311-0013B</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic				Positive Stop (Not Analyzed)
5-13-Mastic <small>411703311-0013C</small>	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic				Positive Stop (Not Analyzed)
5-15 <small>411703311-0014</small>	White HVAC Mastic	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
5-16 <small>411703311-0015</small>	White HVAC Mastic	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
5-18 <small>411703311-0016</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
5-19 <small>411703311-0017</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
5-21 <small>411703311-0018</small>	Bathroom Shower Stall Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
5-22 <small>411703311-0019</small>	Bathroom Shower Stall Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 05/03/2017 11:01:45



# EMSL Analytical, Inc.

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**EMSL Order:** 411703311  
**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
5-24 <small>411703311-0020</small>	Black Coating under Kitchen Sink	Black Fibrous Homogeneous		8% Ca Carbonate 89% Non-fibrous (Other)	3% Chrysotile
5-25 <small>411703311-0021</small>	Black Coating under Kitchen Sink				Positive Stop (Not Analyzed)
5-27 <small>411703311-0022</small>	Interior Window Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
5-28 <small>411703311-0023</small>	Interior Window Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (28)

Lyterra Barrow (13)

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: 05/03/2017 11:01:45



# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703311  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/27/2017 10:00 AM  
**Analysis Date:** 05/08/2017  
**Collected Date:** 04/25/2017  
**Project:** Cammie Clagett Building #5

## 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
5-14-Tan Floor Tile 411703311-0024	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-14-Mastic 411703311-0025	12x12 Tan Speckled F.T. w/ Mastic over 12x12 Brown Streaked F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-17 411703311-0026	White HVAC Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-20 411703311-0027	Kitchen Counter Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-23 411703311-0028	Bathroom Shower Stall Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
5-29 411703311-0029	Interior Window Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (6)

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: 05/08/2017 15:50:59





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703368

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company : Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clagett Build. #</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* – Please Check

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)		<b>Other</b>	
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)		<input type="checkbox"/>	
<input type="checkbox"/> NIOSH 9002 (<1%)			
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)			
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)			
<input type="checkbox"/> OSHA ID-191 Modified			
<input type="checkbox"/> Standard Addition Method			

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled: 4-26-17

Samplers Name: Ted Shultz      Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
<u>6-1</u>			<u>drywall + joint compound</u>
<u>6-2</u>			
<u>6-3</u>			
<u>6-4</u>			
<u>6-5</u>			
<u>6-6</u>			
<u>6-7</u>			

Client Sample # (s): <u>1-44</u>	Total # of Samples:
Relinquished (Client): <u>[Signature]</u> Date: <u>4-27-16</u> Time: <u>NOON</u>	
Received (Lab): <u>[Signature]</u> Date: <u>4/28/17</u> Time: <u>11:00AM Fx</u>	
Comments/Special Instructions: <small>Please utilize positive stop analysis.</small>	<u>7952 7865 6126</u>
<small>Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:</small>	





EMSL ANALYTICAL, INC.  
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**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

411703368

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
6-8			Plaster w/ finish over
6-9			unfinished dry wall
6-10		(no dry wall)	<del>dry wall</del>
6-11			
6-12		(Top layer)	12x12 tan speckled
6-13			F.T. w/ mastic
6-14			
6-15		(Bottom layer)	12x12 Cream F.T.
6-16			w/ mastic
6-17			
6-18			Kitchen counter
6-19			caulk white
6-20			
6-21			HVAC caulk
6-22			
6-23			
6-24			Bathroom shower stall
6-25			& sink caulk
6-26			
6-27			Kitchen sink undercoat
6-28			Black
6-29			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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EMSL Order: 411703368

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/28/2017 11:00 AM

**Analysis Date:** 05/04/2017

**Collected Date:** 04/26/2017

**Project:** Cammie Clagett Building #6

## 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
6-1-Drywall <small>411703368-0001</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
6-1-White Joint Compound <small>411703368-0001A</small>	Drywall & Joint Compound	White Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
6-1-Tan Joint Compound <small>411703368-0001B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
6-2-Drywall <small>411703368-0002</small> <i>Sample bag labeled 6-4</i>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
6-2-Tan Joint Compound <small>411703368-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
6-3-Drywall <small>411703368-0003</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
6-3-Tan Joint Compound <small>411703368-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
6-4-Drywall <small>411703368-0004</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
6-4-Tan Joint Compound <small>411703368-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
6-4-Tape <small>411703368-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
6-5-Drywall <small>411703368-0005</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
6-5-Tan Joint Compound <small>411703368-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
6-5-Tape <small>411703368-0005B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
6-6-Drywall <small>411703368-0006</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:05:19



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**EMSL Order:** 411703368  
**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
6-6-White Joint Compound <small>411703368-0006A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
6-6-Tape <small>411703368-0006B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
6-7-Drywall <small>411703368-0007</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
6-7-White Joint Compound <small>411703368-0007A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
6-7-Tape <small>411703368-0007B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
6-8-Skim Coat <small>411703368-0008</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
6-8-Rough Coat <small>411703368-0008A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
6-8-Drywall <small>411703368-0008B</small>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
6-9-Skim Coat <small>411703368-0009</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
6-9-Rough Coat <small>411703368-0009A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
6-9-Drywall <small>411703368-0009B</small>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
6-10-Skim Coat <small>411703368-0010</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
6-10-Rough Coat <small>411703368-0010A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		50% Quartz 50% Non-fibrous (Other)	None Detected
6-11-Skim Coat <small>411703368-0011</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
6-11-Rough Coat <small>411703368-0011A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Cellulose	50% Quartz 50% Non-fibrous (Other)	None Detected
6-11-Drywall <small>411703368-0011B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
6-12-Floor Tile <small>411703368-0012</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
6-12-Mastic <small>411703368-0012A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected

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**EMSL Order:** 411703368  
**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
6-13-Floor Tile <small>411703368-0013</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan/White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
6-13-Mastic <small>411703368-0013A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	8% Gypsum 90% Non-fibrous (Other)	None Detected
6-15-Floor Tile <small>411703368-0014</small>	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Beige Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
6-15-Mastic <small>411703368-0014A</small>	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
6-16-Floor Tile <small>411703368-0015</small>	12x12 Cream F.T. w/ Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
6-16-Mastic <small>411703368-0015A</small>	12x12 Cream F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
6-18 <small>411703368-0016</small>	Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
6-19 <small>411703368-0017</small>	Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
6-21 <small>411703368-0018</small>	HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-22 <small>411703368-0019</small>	HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
6-24 <small>411703368-0020</small>	Bathroom Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
6-25 <small>411703368-0021</small>	Bathroom Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
6-27 <small>411703368-0022</small>	Kitchen Sink Undercoat - Black	Black Fibrous Homogeneous		35% Ca Carbonate 60% Non-fibrous (Other)	5% Chrysotile
6-28 <small>411703368-0023</small>	Kitchen Sink Undercoat - Black				Positive Stop (Not Analyzed)
6-30 <small>411703368-0024</small>	Window Caulk - Black	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
6-31 <small>411703368-0025</small>	Window Caulk - Black	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
6-33 <small>411703368-0026</small>	Kitchen Sink Undercoat - White	White Fibrous Homogeneous	5% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
6-34 <small>411703368-0027</small>	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 5% Mica 80% Non-fibrous (Other)	None Detected
6-36 <small>411703368-0028</small>		Gray/Tan Fibrous Homogeneous	3% Glass	97% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:05:19





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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703368  
**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
6-37 <small>411703368-0029</small>		Gray/Tan Non-Fibrous Homogeneous	5% Glass	8% Ca Carbonate 87% Non-fibrous (Other)	None Detected
6-39 <small>411703368-0030</small>		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-40 <small>411703368-0031</small>		Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
6-42 <small>411703368-0032</small>		Gray Fibrous Homogeneous	15% Glass	15% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
6-43 <small>411703368-0033</small>		Gray Fibrous Homogeneous	4% Glass	15% Quartz 81% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (26)

Lacy Searcy (24)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/05/2017 08:05:19



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703368  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #6

## 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
6-14-Floor Tile 411703368-0034	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-14-Mastic 411703368-0035	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-17-Floor Tile 411703368-0036	12x12 Cream F.T. w/ Mastic (Bottom Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-20 411703368-0037	Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-23 411703368-0038	HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-26 411703368-0039	Bathroom Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-32 411703368-0040	Window Caulk - Black	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-35 411703368-0041	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-38 411703368-0042	Door Frames - Grey Door Caulk	Brown Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
6-41 411703368-0043	Window Casings - Black Window Caulk	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
6-44 411703368-0044	Exterior Brick Penetrations - Grey Penetration Mastic	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 15:18:20





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703368  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #6

## 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
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Analyst(s)

Derrick Young (11)

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: 05/10/2017 15:18:20



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703367

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com #7		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagott Build.</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: *4-20-17*

Samplers Name: *Rebecca Shultz* Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
7-1			<i>Drywall &amp; joint compound</i>  <i>Bathroom plaster w/ finish over unfinished drywall</i>
7-2			
7-3			
7-4			
7-5			
7-6			
7-7			
7-8			
7-9			
7-10			

Client Sample # (s): *1 - 93* Total # of Samples:

Relinquished (Client): *[Signature]* Date: *4-27-17* Time: *NOON*

Received (Lab): *[Signature]* Date: *4/28/17* Time: *11:00AM FK*

Comments/Special Instructions: *7952 7865 6126*

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703367

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
7-11			Leveling compound
7-12			↓
7-13			↓
7-14		(Top layer)	12x12 tan speckled
7-15			F.T. w/ mastic
7-16			↓
7-17		(Bottom layer)	12x12 cream F.T. +
7-18			mastic
7-19			↓
7-20			Kitchen counter caulk
7-21			↓
7-22			↓
7-23			Bathroom shower stall
7-24			+ sink caulk
7-25			↓
7-26			stove back splash mastic
7-27			↓
7-28			↓
7-29			window caulk
7-30			↓
7-31			↓
7-32			kitchen sink undercoat
7-33			white
7-34			↓

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703367

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/28/2017 11:00 AM

**Analysis Date:** 05/04/2017

**Collected Date:** 04/26/2017

**Project:** Cammie Clagett Building #7

## 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
7-1-Drywall <small>411703367-0001</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
7-1-Joint Compound <small>411703367-0001A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
7-1-Tape <small>411703367-0001B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-2-Drywall <small>411703367-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-2-Joint Compound <small>411703367-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
7-2-Tape <small>411703367-0002B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-3-Drywall <small>411703367-0003</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
7-3-Joint Compound <small>411703367-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
7-3-Tape <small>411703367-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-4-Drywall <small>411703367-0004</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-4-Joint Compound <small>411703367-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
7-4-Tape <small>411703367-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-5-Drywall <small>411703367-0005</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-5-Joint Compound <small>411703367-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
7-5-Tape <small>411703367-0005B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-6-Drywall <small>411703367-0006</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:04:42



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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703367  
**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
7-6-Joint Compound <small>411703367-0006A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
7-6-Tape <small>411703367-0006B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-7-Drywall <small>411703367-0007</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
7-7-Joint Compound <small>411703367-0007A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
7-7-Tape <small>411703367-0007B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
7-8-Drywall <small>411703367-0008</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-8-Skim Coat <small>411703367-0008A</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
7-8-Rough Coat <small>411703367-0008B</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	<1% Cellulose	30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
7-9-Drywall <small>411703367-0009</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-9-Skim Coat <small>411703367-0009A</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
7-9-Rough Coat <small>411703367-0009B</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
7-10-Drywall <small>411703367-0010</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-10-Skim Coat <small>411703367-0010A</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
7-10-Rough Coat <small>411703367-0010B</small>	Bathroom Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Cellulose	45% Quartz 55% Non-fibrous (Other)	None Detected
7-11 <small>411703367-0011</small>	Leveling Compound	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
7-12 <small>411703367-0012</small>	Leveling Compound	Tan Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
7-13 <small>411703367-0013</small>	Leveling Compound	Tan Non-Fibrous Homogeneous		15% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
7-14-Floor Tile <small>411703367-0014</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
7-14-Mastic <small>411703367-0014A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:04:42





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703367  
**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
7-15-Floor Tile 411703367-0015	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
7-15-Mastic 411703367-0015A	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
7-17-Floor Tile 411703367-0016	12x12 Cream F.T. & Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
7-17-Mastic 411703367-0016A	12x12 Cream F.T. & Mastic (Bottom Layer)	Black Fibrous Homogeneous		5% Ca Carbonate 93% Non-fibrous (Other)	2% Chrysotile
7-18-Floor Tile 411703367-0017	12x12 Cream F.T. & Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
7-18-Mastic 411703367-0017A	12x12 Cream F.T. & Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
7-20 411703367-0018	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
7-21 411703367-0019	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
7-23 411703367-0020	Bathroom Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-24 411703367-0021	Bathroom Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-26 411703367-0022	Stove Backsplash Mastic	White Non-Fibrous Homogeneous	1% Cellulose	10% Ca Carbonate 89% Non-fibrous (Other)	None Detected
7-27 411703367-0023	Stove Backsplash Mastic	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
7-29 411703367-0024	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
7-30 411703367-0025	Window Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-32 411703367-0026	Kitchen Sink Undercoat - White	Tan Fibrous Homogeneous		15% Ca Carbonate 81% Non-fibrous (Other)	4% Chrysotile
7-33 411703367-0027	Kitchen Sink Undercoat - White				Positive Stop (Not Analyzed)
7-35 411703367-0028	Exterior Door Caulk - Grey	Gray Fibrous Homogeneous	<1% Glass	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-36 411703367-0029	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-38 411703367-0030	Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:04:42



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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703367  
**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
7-39 <small>411703367-0031</small>	Black Window Caulk	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
7-41 <small>411703367-0032</small>	Roof Penetration Mastic - Black	Red Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-42 <small>411703367-0033</small>	Roof Penetration Mastic - Black	Red Non-Fibrous Homogeneous		15% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (31)

Travis Hartney (18)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/05/2017 08:04:42



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703367  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #7

## 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
7-16-Floor Tile 411703367-0034	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-16-Mastic 411703367-0035	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-19-Floor Tile 411703367-0036	12x12 Cream F.T. & Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-22 411703367-0037	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-25 411703367-0038	Bathroom Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-28 411703367-0039	Stove Backsplash Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-31 411703367-0040	Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-37 411703367-0041	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-40 411703367-0042	Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
7-43 411703367-0043	Roof Penetration Mastic - Black	Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 15:17:11



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411703367  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #7

**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
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Analyst(s)

Derrick Young (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: 05/10/2017 15:17:11





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

# Asbestos Bulk Building Material Chain of Custody

**EMSL Order Number** (Lab Use Only):

411704159

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Carnie Casset Bldg 7 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

<p><b>PLM - Bulk (reporting limit)</b></p> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	<p><b>TEM - Bulk</b></p> <input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <p style="text-align: center;"><b>Other</b></p> <input type="checkbox"/>
---	--

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled: \_\_\_\_\_

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
7-44		Roof gable caulk - white	
7-45			
7-46			
7-47		Roof shingles (2) & felt (1)	
7-48			
7-49			
7-50		Roof gable caulk - cream	
7-51			
7-52			

Client Sample # (s):	44 - 58	Total # of Samples:	15
Relinquished (Client):	<i>[Signature]</i>	Date:	5-24-17
Received (Lab):	<i>[Signature]</i>	Date:	5/26/17
Comments/Special Instructions:			Time: 9:10am Fk
			7952 9037 7756









# EMSL Analytical, Inc.

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

**EMSL Order:** 411704159  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/01/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 7 Ext.

## 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
7-44 <small>411704159-0001</small>	Roof Gable Caulk - White	White Non-Fibrous Homogeneous	5% Wollastonite	15% Ca Carbonate 80% Non-fibrous (Other)	None Detected
7-45 <small>411704159-0002</small>	Roof Gable Caulk - White	White Non-Fibrous Homogeneous	3% Wollastonite 5% Fibrous (Other)	8% Ca Carbonate 84% Non-fibrous (Other)	None Detected
7-47-Shingle 1 <small>411704159-0003</small>	Roof Shingles (2) & Felt (1)	Red Fibrous Homogeneous	5% Glass	3% Quartz 15% Ca Carbonate 77% Non-fibrous (Other)	None Detected
7-47-Shingle 2 <small>411704159-0003A</small>	Roof Shingles (2) & Felt (1)	Black/Green Fibrous Homogeneous	3% Glass	5% Quartz 10% Ca Carbonate 82% Non-fibrous (Other)	None Detected
7-47-Felt <small>411704159-0003B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
7-48-Shingle 1 <small>411704159-0004</small>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	10% Glass	8% Quartz 10% Ca Carbonate 72% Non-fibrous (Other)	None Detected
7-48-Shingle 2 <small>411704159-0004A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	5% Quartz 15% Ca Carbonate 72% Non-fibrous (Other)	None Detected
7-48-Felt <small>411704159-0004B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
7-50 <small>411704159-0005</small>	Roof Gable Caulk - Cream	Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
7-51 <small>411704159-0006</small>	Roof Gable Caulk - Cream	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
7-53 <small>411704159-0007</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
7-54 <small>411704159-0008</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
7-56 <small>411704159-0009</small>	Awning/ Flashing Caulk	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
7-57 <small>411704159-0010</small>	Awning/ Flashing Caulk	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 11:50:55



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704159

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Aaron Hartley (7)*

*Travis Hartney (7)*

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: 06/01/2017 11:50:55



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704159  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 7 Ext.

## 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
7-46 411704159-0011	Roof Gable Caulk - White	White Non-Fibrous Heterogeneous	99.8	0.21 Fibrous_Other	No Asbestos Detected
7-49-Shingle 1 411704159-0012	Roof Shingles (2) & Felt (1)	Brown/Red/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
7-49-Shingle 2 411704159-0013	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Heterogeneous	99.7	0.32 Fibrous_Other	No Asbestos Detected
7-49-Felt 411704159-0014	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
7-52 411704159-0015	Roof Gable Caulk - Cream	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
7-55 411704159-0016	2nd Layer of Felt Paper	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
7-58 411704159-0017	Awning/ Flashing Caulk	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (7)

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: 06/05/2017 12:43:09





EMSL ANALYTICAL, INC.  
LABORATORY-PRODUCTS-TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703366

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagett Build. 9</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	
<input type="checkbox"/> OSHA ID-191 Modified	<b>Other</b>
<input type="checkbox"/> Standard Addition Method	<input type="checkbox"/>

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: *4-26-17*

Samplers Name: *Ted Shultz*      Samplers Signature: *Ted Shultz*

Sample #	HA #	Sample Location	Material Description
9-1			<i>Drywall + joint compound</i>
9-2			
9-3			
9-4			
9-5			
9-6			
9-7			<i>Plaster w/ finish over unfinished drywall</i>
9-8			

Client Sample # (s): *1-41*      Total # of Samples:

Relinquished (Client): *Rebecca Shultz*      Date: *4-27-17*      Time: *NOON*

Received (Lab): *Mike N...*      Date: *4/28/17*      Time: *11:00am Fk*

Comments/Special Instructions: *7952 7865 6089*

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

411703366

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
9-9			Big HVAC mastic
9-10			L
9-11			L
9-12		(Bottom layer)	12x12 brown/orange
9-13			speckled F.T. w/ mastic
9-14			L
9-15			12x12 tan speckled F.T.
9-16			w/ mastic
9-17			L
9-18			Kitchen counter caulk
9-19			L
9-20			L
9-21			Shower stall + sink
9-22			caulk
9-23			L
9-24			kitchen sink under
9-25			coat white
9-26			L
9-27			Exterior door caulk
9-28			grey
9-29			L
9-30			Ext. window caulk
9-31			Blk
9-32			L

\*Comments/Special Instructions:

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:









# EMSL Analytical, Inc.

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

**EMSL Order:** 411703366  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/04/2017  
**Collected Date:** 04/26/2017

**Project:** Cammie Clagett Building #9

## 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
9-1-Drywall <small>411703366-0001</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
9-1-Joint Compound <small>411703366-0001A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
9-1-Tape <small>411703366-0001B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
9-2-Drywall <small>411703366-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
9-2-Joint Compound <small>411703366-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
9-2-Tape <small>411703366-0002B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
9-3-Drywall <small>411703366-0003</small>	Drywall & Joint Compound	Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
9-3-Joint Compound <small>411703366-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
9-3-Tape <small>411703366-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
9-4-Drywall <small>411703366-0004</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
9-4-Joint Compound <small>411703366-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
9-4-Tape <small>411703366-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
9-5-Drywall <small>411703366-0005</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
9-5-Joint Compound <small>411703366-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
9-5-Tape <small>411703366-0005B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Glass	1% Non-fibrous (Other)	None Detected
9-6-Drywall <small>411703366-0006</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:04:05



# 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:** 411703366  
**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
9-6-Skim Coat <small>411703366-0006A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
9-6-Rough Coat <small>411703366-0006B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
9-7-Drywall <small>411703366-0007</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
9-7-Skim Coat <small>411703366-0007A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
9-7-Rough Coat <small>411703366-0007B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
9-8-Drywall <small>411703366-0008</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
9-8-Skim Coat <small>411703366-0008A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
9-8-Rough Coat <small>411703366-0008B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
9-9 <small>411703366-0009</small>	Beige HVAC Mastic	Tan Fibrous Homogeneous	<1% Cellulose 1% Glass	10% Ca Carbonate 89% Non-fibrous (Other)	None Detected
9-10 <small>411703366-0010</small>	Beige HVAC Mastic	Tan Fibrous Homogeneous	1% Cellulose 8% Glass	5% Ca Carbonate 86% Non-fibrous (Other)	None Detected
9-12-Floor Tile <small>411703366-0011</small>	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Brown Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
9-12-Mastic <small>411703366-0011A</small>	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
9-13-Floor Tile <small>411703366-0012</small>	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
9-13-Mastic <small>411703366-0012A</small>	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
9-15-Floor Tile <small>411703366-0013</small>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
9-15-Mastic <small>411703366-0013A</small>	12x12 Tan Speckled F.T. w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
9-16 <small>411703366-0014</small>	12x12 Tan Speckled F.T. w/ Mastic				Not Submitted
9-18 <small>411703366-0015</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
9-19 <small>411703366-0016</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:04:05



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703366  
**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
9-21 <small>411703366-0017</small>	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
9-22 <small>411703366-0018</small>	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
9-24 <small>411703366-0019</small>	Kitchen Sink Undercoat - White	Tan Fibrous Homogeneous		15% Ca Carbonate 81% Non-fibrous (Other)	4% Chrysotile
9-25 <small>411703366-0020</small>	Kitchen Sink Undercoat - White				Positive Stop (Not Analyzed)
9-27 <small>411703366-0021</small>	Exterior Door Caulk - Grey	Gray Fibrous Homogeneous	<1% Glass	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
9-28 <small>411703366-0022</small>	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
9-30 <small>411703366-0023</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-31 <small>411703366-0024</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-33-Shingle 1 <small>411703366-0025</small>	Roof 3 Shingles 1 Felt	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 5% Ca Carbonate 82% Non-fibrous (Other)	None Detected
9-33-Shingle 2 <small>411703366-0025A</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
9-33-Shingle 3 <small>411703366-0025B</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
9-33-Felt <small>411703366-0025C</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
9-34-Shingle 1 <small>411703366-0026</small>	Roof 3 Shingles 1 Felt	Brown/Red/Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
9-34-Shingle 2 <small>411703366-0026A</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
9-34-Shingle 3 <small>411703366-0026B</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
9-34-Felt <small>411703366-0026C</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
9-36 <small>411703366-0027</small>	Gable Vent Caulk	Gray Fibrous Homogeneous	<1% Glass	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
9-37 <small>411703366-0028</small>	Gable Vent Caulk	Gray Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
9-39 <small>411703366-0029</small>	Black Roof Penetration Mastic	Black Fibrous Homogeneous	10% Cellulose	15% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:04:05



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703366  
**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
9-40	Black Roof Penetration Mastic	Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703366-0030					

Analyst(s)

Anupriya Tyagi (29)

Lacy Searcy (19)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/05/2017 08:04:05



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703366  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #9

## 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
9-11 411703366-0031	Beige HVAC Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-14-Floor Tile 411703366-0032	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-17-Floor Tile 411703366-0033	12x12 Tan Speckled F.T. w/ Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-17-Mastic 411703366-0034	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-20 411703366-0035	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-23 411703366-0036	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-29 411703366-0037	Exterior Door Caulk - Grey	Gray/Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
9-32 411703366-0038	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
9-35-Shingle 1 411703366-0039	Roof 3 Shingles 1 Felt	Brown/Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
9-35-Shingle 2 411703366-0040	Roof 3 Shingles 1 Felt	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
9-35-Shingle 3 411703366-0041	Roof 3 Shingles 1 Felt	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
9-35-Felt 411703366-0042	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 15:16:30



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703366  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #9

## 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
9-38 411703366-0043	Gable Vent Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
9-41 411703366-0044	Black Roof Penetration Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (14)

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: 05/10/2017 15:16:30





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
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EMSL Order Number (Lab Use Only):

411704171

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Carrie Clagget Bldg 9</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* – Please Check

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1		
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)		
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)		
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2		
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique		
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique		
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>		
<input type="checkbox"/> OSHA ID-191 Modified			
<input type="checkbox"/> Standard Addition Method			

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
9-16		12" x 12" tan speckled F.T. + adhesive matrix (top layer)	PLM only

Client Sample # (s): *16*      Total # of Samples: *1*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *[Signature]*      Date: *5/26/17*      Time: *9:10 AM FK*

Comments/Special Instructions: *7952 9037 7778*



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704171

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 9

## 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
9-16-Floor Tile <small>411704171-0001</small>	12"x12" Tan Speckled F.T. & Adhesive (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
9-16-Mastic <small>411704171-0001A</small>	12"x12" Tan Speckled F.T. & Adhesive (Top Layer)	Tan/Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile

Analyst(s)

Aaron Hartley (2)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 11:51:17



EMSL Analytical, Inc.  
376 Crompton Street



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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703365

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company : Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com #10		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clagett Build.</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 4-26-17

Samplers Name: Rebecca Shultz Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
10-1			Drywall & joint compound
10-2			
10-3			
10-4			
10-5			
10-6			
10-7			Plaster w/ finish over unfinished drywall
10-8			

Client Sample # (s): 1-38 Total # of Samples:

Relinquished (Client): [Signature] Date: 4-27-17 Time: noon

Received (Lab): [Signature] Date: 4/28/17 Time: 11:00AM Fx

Comments/Special Instructions: Please utilize positive stop analysis. Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: 752 7865 6089





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**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

411703365

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
10-9			12x12 tan speckled F.T.
10-10			& mastic
10-11			
10-12			Beige HVAC mastic
10-13			
10-14			
10-15			Kitchen counter caulk
10-16			
10-17			
10-18			shower stall & sink caulk
10-19			white
10-20			
10-21			kitchen sink under coating
10-22			
10-23			
10-24			exterior door caulk
10-25			grey
10-26			
10-27			exterior window caulk
10-28			<del>grey</del> Black
10-29			
10-30			Roof 3 shingles 1 felt
10-31			
10-32			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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EMSL Order: 411703365

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/28/2017 11:00 AM

**Analysis Date:** 05/04/2017

**Collected Date:** 04/26/2017

**Project:** Cammie Clagett Building #10

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
10-1-Drywall <small>411703365-0001</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
10-1-Joint Compound <small>411703365-0001A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
10-1-Tape <small>411703365-0001B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
10-2-Drywall <small>411703365-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
10-2-Joint Compound <small>411703365-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
10-2-Tape <small>411703365-0002B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
10-3-Drywall <small>411703365-0003</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
10-3-Joint Compound <small>411703365-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
10-3-Tape <small>411703365-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
10-4-Drywall <small>411703365-0004</small>	Drywall & Joint Compound	Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
10-4-Joint Compound <small>411703365-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
10-4-Tape <small>411703365-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
10-5-Drywall <small>411703365-0005</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
10-5-Joint Compound <small>411703365-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
10-6-Drywall <small>411703365-0006</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
10-6-Skim Coat <small>411703365-0006A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected

Initial report from: 05/04/2017 14:08:32





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703365  
**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
10-6-Rough Coat. <small>411703365-0006B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
10-7-Drywall <small>411703365-0007</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
10-7-Skim Coat <small>411703365-0007A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
10-7-Rough Coat <small>411703365-0007B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
10-8-Drywall <small>411703365-0008</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
10-8-Skim Coat <small>411703365-0008A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
10-8-Rough Coat <small>411703365-0008B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
10-9-Floor Tile <small>411703365-0009</small>	12x12 Tan Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
10-9-Mastic <small>411703365-0009A</small>	12x12 Tan Speckled F.T. & Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
10-10-Floor Tile <small>411703365-0010</small>	12x12 Tan Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
10-10-Mastic <small>411703365-0010A</small>	12x12 Tan Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
10-12 <small>411703365-0011</small>	Beige HVAC Mastic	Tan Fibrous Homogeneous	1% Synthetic	15% Ca Carbonate 84% Non-fibrous (Other)	None Detected
10-13 <small>411703365-0012</small>	Beige HVAC Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
10-15 <small>411703365-0013</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
10-16 <small>411703365-0014</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
10-18 <small>411703365-0015</small>	Shower Stall & Sink Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
10-19 <small>411703365-0016</small>	Shower Stall & Sink Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
10-21 <small>411703365-0017</small>	Kitchen Sink Undercoating	Tan Fibrous Homogeneous		15% Ca Carbonate 81% Non-fibrous (Other)	4% Chrysotile
10-22 <small>411703365-0018</small>	Kitchen Sink Undercoating				Positive Stop (Not Analyzed)

Initial report from: 05/04/2017 14:08:32



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703365  
**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
10-24 <small>411703365-0019</small>	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
10-25 <small>411703365-0020</small>	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
10-27 <small>411703365-0021</small>	Exterior Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-28 <small>411703365-0022</small>	Exterior Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-30-Shingle 1 <small>411703365-0023</small>	Roof 3 Shingles 1 Felt	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 5% Ca Carbonate 82% Non-fibrous (Other)	None Detected
10-30-Shingle 2 <small>411703365-0023A</small>	Roof 3 Shingles 1 Felt	Red/Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
10-30-Shingle 3 <small>411703365-0023B</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
10-30-Felt <small>411703365-0023C</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
10-31-Shingle 1 <small>411703365-0024</small>	Roof 3 Shingles 1 Felt	Red/Black Non-Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
10-31-Shingle 2 <small>411703365-0024A</small>	Roof 3 Shingles 1 Felt	Red/Black Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
10-31-Shingle 3 <small>411703365-0024B</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	5% Glass	5% Quartz 8% Ca Carbonate 82% Non-fibrous (Other)	None Detected
10-31-Felt <small>411703365-0024C</small>	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
10-33 <small>411703365-0025</small>	Gable Vent Caulk - White	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
10-34 <small>411703365-0026</small>	Gable Vent Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
10-36 <small>411703365-0027</small>	Black Roof Penetration Mastic	Black Fibrous Homogeneous	5% Cellulose	8% Ca Carbonate 87% Non-fibrous (Other)	None Detected
10-37 <small>411703365-0028</small>	Black Roof Penetration Mastic	Black Non-Fibrous Homogeneous	5% Cellulose	8% Ca Carbonate 87% Non-fibrous (Other)	None Detected

Initial report from: 05/04/2017 14:08:32



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EMSL Order: 411703365

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Anupriya Tyagi (27)*

*Lyterra Barrow (19)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/04/2017 14:08:32



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703365  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #10

## 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
10-11-Floor Tile 411703365-0029	12x12 Tan Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
10-11-Mastic 411703365-0030	12x12 Tan Speckled F.T. & Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
10-14 411703365-0031	Beige HVAC Mastic	Beige Fibrous Homogeneous	99.7	0.30 Fibrous_Other	No Asbestos Detected
10-17 411703365-0032	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
10-20 411703365-0033	Shower Stall & Sink Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
10-26 411703365-0034	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
10-29 411703365-0035	Exterior Window Caulk - Black	Black Non-Fibrous Heterogeneous	99.2	0.78 Fibrous_Other	No Asbestos Detected
10-32-Shingle 1 411703365-0036	Roof 3 Shingles 1 Felt	Red/Black Fibrous Homogeneous	100	None	No Asbestos Detected
10-32-Shingle 2 411703365-0037	Roof 3 Shingles 1 Felt	Red/Black Fibrous Homogeneous	99.1	0.90 Fibrous_Other	No Asbestos Detected
10-32-Shingle 3 411703365-0038	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
10-32-Felt 411703365-0039	Roof 3 Shingles 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
10-35 411703365-0040	Gable Vent Caulk - White	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 13:07:31



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703365  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #10

## 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
10-38 411703365-0041	Black Roof Penetration Mastic	Black Non-Fibrous Homogeneous	99.0	1.0 Fibrous_Other	No Asbestos Detected

Analyst(s)

Aaron Hartley (13)

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: 05/10/2017 13:07:31





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703364

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Claggett Build. #</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* – Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled: *4-26-17*

Samplers Name: *Ted Shultz*      Samplers Signature: *Ted Shultz*

Sample #	HA #	Sample Location	Material Description
<i>11-1</i>			<i>Dry wall + joint compound</i>
<i>11-2</i>			
<i>11-3</i>			
<i>11-4</i>			
<i>11-5</i>			
<i>11-6</i>			<i>Plaster w/ finish</i>
<i>11-7</i>			<i>over unfinished drywall</i>
<i>11-8</i>			
<del><i>11-9</i></del>			

Client Sample # (s):	-	Total # of Samples:	
Relinquished (Client):	Date:	Time:	
Received (Lab): <i>Ryk Nls</i>	Date: <i>4/28/17</i>	Time: <i>11:00 AM Fx</i>	
Comments/Special Instructions: <small>Please utilize positive stop analysis.</small>			<i>7952 7865 6089</i>
<small>Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:</small>			





EMSL ANALYTICAL, INC.  
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**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703364

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
11-9		(top layer)	12x12 tan speckled F.T.
11-10			w/mastic
11-11			
11-12			Beige HVAC mastic
11-13			
11-14			
11-15			kitchen counter caulk
11-16			
11-17			
11-18			Bath stall + sink caulk
11-19			
11-20			
11-21			
11-22			kitchen sink undercoat
11-23			white
11-24			
11-25			Exterior door caulk
11-26			grey
11-27			
11-28			Exterior window caulk
11-29			
11-30			Roof - 3 shingles
11-31			1 felt
11-32			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703364

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 04/28/2017 11:00 AM

**Analysis Date:** 05/04/2017

**Collected Date:** 04/26/2017

**Project:** Cammie Clagett Building #11

## 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
11-1-Drywall <small>411703364-0001</small>	Drywall & Joint Compound	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
11-1-Joint Compound <small>411703364-0001A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
11-2-Drywall <small>411703364-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
11-2-Joint Compound <small>411703364-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
11-3-Drywall <small>411703364-0003</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
11-3-Joint Compound <small>411703364-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
11-4-Drywall <small>411703364-0004</small>	Drywall & Joint Compound	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
11-4-Joint Compound <small>411703364-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
11-5-Drywall <small>411703364-0005</small>	Drywall & Joint Compound	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
11-5-Joint Compound <small>411703364-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
11-6-Drywall <small>411703364-0006</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
11-6-Skim Coat <small>411703364-0006A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
11-6-Rough Coat <small>411703364-0006B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
11-7-Drywall <small>411703364-0007</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
11-7-Skim Coat <small>411703364-0007A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
11-7-Rough Coat <small>411703364-0007B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:03:16



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703364  
**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
11-8-Drywall <small>411703364-0008</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
11-8-Skim Coat <small>411703364-0008A</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
11-8-Rough Coat <small>411703364-0008B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
11-9-Floor Tile <small>411703364-0009</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
11-9-Mastic <small>411703364-0009A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
11-10-Floor Tile <small>411703364-0010</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
11-10-Mastic <small>411703364-0010A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
11-12 <small>411703364-0011</small>	Beige HVAC Mastic	Beige Fibrous Homogeneous	<1% Synthetic	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
11-13 <small>411703364-0012</small>	Beige HVAC Mastic	Beige Non-Fibrous Homogeneous	<1% Synthetic	8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
11-15 <small>411703364-0013</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
11-16 <small>411703364-0014</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
11-18 <small>411703364-0015</small>	Bath Stall & Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
11-19 <small>411703364-0016</small>	Bath Stall & Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
11-21 <small>411703364-0017</small>	Kitchen Sink Undercoat - White	Tan Fibrous Homogeneous	12% Cellulose	10% Ca Carbonate 5% Mica 73% Non-fibrous (Other)	None Detected
11-22 <small>411703364-0018</small>	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	10% Cellulose	8% Ca Carbonate 5% Mica 77% Non-fibrous (Other)	None Detected
11-24 <small>411703364-0019</small>	Exterior Door Caulk - Grey	Gray Fibrous Homogeneous	2% Glass	15% Ca Carbonate 83% Non-fibrous (Other)	None Detected
11-25 <small>411703364-0020</small>	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous	3% Glass	8% Ca Carbonate 89% Non-fibrous (Other)	None Detected
11-27 <small>411703364-0021</small>	Exterior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-28 <small>411703364-0022</small>	Exterior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 08:03:16





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703364  
**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
11-30-Shingle 1 <small>411703364-0023</small>	Roof-3 Shingles 1 Felt	Black/Green Fibrous Homogeneous	3% Glass	10% Quartz 5% Ca Carbonate 82% Non-fibrous (Other)	None Detected
11-30-Shingle 2 <small>411703364-0023A</small>	Roof-3 Shingles 1 Felt	Tan/Red/Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
11-30-Shingle 3 <small>411703364-0023B</small>	Roof-3 Shingles 1 Felt	Tan/Red/Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
11-30-Felt <small>411703364-0023C</small>	Roof-3 Shingles 1 Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
11-31-Shingle 1 <small>411703364-0024</small>	Roof-3 Shingles 1 Felt	Black/Green Fibrous Heterogeneous	5% Glass	8% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
11-31-Shingle 2 <small>411703364-0024A</small>	Roof-3 Shingles 1 Felt	Tan/Red/Black Non-Fibrous Homogeneous	5% Glass	12% Quartz 10% Ca Carbonate 73% Non-fibrous (Other)	None Detected
11-31-Shingle 3 <small>411703364-0024B</small>	Roof-3 Shingles 1 Felt	Gray/Red/Black Fibrous Heterogeneous	5% Glass	15% Quartz 10% Ca Carbonate 70% Non-fibrous (Other)	None Detected
11-31-Felt <small>411703364-0024C</small>	Roof-3 Shingles 1 Felt	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
11-33 <small>411703364-0025</small>	Gable Vent Caulk	Gray Fibrous Homogeneous	1% Glass	10% Ca Carbonate 89% Non-fibrous (Other)	None Detected
11-34 <small>411703364-0026</small>	Gable Vent Caulk	Gray Non-Fibrous Homogeneous	<1% Cellulose	8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
11-36 <small>411703364-0027</small>	Black Roof Penetration Mastic	Black Fibrous Homogeneous	8% Cellulose	5% Ca Carbonate 87% Non-fibrous (Other)	None Detected
11-37 <small>411703364-0028</small>	Black Roof Penetration Mastic	Black Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (22)

Eric Loomis (19)

Travis Hartney (2)

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: 05/05/2017 08:03:16



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703364  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #11

## 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
11-11-Floor Tile 411703364-0029	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-11-Mastic 411703364-0030	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-14 411703364-0031	Beige HVAC Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-17 411703364-0032	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-20 411703364-0033	Bath Stall & Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-23 411703364-0034	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-26 411703364-0035	Exterior Door Caulk - Grey	Gray/Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
11-29 411703364-0036	Exterior Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-32-Shingle 1 411703364-0037	Roof-3 Shingles 1 Felt	Black/Green Fibrous Heterogeneous	100	None	No Asbestos Detected
11-32-Shingle 2 411703364-0038	Roof-3 Shingles 1 Felt	Tan/Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
11-32-Shingle 3 411703364-0039	Roof-3 Shingles 1 Felt	Gray/Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
11-32-Felt 411703364-0040	Roof-3 Shingles 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/10/2017 15:15:37



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703364  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 04/28/2017 11:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/26/2017  
**Project:** Cammie Clagett Building #11

## 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
11-35 411703364-0041	Gable Vent Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
11-38 411703364-0042	Black Roof Penetration Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (14)

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: 05/10/2017 15:15:37





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703403

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different	
Street: 7 Winchester Court		If Bill to is Different note instructions in Comments**	
City: Mauldin		Third Party Billing requires written authorization from third party	
State/Province: SC	Zip/Postal Code: 29662	Country: US	
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagett Build. #12</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: *4-27-17*

Samplers Name: *Ted Shultz* Samplers Signature: *Ted Shultz*

Sample #	HA #	Sample Location	Material Description
<i>12-1</i>			<i>Drywall + joint compound</i>
<i>12-2</i>			<i>I</i>
<i>12-3</i>			
<i>12-4</i>			
<i>12-5</i>			
<i>12-6</i>			
<i>12-7</i>			

Client Sample # (s): *1-44* Total # of Samples:

Relinquished (Client): *Ted Shultz* Date: *4-28-17* Time: *5:00pm*

Received (Lab): *Kyle Nelson* Date: *5/1/17* Time: *9:30 AM Flx*

Comments/Special Instructions: Please utilize positive stop analysis. 7952 7975 1281

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703403

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
12-8			Plaster w/ finish over
12-9			unfinished drywall
12-10			
12-11			
12-12			Tan HVAC tape
12-13			
12-14			
12-15			12x12 tan speckled F.T.
12-16			& mastic (top layer)
12-17			
12-18			12x12 brown/orange speckled
12-19			F.T. w/ mastic
12-20			(bottom layer)
12-21			12x12 cream F.T. w/
12-22			mastic (bottom layer)
12-23			
12-24			12x12 white speckled F.T.
12-25			w/ no mastic
12-26			(bottom layer)
12-27			HVAC caulk
12-28			
12-29			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703403

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/01/2017 9:30 AM

**Analysis Date:** 05/05/2017

**Collected Date:** 04/27/2017

**Project:** Cammie Clagett Building #12

## 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
12-1-Drywall <small>411703403-0001</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
12-1-Joint Compound <small>411703403-0001A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
12-1-Tape <small>411703403-0001B</small>	Drywall & Joint Compound	Yellow Fibrous Homogeneous	45% Glass	55% Non-fibrous (Other)	None Detected
12-2-Drywall <small>411703403-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
12-2-Joint Compound <small>411703403-0002A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
12-2-Tape <small>411703403-0002B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
12-3-Drywall <small>411703403-0003</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
12-3-Joint Compound <small>411703403-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
12-3-Tape <small>411703403-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
12-4-Drywall <small>411703403-0004</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
12-4-Joint Compound <small>411703403-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
12-4-Tape <small>411703403-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
12-5-Drywall <small>411703403-0005</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
12-5-Joint Compound <small>411703403-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
12-5-Tape <small>411703403-0005B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
12-6-Drywall <small>411703403-0006</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 15:51:02



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

<b>EMSL Order:</b> 411703403
<b>Customer ID:</b> AXEM25
<b>Customer PO:</b>
<b>Project ID:</b>

## 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
12-6-Joint Compound	Drywall & Joint Compound				Positive Stop (Not Analyzed)
411703403-0006A					
12-6-Tape	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
411703403-0006B					
12-7-Drywall	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
411703403-0007					
12-7-Joint Compound	Drywall & Joint Compound				Positive Stop (Not Analyzed)
411703403-0007A					
12-7-Tape	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
411703403-0007B					
12-8-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
411703403-0008					
12-8-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703403-0008A					
12-8-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703403-0008B					
12-9-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
411703403-0009					
12-9-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
411703403-0009A					
12-9-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703403-0009B					
12-10-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
411703403-0010					
12-10-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703403-0010A					
12-10-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703403-0010B					
12-11-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
411703403-0011					
12-11-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
411703403-0011A					
12-11-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
411703403-0011B					
12-12	Tan HVAC Tape	Tan Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
411703403-0012					
12-13	Tan HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	8% Ca Carbonate 2% Non-fibrous (Other)	None Detected
411703403-0013					

Initial report from: 05/05/2017 15:51:02





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703403  
**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
12-15-Floor Tile 411703403-0014	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
12-15-Mastic 411703403-0014A	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
12-16-Floor Tile 411703403-0015	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
12-16-Mastic 411703403-0015A	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
12-18-Floor Tile 411703403-0016	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
12-18-Mastic 411703403-0016A	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
12-19-Floor Tile 411703403-0017	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Brown/Orange Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
12-19-Mastic 411703403-0017A	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
12-21-Floor Tile 411703403-0018	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
12-21-Mastic 411703403-0018A	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
12-22-Floor Tile 411703403-0019	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Beige Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
12-22-Mastic 411703403-0019A	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
<i>Limited sample, results cannot be verified</i>					
12-24 411703403-0020	12x12 White Speckled F.T. w/ No Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
12-25 411703403-0021	12x12 White Speckled F.T. w/ No Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
12-27 411703403-0022	HVAC Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
12-28 411703403-0023	HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-30 411703403-0024	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
12-31 411703403-0025	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/05/2017 15:51:02



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703403  
**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
12-33 <small>411703403-0026</small>	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-34 <small>411703403-0027</small>	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
12-36 <small>411703403-0028</small>	Kitchen Sink Undercoating - Black	Black Fibrous Homogeneous		8% Ca Carbonate 89% Non-fibrous (Other)	3% Chrysotile
12-37 <small>411703403-0029</small>	Kitchen Sink Undercoating - Black				Positive Stop (Not Analyzed)
12-39 <small>411703403-0030</small>	Interior Window Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
12-40 <small>411703403-0031</small>	Interior Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
12-42 <small>411703403-0032</small>	Kitchen Sink Undercoat - White	Tan Fibrous Homogeneous	8% Cellulose	15% Ca Carbonate 5% Mica 72% Non-fibrous (Other)	None Detected
12-43 <small>411703403-0033</small>	Kitchen Sink Undercoat - White	Tan Non-Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 8% Mica 77% Non-fibrous (Other)	None Detected

Analyst(s)

Aaron Hartley (19)  
Anupriya Tyagi (35)

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: 05/05/2017 15:51:02





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703403  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #12

## 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
12-14 411703403-0034	Tan HVAC Tape	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-17-Floor Tile 411703403-0035	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-17-Mastic 411703403-0036	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-20-Floor Tile 411703403-0037	12x12 Brown/ Orange Speckled F.T. w/ Mastic (Bottom Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-23-Floor Tile 411703403-0038	12x12 Cream F.T. w/ Mastic (Bottom Layer)	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-26 411703403-0039	12x12 White Speckled F.T. w/ No Mastic (Bottom Layer)	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-29 411703403-0040	HVAC Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-32 411703403-0041	Kitchen Counter Caulk	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-35 411703403-0042	Shower Stall & Sink Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-41 411703403-0044	Interior Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
12-44 411703403-0045	Kitchen Sink Undercoat - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 05/10/2017 16:39:55



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411703403  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #12

**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
-----------	-------------	------------	-------------------	-----------------------	----------------

Analyst(s)

Derrick Young (11)

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: 05/10/2017 16:39:55



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704151

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Carnie Clagget Bldg 12 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)	
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2	
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique	
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<b>Other</b>		
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/>		
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)			
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)			
<input type="checkbox"/> OSHA ID-191 Modified			
<input type="checkbox"/> Standard Addition Method			

Check For Positive Stop - Clearly Identify Homogenous Group

Date Sampled:

Samplers Name: Tom Oliver

Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
12-45		Door caulk - grey	
12-46			
12-47			
12-48		Window caulk - black	
12-49			
12-50			
12-51		Sample #'s not used	
12-52			
12-53			

Client Sample # (s): *45-65 49-50* Total # of Samples: *18*

Relinquished (Client): *[Signature]* Date: *5-24-17* Time:

Received (Lab): *[Signature]* Date: *5/26/17* Time: *9:10am Fx*

Comments/Special Instructions: *7952 9037 7778*







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704151

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 12 Ext.

## 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
12-45 <small>411704151-0001</small>	Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
12-46 <small>411704151-0002</small>	Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
12-48 <small>411704151-0003</small>	Window Caulk - Black	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
12-49 <small>411704151-0004</small>	Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-54 <small>411704151-0005</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
12-55-Brown Layer <small>411704151-0006</small>	Awning & Flashing Caulk	Brown Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
12-55-White Layer <small>411704151-0006A</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-57-Shingle 1 <small>411704151-0007</small>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
12-57-Shingle 2 <small>411704151-0007A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
12-57-Felt <small>411704151-0007B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	100% Non-fibrous (Other)	None Detected
12-58-Shingle 1 <small>411704151-0008</small>	Roof Shingles (2) & Felt (1)	Brown/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
12-58-Shingle 2 <small>411704151-0008A</small>	Roof Shingles (2) & Felt (1)	Gray/Black/Green Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
12-58-Felt <small>411704151-0008B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
12-60 <small>411704151-0009</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
12-61 <small>411704151-0010</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
12-63 <small>411704151-0011</small>	Roof Gable Vent Caulks	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 08:41:18





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704151  
**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
12-64	Roof Gable Vent Caulks	White Non-Fibrous Homogeneous	3% Fibrous (Other)	5% Ca Carbonate 92% Non-fibrous (Other)	None Detected
411704151-0012					

Analyst(s) \_\_\_\_\_

*Lyterra Barrow (8)*

*Lacy Searcy (9)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 08:41:18



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704151  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 12 Ext.

## 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
12-47 411704151-0013	Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
12-50 411704151-0014	Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
12-56-Brown Layer 411704151-0015	Awning & Flashing Caulk	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
12-56-White Layer 411704151-0016	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
12-59-Shingle 1 411704151-0017	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	100	None	No Asbestos Detected
12-59-Shingle 2 411704151-0018	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
12-59-Felt 411704151-0019	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
12-62 411704151-0020	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
12-65 411704151-0021	Roof Gable Vent Caulks	White Non-Fibrous Homogeneous	99.6	0.42 Fibrous_Other	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 06/05/2017 11:51:40



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703404**

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <b>Camille Clagitt Build #</b>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

<b>PLM - Bulk (reporting limit)</b> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method		<b>TEM - Bulk</b> <input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <b>Other</b> <input type="checkbox"/>	
---	--	--	--

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: **4-27-17**

Samplers Name: **Ted Shultz**      Samplers Signature: *Ted Shultz*

Sample #	HA #	Sample Location	Material Description
13-1			Drywall + joint compound   Plaster w/ finish over unfinished drywall 
13-2			
13-3			
13-4			
13-5			
13-6			
13-7			
13-8			
13-9			
13-10			

Client Sample # (s): **1 - 40**      Total # of Samples:

Relinquished (Client): *Ted Shultz*      Date: **4-28-17**      Time: **5:00pm**

Received (Lab): *Kyle Nelson*      Date: **5/1/17**      Time: **9:30am Fk**

Comments/Special Instructions: Please utilize positive stop analysis. **7952 7975 1281**

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

411703404

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
13-11			Tan HVAC tape
13-12			L
13-13			L
13-14			12x12 tan speckled F.T.
13-15			& mastic (Top layer)
13-16			L
13-17			12x12 grey F.T. & mastic
13-18			(bottom layer) L
13-19			L
13-20			12x12 brown/orange speckled
13-21			F.T. & mastic (bottom layer)
13-22			L
13-23			Kitchen counter caulk
13-24			L
13-25			L
13-26			HVAC caulk
13-27			L
13-28			L
13-29			shower stall & sink
13-30			caulk L
13-31			L
13-32		Kitchen sink	<del>sealant</del>
13-33		undercoat	<del>caulk</del>
13-34		white	L

\*Comments/Special Instructions:  
Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:









# EMSL Analytical, Inc.

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

**EMSL Order:** 411703404  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/05/2017  
**Collected Date:** 04/27/2017

**Project:** Cammie Clagett Building #13

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
13-1-Drywall <small>411703404-0001</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
13-1-Joint Compound <small>411703404-0001A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
13-1-Tape <small>411703404-0001B</small>	Drywall & Joint Compound	White Fibrous Homogeneous	45% Glass	55% Non-fibrous (Other)	None Detected
13-2-Drywall <small>411703404-0002</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
13-2-Joint Compound <small>411703404-0002A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		35% Ca Carbonate 63% Non-fibrous (Other)	2% Chrysotile
13-2-Tape <small>411703404-0002B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
13-3-Drywall <small>411703404-0003</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
13-3-Joint Compound <small>411703404-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
13-3-Tape <small>411703404-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
13-4-Drywall <small>411703404-0004</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
13-4-Joint Compound <small>411703404-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
13-4-Tape <small>411703404-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
13-5-Drywall <small>411703404-0005</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
13-5-Joint Compound <small>411703404-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
13-5-Tape <small>411703404-0005B</small>	Drywall & Joint Compound	Yellow Fibrous Homogeneous	45% Glass	55% Non-fibrous (Other)	None Detected
13-6-Drywall <small>411703404-0006</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 08:13:22



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703404  
**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
13-6-Joint Compound	Drywall & Joint Compound				Positive Stop (Not Analyzed)
<i>411703404-0006A</i>					
13-6-Tape	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
<i>411703404-0006B</i>					
13-7-Drywall	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703404-0007</i>					
13-7-Joint Compound	Drywall & Joint Compound				Positive Stop (Not Analyzed)
<i>411703404-0007A</i>					
13-7-Tape	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
<i>411703404-0007B</i>					
13-8-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703404-0008</i>					
13-8-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703404-0008A</i>					
13-8-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
<i>411703404-0008B</i>					
13-9-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703404-0009</i>					
13-9-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703404-0009A</i>					
13-9-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
<i>411703404-0009B</i>					
13-10-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703404-0010</i>					
13-10-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703404-0010A</i>					
13-10-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	2% Cellulose	40% Quartz 58% Non-fibrous (Other)	None Detected
<i>411703404-0010B</i>					
13-11	Tan HVAC Tape	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703404-0011</i>					
13-12	Tan HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	8% Ca Carbonate 2% Non-fibrous (Other)	None Detected
<i>411703404-0012</i>					
13-14-Floor Tile	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
<i>411703404-0013</i>					
13-14-Mastic	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703404-0013A</i>					
13-15-Floor Tile	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
<i>411703404-0014</i>					

Initial report from: 05/08/2017 08:13:22



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**EMSL Order:** 411703404  
**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
13-15-Mastic 411703404-0014A	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
13-17-Floor Tile 411703404-0015	12x12 Grey F.T. & Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
13-17-Mastic 411703404-0015A	12x12 Grey F.T. & Mastic (Bottom Layer)	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
13-18-Floor Tile 411703404-0016	12x12 Grey F.T. & Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
13-18-Mastic 411703404-0016A	12x12 Grey F.T. & Mastic (Bottom Layer)	Tan/Black Non-Fibrous Homogeneous	8% Cellulose	8% Ca Carbonate 84% Non-fibrous (Other)	<1% Chrysotile
13-20-Floor Tile 411703404-0017	12x12 Brown/ Orange Speckled F.T. & Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
13-20-Mastic 411703404-0017A	12x12 Brown/ Orange Speckled F.T. & Mastic (Bottom Layer)	Black Fibrous Homogeneous	1% Cellulose	96% Non-fibrous (Other)	3% Chrysotile
13-21-Floor Tile 411703404-0018	12x12 Brown/ Orange Speckled F.T. & Mastic (Bottom Layer)	Brown/Orange Non-Fibrous Homogeneous	2% Cellulose	35% Ca Carbonate 63% Non-fibrous (Other)	None Detected
13-21-Mastic 411703404-0018A	12x12 Brown/ Orange Speckled F.T. & Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
13-23 411703404-0019	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
13-24 411703404-0020	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
13-26 411703404-0021	HVAC Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
13-27 411703404-0022	HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-29 411703404-0023	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
13-30 411703404-0024	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
13-32 411703404-0025	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous		5% Quartz 25% Ca Carbonate 70% Non-fibrous (Other)	None Detected
13-33 411703404-0026	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
13-35 411703404-0027	Stove Backsplash Mastic	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
13-36 411703404-0028	Stove Backsplash Mastic	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 08:13:22



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**EMSL Order:** 411703404  
**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
13-38 <small>411703404-0029</small>	Window Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
13-39 <small>411703404-0030</small>	Window Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (19)  
Anupriya Tyagi (31)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/08/2017 08:13:22



# EMSL Analytical, Inc.

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**EMSL Order:** 411703404  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/11/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #13

## 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
13-13 411703404-0031	Tan HVAC Tape	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-16-Floor Tile 411703404-0032	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-16-Mastic 411703404-0033	12x12 Tan Speckled F.T. & Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-19-Floor Tile 411703404-0034	12x12 Grey F.T. & Mastic (Bottom Layer)	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-19-Mastic 411703404-0035	12x12 Grey F.T. & Mastic (Bottom Layer)	Tan/Black Non-Fibrous Heterogeneous	99.6	None	0.41% Chrysotile
13-22-Floor Tile 411703404-0036	12x12 Brown/ Orange Speckled F.T. & Mastic (Bottom Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-25 411703404-0037	Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-28 411703404-0038	HVAC Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-31 411703404-0039	Shower Stall & Sink Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-34 411703404-0040	Kitchen Sink Undercoat - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-37 411703404-0041	Stove Backsplash Mastic	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-40 411703404-0042	Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 05/12/2017 08:19:28





**EMSL Analytical, Inc.**

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703404  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/11/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #13

**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
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Analyst(s)

Derrick Young (12)

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: 05/12/2017 08:19:28



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

411704156

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <u>Carnie Casset Bldg 13 ext.</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <u>SC</u>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input type="checkbox"/> PLM EPA NOB (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> OSHA ID-191 Modified	<b>Other</b>	
<input type="checkbox"/> Standard Addition Method	<input type="checkbox"/>		

Check For Positive Stop - Clearly Identify Homogenous Group

Date Sampled:

Samplers Name: Tom Oliver

Samplers Signature:

Sample #	HA #	Sample Location	Material Description
13-41		Ext. Black window caulk	
13-42			
13-43			
13-44		Ext. grey door caulk	
13-45			
13-46			
13-47		Gable vent caulks - cream	
13-48		+ white	
13-49			

Client Sample # (s): 41 - 50 Total # of Samples: 18

Relinquished (Client): Date: 5-24-17 Time:

Received (Lab): Date: 5/24/17 Time: 9:10am F/x

Comments/Special Instructions: 7952 9037 7778







# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704156  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 05/31/2017 - 06/01/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 13 Ext.

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
13-41 411704156-0001	Ext. Black Window Caulk	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
13-42 411704156-0002	Ext. Black Window Caulk	Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-44 411704156-0003	Ext. Grey Door Caulk	Gray Non-Fibrous Homogeneous	<1% Glass	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
13-45 411704156-0004	Ext. Grey Door Caulk	Gray Non-Fibrous Homogeneous	4% Glass	10% Ca Carbonate 86% Non-fibrous (Other)	None Detected
13-47-Caulk 411704156-0005	Gable Vent Caulks - Cream & White	Beige Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
13-47-Glazing 411704156-0005A	Gable Vent Caulks - Cream & White	White Non-Fibrous Homogeneous	5% Wollastonite	15% Ca Carbonate 80% Non-fibrous (Other)	None Detected
13-48-Caulk 411704156-0006	Gable Vent Caulks - Cream & White	Beige Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
13-48-Glazing 411704156-0006A	Gable Vent Caulks - Cream & White	Gray Non-Fibrous Homogeneous	3% Wollastonite 4% Fibrous (Other)	5% Ca Carbonate 88% Non-fibrous (Other)	None Detected
13-50-Shingle 1 411704156-0007	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	8% Glass	5% Quartz 15% Ca Carbonate 72% Non-fibrous (Other)	None Detected
13-50-Shingle 2 411704156-0007A	Roof Shingles (2) & Felt (1)	Black/Green Fibrous Homogeneous	5% Glass	3% Quartz 10% Ca Carbonate 82% Non-fibrous (Other)	None Detected
13-50-Felt 411704156-0007B	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
13-51-Shingle 1 411704156-0008	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	5% Quartz 12% Ca Carbonate 78% Non-fibrous (Other)	None Detected
13-51-Shingle 2 411704156-0008A	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
13-51-Felt 411704156-0008B	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
13-53 411704156-0009	2nd Layer of Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
13-54 411704156-0010	2nd Layer of Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 11:34:55



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**EMSL Order:** 411704156  
**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
13-56 <small>411704156-0011</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	<1% Cellulose	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
13-57 <small>411704156-0012</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (9)

Travis Hartney (9)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 11:34:55





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704156  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 13 Ext.

## 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
13-43 411704156-0013	Ext. Black Window Caulk	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-46 411704156-0014	Ext. Grey Door Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-49-Caulk 411704156-0015	Gable Vent Caulks - Cream & White	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-49-Glazing 411704156-0016	Gable Vent Caulks - Cream & White	Gray/Tan/White Non-Fibrous Heterogeneous	99.5	0.50 Fibrous_Other	No Asbestos Detected
13-52-Shingle 1 411704156-0017	Roof Shingles (2) & Felt (1)	Brown/Red/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-52-Shingle 2 411704156-0018	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-52-Felt 411704156-0019	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-55 411704156-0020	2nd Layer of Felt	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
13-58 411704156-0021	Awning & Flashing Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 06/05/2017 12:42:03



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703406

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagget Build #</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group    Date Sampled: *4-28-17*

Samplers Name: *Ted Schultz*    Samplers Signature: *John K. Wolff*

Sample #	HA #	Sample Location	Material Description
<i>14-1</i>			<i>Drywall + Joint compound</i>
<i>14-2</i>			
<i>14-3</i>			
<i>14-4</i>			
<i>14-5</i>			
<i>14-6</i>			
<i>14-7</i>			
<i>14-8</i>			<i>Plaster w/ finish over unfinished drywall</i>
<i>14-9</i>			
<i>14-10</i>			

Client Sample # (s): *1-37*    Total # of Samples:

Relinquished (Client): *John K. Wolff*    Date: *4-28-17*    Time: *5:00pm*

Received (Lab): *Kyle N...*    Date: *5/1/17*    Time: *9:30AM Fx*

Comments/Special Instructions: *7952 7975 1281*  
Please utilize positive stop analysis.  
 Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
 Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703406

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
14-11			12x12 tan speckled F.T.
14-12			w/ mastic ↓
14-13			↓
14-14			kitchen counter caulk
14-15			↓
14-16			↓
14-17			shower stall + sink
14-18			caulk ↓
14-19			↓
14-20			HVAC caulk
14-21			↓
14-22			↓
14-23			HVAC tape
14-24			↓
14-25			↓
14-26			kitchen sink under coat
14-27			BLK ↓
14-28			↓
14-29			kitchen sink under coat
14-30			white ↓
14-31			↓
14-32			window caulk
14-33			↓
14-34			↓

**\*Comments/Special Instructions:**  
 Please utilize positive stop analysis.  
 Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
 Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703406  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/05/2017  
**Collected Date:** 04/28/2017

**Project:** Cammie Clagett Building #14

## 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
14-1-Drywall <small>411703406-0001</small>	Drywall & Joint Compound	Brown/Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
14-1-Joint Compound <small>411703406-0001A</small>	Drywall & Joint Compound	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
14-1-Tape <small>411703406-0001B</small>	Drywall & Joint Compound	White Fibrous Homogeneous	100% Glass		None Detected
14-2-Drywall <small>411703406-0002</small>	Drywall & Joint Compound	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
14-2-Joint Compound <small>411703406-0002A</small>	Drywall & Joint Compound	Beige Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
14-2-Tape <small>411703406-0002B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
14-3-Drywall <small>411703406-0003</small>	Drywall & Joint Compound	Brown/White Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
14-3-Joint Compound <small>411703406-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
14-3-Tape <small>411703406-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
14-4-Drywall <small>411703406-0004</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
14-4-Joint Compound <small>411703406-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
14-4-Tape <small>411703406-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
14-5-Drywall <small>411703406-0005</small>	Drywall & Joint Compound	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
14-5-Joint Compound <small>411703406-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
14-5-Tape <small>411703406-0005B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
14-6-Drywall <small>411703406-0006</small>	Drywall & Joint Compound	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 07:47:43





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703406  
**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
14-6-Joint Compound <small>411703406-0006A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
14-7-Drywall <small>411703406-0007</small>	Drywall & Joint Compound	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
14-7-Joint Compound <small>411703406-0007A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
14-7-Tape <small>411703406-0007B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
14-8-Skim Coat <small>411703406-0008</small> Sample labeled 12-8	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
14-8-Rough Coat <small>411703406-0008A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
14-8-Drywall <small>411703406-0008B</small>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
14-9-Skim Coat <small>411703406-0009</small> Sample labeled 12-9	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
14-9-Rough Coat <small>411703406-0009A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
14-9-Drywall <small>411703406-0009B</small>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
14-10-Skim Coat <small>411703406-0010</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
14-10-Rough Coat <small>411703406-0010A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 70% Non-fibrous (Other)	None Detected
14-10-Drywall <small>411703406-0010B</small>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
14-11-Floor Tile <small>411703406-0011</small>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
14-11-Mastic <small>411703406-0011A</small>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	8% Ca Carbonate 91% Non-fibrous (Other)	None Detected
14-12-Floor Tile <small>411703406-0012</small>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
14-12-Mastic <small>411703406-0012A</small>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
14-14 <small>411703406-0013</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 07:47:43



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703406  
**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
14-15 <small>411703406-0014</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-17 <small>411703406-0015</small>	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
14-18 <small>411703406-0016</small>	Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
14-20 <small>411703406-0017</small>	HVAC Caulk	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
14-21 <small>411703406-0018</small>	HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-23 <small>411703406-0019</small>	HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	5% Ca Carbonate 5% Non-fibrous (Other)	None Detected
14-24 <small>411703406-0020</small>	HVAC Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
14-26 <small>411703406-0021</small>	Kitchen Sink Undercoat - Black	Black Non-Fibrous Homogeneous	1% Fibrous (Other)	10% Ca Carbonate 5% Mica 84% Non-fibrous (Other)	None Detected
14-27 <small>411703406-0022</small>	Kitchen Sink Undercoat - Black	Black Fibrous Homogeneous	8% Cellulose	35% Ca Carbonate 57% Non-fibrous (Other)	None Detected
14-29 <small>411703406-0023</small>	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
14-30 <small>411703406-0024</small>	Kitchen Sink Undercoat - White				Positive Stop (Not Analyzed)
14-32 <small>411703406-0025</small>	Window Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
14-33 <small>411703406-0026</small>	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
14-35 <small>411703406-0027</small>	Stove Backsplash Mastic	White Non-Fibrous Homogeneous	2% Cellulose	12% Ca Carbonate 86% Non-fibrous (Other)	None Detected
14-36 <small>411703406-0028</small>	Stove Backsplash Mastic	White Fibrous Homogeneous	1% Cellulose	15% Ca Carbonate 84% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 07:47:43



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703406

**Customer ID:** AXEM25

**Customer PO:**

**Project ID:**

Analyst(s)

*Aaron Hartley (28)*

*Lacy Searcy (15)*

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: 05/08/2017 07:47:43



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703406  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/12/2017  
**Collected Date:** 04/28/2017  
**Project:** Cammie Clagett Building #14

## 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
14-13-Floor Tile 411703406-0029	12x12 Tan Speckled F.T. w/ Mastic	Gray/Tan/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
14-13-Mastic 411703406-0030	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
14-16 411703406-0031	Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
14-19 411703406-0032	Shower Stall & Sink Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
14-22 411703406-0033	HVAC Caulk	Clear Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
14-25 411703406-0034	HVAC Tape	Tan Non-Fibrous Heterogeneous	99.2	0.82 Fibrous_Other	No Asbestos Detected
14-28 411703406-0035	Kitchen Sink Undercoat - Black	Black Non-Fibrous Heterogeneous	99.2	0.78 Fibrous_Other	No Asbestos Detected
14-34 411703406-0036	Window Caulk	White Non-Fibrous Heterogeneous	99.9	0.12 Fibrous_Other	No Asbestos Detected
14-37 411703406-0037	Stove Backsplash Mastic	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 05/12/2017 10:51:16





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number (Lab Use Only):**

411704157

Company : Apex Environmental Management, Inc.		<b>EMSL-Bill to:</b> <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Clagget Bldg 14 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SE</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: \_\_\_\_\_

Samplers Name: Tom Oliver      Samplers Signature:

Sample #	HA #	Sample Location	Material Description
14-38		Roof shingles (2) & felt (1)	
14-39			
14-40			
14-41		2 <sup>nd</sup> layer of felt paper	
14-42			
14-43			
14-44		Awning & flashing caulk	
14-45			
14-46			

Client Sample # (s): *38 - ~~55~~*      Total # of Samples: *9* ~~18~~

Relinquished (Client):      Date: *5-24-17*      Time: \_\_\_\_\_

Received (Lab): *Kyle Nelson*      Date: *5/26/17*      Time: *9:10am Fk*

Comments/Special Instructions: \_\_\_\_\_      *7952 9037 7756*







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704157

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 14 Ext.

## 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
14-38-Shingle 1 <small>411704157-0001</small>	Roof Shingles (2) & Felt (1)	Red Fibrous Homogeneous	3% Glass	5% Quartz 15% Ca Carbonate 77% Non-fibrous (Other)	None Detected
14-38-Shingle 2 <small>411704157-0001A</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	3% Glass	5% Quartz 10% Ca Carbonate 82% Non-fibrous (Other)	None Detected
14-38-Felt <small>411704157-0001B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
14-39-Shingle 1 <small>411704157-0002</small>	Roof Shingles (2) & Felt (1)	Brown/Red Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
14-39-Shingle 2 <small>411704157-0002A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Homogeneous	5% Glass	8% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
14-39-Felt <small>411704157-0002B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
14-41 <small>411704157-0003</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
14-42 <small>411704157-0004</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
14-44 <small>411704157-0005</small>	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous	<1% Glass	20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
14-45 <small>411704157-0006</small>	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous	1% Glass	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
14-47 <small>411704157-0007</small>	Black Window Caulk	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
14-48 <small>411704157-0008</small>	Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-50-Gray Caulk <small>411704157-0009</small>	Grey Door Caulk	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
14-50-White Caulk <small>411704157-0009A</small>	Grey Door Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
14-51 <small>411704157-0010</small>	Grey Door Caulk	Gray Fibrous Homogeneous	4% Glass	5% Quartz 91% Non-fibrous (Other)	None Detected
14-53 <small>411704157-0011</small>	Roof Gable Caulks	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 12:39:38



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376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704157  
**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
14-54	Roof Gable Caulks	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
411704157-0012					

Analyst(s) \_\_\_\_\_

Aaron Hartley (8)

Travis Hartney (9)

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: 06/01/2017 12:39:38



# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704157  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/06/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 14 Ext.

## 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
14-40-Shingle 1 411704157-0013	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
14-40-Shingle 2 411704157-0014	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
14-40-Felt 411704157-0015	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
14-43 411704157-0016	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
14-46 411704157-0017	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
14-49 411704157-0018	Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
14-52-Gray Caulk 411704157-0019	Grey Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
14-52-White Caulk 411704157-0020	Grey Door Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
14-55 411704157-0021	Roof Gable Caulks	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (9)

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: 06/07/2017 07:53:44





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703407

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clagett Building 15</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 4-27-17

Samplers Name: Nicholas Neerhof Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
15-1		throughout	Drywall, with joint compound and tape
15-2			
15-3			
15-4			
15-5			
15-6			
15-7			
15-8		Bathroom	Plaster with finish over unfinished drywall
15-9			
15-10			

Client Sample # (s): <u>15-1 - 15-34</u>	Total # of Samples:
Relinquished (Client): <u>Nicholas Neerhof</u>	Date: <u>4-28-17</u> Time:
Received (Lab): <u>Hyh Nbrn</u>	Date: <u>5/1/17</u> Time: <u>9:30am Fx</u>
Comments/Special Instructions: Please utilize positive stop analysis. Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:	<u>7952 7975 1260</u>





### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703407

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
15-11		<del>Living Room</del>   Throushout	12"x12" tan speckled floor tile
15-12			with mastic (top layer)
15-13			
15-14		Bathroom	12"x12" Orange / brown floor tile
15-15			with mastic (bottom layer)
15-16			
15-17		Kitchen	Kitchen counter caulk
15-18			
15-19			
15-20		Bathroom	shower stall and sink caulk
15-21			
15-22			
15-23		HVAC closet	HVAC caulk
15-24			
15-25			
15-26		Above the ceiling	Tan HVAC tape
15-27			
15-28			
15-29		Kitchen	white sink coating
15-30			
15-31			
15-32		Front bedroom	interior window caulk
15-33			
15-34			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



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EMSL Order: 411703407

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/01/2017 9:30 AM

**Analysis Date:** 05/05/2017

**Collected Date:** 04/27/2017

**Project:** Cammie Clagett Building #15

## 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
15-1-Drywall <small>411703407-0001</small>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
15-1-Joint Compound <small>411703407-0001A</small>	Throughout - Drywall with Joint Compound and Tape	Beige Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
15-1-Tape <small>411703407-0001B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
15-2-Drywall <small>411703407-0002</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
15-2-Joint Compound <small>411703407-0002A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
15-2-Tape <small>411703407-0002B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
15-3-Drywall <small>411703407-0003</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (Other)	None Detected
15-3-Joint Compound <small>411703407-0003A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
15-3-Tape <small>411703407-0003B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
15-4-Drywall <small>411703407-0004</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
15-4-Joint Compound <small>411703407-0004A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
15-4-Tape <small>411703407-0004B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
15-5-Drywall <small>411703407-0005</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
15-5-Joint Compound <small>411703407-0005A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
15-5-Tape <small>411703407-0005B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
15-6-Drywall <small>411703407-0006</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 06:42:59



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703407  
**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
15-6-Joint Compound <small>411703407-0006A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
15-6-Tape <small>411703407-0006B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
15-7-Drywall <small>411703407-0007</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
15-7-Joint Compound <small>411703407-0007A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
15-7-Tape <small>411703407-0007B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
15-8-Skim Coat <small>411703407-0008</small>	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
15-8-Rough Coat <small>411703407-0008A</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	2% Cellulose	40% Quartz 58% Non-fibrous (Other)	None Detected
15-8-Drywall <small>411703407-0008B</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
15-9-Skim Coat <small>411703407-0009</small>	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
15-9-Rough Coat <small>411703407-0009A</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
15-9-Drywall <small>411703407-0009B</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
15-10-Skim Coat <small>411703407-0010</small>	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
15-10-Rough Coat <small>411703407-0010A</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous		45% Quartz 10% Ca Carbonate 45% Non-fibrous (Other)	None Detected
15-10-Drywall <small>411703407-0010B</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
15-11-Floor Tile <small>411703407-0011</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
15-11-Mastic <small>411703407-0011A</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	10% Gypsum 88% Non-fibrous (Other)	None Detected
15-12-Floor Tile <small>411703407-0012</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
15-12-Mastic <small>411703407-0012A</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 06:42:59





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703407  
**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
15-14-Floor Tile <small>411703407-0013</small>	Bathroom - 12"x12" Orange/ Brown Floor Tile with Mastic (Bottom Layer)	Brown/Orange Non-Fibrous Homogeneous	4% Cellulose	35% Ca Carbonate 61% Non-fibrous (Other)	None Detected
15-14-Mastic <small>411703407-0013A</small>	Bathroom - 12"x12" Orange/ Brown Floor Tile with Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous	5% Cellulose	93% Non-fibrous (Other)	2% Chrysotile
15-15-Floor Tile <small>411703407-0014</small>	Bathroom - 12"x12" Orange/ Brown Floor Tile with Mastic (Bottom Layer)	Brown/Orange Non-Fibrous Homogeneous	3% Cellulose	30% Ca Carbonate 67% Non-fibrous (Other)	None Detected
15-15-Mastic <small>411703407-0014A</small>	Bathroom - 12"x12" Orange/ Brown Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
15-17 <small>411703407-0015</small>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-18 <small>411703407-0016</small>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
15-20 <small>411703407-0017</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
15-21 <small>411703407-0018</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
15-23 <small>411703407-0019</small>	HVAC Closet - HVAC Caulk	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
15-24 <small>411703407-0020</small>	HVAC Closet - HVAC Caulk	Tan Non-Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
15-26 <small>411703407-0021</small>	Above the Ceiling - Tan HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	5% Ca Carbonate 5% Non-fibrous (Other)	None Detected
15-27 <small>411703407-0022</small>	Above the Ceiling - Tan HVAC Tape	Tan Fibrous Homogeneous	85% Cellulose	10% Ca Carbonate 5% Non-fibrous (Other)	None Detected
15-29 <small>411703407-0023</small>	Kitchen - White Sink Coating	Gray/White Non-Fibrous Homogeneous		10% Ca Carbonate 86% Non-fibrous (Other)	4% Chrysotile
15-30 <small>411703407-0024</small>	Kitchen - White Sink Coating				Positive Stop (Not Analyzed)
15-32 <small>411703407-0025</small>	Front Bedroom - Interior Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
15-33 <small>411703407-0026</small>	Front Bedroom - Interior Window Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 06:42:59



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EMSL Order: 411703407

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (27)

Travis Hartney (15)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/08/2017 06:42:59





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703407  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/12/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #15

## 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
15-13-Floor Tile 411703407-0027	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Gray/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
15-13-Mastic 411703407-0028	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	<0.55 Fibrous_Other	No Asbestos Detected
15-16-Floor Tile 411703407-0029	Bathroom - 12"x12" Orange/ Brown Floor Tile with Mastic (Bottom Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
15-19 411703407-0030	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
15-22 411703407-0031	Bathroom - Shower Stall and Sink Caulk	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
15-25 411703407-0032	HVAC Closet - HVAC Caulk	White Non-Fibrous Heterogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
15-28 411703407-0033	Above the Ceiling - Tan HVAC Tape	Tan Non-Fibrous Heterogeneous	99.5	0.48 Fibrous_Other	No Asbestos Detected
15-34 411703407-0034	Front Bedroom - Interior Window Caulk	White Non-Fibrous Heterogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected

Analyst(s)

Aaron Hartley (8)

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: 05/12/2017 10:49:53



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704148

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Connie Clesset Bldg 15 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input type="checkbox"/> PLM EPA NOB (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> OSHA ID-191 Modified	<b>Other</b>	
<input type="checkbox"/> Standard Addition Method	<input type="checkbox"/>		

Check For Positive Stop - Clearly Identify Homogenous Group

Date Sampled: \_\_\_\_\_

Samplers Name: Tom Oliver

Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
15-35		Roof shingles (2) + felt (1)	
15-36			
15-37			
15-38		2 <sup>nd</sup> layer of felt paper	
15-39			
15-40			
15-41		Black window caulk	
15-42			
15-43			

Client Sample # (s): *35-59* Total # of Samples: *21 TO*

Relinquished (Client): *[Signature]* Date: *5-24-17* Time: \_\_\_\_\_

Received (Lab): *[Signature]* Date: *5/26/17* Time: *9:10AM FK*

Comments/Special Instructions: \_\_\_\_\_ *7952 9037 7756*







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704148  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 05/31/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 15 Ext.

## 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
15-35-Shingle 1 <small>411704148-0001</small>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
15-35-Shingle 2 <small>411704148-0001A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	10% Quartz 10% Ca Carbonate 72% Non-fibrous (Other)	None Detected
15-35-Felt <small>411704148-0001B</small>	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
15-36-Shingle 1 <small>411704148-0002</small>	Roof Shingles (2) & Felt (1)	Brown/Black Fibrous Homogeneous	8% Glass	5% Quartz 15% Ca Carbonate 72% Non-fibrous (Other)	None Detected
15-36-Shingle 2 <small>411704148-0002A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	5% Glass	5% Quartz 15% Ca Carbonate 75% Non-fibrous (Other)	None Detected
15-36-Felt <small>411704148-0002B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
15-38 <small>411704148-0003</small>	2nd Layer of Felt Paper	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
15-39 <small>411704148-0004</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
15-41 <small>411704148-0005</small>	Black Window Caulk	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
15-42 <small>411704148-0006</small>	Black Window Caulk	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
15-44-White Caulk <small>411704148-0007</small>	White & Grey Door Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
15-44-Gray Caulk <small>411704148-0007A</small>	White & Grey Door Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
15-45-White Caulk <small>411704148-0008</small>	White & Grey Door Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
15-45-Gray Caulk <small>411704148-0008A</small>	White & Grey Door Caulk	Gray Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
15-47 <small>411704148-0009</small>	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
15-48-Caulk <small>411704148-0010</small>	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 08:40:56



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704148  
**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
15-48-Glazing <i>411704148-0010A</i>	Awning & Flashing Caulk	Tan/White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
15-50-White Caulk <i>411704148-0011</i>	Roof Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
15-50-Cream Caulk <i>411704148-0011A</i>	Roof Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
15-51-White Caulk <i>411704148-0012</i>	Roof Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
15-51-Cream Caulk <i>411704148-0012A</i>	Roof Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
15-57-Metal <i>411704148-0013</i> <i>No rubber coating present</i>	Rubber Coated Metal	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-58-Metal <i>411704148-0014</i> <i>No rubber coating present.</i>	Rubber Coated Metal	Silver Non-Fibrous Homogeneous		2% Ca Carbonate 98% Non-fibrous (Other)	None Detected
15-59-Metal <i>411704148-0014A</i> <i>No rubber coating present</i>	Rubber Coated Metal	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

- Eric Loomis (1)
- Lyterra Barrow (11)
- Travis Hartney (12)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 08:40:56





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704148  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 15 Ext.

## 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
15-37-Shingle 1 411704148-0015	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	99.4	0.60 Fibrous_Other	No Asbestos Detected
15-37-Shingle 2 411704148-0016	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	99.2	0.83 Fibrous_Other	No Asbestos Detected
15-37-Felt 411704148-0017	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
15-40 411704148-0018	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
15-43 411704148-0019	Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-46-White Caulk 411704148-0020	White & Grey Door Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-46-Gray Caulk 411704148-0021	White & Grey Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-49-Caulk 411704148-0022	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-49-Glazing 411704148-0023	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-52-White Caulk 411704148-0024	Roof Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous	99.6	0.41 Fibrous_Other	No Asbestos Detected
15-52-Cream Caulk 411704148-0025	Roof Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 06/05/2017 11:50:34



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411704148  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 15 Ext.

**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**

Analyst(s)

Aaron Hartley (11)

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: 06/05/2017 11:50:34





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703405**

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different	
Street: 7 Winchester Court		If Bill to is Different note instructions in Comments**	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clagett Building 16</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 4-27-17

Samplers Name: Nicholas Neerhof Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
16-1		Building - 16	Dry well with Joint compound and tape
16-2			
16-3			
16-4			
16-5			
16-6			
16-7			
16-8			Bathroom
16-9			dry well beneath
16-10			

Client Sample # (s): <u>16-1 - 16-40</u>	Total # of Samples:
Relinquished (Client): <u>Nicholas Neerhof</u> Date: <u>4-28-17</u>	Time:
Received (Lab): <u>Kyle Nls</u> Date: <u>5/1/17</u>	Time: <u>9:30 AM FX</u>
Comments/Special Instructions: Please utilize positive stop analysis. Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:	

7952 7975 1260





**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

411703405

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
16-11		<del>12x12</del> throughout	12"x12" tan speckled floor tile
16-12			with mastic (top layer)
16-13			
16-14		throughout	12"x12" orange/yellow floor tile 12"x12"
16-15			(Bottom layer)
16-16			
16-17		Bathroom	Grey square pattern vinyl floor
16-18			with mastic
16-19			
16-20		Kitchen	Kitchen counter caulk
16-21			
16-22			
16-23		HVAC closet	HVAC caulk
16-24			
16-25			
16-26		Bathroom	shower stall mastic
16-27			
16-28			
16-29		Bathroom	showerstall and sink caulk
16-30			
16-31			
16-32		Above the ceiling	HVAC tape - tan
16-33			
16-34			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:









# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703405

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/01/2017 9:30 AM

**Analysis Date:** 05/05/2017 - 05/06/2017

**Collected Date:** 04/27/2017

**Project:** Cammie Clagett Building #16

## 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
16-1-Drywall <small>411703405-0001</small>	Building 16 - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16-1-Joint Compound <small>411703405-0001A</small>	Building 16 - Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
16-1-Tape <small>411703405-0001B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-2-Drywall <small>411703405-0002</small>	Building 16 - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
16-2-Joint Compound <small>411703405-0002A</small>	Building 16 - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
16-2-Tape <small>411703405-0002B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-3-Drywall <small>411703405-0003</small>	Building 16 - Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
16-3-Joint Compound <small>411703405-0003A</small>	Building 16 - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
16-3-Tape <small>411703405-0003B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-4-Drywall <small>411703405-0004</small>	Building 16 - Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16-4-Joint Compound <small>411703405-0004A</small>	Building 16 - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
16-4-Tape <small>411703405-0004B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-5-Drywall <small>411703405-0005</small>	Building 16 - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16-5-Joint Compound <small>411703405-0005A</small>	Building 16 - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
16-5-Tape <small>411703405-0005B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-6-Drywall <small>411703405-0006</small>	Building 16 - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 06:59:06



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703405  
**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
16-6-Joint Compound <small>411703405-0006A</small>	Building 16 - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
16-6-Tape <small>411703405-0006B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-7-Drywall <small>411703405-0007</small>	Building 16 - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16-7-Joint Compound <small>411703405-0007A</small>	Building 16 - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
16-7-Tape <small>411703405-0007B</small>	Building 16 - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
16-8-Drywall <small>411703405-0008</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16-8-Skim Coat <small>411703405-0008A</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
16-8-Rough Coat <small>411703405-0008B</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	Gray Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
16-9-Drywall <small>411703405-0009</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
16-9-Skim Coat <small>411703405-0009A</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
16-9-Rough Coat <small>411703405-0009B</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
16-10-Drywall <small>411703405-0010</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
16-10-Skim Coat <small>411703405-0010A</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
16-10-Rough Coat <small>411703405-0010B</small>	Bathroom - Plaster with Finish and Undfinished Drywall Beneath	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
16-11-Floor Tile <small>411703405-0011</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 06:59:06



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**EMSL Order:** 411703405  
**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
16-11-Mastic 411703405-0011A	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
16-12-Floor Tile 411703405-0012	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
16-12-Mastic 411703405-0012A	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	10% Gypsum 88% Non-fibrous (Other)	None Detected
16-14-Top Mastic 411703405-0013	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
16-14-Floor Tile 411703405-0013A	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
16-14-Bottom Mastic 411703405-0013B	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Black Non-Fibrous Homogeneous		5% Ca Carbonate 90% Non-fibrous (Other)	5% Chrysotile
16-15-Top Mastic 411703405-0014	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
16-15-Floor Tile 411703405-0014A	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-15-Bottom Mastic 411703405-0014B	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)				Positive Stop (Not Analyzed)
16-17-Flooring 411703405-0015	Bathroom - Grey Square Pattern Vinyl Floor with Mastic	Gray Fibrous Homogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected
16-17-Mastic 411703405-0015A	Bathroom - Grey Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
16-18-Flooring 411703405-0016	Bathroom - Grey Square Pattern Vinyl Floor with Mastic	Gray Fibrous Homogeneous	15% Cellulose	10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
16-18-Mastic 411703405-0016A	Bathroom - Grey Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (Other)	None Detected
16-20 411703405-0017	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
16-21 411703405-0018	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
16-23 411703405-0019	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		15% Gypsum 85% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2017 06:59:06



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**EMSL Order:** 411703405  
**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
16-24 <small>411703405-0020</small>	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
16-26 <small>411703405-0021</small>	Bathroom - Shower Stall Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
16-27 <small>411703405-0022</small>	Bathroom - Shower Stall Mastic	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
16-29 <small>411703405-0023</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
16-30 <small>411703405-0024</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
16-32 <small>411703405-0025</small>	Above the Ceiling - HVAC Tape - Tan	Tan Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
16-33 <small>411703405-0026</small>	Above the Ceiling - HVAC Tape - Tan	Tan Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
16-35 <small>411703405-0027</small>	Back Door - Door Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
16-36 <small>411703405-0028</small>	Back Door - Door Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
16-38 <small>411703405-0029</small>	Kitchen - White Sink Coating	Tan Fibrous Homogeneous		10% Ca Carbonate 85% Non-fibrous (Other)	5% Chrysotile
16-39 <small>411703405-0030</small>	Kitchen - White Sink Coating				Positive Stop (Not Analyzed)

Analyst(s) \_\_\_\_\_

Aaron Hartley (20)  
Lyterra Barrow (30)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/08/2017 06:59:06





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703405  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/11/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #16

## 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
16-13-Floor Tile 411703405-0031	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-13-Mastic 411703405-0032	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-16-Top Mastic 411703405-0033	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-16-Floor Tile 411703405-0034	Throughout - 12"x12" Orange/ Yellow Floor Tile 12"x12" (Bottom Layer)	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-19-Flooring 411703405-0035	Bathroom - Grey Square Pattern Vinyl Floor with Mastic	Tan/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-19-Mastic 411703405-0036	Bathroom - Grey Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-22 411703405-0037	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-25 411703405-0038	HVAC Closet - HVAC Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-28 411703405-0039	Bathroom - Shower Stall Mastic	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-31 411703405-0040	Bathroom - Shower Stall and Sink Caulk	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-34 411703405-0041	Above the Ceiling - HVAC Tape - Tan	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
16-37 411703405-0042	Back Door - Door Caulk	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 05/12/2017 08:18:16



**EMSL Analytical, Inc.**

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703405  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/01/2017 9:30 AM  
**Analysis Date:** 05/11/2017  
**Collected Date:** 04/27/2017  
**Project:** Cammie Clagett Building #16

**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
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Analyst(s)

Derrick Young (12)

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: 05/12/2017 08:18:16



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704154

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Connie Cloggott Bldg 16 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled:

Samplers Name: Tom Oliver Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
16-41		Black ext window caulk	
16-42			
16-43			
16-44		Grey ext. door caulk	
16-45			
16-46			
16-47		Gable vent caulks - cream +	
16-48		white	
16-49			

Client Sample # (s): 41-58 Total # of Samples: 18

Relinquished (Client): *[Signature]* Date: 5-24-17 Time:

Received (Lab): *[Signature]* Date: 5/26/17 Time: 9:10am Fk

Comments/Special Instructions: 7952 9037 7178









# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704154

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017 - 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 16 Ext.

## 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
16-41 <small>411704154-0001</small>	Black Ext. Window Caulk	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
16-42 <small>411704154-0002</small>	Black Ext. Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-44 <small>411704154-0003</small>	Grey Ext. Door Caulk	Gray Non-Fibrous Homogeneous	2% Glass	15% Ca Carbonate 83% Non-fibrous (Other)	None Detected
16-45 <small>411704154-0004</small>	Grey Ext. Door Caulk	Gray Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
16-47-Caulk <small>411704154-0005</small>	Gable Vent Caulks - Cream & White	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
16-47-Glazing <small>411704154-0005A</small>	Gable Vent Caulks - Cream & White	White Non-Fibrous Homogeneous	10% Wollastonite	30% Ca Carbonate 60% Non-fibrous (Other)	None Detected
16-48-Caulk <small>411704154-0006</small>	Gable Vent Caulks - Cream & White	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
16-48-Glazing <small>411704154-0006A</small>	Gable Vent Caulks - Cream & White	Gray Non-Fibrous Homogeneous	5% Wollastonite	40% Ca Carbonate 55% Non-fibrous (Other)	None Detected
16-50 <small>411704154-0007</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		65% Ca Carbonate 35% Non-fibrous (Other)	None Detected
16-51 <small>411704154-0008</small>	Awning & Flashing Caulk	Gray Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
16-53-Shingle 1 <small>411704154-0009</small>	Roof Shingles (2) & Felt (1)	Red/Black/Orange Fibrous Homogeneous	5% Glass	5% Quartz 15% Ca Carbonate 75% Non-fibrous (Other)	None Detected
16-53-Shingle 2 <small>411704154-0009A</small>	Roof Shingles (2) & Felt (1)	Black/Green Fibrous Homogeneous	8% Glass	5% Quartz 15% Ca Carbonate 72% Non-fibrous (Other)	None Detected
16-53-Felt <small>411704154-0009B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
16-54-Shingle 1 <small>411704154-0010</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	10% Glass	8% Quartz 8% Ca Carbonate 74% Non-fibrous (Other)	None Detected
16-54-Shingle 2 <small>411704154-0010A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
16-54-Felt <small>411704154-0010B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 11:45:06



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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**EMSL Order:** 411704154  
**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
16-56-Metal <small>411704154-0011</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
16-57-Metal <small>411704154-0012</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-58-Metal <small>411704154-0012A</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (10)

Travis Hartney (9)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 11:45:06



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704154  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 16 Ext.

## 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
16-43 411704154-0013	Black Ext. Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
16-46 411704154-0014	Grey Ext. Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
16-49-Caulk 411704154-0015	Gable Vent Caulks - Cream & White	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
16-49-Glazing 411704154-0016	Gable Vent Caulks - Cream & White	White Non-Fibrous Homogeneous	99.5	0.49 Fibrous_Other	No Asbestos Detected
16-52 411704154-0017	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
16-55-Shingle 1 411704154-0018	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	99.4	0.64 Fibrous_Other	No Asbestos Detected
16-55-Shingle 2 411704154-0019	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	99.7	0.28 Fibrous_Other	No Asbestos Detected
16-55-Felt 411704154-0020	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (8)

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: 06/02/2017 16:26:00



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703964

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): <del>Nicholas Nocerino</del> Tom Oliver		Telephone #: <del>864-404-3210</del> 640-5127	
Email Address: <del>nncocerino</del> @apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cannic Closser Bds 17</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5-11-17

Samplers Name: Tom Oliver Samplers Signature: \_\_\_\_\_

Sample #	HA #	Sample Location	Material Description
17-1		Drywall w/ Joint Compound	PLM
17-2		+ tape	
17-3			
17-4			
17-5			
17-6			
17-7			
17-8		Plaster w/ finish over	PLM
17-9		un finished drywall	
17-10			

Client Sample # (s): 1-58 Total # of Samples: 58

Relinquished (Client): Date: 5-11-17 Time: \_\_\_\_\_

Received (Lab): \_\_\_\_\_ Date: \_\_\_\_\_ Time: 9:50

Comments/Special Instructions:  
Please utilize positive stop analysis  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:  
EMSL FD/EX  
7952 8781 3524



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703964

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): <del>Nicholas Neerhof</del> Tom Oliver		Telephone #: <del>864-404-3210</del> 640-5127	
Email Address: <del>nneerhof</del> tolover@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clesset Bldg 17</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input type="checkbox"/> PLM EPA NOB (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> OSHA ID-191 Modified	<b>Other</b>	
<input type="checkbox"/> Standard Addition Method		<input type="checkbox"/>	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5-11-17

Samplers Name: Tom Oliver Samplers Signature: \_\_\_\_\_

Sample #	HA #	Sample Location	Material Description
17-1		Drywall w/ Joint Compound	PLM
17-2		+ tape	
17-3			
17-4			
17-5			
17-6			
17-7			
17-8		Plaster w/ finish over	PLM
17-9		unfinished drywall	
17-10			

Client Sample # (s): 1-58 Total # of Samples: 58

Relinquished (Client): Date: 5-4-17 Time: \_\_\_\_\_

Received (Lab): \_\_\_\_\_ Date: \_\_\_\_\_ Time: 9:50

Comments/Special Instructions:  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: EMSL FD/EX 7952 8781 3524



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only).

411703964

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376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
17-11		12" x 12" tan speckled F.T.	PLM
17-12		+ adhesive (top layer)	↓
17-13			TEM
17-14		Drywall wall patch	PLM
17-15			↓
17-16			↓
17-17		Bathroom shower stall +	PLM
17-18		sink caulk	↓
17-19			TEM
17-20		HVAC caulk	PLM
17-21			↓
17-22			TEM
17-23		HVAC Tape	PLM
17-24			↓
17-25			↓
17-26		Kitchen Counter Caulk	PLM
17-27			↓
17-28			TEM
17-29		12" x 12" red F.T. +	PLM
17-30		MASTIC (2nd layer)	↓
17-31			TEM
17-32		Black sink coating	PLM
17-33			↓
17-34			TEM

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29562, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



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LABORATORY • PRODUCTS • TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only)

411703964

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376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
17-35		White sink coatings	PLM
17-36			↓
17-37			TEM
17-38		Black exterior window	PLM
17-39		caulk	↓
17-40			TEM
17-41		Roof shingles (2) & felt (1)	PLM
17-42			↓
17-43			TEM
17-44		Awning/Flashing caulk	PLM
17-45		white	↓
17-46			TEM
17-47		Grable vent caulk	PLM
17-48		(white & cream)	↓
17-49			TEM
17-50		Exterior grey door	PLM
17-51		caulk	↓
17-52			TEM
17-53		White wall penetration	PLM
17-54		caulk	↓
17-55			TEM
17-56		Rubber coated metal	PLM
17-57			↓
17-58			TEM

\*Comments/Special Instructions:

Please utilize positive stop analysis  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



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EMSL Order: 411703964

Customer ID: AXEM25

Customer PO: 640-5127

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/18/2017 9:35 AM

**Analysis Date:** 05/22/2017 - 05/24/2017

**Collected Date:** 05/11/2017

**Project:** 640-5127-Cammie Clasget- Bldg 17

## 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
17-1-Drywall <small>411703964-0001</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
17-1-Joint Compound <small>411703964-0001A</small>	Drywall w/ Joint Compound + Tape	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 73% Non-fibrous (Other)	2% Chrysotile
17-1-Tape <small>411703964-0001B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
17-2-Drywall <small>411703964-0002</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
17-2-Joint Compound <small>411703964-0002A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
17-2-Tape <small>411703964-0002B</small>	Drywall w/ Joint Compound + Tape	Tan Non-Fibrous Homogeneous	100% Cellulose		None Detected
17-3-Drywall <small>411703964-0003</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
17-3-Joint Compound <small>411703964-0003A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
17-3-Tape <small>411703964-0003B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
17-4-Drywall <small>411703964-0004</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
17-4-Joint Compound <small>411703964-0004A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
17-4-Tape <small>411703964-0004B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
17-5-Drywall <small>411703964-0005</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
17-5-Joint Compound <small>411703964-0005A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
17-5-Tape <small>411703964-0005B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
17-6-Drywall <small>411703964-0006</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/24/2017 15:10:23





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376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703964  
**Customer ID:** AXEM25  
**Customer PO:** 640-5127  
**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
17-6-Joint Compound	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
411703964-0006A					
17-6-Tape	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
411703964-0006B					
17-7-Drywall	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
411703964-0007					
17-7-Joint Compound	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
411703964-0007A					
17-7-Tape	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
411703964-0007B					
17-8-Skim Coat	Plaster w/ Finish Over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
411703964-0008					
17-8-Rough Coat	Plaster w/ Finish Over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
411703964-0008A					
17-8-Drywall	Plaster w/ Finish Over Unfinished Drywall	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
411703964-0008B					
17-9-Skim Coat	Plaster w/ Finish Over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
411703964-0009					
17-9-Rough Coat	Plaster w/ Finish Over Unfinished Drywall	Gray Non-Fibrous Homogeneous		35% Quartz 8% Ca Carbonate 57% Non-fibrous (Other)	None Detected
411703964-0009A					
17-9-Drywall	Plaster w/ Finish Over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
411703964-0009B					
17-10-Skim Coat	Plaster w/ Finish Over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703964-0010					
17-10-Rough Coat	Plaster w/ Finish Over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	50% Quartz 49% Non-fibrous (Other)	None Detected
411703964-0010A					
17-10-Drywall	Plaster w/ Finish Over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
411703964-0010B					
17-11-Floor Tile	12"x12" Tan Speckled F.T + Adhesive-Top Layer	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703964-0011					
17-11-Mastic	12"x12" Tan Speckled F.T + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
411703964-0011A					
17-12-Floor Tile	12"x12" Tan Speckled F.T + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703964-0012					
17-12-Mastic	12"x12" Tan Speckled F.T + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
411703964-0012A					
17-14	Drywall Patch	White Fibrous Homogeneous	10% Glass	35% Ca Carbonate 55% Non-fibrous (Other)	None Detected
411703964-0013					

Initial report from: 05/24/2017 15:10:23



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376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703964  
**Customer ID:** AXEM25  
**Customer PO:** 640-5127  
**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
17-15 <small>411703964-0014</small>	Drywall Patch	White Fibrous Homogeneous	10% Glass	30% Ca Carbonate 60% Non-fibrous (Other)	None Detected
17-16 <small>411703964-0015</small>	Drywall Patch	White Fibrous Homogeneous	5% Glass	60% Ca Carbonate 35% Non-fibrous (Other)	None Detected
17-17 <small>411703964-0016</small>	Bathroom Shower Stall + Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
17-18 <small>411703964-0017</small>	Bathroom Shower Stall + Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
17-20 <small>411703964-0018</small>	HVAC Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
17-21 <small>411703964-0019</small>	HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17-23 <small>411703964-0020</small>	HVAC Tape	Tan Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
17-24 <small>411703964-0021</small>	HVAC Tape	Tan Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
17-25 <small>411703964-0022</small>	HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	10% Ca Carbonate	None Detected
17-26 <small>411703964-0023</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
17-27 <small>411703964-0024</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
17-29-Floor Tile <small>411703964-0025</small>	12"x12" Red F.T. + Mastic-2nd Layer	Red Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
17-29-Mastic <small>411703964-0025A</small>	12"x12" Red F.T. + Mastic-2nd Layer	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
17-30-Floor Tile <small>411703964-0026</small>	12"x12" Red F.T. + Mastic-2nd Layer	Tan/Red Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
17-30-Mastic <small>411703964-0026A</small>	12"x12" Red F.T. + Mastic-2nd Layer	Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
17-32 <small>411703964-0027</small>	Black Sink Coating	Black Non-Fibrous Homogeneous		10% Ca Carbonate 87% Non-fibrous (Other)	3% Chrysotile
17-33 <small>411703964-0028</small>	Black Sink Coating				Positive Stop (Not Analyzed)
17-35 <small>411703964-0029</small>	White Sink Coating	White Non-Fibrous Homogeneous	15% Cellulose	8% Ca Carbonate 5% Mica 72% Non-fibrous (Other)	None Detected
17-36 <small>411703964-0030</small>	White Sink Coating	White Non-Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 5% Mica 80% Non-fibrous (Other)	None Detected

Initial report from: 05/24/2017 15:10:23



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**EMSL Order:** 411703964  
**Customer ID:** AXEM25  
**Customer PO:** 640-5127  
**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
17-38 <small>411703964-0031</small>	Black Exterior Window Caulk	Black Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
17-39 <small>411703964-0032</small>	Black Exterior Window Caulk	Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
17-41-Red Shingle <small>411703964-0033</small>	Roof Shingles (2) + Felt (1)	Red Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
17-41-Green Shingle <small>411703964-0033A</small>	Roof Shingles (2) + Felt (1)	Green Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
17-41-Felt <small>411703964-0033B</small>	Roof Shingles (2) + Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
17-42-Red Shingle <small>411703964-0034</small>	Roof Shingles (2) + Felt (1)	Red/Black Fibrous Homogeneous	10% Glass	5% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
17-42-Green Shingle <small>411703964-0034A</small>	Roof Shingles (2) + Felt (1)	Gray/Black/Green Fibrous Homogeneous	8% Glass	10% Quartz 10% Ca Carbonate 72% Non-fibrous (Other)	None Detected
17-42-Felt <small>411703964-0034B</small>	Roof Shingles (2) + Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
17-44 <small>411703964-0035</small>	Awning/Flashing Caulk-White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
17-45 <small>411703964-0036</small>	Awning/Flashing Caulk-White	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
17-47-White Caulk <small>411703964-0037</small>	Gable Vent Caulk-White + Cream	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
17-47-Cream Caulk <small>411703964-0037A</small>	Gable Vent Caulk-White + Cream	Beige Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
17-48-White Caulk <small>411703964-0038</small>	Gable Vent Caulk-White + Cream	White Non-Fibrous Homogeneous	4% Fibrous (Other)	20% Ca Carbonate 76% Non-fibrous (Other)	None Detected
17-48-Cream Caulk <small>411703964-0038A</small>	Gable Vent Caulk-White + Cream	Beige Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
17-50-White Layer <small>411703964-0039</small>	Exterior Grey Door Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
17-50-Gray Layer <small>411703964-0039A</small>	Exterior Grey Door Caulk	Gray Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
17-51-White Layer <small>411703964-0040</small>	Exterior Grey Door Caulk	White Non-Fibrous Homogeneous	1% Cellulose	20% Ca Carbonate 79% Non-fibrous (Other)	None Detected
17-51-Gray Layer <small>411703964-0040A</small>	Exterior Grey Door Caulk	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
17-53 <small>411703964-0041</small>	White Wall Penetration Caulk	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected

Initial report from: 05/24/2017 15:10:23



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703964  
**Customer ID:** AXEM25  
**Customer PO:** 640-5127  
**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
17-54 <small>411703964-0042</small>	White Wall Penetration Caulk	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
17-56 <small>411703964-0043</small>	Rubber Coated Metal	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17-57 <small>411703964-0044</small>	Rubber Coated Metal	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (30)  
Lyterra Barrow (39)

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: 05/24/2017 15:10:23



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703964  
**Customer ID:** AXEM25  
**Customer PO:** 640-5127  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/18/2017 9:35 AM  
**Analysis Date:** 05/31/2017  
**Collected Date:** 05/11/2017  
**Project:** 640-5127-Cammie Clagget- Bldg 17

## 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
17-13-Floor Tile 411703964-0045	12"x12" Tan Speckled F.T + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-13-Mastic 411703964-0046	12"x12" Tan Speckled F.T + Adhesive-Top Layer	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-19 411703964-0047	Bathroom Shower Stall + Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-22 411703964-0048	HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-28 411703964-0049	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-31-Floor Tile 411703964-0050	12"x12" Red F.T. + Mastic-2nd Layer	Brown/Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-31-Mastic 411703964-0051	12"x12" Red F.T. + Mastic-2nd Layer	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-37 411703964-0052	White Sink Coating	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-40 411703964-0053	Black Exterior Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-43-Red Shingle 411703964-0054	Roof Shingles (2) + Felt (1)	Red/Black Fibrous Homogeneous	100	None	No Asbestos Detected
17-43-Green Shingle 411703964-0055	Roof Shingles (2) + Felt (1)	Black/Green Fibrous Homogeneous	100	None	No Asbestos Detected
17-43-Felt 411703964-0056	Roof Shingles (2) + Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 06/01/2017 08:38:19





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703964  
**Customer ID:** AXEM25  
**Customer PO:** 640-5127  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/18/2017 9:35 AM  
**Analysis Date:** 05/31/2017  
**Collected Date:** 05/11/2017  
**Project:** 640-5127-Cammie Clagget- Bldg 17

## 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
17-46 411703964-0057	Awning/Flashing Caulk-White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-49-White Caulk 411703964-0058	Gable Vent Caulk-White + Cream	White Non-Fibrous Homogeneous	99.9	0.13 Fibrous_Other	No Asbestos Detected
17-49-Cream Caulk 411703964-0059	Gable Vent Caulk-White + Cream	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-52-White Layer 411703964-0060	Exterior Grey Door Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-52-Gray Layer 411703964-0061	Exterior Grey Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-55 411703964-0062	White Wall Penetration Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
17-58 411703964-0063	Rubber Coated Metal	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (19)

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: 06/01/2017 08:38:19



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only)

**411703965**

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): <del>Nicholas Neerhof</del> Tom Oliver		Telephone #: <del>864-404-3210</del>	964-640-5127
Email Address: <del>nneerhof@apex-ehs.com</del>		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Cragg Bldg 1B</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5-11-19

Samplers Name: Tom Oliver Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
1B-1		Drywall w/ joint compound	PLM
1B-2		+ tape	
1B-3			
1B-4			
1B-5			
1B-6			
1B-7			
1B-8		Plaster w/ finish over unfinished	PLM
1B-9		drywall	
1B-10			

Client Sample # (s): 1-67 Total # of Samples: 64 TO.

Relinquished (Client): [Signature] Date: 5-11-19 Time:

Received (Lab): Date: Time: 9:50

Comments/Special Instructions: Please utilize positive stop analysis. EMSL FD/EX

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: 7952 8781 3524



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only).

411703965

EMSL Analytical, Inc  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
18-11		12" x 12" tan speckled F.T.	PLM
18-12		+ adhesive (top layer)	I
18-13			TEM
18-14		12" x 12" brown/orange	PLM
18-15		speckled F.T. + mastic	I
18-16			TEM
18-17		12" x 12" yellow floor tile	PLM
18-18		+ mastic (bottom layer)	I
18-19			TEM
18-20		Tan HVAC tape	PLM
18-21			I
18-22			I
18-23		White sink coating	PLM
18-24			I
18-25			TEM
18-26		Bathroom shower stall +	PLM
18-27		sink caulk	I
18-28			TEM
18-29		Kitchen counter caulk	PLM
18-30			I
18-31			TEM
18-32		HVAC caulk	PLM
18-33			I
18-34			TEM

**\*Comments/Special Instructions:**

Please utilize positive stop analysis  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703965

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
18-35		Drywall wall patch	PLM
18-36			↓
18-37			↓
18-38		Interior window caulk	PLM
18-39			↓
18-40			TEM
18-41		Samples not submitted	
18-42			
18-43			
18-44		Roof shingles (2) + felt (1)	PLM
18-45			↓
18-46			TEM
18-47		Roof gable vent caulk	PLM
18-48		(white + cream)	↓
18-49			TEM
18-50		Exterior door caulk -	PLM
18-51		grey	↓
18-52			TEM
18-53		Exterior window caulk -	PLM
18-54		black	↓
18-55			TEM
18-56		Awning/Flashing caulk -	PLM
18-57		white	↓
18-58			TEM

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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**EMSL Order:** 411703965  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/18/2017 9:50 AM  
**Analysis Date:** 05/24/2017  
**Collected Date:** 05/11/2017

**Project:** Cammie Claget Bldg 18

## 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
18-1-Drywall <small>411703965-0001</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
18-1-Joint Compound <small>411703965-0001A</small>	Drywall w/ Joint Compound + Tape	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
18-1-Tape <small>411703965-0001B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
18-2-Drywall <small>411703965-0002</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
18-2-Joint Compound <small>411703965-0002A</small>	Drywall w/ Joint Compound + Tape	Beige Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
18-2-Tape <small>411703965-0002B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
18-3-Drywall <small>411703965-0003</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
18-3-Joint Compound <small>411703965-0003A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
18-3-Tape <small>411703965-0003B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
18-4-Drywall <small>411703965-0004</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
18-4-Joint Compound <small>411703965-0004A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
18-4-Tape <small>411703965-0004B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
18-5-Drywall <small>411703965-0005</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
18-5-Joint Compound <small>411703965-0005A</small>	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
18-5-Tape <small>411703965-0005B</small>	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
18-6-Drywall <small>411703965-0006</small>	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/25/2017 08:05:42



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703965  
**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
18-6-Joint Compound	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
<i>411703965-0006A</i>					
18-6-Tape	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
<i>411703965-0006B</i>					
18-7-Drywall	Drywall w/ Joint Compound + Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703965-0007</i>					
18-7-Joint Compound	Drywall w/ Joint Compound + Tape				Positive Stop (Not Analyzed)
<i>411703965-0007A</i>					
18-7-Tape	Drywall w/ Joint Compound + Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
<i>411703965-0007B</i>					
18-8-Drywall	Plaster w/ Finished Over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703965-0008</i>					
18-8-Skim Coat	Plaster w/ Finished Over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703965-0008A</i>					
18-8-Rough Coat	Plaster w/ Finished Over Unfinished Drywall	Gray Non-Fibrous Homogeneous		35% Quartz 8% Ca Carbonate 57% Non-fibrous (Other)	None Detected
<i>411703965-0008B</i>					
18-9-Drywall	Plaster w/ Finished Over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703965-0009</i>					
18-9-Skim Coat	Plaster w/ Finished Over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
<i>411703965-0009A</i>					
18-9-Rough Coat	Plaster w/ Finished Over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
<i>411703965-0009B</i>					
18-10-Drywall	Plaster w/ Finished Over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703965-0010</i>					
18-10-Skim Coat	Plaster w/ Finished Over Unfinished Drywall	White Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703965-0010A</i>					
18-10-Rough Coat	Plaster w/ Finished Over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
<i>411703965-0010B</i>					
18-11-Floor Tile	12"x12" Tan Speckled F.T. + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
<i>411703965-0011</i>					
18-11-Mastic	12"x12" Tan Speckled F.T. + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703965-0011A</i>					
18-12-Floor Tile	12"x12" Tan Speckled F.T. + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
<i>411703965-0012</i>					
18-12-Mastic	12"x12" Tan Speckled F.T. + Adhesive-Top Layer	Tan Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
<i>411703965-0012A</i>					

Initial report from: 05/25/2017 08:05:42



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703965  
**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
18-14-Floor Tile <small>411703965-0013</small>	12"x1212"x12' Brown/Orange Soeckled F.T. + Mastic" Tan Speckled F.T. + Adhesive-Top Layer	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
18-14-Mastic <small>411703965-0013A</small>	12"x1212"x12' Brown/Orange Soeckled F.T. + Mastic" Tan Speckled F.T. + Adhesive-Top Layer	Black Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
18-15-Floor Tile <small>411703965-0014</small>	12"x12' Brown/Orange Soeckled F.T. + Mastic	Brown Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
18-15-Mastic <small>411703965-0014A</small>	12"x12' Brown/Orange Soeckled F.T. + Mastic				Positive Stop (Not Analyzed)
18-17-Floor Tile <small>411703965-0015</small>	12"x12" Yellow Floor Tile + Mastic-Bottom Layer	Yellow Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
18-17-Mastic <small>411703965-0015A</small>	12"x12" Yellow Floor Tile + Mastic-Bottom Layer	Black Fibrous Homogeneous		5% Ca Carbonate 92% Non-fibrous (Other)	3% Chrysotile
18-18-Floor Tile <small>411703965-0016</small>	12"x12" Yellow Floor Tile + Mastic-Bottom Layer	Yellow Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
18-18-Mastic <small>411703965-0016A</small>	12"x12" Yellow Floor Tile + Mastic-Bottom Layer				Positive Stop (Not Analyzed)
18-20 <small>411703965-0017</small>	Tan HVAC Tape	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
18-21 <small>411703965-0018</small>	Tan HVAC Tape	Tan Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
18-22 <small>411703965-0019</small>	Tan HVAC Tape	Tan Fibrous Homogeneous	10% Cellulose 80% Synthetic	10% Non-fibrous (Other)	None Detected
18-23 <small>411703965-0020</small>	White Sink Coating	Tan Fibrous Homogeneous	10% Cellulose	8% Ca Carbonate 5% Mica 77% Non-fibrous (Other)	None Detected
18-24 <small>411703965-0021</small>	White Sink Coating	White Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 85% Non-fibrous (Other)	None Detected
18-26 <small>411703965-0022</small>	bathroom Shower Stall Sink Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
18-27 <small>411703965-0023</small>	bathroom Shower Stall Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
18-29 <small>411703965-0024</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
18-30 <small>411703965-0025</small>	Kitchen Counter Caulk	Tan/White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Initial report from: 05/25/2017 08:05:42



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**EMSL Order:** 411703965  
**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
18-32 <small>411703965-0026</small>	HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-33 <small>411703965-0027</small>	HVAC Caulk	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
18-35 <small>411703965-0028</small>	Drywall patch	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
18-36 <small>411703965-0029</small>	Drywall patch	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
18-37 <small>411703965-0030</small>	Drywall patch	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
18-38 <small>411703965-0031</small>	Interior Window Caulk	Tan/Black Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
18-39 <small>411703965-0032</small>	Interior Window Caulk	Tan/Black Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
18-41 <small>411703965-0033</small>	Samples Not Submitted				Not Submitted
18-42 <small>411703965-0034</small>	Samples Not Submitted				Not Submitted
18-43 <small>411703965-0035</small>	Samples Not Submitted				Not Submitted
18-44-Shingle 1 <small>411703965-0036</small>	Roof Shingle (2) + Felt (1)	Black Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
18-44-Shingle 2 <small>411703965-0036A</small>	Roof Shingle (2) + Felt (1)	Tan/Red/Black Fibrous Homogeneous	12% Glass	8% Quartz 8% Ca Carbonate 72% Non-fibrous (Other)	None Detected
18-44-Felt <small>411703965-0036B</small>	Roof Shingle (2) + Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
18-45-Shingle 1 <small>411703965-0037</small>	Roof Shingle (2) + Felt (1)	Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
18-45-Shingle 2 <small>411703965-0037A</small>	Roof Shingle (2) + Felt (1)	Tan/Red/Black Fibrous Homogeneous	3% Glass	8% Quartz 10% Ca Carbonate 79% Non-fibrous (Other)	None Detected
18-45-Felt <small>411703965-0037B</small>	Roof Shingle (2) + Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18-47-White Layer <small>411703965-0038</small>	Roof Gable Vent Caulk-White + Cream	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
18-47-Gray Layer <small>411703965-0038A</small>	Roof Gable Vent Caulk-White + Cream	Gray Fibrous Homogeneous	3% Fibrous (Other)	25% Ca Carbonate 72% Non-fibrous (Other)	None Detected
18-48-White Layer <small>411703965-0039</small>	Roof Gable Vent Caulk-White + Cream	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 05/25/2017 08:05:42



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**EMSL Order:** 411703965  
**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
18-48-Gray Layer <small>411703965-0039A</small>	Roof Gable Vent Caulk-White + Cream	Gray Fibrous Homogeneous	3% Cellulose	20% Ca Carbonate 77% Non-fibrous (Other)	None Detected
18-50 <small>411703965-0040</small>	Exterior Door Caulk-Grey	Gray Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
18-51 <small>411703965-0041</small>	Exterior Door Caulk-Grey	Gray Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
18-53 <small>411703965-0042</small>	Exterior Window Caulk-Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-54 <small>411703965-0043</small>	Exterior Window Caulk-Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-56 <small>411703965-0044</small>	Awning/Flashing Caulk-White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
18-57 <small>411703965-0045</small>	Awning/Flashing Caulk-White	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
18-59 <small>411703965-0046</small>	2nd Layer of Felt Paper on Roof Awnings	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
18-60 <small>411703965-0047</small>	2nd Layer of Felt Paper on Roof Awnings	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
18-62 <small>411703965-0048</small>	Red Filler-Wall Penetration	Red Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
18-63 <small>411703965-0049</small>	Red Filler-Wall Penetration	Red Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
18-65 <small>411703965-0050</small>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-66 <small>411703965-0051</small>	Metal w/ Rubber Coating	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_  
 Anupriya Tyagi (44)  
 Lacy Searcy (29)

  
 \_\_\_\_\_  
 Lee Plumley, Laboratory Manager  
 or Other Approved Signatory

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

Initial report from: 05/25/2017 08:05:42





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703965  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/18/2017 9:50 AM  
**Analysis Date:** 05/30/2017  
**Collected Date:** 05/11/2017  
**Project:** Cammie Claget Bldg 18

## 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
18-13-Floor Tile 411703965-0052	12"x12" Tan Speckled F.T. + Adhesive-Top Layer	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-13-Mastic 411703965-0053	12"x12" Tan Speckled F.T. + Adhesive-Top Layer	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-16-Floor Tile 411703965-0054	12"x12" Brown/Orange Soeckled F.T. + Mastic	Orange Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-19-Floor Tile 411703965-0055	12"x12" Yellow Floor Tile + Mastic-Bottom Layer	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-25 411703965-0056	White Sink Coating	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-28 411703965-0057	Bathroom Shower Stall Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-31 411703965-0058	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-34 411703965-0059	HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-40 411703965-0060	Interior Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-46-Shingle 1 411703965-0061	Roof Shingle (2) + Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
18-46-Shingle 2 411703965-0062	Roof Shingle (2) + Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
18-46-Felt 411703965-0063	Roof Shingle (2) + Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/30/2017 15:14:12



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703965  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/18/2017 9:50 AM  
**Analysis Date:** 05/30/2017  
**Collected Date:** 05/11/2017  
**Project:** Cammie Claget Bldg 18

## 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
18-49-White Layer 411703965-0064	Roof Gable Vent Caulk-White + Cream	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-49-Gray Layer 411703965-0065	Roof Gable Vent Caulk-White + Cream	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-52 411703965-0066	Exterior Door Caulk-Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-55 411703965-0067	Exterior Window Caulk-Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-58 411703965-0068	Awning/Flashing Caulk-White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-61 411703965-0069	2nd Layer of Felt Paper on Roof Awnings	Black Fibrous Homogeneous	100	None	No Asbestos Detected
18-64 411703965-0070	Red Filler-Wall Penetration	Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected
18-67 411703965-0071	Metal w/ Rubber Coating	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (20)

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: 05/30/2017 15:14:12



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703564

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments*</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Camie Clagett Building 19</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: *5-3-17*

Samplers Name: *Nicholas Neerhof*      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
19-1			Drywall with joint compound and tape.
19-2			
19-3			
19-4			
19-5			
19-6			
19-7			
19-8		Bathrooms	Plaster with finish over unfinished drywall ↓
19-9			
19-10			

Client Sample # (s):	<i>19-1 - 19-42</i>	Total # of Samples:	
Relinquished (Client):	<i>Nicholas Neerhof</i>	Date:	<i>5-4-17</i>
Received (Lab):	<i>Rf Nbr</i>	Date:	<i>5/4/17</i>
Comments/Special Instructions:	Please utilize positive stop analysis. Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: <i>7952 8169 2896</i>		





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703564

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
19-11		Bathrooms ↓	Plaster with finish over unfinished ↓
19-12			drywall ↓
19-13		Flooring ↓	12"x12" tan speckled floor tile ↓
19-14			with mastic (top layer) ↓
19-15			
19-16		Kitchen ↓	Brown/orange 12"x12" floor tile ↓
19-17			with mastic (bottom layer) ↓
19-18			
19-19		Hallway down stairs ↓	12"x12" cream speckled floor tile ↓
19-20			with mastic ↓
19-21			
19-22		Kitchen sink ↓	white coating on kitchen sink ↓
19-23			
19-24			
19-25		HVAC Duct above ceilings ↓	HVAC <del>type</del> tape and mastic ↓
19-26			
19-27			
19-28		Kitchen counter ↓	caulk on kitchen counter ↓
19-29			
19-30			
19-31		upstairs front bedroom ↓	window caulk ↓
19-32			
19-33			
19-34		HVAC closet	HVAC <del>caulk</del> caulk

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703564

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/05/2017 9:40 AM

**Analysis Date:** 05/09/2017 - 05/10/2017

**Collected Date:** 05/03/2017

**Project:** Cammie Clagett Building #19

## 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
19-1-Drywall <i>411703564-0001</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-1-Joint Compound <i>411703564-0001A</i>	Throughout - Drywall with Joint Compound and Tape	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 87% Non-fibrous (Other)	3% Chrysotile
19-2-Drywall <i>411703564-0002</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-2-Joint Compound <i>411703564-0002A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
19-3-Drywall <i>411703564-0003</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-3-Joint Compound <i>411703564-0003A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
19-4-Drywall <i>411703564-0004</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-4-Joint Compound <i>411703564-0004A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
19-5-Drywall <i>411703564-0005</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-5-Joint Compound <i>411703564-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
19-6-Drywall <i>411703564-0006</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-6-Joint Compound <i>411703564-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
19-7-Drywall <i>411703564-0007</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-7-Joint Compound <i>411703564-0007A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)

Initial report from: 05/10/2017 14:33:17



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703564  
**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
19-8-Skim Coat 411703564-0008	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
19-8-Rough Coat 411703564-0008A	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		50% Quartz 50% Non-fibrous (Other)	None Detected
19-8-Drywall 411703564-0008B	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
19-9-Skim Coat 411703564-0009	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
19-9-Rough Coat 411703564-0009A	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Glass	50% Quartz 50% Non-fibrous (Other)	None Detected
19-9-Drywall 411703564-0009B	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
19-10-Skim Coat 411703564-0010	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Quartz 5% Ca Carbonate 85% Non-fibrous (Other)	None Detected
19-10-Rough Coat 411703564-0010A	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		65% Quartz 35% Non-fibrous (Other)	None Detected
19-10-Drywall 411703564-0010B	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-11 411703564-0011	Bathrooms - Plaster with Finish over Unfinished Drywall				Not Submitted
19-12 411703564-0012	Bathrooms - Plaster with Finish over Unfinished Drywall				Not Submitted
19-13-Floor Tile 411703564-0013	Flooring - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
19-13-Mastic 411703564-0013A	Flooring - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
19-14-Floor Tile 411703564-0014	Flooring - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
19-14-Mastic 411703564-0014A	Flooring - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
19-16-Floor Tile 411703564-0015	Kitchen - Brown/Orange 12"x12" Floor Tile with Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
19-16-Mastic 411703564-0015A	Kitchen - Brown/Orange 12"x12" Floor Tile with Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	<1% Chrysotile

Limited sample, results cannot be verified

Initial report from: 05/10/2017 14:33:17



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**EMSL Order:** 411703564  
**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
19-17-Floor Tile 411703564-0016	Kitchen - Brown/ Orange 12"x12" Floor Tile with Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
19-17-Mastic 411703564-0016A	Kitchen - Brown/ Orange 12"x12" Floor Tile with Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous	1% Cellulose	95% Non-fibrous (Other)	4% Chrysotile
19-19-Floor Tile 411703564-0017	Hallway Downstairs - 12"x12" Cream Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
19-19-Mastic 411703564-0017A	Hallway Downstairs - 12"x12" Cream Speckled Floor Tile with Mastic	Black Non-Fibrous Homogeneous	6% Cellulose	92% Non-fibrous (Other)	2% Chrysotile
19-20-Floor Tile 411703564-0018	Hallway Downstairs - 12"x12" Cream Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
19-20-Mastic 411703564-0018A	Hallway Downstairs - 12"x12" Cream Speckled Floor Tile with Mastic				Positive Stop (Not Analyzed)
19-22 411703564-0019	Kitchen Sink - White Coating on Kitchen Sink	White Non-Fibrous Homogeneous		8% Ca Carbonate 87% Non-fibrous (Other)	5% Chrysotile
19-23 411703564-0020	Kitchen Sink - White Coating on Kitchen Sink				Positive Stop (Not Analyzed)
19-25-Tape 411703564-0021	HVAC Duct above Ceilings - HVAC Tape and Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
19-25-Mastic 411703564-0021A	HVAC Duct above Ceilings - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
19-26-Tape 411703564-0022	HVAC Duct above Ceilings - HVAC Tape and Mastic	Tan Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
19-26-Mastic 411703564-0022A	HVAC Duct above Ceilings - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
19-27-Tape 411703564-0022B	HVAC Duct above Ceilings - HVAC Tape and Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
19-28 411703564-0023	Kitchen Counter - Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
19-29 411703564-0024	Kitchen Counter - Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
19-31 411703564-0025	Upstairs Front Bedroom - Window Caulk	Tan/White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
19-32 411703564-0026	Upstairs Front Bedroom - Window Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2017 14:33:17



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**EMSL Order:** 411703564  
**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
19-34 <small>411703564-0027</small>	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-35 <small>411703564-0028</small>	HVAC Closet - HVAC Caulk	Black Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
19-37 <small>411703564-0029</small>	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-38 <small>411703564-0030</small>	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
19-40-Floor Tile <small>411703564-0031</small>	Upstairs Bathroom - 12"x12" Cream Streaked Floor Tile with Mastic	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
19-40-Mastic <small>411703564-0031A</small>	Upstairs Bathroom - 12"x12" Cream Streaked Floor Tile with Mastic	Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
19-41-Floor Tile <small>411703564-0032</small>	Upstairs Bathroom - 12"x12" Cream Streaked Floor Tile with Mastic	Beige Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
19-41-Mastic <small>411703564-0032A</small>	Upstairs Bathroom - 12"x12" Cream Streaked Floor Tile with Mastic	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (27)

Eric Loomis (1)

Travis Hartney (18)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/10/2017 14:33:17



# EMSL Analytical, Inc.

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**EMSL Order:** 411703564  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/05/2017 9:40 AM  
**Analysis Date:** 05/17/2017  
**Collected Date:** 05/03/2017  
**Project:** Cammie Clagett Building #19

## 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
19-15-Floor Tile 411703564-0033	Flooring - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-15-Mastic 411703564-0034	Flooring - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-18-Floor Tile 411703564-0035	Kitchen - Brown/ Orange 12"x12" Floor Tile with Mastic (Bottom Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-21-Floor Tile 411703564-0036	Hallway Downstairs - 12"x12" Cream Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-27-Mastic 411703564-0037	HVAC Duct above Ceilings - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous	99.0	1.0 Fibrous_Other	No Asbestos Detected
19-30 411703564-0038	Kitchen Counter - Caulk on Kitchen Counter	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-33 411703564-0039	Upstairs Front Bedroom - Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-36 411703564-0040	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-39 411703564-0041	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-42-Floor Tile 411703564-0042	Upstairs Bathroom - 12"x12" Cream Streaked Floor Tile with Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-42-Mastic 411703564-0043	Upstairs Bathroom - 12"x12" Cream Streaked Floor Tile with Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/17/2017 11:40:39





**EMSL Analytical, Inc.**

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703564  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/05/2017 9:40 AM  
**Analysis Date:** 05/17/2017  
**Collected Date:** 05/03/2017  
**Project:** Cammie Clagett Building #19

**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
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Analyst(s)

Aaron Hartley (11)

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: 05/17/2017 11:40:39



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704134

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Claxton Bldg 19 ext.</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: *[Signature]*

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
19-11		Plaster w/ finish over unfinished	
19-12		dry wall	
19-43		Ext. window caulk - black	
19-44			
19-45			
19-46		Ext. door caulk - grey	
19-47			
19-48			

Client Sample # (s): *11, 12, 43 - 66*      Total # of Samples: *26*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *Kyle Nelson*      Date: *5/26/17*      Time: *9:10 AM Fx*

Comments/Special Instructions: *7952 9037 7767*





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

EMSL Order Number (Lab Use Only):

411704134

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
19-49		Ext. door caulk - white	
19-50			
19-51			
19-52		Gable vent caulks - white & tan	
19-53			
19-54			
19-55		Roof shingles (2) + felt (1)	
19-56			
19-57			
19-58		2 <sup>nd</sup> layer + 3 <sup>rd</sup> layers of felt paper	
19-59			
19-60			
19-61		Awning + flashing caulk	
19-62			
19-63			
19-64		metal rubber w/ coating	
19-65			
19-66			

\*Comments/Special Instructions:



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EMSL Order: 411704134

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 19 Ext.

## 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
19-11-Skim Coat <small>411704134-0001</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
19-11-Rough Coat <small>411704134-0001A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	2% Glass	25% Quartz 73% Non-fibrous (Other)	None Detected
19-11-Drywall <small>411704134-0001B</small>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-12-Skim Coat <small>411704134-0002</small>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
19-12-Rough Coat <small>411704134-0002A</small>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected
19-12-Drywall <small>411704134-0002B</small>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
19-43 <small>411704134-0003</small>	Ext. Window Caulk - Black	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
19-44 <small>411704134-0004</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-46 <small>411704134-0005</small>	Ext. Door Caulk - Grey	Gray Fibrous Homogeneous	3% Glass	97% Non-fibrous (Other)	None Detected
19-47 <small>411704134-0006</small>	Ext. Door Caulk - Grey	Gray Fibrous Homogeneous	1% Glass	15% Ca Carbonate 84% Non-fibrous (Other)	None Detected
19-49 <small>411704134-0007</small>	Ext. Door Caulk - White	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
19-50 <small>411704134-0008</small>	Ext. Door Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
19-52-Tan Layer <small>411704134-0009</small>	Gable Vent Caulks - White & Tan	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
19-52-White Layer <small>411704134-0009A</small>	Gable Vent Caulks - White & Tan	White Fibrous Homogeneous	2% Glass 4% Fibrous (Other)	94% Non-fibrous (Other)	None Detected
19-53-Tan Layer <small>411704134-0010</small>	Gable Vent Caulks - White & Tan	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
19-53-White Layer <small>411704134-0010A</small>	Gable Vent Caulks - White & Tan	Tan/White Fibrous Homogeneous	3% Fibrous (Other)	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 13:12:35



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EMSL Order: 411704134

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
19-55-Shingle 1 <i>411704134-0011</i>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
19-55-Shingle 2 <i>411704134-0011A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
19-55-Felt <i>411704134-0011B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
19-56-Shingle 1 <i>411704134-0012</i>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	10% Glass	8% Quartz 10% Ca Carbonate 72% Non-fibrous (Other)	None Detected
19-56-Shingle 2 <i>411704134-0012A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
19-56-Felt <i>411704134-0012B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
19-58-Felt 1 <i>411704134-0013</i>	2nd & 3rd Layers of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
19-58-Felt 2 <i>411704134-0013A</i>	2nd & 3rd Layers of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
19-59-Felt 1 <i>411704134-0014</i>	2nd & 3rd Layers of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
19-59-Felt 2 <i>411704134-0014A</i>	2nd & 3rd Layers of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
19-61 <i>411704134-0015</i>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
19-62 <i>411704134-0016</i>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
19-64-Metal <i>411704134-0017</i> <i>No rubber coating present</i>	Metal Rubber w/ Coating	Gray/Silver Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
19-65-Metal <i>411704134-0018</i> <i>No rubber coating present</i>	Metal Rubber w/ Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-66-Metal <i>411704134-0018A</i> <i>No rubber coating present</i>	Metal Rubber w/ Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704134

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Anupriya Tyagi (16)*

*Lacy Searcy (15)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/31/2017 13:12:35



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704134  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 19 Ext.

## 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
19-45 411704134-0019	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-48 411704134-0020	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-51 411704134-0021	Ext. Door Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-54-Tan Layer 411704134-0022	Gable Vent Caulks - White & Tan	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
19-54-White Layer 411704134-0023	Gable Vent Caulks - White & Tan	White Non-Fibrous Homogeneous	99.5	0.47 Fibrous_Other	No Asbestos Detected
19-57-Shingle 1 411704134-0024	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
19-57-Shingle 2 411704134-0025	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
19-57-Felt 411704134-0026	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
19-60-Felt 1 411704134-0027	2nd & 3rd Layers of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
19-60-Felt 2 411704134-0028	2nd & 3rd Layers of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
19-63 411704134-0029	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	99.8	0.20 Fibrous_Other	No Asbestos Detected

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: 06/02/2017 14:56:05



**EMSL Analytical, Inc.**

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**EMSL Order:** 411704134  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 19 Ext.

**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
-----------	-------------	------------	-------------------	-----------------------	----------------

Analyst(s)

Aaron Hartley (11)

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: 06/02/2017 14:56:05



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703563**

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): <del>Nicholas Neerhof</del> Ted Shultz		Telephone #: 864-404-3210	
Email Address: <del>nneerhof</del> @apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clagett Buid #</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: **5-3-17**

Samplers Name: **Ted Shultz**      Samplers Signature: *Ted Shultz*

Sample #	HA #	Sample Location	Material Description
20-1			dry wall +
20-2			Joint compound
20-3			
20-4			
20-5			
20-6			
20-7			

Client Sample # (s): **1 - 33**      Total # of Samples:

Relinquished (Client): *Ted Shultz*      Date: **5-4-17**      Time: **10:00 am**

Received (Lab): *Kyle Nelson*      Date: **5/5/17**      Time: **9:40 AM Fk**

Comments/Special Instructions:  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: **7952 8169 2896**





**Asbestos Bulk Building Material  
Chain of Custody**  
EMSL Order Number (Lab Use Only):

411703563

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
20-8			Plaster w/ finish over unfinished dry wall
20-9			
20-10			
20-11			12x12 tan speckled F.T. w/ mastic
20-12			
20-13			
20-14			Kitchen counter caulk
20-15			
20-16			
20-17			shower stall + bath rm sink caulk
20-18			
20-19			
20-20			HVAC tape w/ mastic
20-21			
20-22			
20-23			HVAC caulk, white
20-24			
20-25			
20-26			kitchen sink undercut white
20-27			
20-28			
20-29			
20-30			

**\*Comments/Special Instructions:**  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703563

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:** 05/05/2017 9:40 AM

**Analysis Date:** 05/09/2017 - 05/10/2017

**Collected Date:** 05/03/2017

**Project:** Cammie Clagett Building #20

## 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
20-1-Drywall <small>411703563-0001</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
20-1-Joint Compound <small>411703563-0001A</small>	Drywall & Joint Compound	Beige Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
20-2-Drywall <small>411703563-0002</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
20-2-Joint Compound <small>411703563-0002A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
20-3-Drywall <small>411703563-0003</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
20-3-Joint Compound <small>411703563-0003A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
20-3-Tape <small>411703563-0003B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
20-4-Drywall <small>411703563-0004</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
20-4-Joint Compound <small>411703563-0004A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
20-4-Tape <small>411703563-0004B</small>	Drywall & Joint Compound	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
20-5-Drywall <small>411703563-0005</small>	Drywall & Joint Compound	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
20-5-Joint Compound <small>411703563-0005A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
20-6-Drywall <small>411703563-0006</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
20-6-Joint Compound <small>411703563-0006A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)
20-7-Drywall <small>411703563-0007</small>	Drywall & Joint Compound	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
20-7-Joint Compound <small>411703563-0007A</small>	Drywall & Joint Compound				Positive Stop (Not Analyzed)

Initial report from: 05/10/2017 10:43:15



# EMSL Analytical, Inc.

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**EMSL Order:** 411703563  
**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
20-8-Drywall <i>411703563-0008</i>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
20-8-Skim Coat <i>411703563-0008A</i>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
20-8-Rough Coat <i>411703563-0008B</i>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected
20-9-Drywall <i>411703563-0009</i>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
20-9-Skim Coat <i>411703563-0009A</i>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
20-9-Rough Coat <i>411703563-0009B</i>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
20-10-Drywall <i>411703563-0010</i>	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
20-10-Skim Coat <i>411703563-0010A</i>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
20-10-Rough Coat <i>411703563-0010B</i>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
20-11-Drywall <i>411703563-0011</i>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
20-11-Skim Coat <i>411703563-0011A</i>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
20-11-Rough Coat <i>411703563-0011B</i>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	30% Quartz 69% Non-fibrous (Other)	None Detected
20-12-Drywall <i>411703563-0012</i>	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
20-12-Skim Coat <i>411703563-0012A</i>	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-12-Rough Coat <i>411703563-0012B</i>	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 70% Non-fibrous (Other)	None Detected
20-13-Floor Tile <i>411703563-0013</i>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
20-13-Mastic <i>411703563-0013A</i>	12x12 Tan Speckled F.T. w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
20-14-Floor Tile <i>411703563-0014</i>	12x12 Tan Speckled F.T. w/ Mastic	Tan/Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
20-14-Mastic <i>411703563-0014A</i>	12x12 Tan Speckled F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2017 10:43:15



# EMSL Analytical, Inc.

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**EMSL Order:** 411703563  
**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
20-16 <small>411703563-0015</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
20-17 <small>411703563-0016</small>	Kitchen Counter Caulk	Beige Non-Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
20-19 <small>411703563-0017</small>	Shower Stall & Bathroom Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-20 <small>411703563-0018</small>	Shower Stall & Bathroom Sink Caulk	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-22-Tape <small>411703563-0019</small>	HVAC Tape w/ Mastic	Tan Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
20-22-Mastic <small>411703563-0019A</small>	HVAC Tape w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
20-23-Tape <small>411703563-0020</small>	HVAC Tape w/ Mastic	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
20-23-Mastic <small>411703563-0020A</small>	HVAC Tape w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
20-24-Tape <small>411703563-0020B</small>	HVAC Tape w/ Mastic	Tan Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
20-25 <small>411703563-0021</small>	HVAC Caulk, White	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
20-26 <small>411703563-0022</small>	HVAC Caulk, White	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-28 <small>411703563-0023</small>	Kitchen Sink Undercoat - White	White Fibrous Homogeneous		15% Ca Carbonate 80% Non-fibrous (Other)	5% Chrysotile
20-29 <small>411703563-0024</small>	Kitchen Sink Undercoat - White				Positive Stop (Not Analyzed)
20-31 <small>411703563-0025</small>	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-32 <small>411703563-0026</small>	Window Caulk	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2017 10:43:15





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703563

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Anupriya Tyagi (26)*

*Eric Loomis (1)*

*Kristie Elliott (16)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/10/2017 10:43:15



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703563  
**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:** 05/05/2017 9:40 AM  
**Analysis Date:** 05/16/2017  
**Collected Date:** 05/03/2017  
**Project:** Cammie Clagett Building #20

## 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
20-15-Floor Tile 411703563-0027	12x12 Tan Speckled F.T. w/ Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
20-15-Mastic 411703563-0028	12x12 Tan Speckled F.T. w/ Mastic	Brown/Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-18 411703563-0029	Kitchen Counter Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
20-21 411703563-0030	Shower Stall & Bathroom Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
20-24-Mastic 411703563-0031	HVAC Tape w/ Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
20-27 411703563-0032	HVAC Caulk, White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
20-33 411703563-0033	Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (7)

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: 05/16/2017 18:23:35



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704139

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party.</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Uggot Bldg 20 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled: \_\_\_\_\_

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
20-34		Root shingles & felt	
20-35			
20-36			
20-37		Root gable vent caulk	
20-38			
20-39			
20-40		2 <sup>nd</sup> layer of felt paper	
20-41			
20-42			

Client Sample # (s):	34-57	Total # of Samples:	24
Relinquished (Client):	Date:	Time:	
Received (Lab): <i>Kyle Nelson</i>	Date: 5/26/17	Time: 9:10am Fhr	
Comments/Special Instructions:			7952 9037 7756





# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411704139

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
<del>20-42</del>		<del>Awnings/Flashing Calk</del>	
20-43		T.O. ↓	Awnings/Flashing Calk
20-44			
20-45		<del>Exterior door calk - gray</del>	↓
20-46			
20-47		T.O. ↓	Exterior door calk - gray
20-48			
20-49		<del>Ext. window calk - black</del>	↓
20-50			
20-51		T.O. ↓	Ext. window calk - black
20-52			
20-53		<del>Ext wood siding w/ felt</del>	↓
20-54			
20-55		Metal w/ rubber coating	
20-56			
20-57			

\*Comments/Special Instructions:





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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704139  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 05/31/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 20 Ext.

## 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
20-34-Shingle 1 <small>411704139-0001</small>	Roof Shingles & Felt	Red Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
20-34-Shingle 2 <small>411704139-0001A</small>	Roof Shingles & Felt	Black Fibrous Homogeneous	12% Glass	8% Quartz 8% Ca Carbonate 72% Non-fibrous (Other)	None Detected
20-34-Felt <small>411704139-0001B</small>	Roof Shingles & Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
20-35-Shingle 1 <small>411704139-0002</small>	Roof Shingles & Felt	Red Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
20-35-Shingle 2 <small>411704139-0002A</small>	Roof Shingles & Felt	Black Fibrous Homogeneous	8% Glass	5% Quartz 15% Ca Carbonate 72% Non-fibrous (Other)	None Detected
20-35-Felt <small>411704139-0002B</small>	Roof Shingles & Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
20-37-Caulk <small>411704139-0003</small>	Roof Gable Vent Caulk	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-37-Glazing <small>411704139-0003A</small>	Roof Gable Vent Caulk	Gray Fibrous Homogeneous	3% Fibrous (Other)	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected
20-38-Caulk <small>411704139-0004</small>	Roof Gable Vent Caulk	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
20-38-Glazing <small>411704139-0004A</small>	Roof Gable Vent Caulk	White Non-Fibrous Homogeneous	5% Wollastonite	15% Ca Carbonate 80% Non-fibrous (Other)	None Detected
20-40 <small>411704139-0005</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
20-41 <small>411704139-0006</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
20-43 <small>411704139-0007</small>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
20-44 <small>411704139-0008</small>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
20-46 <small>411704139-0009</small>	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
20-47 <small>411704139-0010</small>	Exterior Door Caulk - Grey	Gray Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 08:40:32



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704139  
**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
20-49 <i>411704139-0011</i>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-50 <i>411704139-0012</i>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
20-52-Brown Layer <i>411704139-0013</i>	Ext. Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
20-52-Felt <i>411704139-0013A</i>	Ext. Wood Siding w/ Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
20-53-Brown Layer <i>411704139-0014</i>	Ext. Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
20-53-Felt <i>411704139-0014A</i>	Ext. Wood Siding w/ Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
20-54-Brown Layer <i>411704139-0014B</i>		Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
20-55-Metal <i>411704139-0015</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-56-Metal <i>411704139-0016</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
20-57-Metal <i>411704139-0016A</i> <i>No rubber coating present</i>		Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

Analyst(s)

Anupriya Tyagi (12)

Eric Loomis (2)

Travis Hartney (12)

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

Initial report from: 06/01/2017 08:40:32



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704139  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 20 Ext.

## 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
20-36-Shingle 1 411704139-0017	Roof Shingles & Felt	Brown/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-36-Shingle 2 411704139-0018	Roof Shingles & Felt	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-36-Felt 411704139-0019	Roof Shingles & Felt	Black Non-Fibrous Heterogeneous	99.9	0.11 Fibrous_Other	No Asbestos Detected
20-39-Caulk 411704139-0020	Roof Gable Vent Caulk	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-39-Glazing 411704139-0021	Roof Gable Vent Caulk	Gray Non-Fibrous Heterogeneous	99.5	0.49 Fibrous_Other	No Asbestos Detected
20-42 411704139-0022	2nd Layer of Felt Paper	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-45 411704139-0023	Awning/ Flashing Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-48 411704139-0024	Exterior Door Caulk - Grey	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-51 411704139-0025	Ext. Window Caulk - Black	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
20-54-Felt 411704139-0026	Ext. Wood Siding w/ Felt	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 06/05/2017 11:49:29



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411704139  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 20 Ext.

**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**

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: 06/05/2017 11:49:29



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

41103562

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: Cammie Claggett Building 21		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5-3-17

Samplers Name: Nicholas Neerhof Samplers Signature:

Sample #	HA #	Sample Location	Material Description
21-1		throughout	Dry wall with joint compound and tape
<del>21-2</del>			
21-3			
21-4			
21-5			
21-6			
21-7			
21-8			
21-9			unfinished dry wall
21-10			

Client Sample # (s): 21-1 ~~21-2~~ - 21-51 Total # of Samples:

Relinquished (Client): Nicholas Neerhof Date: ~~5-4-17~~ Time:

Received (Lab): Date: 5/5/17 Time: 9:40am Fk

Comments/Special Instructions: Please utilize positive stop analysis. 7952 8169 2896

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703562

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
21-11		Bathrooms	Plaster with finish over
21-12		↓	unfinished drywall
21-13		throughout	12"x12" tan speckled floor tile
21-14		↓	with mastic
21-15		↓	
21-16		Kitchen	12"x12" yellow speckled floor tile
21-17		↓	with mastic
21-18		↓	
21-19		Bathroom	Stone square pattern vinyl flooring
21-20		↓	with mastic
21-21		↓	
21-22		Bathroom and kitchen	Brown/orange speckled floor tile
21-23		↓	tile with mastic
21-24		↓	
21-25		Kitchen	Back splash mastic
21-26		↓	
21-27		↓	
21-28		Kitchen	Back splash mastic
21-29		↓	
21-30		↓	
21-31		upstairs bedrooms	Black window caulk
21-32		↓	
21-33		↓	
21-34		HVAC Closet	white HVAC caulk

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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EMSL Order: 411703562

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/05/2017 9:40 AM

**Analysis Date:** 05/09/2017 - 05/10/2017

**Collected Date:** 05/03/2017

**Project:** Cammie Clagett Building #21

## 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
21-1-Drywall <i>411703562-0001</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-1-Joint Compound <i>411703562-0001A</i>	Throughout - Drywall with Joint Compound and Tape	Beige Non-Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (Other)	3% Chrysotile
21-2-Drywall <i>411703562-0002</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-2-Joint Compound <i>411703562-0002A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
21-3-Drywall <i>411703562-0003</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-3-Joint Compound <i>411703562-0003A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
21-4-Drywall <i>411703562-0004</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-4-Joint Compound <i>411703562-0004A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
21-5-Drywall <i>411703562-0005</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-5-Joint Compound <i>411703562-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
21-6-Drywall <i>411703562-0006</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-6-Joint Compound <i>411703562-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
21-7-Drywall <i>411703562-0007</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-7-Joint Compound <i>411703562-0007A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)

Initial report from: 05/10/2017 10:40:28





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703562  
**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
21-8-Drywall <small>411703562-0008</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-8-Skim Coat <small>411703562-0008A</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
21-8-Rough Coat <small>411703562-0008B</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
21-9-Drywall <small>411703562-0009</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-9-Skim Coat <small>411703562-0009A</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
21-9-Rough Coat <small>411703562-0009B</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
21-10-Drywall <small>411703562-0010</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-10-Skim Coat <small>411703562-0010A</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 8% Ca Carbonate 87% Non-fibrous (Other)	None Detected
21-10-Rough Coat <small>411703562-0010B</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
21-11-Drywall <small>411703562-0011</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-11-Skim Coat <small>411703562-0011A</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
21-11-Rough Coat <small>411703562-0011B</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
21-12-Drywall <small>411703562-0012</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
21-12-Skim Coat <small>411703562-0012A</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
21-12-Rough Coat <small>411703562-0012B</small>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Cellulose	40% Quartz 60% Non-fibrous (Other)	None Detected
21-13-Floor Tile <small>411703562-0013</small>	Throughout Top Layer - 12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
21-13-Mastic <small>411703562-0013A</small>	Throughout Top Layer - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
21-14-Floor Tile <small>411703562-0014</small>	Throughout Top Layer - 12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2017 10:40:28



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376 Crompton Street Charlotte, NC 28273

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**EMSL Order:** 411703562  
**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
21-14-Mastic 411703562-0014A	Throughout Top Layer - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
21-16-Floor Tile 411703562-0015	Kitchen Bottom Layer - 12"x12" Yellow Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
21-16-Mastic 411703562-0015A	Kitchen Bottom Layer - 12"x12" Yellow Speckled Floor Tile with Mastic	Tan/Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
21-17-Floor Tile 411703562-0016A	Kitchen Bottom Layer - 12"x12" Yellow Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
21-17-Mastic 411703562-0016B	Kitchen Bottom Layer - 12"x12" Yellow Speckled Floor Tile with Mastic				Positive Stop (Not Analyzed)
21-19-Flooring 411703562-0017	Bathroom - Stone Square Pattern Vinyl Flooring with Mastic	Tan Fibrous Homogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected
21-19-Mastic 411703562-0017A	Bathroom - Stone Square Pattern Vinyl Flooring with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
21-20-Flooring 411703562-0018	Bathroom - Stone Square Pattern Vinyl Flooring with Mastic	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
21-20-Mastic 411703562-0018A	Bathroom - Stone Square Pattern Vinyl Flooring with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
21-22-Floor Tile 411703562-0019	Bathroom and Kitchen - Brown/Orange Speckled Floor Tile with Mastic	Brown Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
21-22-Mastic 411703562-0019A	Bathroom and Kitchen - Brown/Orange Speckled Floor Tile with Mastic	Beige Non-Fibrous Homogeneous	5% Cellulose	8% Ca Carbonate 84% Non-fibrous (Other)	3% Chrysotile
21-23-Floor Tile 411703562-0020	Bathroom and Kitchen - Brown/Orange Speckled Floor Tile with Mastic	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
21-23-Mastic 411703562-0020A	Bathroom and Kitchen - Brown/Orange Speckled Floor Tile with Mastic				Positive Stop (Not Analyzed)
21-25 411703562-0021	Kitchen - Backsplash Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
21-26 411703562-0022	Kitchen - Backsplash Mastic	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
21-28 411703562-0023	Kitchen - Backsplash Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

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**EMSL Order:** 411703562  
**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
21-29 <small>411703562-0024</small>	Kitchen - Backsplash Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
21-31 <small>411703562-0025</small>	Upstairs Bedrooms - Black Window Caulk	Black Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
21-32 <small>411703562-0026</small>	Upstairs Bedrooms - Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-34 <small>411703562-0027</small>	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
21-35 <small>411703562-0028</small>	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
21-37 <small>411703562-0029</small>	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-38 <small>411703562-0030</small>	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
21-40 <small>411703562-0031</small>	Interior Windows - White Window Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
21-41 <small>411703562-0032</small>	Interior Windows - White Window Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-43 <small>411703562-0033</small>	Kitchen Counter - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
21-44 <small>411703562-0034</small>	Kitchen Counter - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-46 <small>411703562-0035</small>	Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	25% Cellulose	15% Ca Carbonate 60% Non-fibrous (Other)	None Detected
21-47 <small>411703562-0036</small>	Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 8% Mica 77% Non-fibrous (Other)	None Detected
21-49-Tape <small>411703562-0037</small>	Above Ceiling - HVAC Tape and Mastic	Tan Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
21-49-Mastic <small>411703562-0037A</small>	Above Ceiling - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	5% Ca Carbonate 92% Non-fibrous (Other)	None Detected
21-50-Tape <small>411703562-0038</small>	Above Ceiling - HVAC Tape and Mastic	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
21-50-Mastic <small>411703562-0038A</small>	Above Ceiling - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-51-Tape <small>411703562-0038B</small>	Above Ceiling - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected

Initial report from: 05/10/2017 10:40:28



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EMSL Order: 411703562

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (25)

Eric Loomis (1)

Lytterra Barrow (32)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/10/2017 10:40:28





# EMSL Analytical, Inc.

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Tel/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703562  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/05/2017 9:40 AM  
**Analysis Date:** 05/16/2017  
**Collected Date:** 05/03/2017  
**Project:** Cammie Clagett Building #21

## 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
21-15-Floor Tile 411703562-0039	Throughout Top Layer - 12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-15-Mastic 411703562-0040	Throughout Top Layer - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-18-Floor Tile 411703562-0041	Kitchen Bottom Layer - 12"x12" Yellow Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-21-Flooring 411703562-0042	Bathroom - Stone Square Pattern Vinyl Flooring with Mastic	Brown Fibrous Heterogeneous	100	None	No Asbestos Detected
21-21-Mastic 411703562-0043	Bathroom - Stone Square Pattern Vinyl Flooring with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-24-Floor Tile 411703562-0044	Bathroom and Kitchen - Brown/ Orange Speckled Floor Tile with Mastic	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-27 411703562-0045	Kitchen - Backsplash Mastic	Tan/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
21-30 411703562-0046	Kitchen - Backsplash Mastic	Tan/White/Green Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
21-33 411703562-0047	Upstairs Bedrooms - Black Window Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-36 411703562-0048	HVAC Closet - White HVAC Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-39 411703562-0049	Bathrooms - Shower Stall and Sink Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-42 411703562-0050	Interior Windows - White Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/16/2017 15:31:37



# EMSL Analytical, Inc.

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**EMSL Order:** 411703562  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/05/2017 9:40 AM  
**Analysis Date:** 05/16/2017  
**Collected Date:** 05/03/2017  
**Project:** Cammie Clagett Building #21

## 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
21-45 411703562-0051	Kitchen Counter - Kitchen Counter Caulk	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-48 411703562-0052	Kitchen Sink - White Coating on Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-51-Mastic 411703562-0053	Above Ceiling - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (15)

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: 05/16/2017 15:31:37



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704138

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Claggett Bldg 21 ext SC</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
<del>21-49</del>		<del>Black window caulk</del> T.O.	
<del>21-50</del>		<del>Black window caulk</del>	
<del>21-51</del>	T.O.	<del>Black window caulk</del>	
21-52		Ext. door caulk T.O. Black	
21-53		Window caulk	
21-54			
21-55		Ext. door caulk	
21-56			
21-57			

Client Sample # (s): *52, 95*      Total # of Samples: *24*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *Yuse Nham*      Date: *5/26/17*      Time: *9:10am Fk*

Comments/Special Instructions: *7952 9037 7756*









# EMSL Analytical, Inc.

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**EMSL Order:** 411704138  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 05/31/2017  
**Collected Date:**

**Project:** Cammie Clagett Bldg. 21 Ext.

## 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
21-52 <small>411704138-0001</small>	Window Caulk - Black	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
21-53 <small>411704138-0002</small>	Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-55-White Caulk <small>411704138-0003</small>	Ext. Door Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-55-Gray Caulk <small>411704138-0003A</small>	Ext. Door Caulk	Gray Non-Fibrous Homogeneous		2% Quartz 10% Ca Carbonate 88% Non-fibrous (Other)	None Detected
21-56 <small>411704138-0004</small>	Ext. Door Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
21-58 <small>411704138-0005</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
21-59 <small>411704138-0006</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
21-61-Shingle 1 <small>411704138-0007</small>	Roof Shingles (2) & Felt (1)	Red/Black/Orange Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-61-Shingle 2 <small>411704138-0007A</small>	Roof Shingles (2) & Felt (1)	Black/Green Fibrous Homogeneous	8% Glass	2% Quartz 15% Ca Carbonate 75% Non-fibrous (Other)	None Detected
21-61-Felt <small>411704138-0007B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
21-62-Shingle 1 <small>411704138-0008</small>	Roof Shingles (2) & Felt (1)	Red Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
21-62-Shingle 2 <small>411704138-0008A</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	12% Glass	8% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
21-62-Felt <small>411704138-0008B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
21-64-Caulk <small>411704138-0009</small>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
21-64-Glazing <small>411704138-0009A</small>	Awning/ Flashing Caulk	Tan/White Non-Fibrous Homogeneous		45% Ca Carbonate 55% Non-fibrous (Other)	None Detected
21-65-Caulk <small>411704138-0010</small>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 16:52:09



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704138  
**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
21-65-Glazing <i>411704138-0010A</i>	Awning/ Flashing Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
21-67 <i>411704138-0011</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		2% Ca Carbonate 98% Non-fibrous (Other)	None Detected
21-68-Metal <i>411704138-0012</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-69-Metal <i>411704138-0012A</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-70-Caulk <i>411704138-0013</i>	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-70-Glazing <i>411704138-0013A</i>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	5% Wollastonite	15% Ca Carbonate 80% Non-fibrous (Other)	None Detected
21-71-Caulk <i>411704138-0014</i>	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
21-71-Glazing <i>411704138-0014A</i>	Gable Vent Caulk - White & Cream	Gray/White Fibrous Homogeneous	3% Fibrous (Other)	25% Ca Carbonate 72% Non-fibrous (Other)	None Detected
21-73-Brown Layer <i>411704138-0015</i>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
21-73-Felt <i>411704138-0015A</i>	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
21-74-Brown Layer <i>411704138-0016</i>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
21-74-Felt <i>411704138-0016A</i>	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
21-75-Brown Layer <i>411704138-0016B</i>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

Analyst(s)

Anupriya Tyagi (14)

Travis Hartney (15)

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: 05/31/2017 16:52:09



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704138  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagett Bldg. 21 Ext.

## 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
21-54 411704138-0017	Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-57-White Caulk 411704138-0018	Ext. Door Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-57-Gray Caulk 411704138-0019	Ext. Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-60 411704138-0020	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
21-63-Shingle 1 411704138-0021	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
21-63-Shingle 2 411704138-0022	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-63-Felt 411704138-0023	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	99.9	0.11 Fibrous_Other	No Asbestos Detected
21-66-Caulk 411704138-0024	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-66-Glazing 411704138-0025	Awning/ Flashing Caulk	Tan Non-Fibrous Homogeneous	99.9	0.13 Fibrous_Other	No Asbestos Detected
21-72-Caulk 411704138-0026	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
21-72-Glazing 411704138-0027	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	99.9	0.10 Fibrous_Other	No Asbestos Detected
21-75-Felt 411704138-0028	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 06/02/2017 15:03:21



**EMSL Analytical, Inc.**

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704138  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagett Bldg. 21 Ext.

**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
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Analyst(s)

Aaron Hartley (12)

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: 06/02/2017 15:03:21



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703608**

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different	
Street: 7 Winchester Court		If Bill to is Different note instructions in Comments**	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Cluett Building 22</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: **5-4-17**

Samplers Name: *Nicholas Neerhof*      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
22-1		<i>throughout</i>	<i>Drywall with joint compound and tape</i>
22-2			
22-3			
22-4			
22-5			
22-6			
22-7			
22-8			<i>Bathrooms</i>
22-9			
22-10			

Client Sample # (s):	<i>22-1 - 22-49</i>	Total # of Samples:
Relinquished (Client):	<i>Nicholas Neerhof</i>	Date: <i>5-5-17</i> Time:
Received (Lab):	<i>Kyle Nelson</i>	Date: <i>5/8/17</i> Time: <i>9:00am F/x</i>
Comments/Special Instructions:	<i>7952 8241 6314</i>	

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703608

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
22-11		throughout	12"x12" tan speckled floor tile
22-12			with mastic (top layer)
22-13			
22-14		Kitchen	12"x12" cream floor tile with
22-15			mastic (bottom layer)
22-16			
22-17		Bathrooms	adhesive beneath ceramic tile
22-18			
22-19			
22-20		Kitchen	kitchen counter caulk
22-21			
22-22			
22-23		upstairs front bedroom	window caulk
22-24			
22-25			
22-26		Bathrooms	shower stall and sink caulk
22-27			
22-28			
22-29		HVAC closet	white HVAC caulk
22-30			
22-31			
22-32		Above ceiling	HVAC tape with mastic
22-33			
22-34			

**\*Comments/Special Instructions:**  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703608

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/08/2017 9:00 AM

**Analysis Date:** 05/11/2017

**Collected Date:** 05/04/2017

**Project:** Cammie Clagett Building 22

## 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
22-1-Drywall <small>411703608-0001</small>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-1-Joint Compound <small>411703608-0001A</small>	Throughout - Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (Other)	3% Chrysotile
22-1-Tape <small>411703608-0001B</small>	Throughout - Drywall with Joint Compound and Tape	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-2-Drywall <small>411703608-0002</small>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-2-Joint Compound <small>411703608-0002A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
22-2-Tape <small>411703608-0002B</small>	Throughout - Drywall with Joint Compound and Tape	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-3-Drywall <small>411703608-0003</small>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-3-Joint Compound <small>411703608-0003A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
22-3-Tape <small>411703608-0003B</small>	Throughout - Drywall with Joint Compound and Tape	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-4-Drywall <small>411703608-0004</small>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-4-Joint Compound <small>411703608-0004A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
22-4-Tape <small>411703608-0004B</small>	Throughout - Drywall with Joint Compound and Tape	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-5-Drywall <small>411703608-0005</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
22-5-Joint Compound <small>411703608-0005A</small>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
22-5-Tape <small>411703608-0005B</small>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
22-6-Drywall <small>411703608-0006</small>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 14:28:30





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703608  
**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
22-6-Joint Compound <i>411703608-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
22-6-Tape <i>411703608-0006B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
22-7-Drywall <i>411703608-0007</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
22-7-Joint Compound <i>411703608-0007A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
22-7-Tape <i>411703608-0007B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
22-8-Drywall <i>411703608-0008</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-8-Rough Coat <i>411703608-0008A</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		65% Quartz 35% Non-fibrous (Other)	None Detected
22-8-Skim Coat <i>411703608-0008B</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
22-9-Drywall <i>411703608-0009</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
22-9-Rough Coat <i>411703608-0009A</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Cellulose	65% Quartz 35% Non-fibrous (Other)	None Detected
22-9-Skim Coat <i>411703608-0009B</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Quartz 10% Ca Carbonate 85% Non-fibrous (Other)	None Detected
22-10-Drywall <i>411703608-0010</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
22-10-Rough Coat <i>411703608-0010A</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
22-10-Skim Coat <i>411703608-0010B</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
22-11-Floor Tile <i>411703608-0011</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
22-11-Mastic <i>411703608-0011A</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
22-12-Floor Tile <i>411703608-0012</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
22-12-Mastic <i>411703608-0012A</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 14:28:30



# EMSL Analytical, Inc.

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**EMSL Order:** 411703608  
**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
22-14-Floor Tile 411703608-0013	Kitchen - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
22-14-Mastic 411703608-0013A	Kitchen - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	Black/Yellow Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
22-15-Floor Tile 411703608-0014	Kitchen - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
22-15-Mastic 411703608-0014A	Kitchen - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
22-17-Mastic 411703608-0015	Bathrooms - Adhesive beneath Ceramic Tile	Brown Non-Fibrous Homogeneous		45% Ca Carbonate 55% Non-fibrous (Other)	None Detected
22-17-Leveler 411703608-0015A	Bathrooms - Adhesive beneath Ceramic Tile	White Non-Fibrous Homogeneous	2% Cellulose	30% Ca Carbonate 68% Non-fibrous (Other)	None Detected
22-18-Mastic 411703608-0016	Bathrooms - Adhesive beneath Ceramic Tile	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
22-18-Leveler 411703608-0016A	Bathrooms - Adhesive beneath Ceramic Tile	White Non-Fibrous Homogeneous	2% Cellulose	25% Ca Carbonate 73% Non-fibrous (Other)	None Detected
22-19-Leveler 411703608-0016B	Bathrooms - Adhesive beneath Ceramic Tile	White Non-Fibrous Homogeneous	1% Cellulose	25% Ca Carbonate 74% Non-fibrous (Other)	None Detected
22-20 411703608-0017	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
22-21 411703608-0018	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
22-23 411703608-0019	Upstairs Front Bedroom - Window Caulk	White Non-Fibrous Homogeneous		65% Ca Carbonate 35% Non-fibrous (Other)	None Detected
22-24 411703608-0020	Upstairs Front Bedroom - Window Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
22-26 411703608-0021	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		65% Ca Carbonate 35% Non-fibrous (Other)	None Detected
22-27 411703608-0022	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
22-29 411703608-0023	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
22-30 411703608-0024	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-32-Tape 411703608-0025	Above Ceiling - HVAC Tape with Mastic	Tan Fibrous Homogeneous	85% Cellulose 10% Synthetic	5% Non-fibrous (Other)	None Detected
22-32-Mastic 411703608-0025A	Above Ceiling - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 14:28:30



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703608  
**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
22-33-Tape <i>411703608-0026</i>	Above Ceiling - HVAC Tape with Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
22-33-Mastic <i>411703608-0026A</i>	Above Ceiling - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
22-34-Tape <i>411703608-0026B</i>	Above Ceiling - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
22-35 <i>411703608-0027</i>	Kitchen - Coating on Kitchen Sinks	Brown/White Fibrous Homogeneous		20% Ca Carbonate 74% Non-fibrous (Other)	6% Chrysotile
22-36 <i>411703608-0028</i>	Kitchen - Coating on Kitchen Sinks				Positive Stop (Not Analyzed)
22-38 <i>411703608-0029</i>	Upstairs Windows - Window Caulk	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
22-39 <i>411703608-0030</i>	Upstairs Windows - Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-41-Drywall <i>411703608-0031</i> <i>No tape present.</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
22-41-Joint Compound <i>411703608-0031A</i> <i>No tape present.</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
22-42-Drywall <i>411703608-0032</i> <i>No tape present.</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-42-Joint Compound <i>411703608-0032A</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
22-43-Drywall <i>411703608-0033</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-43-Joint Compound <i>411703608-0033A</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
22-43-Tape <i>411703608-0033B</i>	Living Room - Drywall with Joint Compound and Tape (Patches)	White Fibrous Homogeneous	100% Glass		None Detected
22-44-Drywall <i>411703608-0034</i> <i>No tape present.</i>	Unit 351 - Drywall with Joint Compound and Tape (Patches)	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-44-Joint Compound <i>411703608-0034A</i> <i>No tape present.</i>	Unit 351 - Drywall with Joint Compound and Tape (Patches)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
22-45-Drywall <i>411703608-0035</i> <i>No tape present.</i>	Unit 351 - Drywall with Joint Compound and Tape (Patches)	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 14:28:30



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**EMSL Order:** 411703608  
**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
22-45-Joint Compound  411703608-0035A <i>No tape present.</i>	Unit 351 - Drywall with Joint Compound and Tape (Patches)	White Non-Fibrous Homogeneous		45% Ca Carbonate 55% Non-fibrous (Other)	None Detected
22-46-Drywall  411703608-0036 <i>No tape present</i>	Unit 351 - Drywall with Joint Compound and Tape (Patches)	Brown Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
22-46-Joint Compound  411703608-0036A	Unit 351 - Drywall with Joint Compound and Tape (Patches)	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
22-47  411703608-0037	Upstairs Bathroom - Mastic beneath Shower Stall	Brown Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
22-48  411703608-0038	Upstairs Bathroom - Mastic beneath Shower Stall	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (29)

Travis Hartney (38)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/11/2017 14:28:30





# EMSL Analytical, Inc.

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**EMSL Order:** 411703608  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/04/2017  
**Project:** Cammie Clagett Building 22

## 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
22-13-Floor Tile 411703608-0039	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
22-13-Mastic 411703608-0040	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-19-Mastic 411703608-0041	Bathrooms - Adhesive beneath Ceramic Tile	Gray/Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-22 411703608-0042	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-25 411703608-0043	Upstairs Front Bedroom - Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-28 411703608-0044	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-31 411703608-0045	HVAC Closet - White HVAC Caulk	White Non-Fibrous Heterogeneous	99.8	0.25 Fibrous_Other	No Asbestos Detected
22-34-Mastic 411703608-0046	Above Ceiling - HVAC Tape with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-40 411703608-0047	Upstairs Windows - Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
22-49 411703608-0048	Upstairs Bathroom - Mastic beneath Shower Stall	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 05/18/2017 11:31:19



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**EMSL Order:** 411703608  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/04/2017  
**Project:** Cammie Clagett Building 22

**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
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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: 05/18/2017 11:31:19



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704136

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Carmie Clasper Bldg 22 Ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: \_\_\_\_\_

Samplers Name: **Tom Oliver**      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
22-50		Metal w/rubber coating	
22-51			
22-52			
22-53		Roof shingles (2) & felt (1)	
22-54			
22-55			
22-56		Gable vent caulk - white &	
22-57		cream	
22-58			

Client Sample # (s): *50-75*      Total # of Samples: *24*

Relinquished (Client): *[Signature]*      Date: *9-24-17*      Time: \_\_\_\_\_

Received (Lab): *Kyle Nelson*      Date: *5/26/17*      Time: *9:10 AM FK*

Comments/Special Instructions: \_\_\_\_\_      *7952 9037 7756*









# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704136

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/30/2017 - 05/31/2017

**Collected Date:**

**Project:** Cammie Clagett Bldg. 22 Ext.

## 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
22-50-Metal <i>411704136-0001</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-51-Metal <i>411704136-0002</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
22-52-Metal <i>411704136-0002A</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-53-Shingle 1 <i>411704136-0003</i>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
22-53-Shingle 2 <i>411704136-0003A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
22-53-Felt <i>411704136-0003B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-54-Shingle 1 <i>411704136-0004</i>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	5% Glass	3% Quartz 15% Ca Carbonate 77% Non-fibrous (Other)	None Detected
22-54-Shingle 2 <i>411704136-0004A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	5% Glass	3% Quartz 10% Ca Carbonate 82% Non-fibrous (Other)	None Detected
22-54-Felt <i>411704136-0004B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
22-56-White Caulk <i>411704136-0005</i>	Gable Vent Caulk - White & Cream	White/Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
22-56-Cream Caulk <i>411704136-0005A</i>	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
22-57-White Caulk <i>411704136-0006</i>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	5% Wollastonite	25% Ca Carbonate 70% Non-fibrous (Other)	None Detected
22-57-Cream Caulk <i>411704136-0006A</i>	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
22-59 <i>411704136-0007</i>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
22-60 <i>411704136-0008</i>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 14:56:46



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**EMSL Order:** 411704136  
**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
22-62 <small>411704136-0009</small>	Ext. Grey Door Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
22-63-White Caulk <small>411704136-0010</small>	Ext. Grey Door Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
22-63-Gray Caulk <small>411704136-0010A</small>	Ext. Grey Door Caulk	Gray Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
22-65 <small>411704136-0011</small>	Ext. Black Window Caulk	Brown Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
22-66 <small>411704136-0012</small>	Ext. Black Window Caulk	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
22-68-Felt <small>411704136-0013</small>	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-68-Brown Layer <small>411704136-0013A</small>	Composite Wood Siding w/ Felt	Brown Non-Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-69-Felt <small>411704136-0014</small>	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
22-69-Brown Layer <small>411704136-0014A</small>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-70-Brown Layer <small>411704136-0014B</small>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
22-71-Felt 1 <small>411704136-0015</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-71-Felt 2 <small>411704136-0015A</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-71-Felt 3 <small>411704136-0015B</small>	2 Layers of Felt Paper	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-71-Felt 4 <small>411704136-0015C</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-72-Felt 1 <small>411704136-0016</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-72-Felt 2 <small>411704136-0016A</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
22-72-Felt 3 <small>411704136-0016B</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
22-72-Felt 4 <small>411704136-0016C</small>	2 Layers of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 14:56:46



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EMSL Order: 411704136

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Eric Loomis (1)*

*Lyterra Barrow (16)*

*Travis Hartney (16)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

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7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagett Bldg. 22 Ext.

## 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
22-55-Shingle 1 411704136-0017	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
22-55-Shingle 2 411704136-0018	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	99.3	0.68 Fibrous_Other	No Asbestos Detected
22-55-Felt 411704136-0019	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
22-58-White Caulk 411704136-0020	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
22-58-Cream Caulk 411704136-0021	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
22-61 411704136-0022	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
22-63-White Caulk 411704136-0023	Ext. Grey Door Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
22-64-Gray Caulk 411704136-0024	Ext. Grey Door Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
22-67 411704136-0025	Ext. Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
22-70-Felt 411704136-0026	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
22-73-Felt 1 411704136-0027	2 Layers of Felt Paper	Black Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
22-73-Felt 2 411704136-0028	2 Layers of Felt Paper	Black Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected

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: 06/02/2017 15:02:04





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704136  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagett Bldg. 22 Ext.

## 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
22-73-Felt 3 411704136-0029	2 Layers of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
22-73-Felt 4 411704136-0030	2 Layers of Felt Paper	Black Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected

Analyst(s)

Aaron Hartley (14)

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: 06/02/2017 15:02:04

EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703607**

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <b>037-55 Build # 23</b>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: **5-4-17**

Samplers Name: *Richard K. Shultz*      Samplers Signature: *Richard K. Shultz*

Sample #	HA #	Sample Location	Material Description
23-1			dry wall, tape + J.C.
23-2			
23-3			
23-4			
23-5			
23-6			
23-7			
<del>23-8</del>			

Client Sample # (s): **1 - 39**      Total # of Samples:

Relinquished (Client): *Richard K. Shultz*      Date: **5-5-17**      Time: **10:00am**

Received (Lab): *Kyle Nelson*      Date: **5/8/17**      Time: **9:00am Fx**

Comments/Special Instructions:  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:  
**7952 8241 6314**





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703607

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
23-8			Plaster w/ finish over
23-9			unfinished drywall
23-10			
23-11			
23-12			
23-13			12x12 tan speckled
23-14			F.T. w/ mastic
23-15			(top layer)
23-16			12x12 cream F.T. w/ mastic
23-17			(bottom layer)
23-18			
23-19			HVAC caulk - wht
23-20			
23-21			
23-22			HVAC Tape - yellow
23-23			
23-24			
23-25			Bathroom sink + shower
23-26			caulk   white
23-27			
23-28			Kitchen sink undercoat
23-29			white
23-30			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703607  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/10/2017  
**Collected Date:** 05/04/2017  
**Project:** 0317-55 Build. #23

## 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
23-1-Drywall <i>411703607-0001</i> <i>No tape present</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
23-1-Joint Compound <i>411703607-0001A</i>	Drywall, Tape & JC	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile
23-2-Drywall <i>411703607-0002</i> <i>No tape present</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
23-2-Joint Compound <i>411703607-0002A</i>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
23-3-Drywall <i>411703607-0003</i> <i>No tape present</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
23-3-Joint Compound <i>411703607-0003A</i>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
23-4-Drywall <i>411703607-0004</i> <i>No tape present</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
23-4-Joint Compound <i>411703607-0004A</i>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
23-5-Drywall <i>411703607-0005</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
23-5-Joint Compound <i>411703607-0005A</i>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
23-5-Tape <i>411703607-0005B</i>	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
23-6-Drywall <i>411703607-0006</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
23-6-Joint Compound <i>411703607-0006A</i>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
23-6-Tape <i>411703607-0006B</i>	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
23-7-Drywall <i>411703607-0007</i>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 08:09:59



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703607  
**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
23-7-Joint Compound	Drywall, Tape & JC				Positive Stop (Not Analyzed)
<i>411703607-0007A</i>					
23-7-Tape	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
<i>411703607-0007B</i>					
23-8-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703607-0008</i>					
23-8-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
<i>411703607-0008A</i>					
23-8-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703607-0008B</i>					
23-9-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703607-0009</i>					
23-9-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
<i>411703607-0009A</i>					
23-9-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703607-0009B</i>					
23-10-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703607-0010</i>					
23-10-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
<i>411703607-0010A</i>					
23-10-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703607-0010B</i>					
23-11-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703607-0011</i>					
23-11-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
<i>411703607-0011A</i>					
23-11-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703607-0011B</i>					
23-12-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703607-0012</i>					
23-12-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	<1% Cellulose	40% Quartz 60% Non-fibrous (Other)	None Detected
<i>411703607-0012A</i>					
23-12-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703607-0012B</i>					
23-13-Floor Tile	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
<i>411703607-0013</i>					
23-13-Mastic	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
<i>411703607-0013A</i>					

Initial report from: 05/11/2017 08:09:59



# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703607  
**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
23-14-Floor Tile 411703607-0014	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
23-14-Mastic 411703607-0014A	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
23-16 411703607-0015	12x12 Cream F.T. w/ Mastic (Bottom Layer)				Not Submitted
23-17 411703607-0016	12x12 Cream F.T. w/ Mastic (Bottom Layer)				Not Submitted
23-19 411703607-0017	HVAC Caulk - White	Tan Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
23-20 411703607-0018	HVAC Caulk - White	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
23-22 411703607-0019	HVAC Tape - Yellow	White Fibrous Homogeneous	90% Cellulose	5% Ca Carbonate 5% Non-fibrous (Other)	None Detected
23-23 411703607-0020	HVAC Tape - Yellow	White Non-Fibrous Homogeneous	95% Cellulose	5% Ca Carbonate	None Detected
23-25 411703607-0021	Bathroom Sink & Shower Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
23-26 411703607-0022	Bathroom Sink & Shower Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
23-28 411703607-0023	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	15% Cellulose	5% Ca Carbonate 5% Mica 75% Non-fibrous (Other)	None Detected
23-29 411703607-0024	Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	15% Cellulose	5% Ca Carbonate 5% Mica 75% Non-fibrous (Other)	None Detected
23-31-Top Mastic 411703607-0025	(Tain) 12x12 Cream F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	10% Gypsum 89% Non-fibrous (Other)	None Detected
23-31-Floor Tile 411703607-0025A	(Tain) 12x12 Cream F.T. w/ Mastic	Beige Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
23-31-Bottom Mastic 411703607-0025B	(Tain) 12x12 Cream F.T. w/ Mastic	Black Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
23-32-Top Mastic 411703607-0026	(Tain) 12x12 Cream F.T. w/ Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
23-32-Floor Tile 411703607-0026A	(Tain) 12x12 Cream F.T. w/ Mastic				Positive Stop (Not Analyzed)
23-32-Bottom Mastic 411703607-0026B	(Tain) 12x12 Cream F.T. w/ Mastic				Positive Stop (Not Analyzed)
23-34 411703607-0027	Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 08:09:59



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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703607  
**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
23-35 <small>411703607-0028</small>	Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-37 <small>411703607-0029</small>	Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
23-38 <small>411703607-0030</small>	Kitchen Counter Caulk - White	White Fibrous Homogeneous	2% Cellulose	15% Ca Carbonate 83% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (27)

Derrick Young (19)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/11/2017 08:09:59





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703607  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/17/2017  
**Collected Date:** 05/04/2017  
**Project:** 0317-55 Build. #23

## 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
23-15-Floor Tile 411703607-0031	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-15-Mastic 411703607-0032	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-21 411703607-0033	HVAC Caulk - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-24 411703607-0034	HVAC Tape - Yellow	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-27 411703607-0035	Bathroom Sink & Shower Caulk - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-30 411703607-0036	Kitchen Sink Undercoat - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-33-Top Mastic 411703607-0037	(Tain) 12x12 Cream F.T. w/ Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-36 411703607-0038	Black Window Caulk	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
23-39 411703607-0039	Kitchen Counter Caulk - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (9)

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: 05/17/2017 15:40:59



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

EMSL Order Number (Lab Use Only):

411704133

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Claggett Bldg 23 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group

Date Sampled: *[Signature]*

Samplers Name: Tom Oliver

Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
23-16		12" x 12" (cream F.T. w/ mastic)	
23-17		(bottom layer)	
23-18			
23-40		Metal w/ rubber coating	
23-41			
23-42			
23-43		Composite wooden siding w/ felt	
23-44			
23-45			

Client Sample # (s): *16-18, 40 - 63* Total # of Samples: *27*

Relinquished (Client): *[Signature]* Date: *5-24-17* Time:

Received (Lab): *Kyle Nls* Date: *5/26/17* Time: *9:10am Fx*

Comments/Special Instructions: *7952 9037 7767*





EMSL ANALYTICAL, INC.  
LABORATORY-PRODUCTS-TRAINING

# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411704133

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
23-46		Ext. window caulk - black	
23-47			
23-48			
23-49		Ext door caulk - grey	
23-50			
23-51			
23-52		Gable vent caulk - white + cream	
23-53			
23-54			
23-55		Roof shingles (2) + felt (1)	
23-56			
23-57			
23-58		2 <sup>nd</sup> layer of felt	
23-59			
23-60			
23-61		Awnings + Flashings caulk	
23-62			
23-63			
*Comments/Special Instructions:			



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704133

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/26/2017 - 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 23 Ext.

## 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
23-16-Floor Tile <small>411704133-0001</small>	12"x12" Cream F.T. w/ Mastic (Bottom Layer)	Beige Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
23-16-Mastic <small>411704133-0001A</small>	12"x12" Cream F.T. w/ Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
23-17-Floor Tile <small>411704133-0002</small>	12"x12" Cream F.T. w/ Mastic (Bottom Layer)	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
23-17-Mastic <small>411704133-0002A</small>	12"x12" Cream F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
23-40-Metal <small>411704133-0003</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-41-Metal <small>411704133-0004</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-42-Metal <small>411704133-0004A</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-43-Felt <small>411704133-0005</small>	Composite Wooden Siding w/ Felt	Brown Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
23-43-Brown Layer <small>411704133-0005A</small>	Composite Wooden Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
23-44-Felt <small>411704133-0006</small>	Composite Wooden Siding w/ Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
23-44-Brown Layer <small>411704133-0006A</small>	Composite Wooden Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
23-45-Brown Layer <small>411704133-0006B</small>	Composite Wooden Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
23-46 <small>411704133-0007</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
23-47 <small>411704133-0008</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
23-49-White Caulk <small>411704133-0009</small>	Ext. Door Caulk - Grey	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 13:07:18





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376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704133  
**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
23-49-Gray Caulk <small>411704133-0009A</small>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		2% Quartz 20% Ca Carbonate 78% Non-fibrous (Other)	None Detected
23-50-White Caulk <small>411704133-0010</small>	Ext. Door Caulk - Grey	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
23-50-Gray Caulk <small>411704133-0010A</small>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
23-52-White Caulk <small>411704133-0011</small>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	10% Wollastonite	20% Ca Carbonate 70% Non-fibrous (Other)	None Detected
23-52-Cream Caulk <small>411704133-0011A</small>	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
23-53-White Caulk <small>411704133-0012</small>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	4% Fibrous (Other)	30% Ca Carbonate 66% Non-fibrous (Other)	None Detected
23-53-Cream Caulk <small>411704133-0012A</small>	Gable Vent Caulk - White & Cream	White/Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
23-55-Shingle 1 <small>411704133-0013</small>	Roof Shingles (2) & Felt (1)	Red/Black/Orange Fibrous Homogeneous	5% Glass	5% Quartz 25% Ca Carbonate 65% Non-fibrous (Other)	None Detected
23-55-Shingle 2 <small>411704133-0013A</small>	Roof Shingles (2) & Felt (1)	Red/Black/Orange Fibrous Homogeneous	8% Glass	3% Quartz 15% Ca Carbonate 74% Non-fibrous (Other)	None Detected
23-55-Felt <small>411704133-0013B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
23-56-Shingle 1 <small>411704133-0014</small>	Roof Shingles (2) & Felt (1)	Brown/Black Fibrous Heterogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
23-56-Shingle 2 <small>411704133-0014A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
23-56-Felt <small>411704133-0014B</small>	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
23-58 <small>411704133-0015</small>	2nd Layer of Felt	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
23-59 <small>411704133-0016</small>	2nd Layer of Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
23-61 <small>411704133-0017</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
23-62 <small>411704133-0018</small>	Awning & Flashing Caulk	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 13:07:18



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376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704133

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Derrick Young (3)*

*Eric Loomis (17)*

*Travis Hartney (11)*

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: 05/31/2017 13:07:18



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704133  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 23 Ext.

## 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
23-18-Mastic 411704133-0019	12"x12" Cream F.T. w/ Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
23-45-Felt 411704133-0020	Composite Wooden Siding w/ Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
23-48 411704133-0021	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
23-51-White Caulk 411704133-0022	Ext. Door Caulk - Grey	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
23-51-Gray Caulk 411704133-0023	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
23-54-White Caulk 411704133-0024	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
23-54-Cream Caulk 411704133-0025	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
23-57-Shingle 1 411704133-0026	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
23-57-Shingle 2 411704133-0027	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
23-57-Felt 411704133-0028	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
23-60 411704133-0029	2nd Layer of Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
23-63 411704133-0030	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 06/02/2017 13:40:23



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411704133  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 23 Ext.

**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
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Analyst(s)

Aaron Hartley (12)

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: 06/02/2017 13:40:23



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703609

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Camie Clagett building 24</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: *5-4-17*

Samplers Name: *Nicholas Neerhof*      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
24-1		<del>10</del> Throughout	Drywall with joint compound and tape
24-2			
24-3			
24-4			
24-5			
24-6			
24-7			
24-8		Bathrooms	Plaster with finish over unfinished drywall
24-9			
24-10			

Client Sample # (s): *24-1 - 24-37*      Total # of Samples:

Relinquished (Client): *Nicholas Neerhof*      Date: *5-5-17*      Time:

Received (Lab): *Kyle Nelson*      Date: *5/8/17*      Time: *9:00AM Fx*

Comments/Special Instructions:  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: *7952 8241 6314*





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703609

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
24-11		throughout	12"x12" tan speckled floor tile
24-12			with mastic
24-13			
24-14		Kitchen	Kitchen counter caulk
24-15			
24-16			
24-17		HVAC closet	HVAC caulk
24-18			
24-19			
24-20		Bathroom	shower stall and sink caulk
24-21			
24-22			
24-23		Above ceiling	HVAC tape and mastic
24-24			
24-25			
24-26		upstairs window frames	window caulk
24-27			
24-28			
24-29		Kitchen sinks	kitchen sink coating
24-30			
24-31			
24-32		Kitchen bottom layer	12"x12" white floor tile with
24-33			mastic
24-34			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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EMSL Order: 411703609

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/08/2017 9:00 AM

**Analysis Date:** 05/11/2017

**Collected Date:** 05/04/2017

**Project:** Cammie Clagett Building #24

## 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
24-1-Drywall <i>411703609-0001</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
24-1-Joint Compound <i>411703609-0001A</i>	Throughout - Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
24-1-Tape <i>411703609-0001B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
24-2-Drywall <i>411703609-0002</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
24-2-Joint Compound <i>411703609-0002A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
24-3-Drywall <i>411703609-0003</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
24-3-Joint Compound <i>411703609-0003A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
24-3-Tape <i>411703609-0003B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
24-4-Drywall <i>411703609-0004</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
24-4-Joint Compound <i>411703609-0004A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
24-4-Tape <i>411703609-0004B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
24-5-Drywall <i>411703609-0005</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
24-5-Joint Compound <i>411703609-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
24-5-Tape <i>411703609-0005B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
24-6-Drywall <i>411703609-0006</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 16:04:47





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703609  
**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
24-6-Joint Compound <i>411703609-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
24-7-Drywall <i>411703609-0007</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
24-7-Joint Compound <i>411703609-0007A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
24-8-Skim Coat <i>411703609-0008</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
24-8-Rough Coat <i>411703609-0008A</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
24-8-Drywall <i>411703609-0008B</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
24-9-Skim Coat <i>411703609-0009</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
24-9-Rough Coat <i>411703609-0009A</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
24-9-Drywall <i>411703609-0009B</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
24-10-Skim Coat <i>411703609-0010</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
24-10-Rough Coat <i>411703609-0010A</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
24-10-Drywall <i>411703609-0010B</i>	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
24-11-Floor Tile <i>411703609-0011</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
24-11-Mastic <i>411703609-0011A</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
24-12-Floor Tile <i>411703609-0012</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
24-12-Mastic <i>411703609-0012A</i>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 8% Gypsum 86% Non-fibrous (Other)	None Detected
24-14 <i>411703609-0013</i>	Kitchen - Kitchen Counter Caulk	Tan/White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
24-15 <i>411703609-0014</i>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 16:04:47



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**EMSL Order:** 411703609  
**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
24-17 <small>411703609-0015</small>	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-18 <small>411703609-0016</small>	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-20 <small>411703609-0017</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
24-21 <small>411703609-0018</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
24-23-Tape <small>411703609-0019</small>	Above Ceiling - HVAC Tape and Mastic	Yellow Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
24-23-Mastic <small>411703609-0019A</small>	Above Ceiling - HVAC Tape and Mastic	Yellow Fibrous Homogeneous	5% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
24-24-Tape <small>411703609-0020</small>	Above Ceiling - HVAC Tape and Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
24-24-Mastic <small>411703609-0020A</small>	Above Ceiling - HVAC Tape and Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	10% Ca Carbonate 89% Non-fibrous (Other)	None Detected
24-25-Tape <small>411703609-0020B</small>	Above Ceiling - HVAC Tape and Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
24-26 <small>411703609-0021</small>	Upstairs Window Frame - Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-27 <small>411703609-0022</small>	Upstairs Window Frame - Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-29 <small>411703609-0023</small>	Kitchen Sinks - Kitchen Sink Coating	White Fibrous Homogeneous		35% Ca Carbonate 61% Non-fibrous (Other)	4% Chrysotile
24-30 <small>411703609-0024</small>	Kitchen Sinks - Kitchen Sink Coating				Positive Stop (Not Analyzed)
24-32-Floor Tile <small>411703609-0025</small>	Kitchen Bottom Layer - 12"x12" White Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
24-32-Mastic <small>411703609-0025A</small>	Kitchen Bottom Layer - 12"x12" White Floor Tile with Mastic	Black Fibrous Homogeneous		5% Ca Carbonate 92% Non-fibrous (Other)	3% Chrysotile
24-33-Floor Tile <small>411703609-0026</small>	Kitchen Bottom Layer - 12"x12" White Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
24-33-Mastic <small>411703609-0026A</small>	Kitchen Bottom Layer - 12"x12" White Floor Tile with Mastic				Positive Stop (Not Analyzed)
24-35 <small>411703609-0027</small>	Upstairs Front Bedroom and Middle Bedroom - Window Caulk	Tan Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 16:04:47



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**EMSL Order:** 411703609  
**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
24-36	Upstairs Front	White		8% Ca Carbonate	None Detected
411703609-0028	Bedroom and Middle	Non-Fibrous		92% Non-fibrous (Other)	
	Bedroom - Window	Homogeneous			
	Caulk				

Analyst(s) \_\_\_\_\_

Aaron Hartley (18)

Lacy Searcy (26)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/11/2017 16:04:47



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703609  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/04/2017  
**Project:** Cammie Clagett Building #24

## 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
24-13-Floor Tile 411703609-0029	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
24-13-Mastic 411703609-0030	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	99.2	0.79 Fibrous_Other	No Asbestos Detected
24-16 411703609-0031	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
24-19 411703609-0032	HVAC Closet - HVAC Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
24-22 411703609-0033	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
24-25-Mastic 411703609-0034	Above Ceiling - HVAC Tape and Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
24-28 411703609-0035	Upstairs Window Frame - Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
24-34-Floor Tile 411703609-0036	Kitchen Bottom Layer - 12"x12" White Floor Tile with Mastic	Gray Non-Fibrous Heterogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
24-37 411703609-0037	Upstairs Front Bedroom and Middle Bedroom - Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 05/18/2017 11:32:20





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704137

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Clagget Bldg 24ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
24-38		Metal w/ rubber coating	
24-39			
24-40			
24-41		Roof shingles (2) & felt (1)	
24-42			
24-43			
24-44		Gable vent caulk - white	
24-45		& cream	
24-46			

Client Sample # (s): *38 - 61*      Total # of Samples: *24*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *Kyle Nelson*      Date: *5/26/17*      Time: *9:10 AM Fk*

Comments/Special Instructions: *7952 9037 7756*





# Asbestos Bulk Building Material Chain of Custody

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704137

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
24-47		Awning/Flashing caulk	
24-48			
24-49			
24-50		Composite wood siding w/ felt	
24-51			
24-52			
24-53		Ext. door caulk - grey	
24-54			
24-55			
24-56		Ext. window caulk - black	
24-57			
24-58			
24-59		2 <sup>nd</sup> layer of felt paper	
24-60			
24-61			

\*Comments/Special Instructions:



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EMSL Order: 411704137

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/30/2017 - 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 24 Ext.

## 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
24-38-Metal <i>411704137-0001</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-39-Metal <i>411704137-0002</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-40-Metal <i>411704137-0002A</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-41-Shingle 1 <i>411704137-0003</i>	Roof Shingles (2) & Felt (1)	Brown/Black Fibrous Heterogeneous	<1% Cellulose 5% Glass	10% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
24-41-Tar <i>411704137-0003A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	1% Glass	99% Non-fibrous (Other)	None Detected
24-41-Shingle 2 <i>411704137-0003B</i>	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Homogeneous	5% Glass	10% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
24-41-Felt <i>411704137-0003C</i>	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
24-42-Shingle 1 <i>411704137-0004</i>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
24-42-Tar <i>411704137-0004A</i>	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
24-42-Shingle 2 <i>411704137-0004B</i>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
24-42-Felt <i>411704137-0004C</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
24-44-White Caulk <i>411704137-0005</i>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	2% Fibrous (Other)	20% Ca Carbonate 78% Non-fibrous (Other)	None Detected
24-44-Cream Caulk <i>411704137-0005A</i>	Gable Vent Caulk - White & Cream	White/Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
24-45-White Caulk <i>411704137-0006</i>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
24-45-Cream Caulk <i>411704137-0006A</i>	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 10:19:04



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**EMSL Order:** 411704137  
**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
24-47 <small>411704137-0007</small>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
24-48 <small>411704137-0008</small>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
24-50-Felt <small>411704137-0009</small>	Composite Wood Siding w/ Felt	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
24-50-Brown Layer <small>411704137-0009A</small>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
24-51-Felt <small>411704137-0010</small>	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
24-51-Brown Layer <small>411704137-0010A</small>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
24-52-Brown Layer <small>411704137-0010B</small>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
24-53-White Layer <small>411704137-0011</small>	Ext. Door Caulk - Grey	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
24-53-Gray Layer <small>411704137-0011A</small>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
24-54 <small>411704137-0012</small>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
24-56 <small>411704137-0013</small>	Ext. Window Caulk - Black	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
24-57 <small>411704137-0014</small>	Ext. Window Caulk - Black	Brown Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
24-59 <small>411704137-0015</small>	2nd Layer of Felt Paper	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
24-60 <small>411704137-0016</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

Analyst(s)  
Eric Loomis (16)  
Lyterra Barrow (13)

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

Initial report from: 05/31/2017 10:19:04





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704137  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 24 Ext.

## 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
24-43-Shingle 1 411704137-0017	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
24-43-Tar 411704137-0018	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	99.5	0.53 Fibrous_Other	No Asbestos Detected
24-43-Shingle 2 411704137-0019	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
24-43-Felt 411704137-0020	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
24-46-White Caulk 411704137-0021	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	100	<0.84 Fibrous_Other	No Asbestos Detected
24-46-Cream Caulk 411704137-0022	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
24-49 411704137-0023	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
24-52-Felt 411704137-0024	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
24-55-White Layer 411704137-0025	Ext. Door Caulk - Grey	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
24-55-Gray Layer 411704137-0026	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
24-58 411704137-0027	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
24-61 411704137-0028	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 06/02/2017 13:39:18



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**Project:** Cammie Clagget Bldg. 24 Ext.

**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
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Analyst(s)

Aaron Hartley (12)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 06/02/2017 13:39:18



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703605

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: 0317-55 Build # 25		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5-4-17

Samplers Name: Ted Shultz Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description	
25-1			Drywall, tape + J.C.	
25-2				
25-3				
25-4				
25-5				
25-6				
25-7				
25-8				
25-9				
25-10				plaster w/ finish over unfinished drywall

Client Sample # (s): 58 Total # of Samples:

Relinquished (Client): [Signature] Date: 5-5-17 Time:

Received (Lab): Kyle Nelson Date: 5/8/17 Time: 9:00AM F/x

Comments/Special Instructions: Please utilize positive stop analysis. 7952 8241 6347

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

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376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
25-11			12x12 tan speckled F.T.
25-12			w/mastic   (Top layer)
25-13			
25-14			Dry wall, tape + Jo
25-15			patches
25-16			
25-17			12x12 grey F.T. w/ mastic
25-18			(bottom layer)
25-19			
25-20			12x12 Brown/orange F.T.
25-21			w/mastic   (bottom layer)
25-22			
25-23			Dry wall, tape + Jo
25-24			patches
25-25			
25-26			Dry wall, tape + Jo
25-27			patches
25-28			
25-29			Stone square pattern
25-30			vinyl floor w/ brown
25-31			mastic.
25-32			12x12 Brown/orange F.T.
25-33			(mastic only)   w/ brown mastic
25-34			

**\*Comments/Special Instructions:**  
 Please utilize positive stop analysis.  
 Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
 Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703605

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PHONE: (704) 525-2205  
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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
25-35			Kitchen counter caulk
25-36			white ↓
25-37			↓
25-38			HVAC caulk
25-39			↓
25-40			↓
25-41			HVAC tape - yellow
25-42			↓
25-43			↓
25-44			Bathrm sink + shower
25-45			stall caulk ↓ white
25-46			↓
25-47			Kitchen sink undercoat
25-48			↓
25-49			↓
25-50			kitchen backsplash mastic
25-51			↓
25-52			↓
25-53			window caulk
25-54			↓
25-55			↓
25-56			Door caulk
25-57			↓
25-58			↓

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



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EMSL Order: 411703605

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/08/2017 9:00 AM

**Analysis Date:** 05/10/2017 - 05/11/2017

**Collected Date:** 05/04/2017

**Project:** 0317-55 Build #25

## 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
25-1-Drywall <small>411703605-0001</small>	Drywall, Tape & JC	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-1-Joint Compound <small>411703605-0001A</small>	Drywall, Tape & JC	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
25-1-Tape <small>411703605-0001B</small>	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
25-2-Drywall <small>411703605-0002</small>	Drywall, Tape & JC	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-2-Joint Compound <small>411703605-0002A</small>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
25-2-Tape <small>411703605-0002B</small>	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
25-3-Drywall <small>411703605-0003</small>	Drywall, Tape & JC	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-3-Joint Compound <small>411703605-0003A</small>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
25-3-Tape <small>411703605-0003B</small>	Drywall, Tape & JC	Tan Fibrous Heterogeneous	100% Cellulose		None Detected
25-4-Drywall <small>411703605-0004</small>	Drywall, Tape & JC	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-4-Joint Compound <small>411703605-0004A</small>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
25-4-Tape <small>411703605-0004B</small>	Drywall, Tape & JC	Tan Non-Fibrous Homogeneous	100% Cellulose		None Detected
25-5-Drywall <small>411703605-0005</small>	Drywall, Tape & JC	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-5-Joint Compound <small>411703605-0005A</small>	Drywall, Tape & JC				Positive Stop (Not Analyzed)
25-5-Tape <small>411703605-0005B</small>	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
25-6-Drywall <small>411703605-0006</small>	Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 13:23:09



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**EMSL Order:** 411703605  
**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
25-6-Joint Compound	Drywall, Tape & JC				Positive Stop (Not Analyzed)
<i>411703605-0006A</i>					
25-6-Tape	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
<i>411703605-0006B</i>					
25-7-Drywall	Drywall, Tape & JC	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
<i>411703605-0007</i>					
25-7-Joint Compound	Drywall, Tape & JC				Positive Stop (Not Analyzed)
<i>411703605-0007A</i>					
25-7-Tape	Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
<i>411703605-0007B</i>					
25-8-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703605-0008</i>					
25-8-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
<i>411703605-0008A</i>					
25-8-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703605-0008B</i>					
25-9-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703605-0009</i>					
25-9-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
<i>411703605-0009A</i>					
25-9-Drywall	Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703605-0009B</i>					
25-10-Skim Coat	Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
<i>411703605-0010</i>					
25-10-Rough Coat	Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
<i>411703605-0010A</i>					
25-10-Drywall	Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
<i>411703605-0010B</i>					
25-11-Floor Tile	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
<i>411703605-0011</i>					
25-11-Mastic	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
<i>411703605-0011A</i>					
25-12-Floor Tile	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
<i>411703605-0012</i>					
25-12-Mastic	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703605-0012A</i>					
25-14-Drywall	Drywall, Tape & JC Patches	Brown/Gray Fibrous Homogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected
<i>411703605-0013</i>					

Initial report from: 05/11/2017 13:23:09



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**EMSL Order:** 411703605  
**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
25-14-Joint Compound 411703605-0013A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
25-14-Tape 411703605-0013B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-15-Drywall 411703605-0014	Drywall, Tape & JC Patches	Brown/Gray Fibrous Homogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected
25-15-Joint Compound 411703605-0014A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
25-15-Tape 411703605-0014B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-16-Drywall 411703605-0015	Drywall, Tape & JC Patches	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
25-16-Joint Compound 411703605-0015A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
25-16-Tape 411703605-0015B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-17-Floor Tile 411703605-0016	12x12 Grey F.T. w/ Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
25-17-Mastic 411703605-0016A	12x12 Grey F.T. w/ Mastic (Bottom Layer)	Black/Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	<1% Chrysotile
25-18-Floor Tile 411703605-0017	12x12 Grey F.T. w/ Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
25-18-Mastic 411703605-0017A	12x12 Grey F.T. w/ Mastic (Bottom Layer)	Tan/Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
25-20-Leveler 411703605-0018	12x12 Brown/ Orange F.T. w/ Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
25-20-Floor Tile 411703605-0018A	12x12 Brown/ Orange F.T. w/ Mastic (Bottom Layer)	Brown/Orange Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
25-20-Mastic 411703605-0018B	12x12 Brown/ Orange F.T. w/ Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous	5% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
25-21-Floor Tile 411703605-0019	12x12 Brown/ Orange F.T. w/ Mastic (Bottom Layer)	Tan Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
25-21-Mastic 411703605-0019A	12x12 Brown/ Orange F.T. w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
25-23-Drywall 411703605-0020	Drywall, Tape & JC Patches	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-23-Joint Compound 411703605-0020A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous	1% Cellulose	40% Ca Carbonate 59% Non-fibrous (Other)	None Detected

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## 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
25-23-Tape 411703605-0020B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-24-Drywall 411703605-0021	Drywall, Tape & JC Patches	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-24-Joint Compound 411703605-0021A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
25-24-Tape 411703605-0021B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-25-Drywall 411703605-0022	Drywall, Tape & JC Patches	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-25-Joint Compound 411703605-0022A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
25-25-Tape 411703605-0022B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-26-Drywall 411703605-0023	Drywall, Tape & JC Patches	Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-26-Joint Compound 411703605-0023A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
25-26-Tape 411703605-0023B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-27-Drywall 411703605-0024	Drywall, Tape & JC Patches	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
25-27-Joint Compound 411703605-0024A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
25-27-Tape 411703605-0024B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-28-Drywall 411703605-0025	Drywall, Tape & JC Patches	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
25-28-Joint Compound 411703605-0025A	Drywall, Tape & JC Patches	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
25-28-Tape 411703605-0025B	Drywall, Tape & JC Patches	White Fibrous Homogeneous	100% Glass		None Detected
25-29-Flooring 411703605-0026	Stone Square Pattern Vinyl Floor w/ Brown Mastic	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
25-29-Mastic 411703605-0026A	Stone Square Pattern Vinyl Floor w/ Brown Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
25-30-Flooring 411703605-0027	Stone Square Pattern Vinyl Floor w/ Brown Mastic	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 13:23:09



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703605  
**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
25-30-Mastic <small>411703605-0027A</small>	Stone Square Pattern Vinyl Floor w/ Brown Mastic	Tan Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
25-32 <small>411703605-0028</small>	12x12 Brown/ Orange F.T. (Mastic Only) w/ Brown Mastic	Brown Non-Fibrous Homogeneous	4% Cellulose	15% Ca Carbonate 81% Non-fibrous (Other)	None Detected
25-33 <small>411703605-0029</small>	12x12 Brown/ Orange F.T. (Mastic Only) w/ Brown Mastic	Brown Fibrous Homogeneous	5% Cellulose	10% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-35 <small>411703605-0030</small>	Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-36 <small>411703605-0031</small>	Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-38 <small>411703605-0032</small>	HVAC Caulk	Tan Non-Fibrous Homogeneous	<1% Cellulose	25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
25-39 <small>411703605-0033</small>	HVAC Caulk	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
25-41 <small>411703605-0034</small>	HVAC Tape - Yellow	Tan Fibrous Homogeneous	90% Cellulose	8% Ca Carbonate 2% Non-fibrous (Other)	None Detected
25-42 <small>411703605-0035</small>	HVAC Tape - Yellow	Tan Fibrous Homogeneous	85% Cellulose	8% Ca Carbonate 7% Non-fibrous (Other)	None Detected
25-44 <small>411703605-0036</small>	Bathroom Sink & Shower Stall Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-45 <small>411703605-0037</small>	Bathroom Sink & Shower Stall Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-47 <small>411703605-0038</small>	Kitchen Sink Undercoat	White Non-Fibrous Homogeneous		25% Ca Carbonate 70% Non-fibrous (Other)	5% Chrysotile
25-48 <small>411703605-0039</small>	Kitchen Sink Undercoat				Positive Stop (Not Analyzed)
25-50 <small>411703605-0040</small>	Kitchen Backsplash Mastic	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
25-51 <small>411703605-0041</small>	Kitchen Backsplash Mastic	White Non-Fibrous Homogeneous	1% Cellulose	15% Ca Carbonate 84% Non-fibrous (Other)	None Detected
25-53 <small>411703605-0042</small>	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
25-54 <small>411703605-0043</small>	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
25-56 <small>411703605-0044</small>	Door Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-57 <small>411703605-0045</small>	Door Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 13:23:09



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EMSL Order: 411703605

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Aaron Hartley (46)*

*Anupriya Tyagi (28)*

*Eric Loomis (11)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/11/2017 13:23:09



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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**EMSL Order:** 411703605  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/17/2017  
**Collected Date:** 05/04/2017  
**Project:** 0317-55 Build #25

## 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
25-13-Floor Tile 411703605-0046	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-13-Mastic 411703605-0047	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-19-Floor Tile 411703605-0048	12x12 Grey F.T. w/ Mastic (Bottom Layer)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-19-Mastic 411703605-0049	12x12 Grey F.T. w/ Mastic (Bottom Layer)	Gray/Tan/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-31-Flooring 411703605-0052	Stone Square Pattern Vinyl Floor w/ Brown Mastic	Gray/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-31-Mastic 411703605-0053	Stone Square Pattern Vinyl Floor w/ Brown Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-34 411703605-0054	12x12 Brown/ Orange F.T. (Mastic Only) w/ Brown Mastic	Brown Non-Fibrous Heterogeneous	100	None	<0.1% Chrysotile
25-37 411703605-0055	Kitchen Counter Caulk - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-40 411703605-0056	HVAC Caulk	Tan/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-43 411703605-0057	HVAC Tape - Yellow	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-46 411703605-0058	Bathroom Sink & Shower Stall Caulk - White	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-52 411703605-0059	Kitchen Backsplash Mastic	Brown/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 05/17/2017 15:47:09





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703605  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/17/2017  
**Collected Date:** 05/04/2017  
**Project:** 0317-55 Build #25

## 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
25-55 411703605-0060	Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
25-58 411703605-0061	Door Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (14)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 05/17/2017 15:47:09



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

EMSL Order Number (Lab Use Only):

411704135

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Claggett Bldg 25ext.</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled:

Samplers Name: Tom Oliver Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
25-59		Metal w/ rubber coating	
25-60			
25-61			
25-62		Roof shingles (2) & felt (1)	
25-63			
25-64			
25-65		Awnings & Flashing caulk	
25-66			
25-67			

Client Sample # (s): *59 - 82* Total # of Samples: *24*

Relinquished (Client): *[Signature]* Date: *5-24-17* Time:

Received (Lab): *[Signature]* Date: *5/26/17* Time: *9:10am Fk*

Comments/Special Instructions: *7952 9037 7778*







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704135

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/30/2017 - 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 25 Ext.

## 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
25-59-Metal <i>411704135-0001</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-60-Metal <i>411704135-0002</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-61-Metal <i>411704135-0002A</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-62-Shingle 1 <i>411704135-0003</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	10% Glass	5% Quartz 5% Ca Carbonate 80% Non-fibrous (Other)	None Detected
25-62-Shingle 2 <i>411704135-0003A</i>	Roof Shingles (2) & Felt (1)	Brown/Red/Black Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
25-62-Felt <i>411704135-0003B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
25-63-Shingle 1 <i>411704135-0004</i>	Roof Shingles (2) & Felt (1)	Brown/Black Fibrous Heterogeneous	6% Glass	10% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
25-63-Shingle 2 <i>411704135-0004A</i>	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Homogeneous	5% Glass	10% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
25-63-Felt <i>411704135-0004B</i>	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
25-65 <i>411704135-0005</i>	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-66 <i>411704135-0006</i>	Awning & Flashing Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-68 <i>411704135-0007</i>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-69 <i>411704135-0008</i>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
25-71 <i>411704135-0009</i>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-72 <i>411704135-0010</i>	Ext. Window Caulk - Black	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 12:56:12





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704135  
**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
25-74-Gray Layer <i>411704135-0011</i>	Gable Vent Caulk	Gray Fibrous Homogeneous	3% Fibrous (Other)	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected
25-74-Tan Layer <i>411704135-0011A</i>	Gable Vent Caulk	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-75-Gray Layer <i>411704135-0012</i>	Gable Vent Caulk	Gray Non-Fibrous Homogeneous	3% Fibrous (Other)	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected
25-75-Tan Layer <i>411704135-0012A</i>	Gable Vent Caulk	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
25-77 <i>411704135-0013</i>	Black Mastic/ Tar	Black Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 85% Non-fibrous (Other)	None Detected
25-78 <i>411704135-0014</i>	Black Mastic/ Tar	Black Non-Fibrous Homogeneous	15% Cellulose	5% Ca Carbonate 80% Non-fibrous (Other)	None Detected
25-80-Felt <i>411704135-0015</i>	Composite Wood Siding w/ Felt	Brown/Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
25-80-Brown Layer <i>411704135-0015A</i>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
25-81-Felt <i>411704135-0016</i>	Composite Wood Siding w/ Felt	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
25-81-Brown Layer <i>411704135-0016A</i>	Composite Wood Siding w/ Felt	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
25-82-Brown Layer <i>411704135-0016B</i>	Composite Wood Siding w/ Felt	Brown Non-Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (12)

Eric Loomis (14)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/31/2017 12:56:12



# EMSL Analytical, Inc.

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Tel/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704135  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 25 Ext.

## 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
25-64-Shingle 1 411704135-0017	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	99.7	0.34 Fibrous_Other	No Asbestos Detected
25-64-Shingle 2 411704135-0018	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	98.8	1.2 Fibrous_Other	No Asbestos Detected
25-64-Felt 411704135-0019	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
25-67 411704135-0020	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
25-70 411704135-0021	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
25-73 411704135-0022	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
25-76-Gray Layer 411704135-0023	Gable Vent Caulk	Gray Non-Fibrous Homogeneous	99.7	0.34 Fibrous_Other	No Asbestos Detected
25-76-Tan Layer 411704135-0024	Gable Vent Caulk	Tan Non-Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
25-79 411704135-0025	Black Mastic/ Tar	Black Non-Fibrous Homogeneous	98.4	1.6 Fibrous_Other	No Asbestos Detected
25-82-Felt 411704135-0026	Composite Wood Siding w/ Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 06/02/2017 13:41:33



**EMSL Analytical, Inc.**

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**EMSL Order:** 411704135  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 25 Ext.

**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
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Analyst(s)

Aaron Hartley (10)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 06/02/2017 13:41:33



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411703606

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different	
Street: 7 Winchester Court		If Bill to is Different note instructions in Comments**	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clayett building 26</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: *5-4-17*

Samplers Name: *Nicholas Neerhof*      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
26-1		throughout	Drywall with joint compound and tape
26-2			
26-3			
26-4			
26-5			
26-6			
26-7			
26-8		Bathroom	plaster with finish over unfinished drywall
26-9			
26-10			

Client Sample # (s): <i>26-1</i> - <i>26-55</i>	Total # of Samples:
Relinquished (Client): <i>Nicholas Neerhof</i>	Date: <i>5-5-17</i> Time:
Received (Lab): <i>Kyle Nelson</i>	Date: <i>5/8/17</i> Time: <i>9:00 AM Fx</i>
Comments/Special Instructions: <small>Please utilize positive stop analysis.</small>	<i>7952 8241 6347</i>
<small>BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:</small>	





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### Asbestos Bulk Building Material Chain of Custody

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Charlotte, NC 28273  
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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
26-11		throughout	12"x12" tan speckled floor tile
26-12			with mastic
26-13			
26-14		Bathroom	12"x12" cream floor tile with
26-15			mastic (bottom layer)
26-16			
26-17		HVAC closet	white HVAC caulk
26-18			
26-19			
26-20		Above ceiling	HVAC tape - yellow
26-21			
26-22			
26-23		Bathroom	shower stall and sink caulk
26-24			
26-25			
26-29		Kitchen	white coating on sink
26-30			
26-31			
26-32		Kitchen windows	Black window caulk
26-33			
26-34			
26-35		Kitchen	Kitchen counter caulk
26-36			
26-37			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:

Sample #'s 26-28 not used







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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703606

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/08/2017 9:00 AM

**Analysis Date:** 05/10/2017 - 05/11/2017

**Collected Date:** 05/04/2017

**Project:** Cammie Clagett Building #26

## 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
26-1-Drywall <i>411703606-0001</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-1-Joint Compound <i>411703606-0001A</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
26-1-Tape <i>411703606-0001B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
26-2-Drywall <i>411703606-0002</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-2-Joint Compound <i>411703606-0002A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
26-2-Tape <i>411703606-0002B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
26-3-Drywall <i>411703606-0003</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-3-Joint Compound <i>411703606-0003A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
26-4-Drywall <i>411703606-0004</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-4-Joint Compound <i>411703606-0004A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
26-5-Drywall <i>411703606-0005</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-5-Joint Compound <i>411703606-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
26-6-Drywall <i>411703606-0006</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-6-Joint Compound <i>411703606-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
26-7-Drywall <i>411703606-0007</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 16:09:37



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**EMSL Order:** 411703606  
**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
<i>No tape present</i>					
26-7-Joint Compound	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
411703606-0007A					
26-8-Skim Coat	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703606-0008					
26-8-Rough Coat	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected
411703606-0008A					
26-8-Drywall	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
411703606-0008B					
26-9-Skim Coat	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703606-0009					
26-9-Rough Coat	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
411703606-0009A					
26-9-Drywall	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
411703606-0009B					
26-10-Skim Coat	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703606-0010					
26-10-Rough Coat	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
411703606-0010A					
26-10-Drywall	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
411703606-0010B					
26-11-Floor Tile	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
411703606-0011					
26-11-Mastic	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
411703606-0011A					
26-12-Floor Tile	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703606-0012					
26-12-Mastic	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
411703606-0012A					
26-14-Floor Tile	Bathroom - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
411703606-0013					
26-14-Mastic	Bathroom - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	Black Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	3% Chrysotile
411703606-0013A					
26-15-Floor Tile	Bathroom - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	Gray/White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
411703606-0014					
26-15-Mastic	Bathroom - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
411703606-0014A					

Initial report from: 05/11/2017 16:09:37





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**EMSL Order:** 411703606  
**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
26-17 <small>411703606-0015</small>	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-18 <small>411703606-0016</small>	HVAC Closet - White HVAC Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-20 <small>411703606-0017</small>	Above Ceiling - HVAC Tape - Yellow	Yellow Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
26-21 <small>411703606-0018</small>	Above Ceiling - HVAC Tape - Yellow	Tan Fibrous Homogeneous	90% Cellulose	8% Ca Carbonate 2% Non-fibrous (Other)	None Detected
26-23 <small>411703606-0019</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
26-24 <small>411703606-0020</small>	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
26-29 <small>411703606-0021</small>	Kitchen - White Coating on Sink	White Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
26-30 <small>411703606-0022</small>	Kitchen - White Coating on Sink				Positive Stop (Not Analyzed)
26-32 <small>411703606-0023</small>	Kitchen Windows - Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-33 <small>411703606-0024</small>	Kitchen Windows - Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-35 <small>411703606-0025</small>	Kitchen - Kitchen Counter Caulk	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
26-36 <small>411703606-0026</small>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-38 <small>411703606-0027</small>	Bathroom - Brown Shower Stall Mastic	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
26-39 <small>411703606-0028</small>	Bathroom - Brown Shower Stall Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
26-41-Drywall <small>411703606-0029</small>	Stairwell - Drywall Patch with Tape and Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-41-Joint Compound <small>411703606-0029A</small>	Stairwell - Drywall Patch with Tape and Joint Compound	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
26-41-Tape <small>411703606-0029B</small>	Stairwell - Drywall Patch with Tape and Joint Compound	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
26-42-Drywall <small>411703606-0030</small>	Stairwell - Drywall Patch with Tape and Joint Compound	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
26-42-Joint Compound <small>411703606-0030A</small>	Stairwell - Drywall Patch with Tape and Joint Compound	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected

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**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
26-42-Tape <i>411703606-0030B</i>	Stairwell - Drywall Patch with Tape and Joint Compound	Tan Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
26-43-Drywall <i>411703606-0031</i>	Stairwell - Drywall Patch with Tape and Joint Compound	Brown/Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
26-43-Joint Compound <i>411703606-0031A</i>	Stairwell - Drywall Patch with Tape and Joint Compound	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
26-43-Tape <i>411703606-0031B</i>	Stairwell - Drywall Patch with Tape and Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
26-44-Floor Tile <i>411703606-0032</i>	Throughout - 12"x12" Brown/ Orange Floor Tile with Mastic	Brown Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
26-44-Mastic <i>411703606-0032A</i>	Throughout - 12"x12" Brown/ Orange Floor Tile with Mastic	Black Fibrous Homogeneous		8% Ca Carbonate 89% Non-fibrous (Other)	3% Chrysotile
26-45-Floor Tile <i>411703606-0033</i>	Throughout - 12"x12" Brown/ Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Homogeneous	3% Cellulose	35% Ca Carbonate 62% Non-fibrous (Other)	None Detected
26-45-Mastic <i>411703606-0033A</i>	Throughout - 12"x12" Brown/ Orange Floor Tile with Mastic				Positive Stop (Not Analyzed)
26-47 <i>411703606-0034</i> <i>Bag did not contain sample</i>	Upstairs Windows - White Window Caulk				Not Submitted
26-48 <i>411703606-0035</i> <i>Bag did not contain sample</i>	Upstairs Windows - White Window Caulk				Not Submitted
26-50 <i>411703606-0036</i>	Kitchen Sink - Black Coating on Sink	Black Fibrous Homogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile
26-51 <i>411703606-0037</i>	Kitchen Sink - Black Coating on Sink				Positive Stop (Not Analyzed)
26-53-Floor Tile <i>411703606-0038</i>	Bathroom - White Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
26-53-Mastic <i>411703606-0038A</i>	Bathroom - White Speckled Floor Tile with Mastic	Tan/Black Non-Fibrous Homogeneous	3% Cellulose	5% Ca Carbonate 92% Non-fibrous (Other)	None Detected
26-54-Floor Tile <i>411703606-0039</i>	Bathroom - White Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	1% Cellulose	40% Ca Carbonate 59% Non-fibrous (Other)	None Detected
26-54-Mastic <i>411703606-0039A</i>	Bathroom - White Speckled Floor Tile with Mastic	Tan/Black Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/11/2017 16:09:37



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**EMSL Order:** 411703606

**Customer ID:** AXEM25

**Customer PO:**

**Project ID:**

Analyst(s)

*Aaron Hartley (21)*

*Lacy Searcy (35)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/11/2017 16:09:37



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**EMSL Order:** 411703606  
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**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/04/2017  
**Project:** Cammie Clagett Building #26

## 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
26-13-Floor Tile 411703606-0040	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-13-Mastic 411703606-0041	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-16-Floor Tile 411703606-0042	Bathroom - 12"x12" Cream Floor Tile with Mastic (Bottom Layer)	Gray/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-19 411703606-0043	HVAC Closet - White HVAC Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-22 411703606-0044	Above Ceiling - HVAC Tape - Yellow	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-25 411703606-0045	Bathroom - Shower Stall and Sink Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-34 411703606-0046	Kitchen Windows - Black Window Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-37 411703606-0047	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-40 411703606-0048	Bathroom - Brown Shower Stall Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-46-Floor Tile 411703606-0049	Throughout - 12"x12" Brown/ Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-55-Floor Tile 411703606-0050	Bathroom - White Speckled Floor Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
26-55-Mastic 411703606-0051	Bathroom - White Speckled Floor Tile with Mastic	Tan/Black Non-Fibrous Heterogeneous	99.6	0.37 Fibrous_Other	No Asbestos Detected

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: 05/18/2017 11:29:35





**EMSL Analytical, Inc.**

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**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Project:** Cammie Clagett Building #26

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/08/2017 9:00 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/04/2017

**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
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Analyst(s)

Aaron Hartley (12)

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: 05/18/2017 11:29:35



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
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EMSL Order Number (Lab Use Only):

411704153

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Classot Bldg 26 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group

Date Sampled:

Samplers Name: Tom Oliver

Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
26-56		Metal w/ rubber coating	
26-57			
26-58			
26-59		Roof shingles (2) + felt (1)	
26-59a			
26-59b			
26-59c			
26-59d			
26-59e		Sample #'s not used	
26-59f			
26-59g			
26-59h			

Client Sample # (s): 56 59 - 59g 79

Total # of Samples: 18

Relinquished (Client): *[Signature]* Date: 5-24-17 Time:

Received (Lab): *Kyle Nelson* Date: 5/26/17 Time: 9:10am Fk

Comments/Special Instructions: 7952 9037 7767







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704153

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 26 Ext.

## 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
26-56-Metal <i>411704153-0001</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-57-Metal <i>411704153-0002</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-58-Metal <i>411704153-0002A</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-59-Shingle 1 <i>411704153-0003</i>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
26-59-Shingle 2 <i>411704153-0003A</i>	Roof Shingles (2) & Felt (1)	Gray Non-Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
26-59-Felt <i>411704153-0003B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
26-60-Shingle 1 <i>411704153-0004</i>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
26-60-Shingle 2 <i>411704153-0004A</i>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
26-60-Felt <i>411704153-0004B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
26-65-White Caulk <i>411704153-0005</i>	Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
26-65-Cream Caulk <i>411704153-0005A</i>	Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
26-66-White Caulk <i>411704153-0006</i>	Gable Vent Caulks - White & Cream	White Fibrous Homogeneous	3% Fibrous (Other)	20% Ca Carbonate 77% Non-fibrous (Other)	None Detected
26-66-Cream Caulk <i>411704153-0006A</i>	Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
26-68 <i>411704153-0007</i>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
26-69 <i>411704153-0008</i>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 08:41:40





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704153  
**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
26-74 <small>411704153-0009</small>	Black Window Caulk	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
26-75 <small>411704153-0010</small>	Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-77 <small>411704153-0011</small>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
26-78 <small>411704153-0012</small>	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

- Eric Loomis (1)
- Lytterra Barrow (9)
- Lacy Searcy (9)

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: 06/01/2017 08:41:40



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704153  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 26 Ext.

## 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
26-61-Shingle 1 411704153-0013	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	100	None	No Asbestos Detected
26-61-Shingle 2 411704153-0014	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
26-61-Felt 411704153-0015	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
26-67-White Caulk 411704153-0016	Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous	98.1	1.9 Fibrous_Other	No Asbestos Detected
26-67-Cream Caulk 411704153-0017	Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
26-70 411704153-0018	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
26-76 411704153-0019	Black Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
26-79 411704153-0020	Ext. Door Caulk - Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (8)

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: 06/05/2017 12:33:58







EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703647

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
27-1		411 - Kitchen	Drywall with joint compound and tape
27-2		411 - Living room	
27-3		411 - Downstairs bedroom	
27-4		411 - Upstairs FBR	
27-5		411 - Upstairs MBR	
27-6			
27-7			
27-8		Plaster with finish over unfinished drywall	
27-9			
27-10			
27-11		12" x 12" tan speckled floor tile with mastic	
27-12		(top layer)	
27-13			
27-14		12" x 12" yellow speckled floor tile with mastic	
27-15		(bottom layer)	
27-16			
27-17		HVAC tape with mastic	
27-18			
27-19			
27-20		12" x 12" brown/orange floor tile with mastic	
27-21			
27-22			
27-23		Tan square pattern vinyl floor	with mastic
27-24			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody EMSL Order Number (Lab Use Only):

411703647

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
27-25			L
27-26		Caulk on shower stall and sinks	L
27-27			L
27-28			L
27-29		Caulk on Kitchen counter	L
27-30			L
27-31			L
27-32		HVAC caulk	L
27-33			L
27-34			L
27-35		White coating on Kitchen sink	L
27-36			L
27-37			L
27-38		Interior window caulk	L
27-39			L
27-40			L

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703647

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/09/2017 10:20 AM

**Analysis Date:** 05/13/2017

**Collected Date:** 05/05/2017

**Project:** 0317-55 Bldg. #27 Units 411 & 409

## 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
27-1-Drywall <small>411703647-0001</small>	411 - Kitchen - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
27-1-Joint Compound <small>411703647-0001A</small>	411 - Kitchen - Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
27-1-Tape <small>411703647-0001B</small>	411 - Kitchen - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
27-2-Drywall <small>411703647-0002</small>	411 - Living Room - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
27-2-Joint Compound <small>411703647-0002A</small>	411 - Living Room - Drywall with Joint Compound and Tape	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
27-2-Tape <small>411703647-0002B</small>	411 - Living Room - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
27-3-Drywall <small>411703647-0003</small>	411 - Downstairs Bedroom - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
27-3-Joint Compound <small>411703647-0003A</small>	411 - Downstairs Bedroom - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
27-3-Tape <small>411703647-0003B</small>	411 - Downstairs Bedroom - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
27-4-Drywall <small>411703647-0004</small>	411 - Upstairs FBR - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
27-4-Joint Compound <small>411703647-0004A</small>	411 - Upstairs FBR - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
27-4-Tape <small>411703647-0004B</small>	411 - Upstairs FBR - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
27-5-Drywall <small>411703647-0005</small>	411 - Upstairs MBR - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
27-5-Joint Compound <small>411703647-0005A</small>	411 - Upstairs MBR - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
27-5-Tape <small>411703647-0005B</small>	411 - Upstairs MBR - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected

Initial report from: 05/15/2017 13:59:38



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703647  
**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
27-6-Drywall <small>411703647-0006</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
27-6-Joint Compound <small>411703647-0006A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
27-6-Tape <small>411703647-0006B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
27-7-Drywall <small>411703647-0007</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
27-7-Joint Compound <small>411703647-0007A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
27-7-Tape <small>411703647-0007B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
27-8-Skim Coat <small>411703647-0008</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
27-8-Rough Coat <small>411703647-0008A</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected
27-8-Drywall <small>411703647-0008B</small>	Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
27-9-Skim Coat <small>411703647-0009</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
27-9-Rough Coat <small>411703647-0009A</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
27-9-Drywall <small>411703647-0009B</small>	Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
27-10-Skim Coat <small>411703647-0010</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
27-10-Rough Coat <small>411703647-0010A</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
27-10-Drywall <small>411703647-0010B</small>	Plaster with Finish over Unfinished Drywall	Brown/Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
27-11-Floor Tile <small>411703647-0011</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
27-11-Mastic <small>411703647-0011A</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Yellow Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
27-12-Floor Tile <small>411703647-0012</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
27-12-Mastic <small>411703647-0012A</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 13:59:38



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703647  
**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
27-14-Floor Tile 411703647-0013	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Yellow Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
27-14-Mastic 411703647-0013A	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Black Fibrous Homogeneous		5% Ca Carbonate 92% Non-fibrous (Other)	3% Chrysotile
27-15-Floor Tile 411703647-0014	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Gray/Yellow Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
27-15-Mastic 411703647-0014A	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
27-17-Tape 411703647-0015	HVAC Tape with Mastic	Yellow Fibrous Homogeneous	50% Cellulose 30% Synthetic	5% Ca Carbonate 15% Non-fibrous (Other)	None Detected
27-17-Mastic 411703647-0015A	HVAC Tape with Mastic	Yellow Fibrous Homogeneous	3% Cellulose 2% Synthetic	95% Non-fibrous (Other)	None Detected
27-18-Tape 411703647-0016	HVAC Tape with Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
27-18-Mastic 411703647-0016A	HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
27-19-Tape 411703647-0016B	HVAC Tape with Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
27-20-Floor Tile 411703647-0017	12"x12" Brown/Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
27-20-Mastic 411703647-0017A	12"x12" Brown/Orange Floor Tile with Mastic	Black Fibrous Homogeneous	1% Synthetic	5% Ca Carbonate 90% Non-fibrous (Other)	4% Chrysotile
27-21-Floor Tile 411703647-0018	12"x12" Brown/Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
27-21-Mastic 411703647-0018A	12"x12" Brown/Orange Floor Tile with Mastic				Positive Stop (Not Analyzed)
27-23-Flooring 411703647-0019	Tan Square Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	20% Cellulose	8% Ca Carbonate 72% Non-fibrous (Other)	None Detected
27-23-Mastic 411703647-0019A	Tan Square Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
27-24-Flooring 411703647-0020	Tan Square Pattern Vinyl Floor with Mastic	Beige Fibrous Homogeneous	15% Cellulose 1% Glass	5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
27-24-Mastic 411703647-0020A	Tan Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
27-26 411703647-0021	Caulk on Shower Stall and Sinks	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 13:59:38





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703647  
**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
27-27 <small>411703647-0022</small>	Caulk on Shower Stall and Sinks	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
27-29 <small>411703647-0023</small>	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
27-30 <small>411703647-0024</small>	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
27-32 <small>411703647-0025</small>	HVAC Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
27-33 <small>411703647-0026</small>	HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
27-35 <small>411703647-0027</small>	White Coating on Kitchen Sink	White Fibrous Homogeneous	15% Cellulose	8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
27-36 <small>411703647-0028</small>	White Coating on Kitchen Sink	White Non-Fibrous Homogeneous	8% Cellulose	5% Ca Carbonate 8% Mica 79% Non-fibrous (Other)	None Detected
27-38 <small>411703647-0029</small>	Interior Window Caulk	Tan/White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
27-39 <small>411703647-0030</small>	Interior Window Caulk	Tan/White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Analyst(s)

Aaron Hartley (23)

Lacy Searcy (31)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/15/2017 13:59:38



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703647  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Bldg. #27 Units 411 & 409

## 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
27-13-Floor Tile 411703647-0031	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-13-Mastic 411703647-0032	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-16-Floor Tile 411703647-0033	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Yellow Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-19-Mastic 411703647-0034	HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-22-Floor Tile 411703647-0035	12"x12" Brown/ Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-25-Flooring 411703647-0036	Tan Square Pattern Vinyl Floor with Mastic	Tan Fibrous Homogeneous	100	None	No Asbestos Detected
27-25-Mastic 411703647-0037	Tan Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-28 411703647-0038	Caulk on Shower Stall and Sinks	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-31 411703647-0039	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-34 411703647-0040	HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-37 411703647-0041	White Coating on Kitchen Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
27-40 411703647-0042	Interior Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/22/2017 11:20:06



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411703647  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Bldg. #27 Units 411 & 409

**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
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Analyst(s)

Derrick Young (12)

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: 05/22/2017 11:20:06





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704155

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Clagor Bldg 27 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled: \_\_\_\_\_

Samplers Name: **Tom Oliver**      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
27-41		<i>Gable vent caulks - white</i>	
27-42		<i>+ cream</i>	
27-43			
27-44		<i>Metal w/ rubber coating</i>	
27-45			
27-46			
27-47		<i>2<sup>nd</sup> layer of felt paper</i>	
27-48			
27-49			

Client Sample # (s):	41-58	Total # of Samples:	18
Relinquished (Client):	<i>[Signature]</i>	Date:	5-24-17
Received (Lab):	<i>Kyle Nelson</i>	Date:	5/26/17
Comments/Special Instructions:			7952 9037 7778







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704155

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017 - 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 27 Ext.

## 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
27-41-Caulk <i>411704155-0001</i>	Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
27-41-Glazing <i>411704155-0001A</i>	Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous	5% Wollastonite	15% Ca Carbonate 80% Non-fibrous (Other)	None Detected
27-42-Caulk <i>411704155-0002</i>	Gable Vent Caulks - White & Cream	Beige Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
27-42-Glazing <i>411704155-0002A</i>	Gable Vent Caulks - White & Cream	White Non-Fibrous Homogeneous	2% Wollastonite 4% Fibrous (Other)	10% Ca Carbonate 84% Non-fibrous (Other)	None Detected
27-44-Metal <i>411704155-0003</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		2% Ca Carbonate 98% Non-fibrous (Other)	None Detected
27-45-Metal <i>411704155-0004</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-46-Metal <i>411704155-0004A</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-47 <i>411704155-0005</i>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
27-48 <i>411704155-0006</i>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
27-50-Shingle 1 <i>411704155-0007</i>	Roof Shingles (2) & Felt (1)	Red/Black/Orange Fibrous Homogeneous	5% Glass	5% Quartz 15% Ca Carbonate 75% Non-fibrous (Other)	None Detected
27-50-Shingle 2 <i>411704155-0007A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	3% Glass	5% Quartz 10% Ca Carbonate 82% Non-fibrous (Other)	None Detected
27-50-Felt <i>411704155-0007B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
27-51-Shingle 1 <i>411704155-0008</i>	Roof Shingles (2) & Felt (1)	Brown/Red/Black Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
27-51-Shingle 2 <i>411704155-0008A</i>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	5% Quartz 15% Ca Carbonate 72% Non-fibrous (Other)	None Detected
27-51-Felt <i>411704155-0008B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 11:48:09



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704155  
**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
27-53-Gray Caulk <small>411704155-0009</small>	Grey Door Caulk	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
27-53-White Caulk <small>411704155-0009A</small>	Grey Door Caulk	White Non-Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
27-54 <small>411704155-0010</small>	Grey Door Caulk	Gray Non-Fibrous Homogeneous	3% Glass	8% Ca Carbonate 89% Non-fibrous (Other)	None Detected
27-56 <small>411704155-0011</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
27-57 <small>411704155-0012</small>	Ext. Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (10)

Travis Hartney (10)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 11:48:09



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704155  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 27 Ext.

## 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
27-43-Caulk 411704155-0013	Gable Vent Caulks - White & Cream	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
27-43-Glazing 411704155-0014	Gable Vent Caulks - White & Cream	White Non-Fibrous Heterogeneous	99.2	0.79 Fibrous_Other	No Asbestos Detected
27-49 411704155-0015	2nd Layer of Felt Paper	Black Non-Fibrous Heterogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
27-52-Shingle 1 411704155-0016	Roof Shingles (2) & Felt (1)	Brown/Red Non-Fibrous Heterogeneous	99.3	0.68 Fibrous_Other	No Asbestos Detected
27-52-Shingle 2 411704155-0017	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
27-52-Felt 411704155-0018	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
27-55-Gray Caulk 411704155-0019	Grey Door Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
27-55-White Caulk 411704155-0020	Grey Door Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
27-58 411704155-0021	Ext. Window Caulk - Black	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 06/05/2017 12:37:04



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703648**

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com & boliver@apex-ehs.com		Purchase Order:	
Project Name/Number: 0317-55 Bldg #28 Un. + 407+405		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: **5-5-17**

Samplers Name: **Ben Oliver**      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
28-1		Drywall with joint compound and tape	
28-2			
28-3			
28-4			
28-5			
28-6			
28-7			
28-8		Plaster with finish over unfinished drywall	
28-9			
28-10			

Client Sample # (s): **28-1 - 28-37**      Total # of Samples: **37**

Relinquished (Client): *[Signature]*      Date: **5-8-17**      Time:

Received (Lab): *[Signature]*      Date: **5/17**      Time: **10:20 AM Fk**

Comments/Special Instructions: **7952 8323 4875**  
Please utilize positive stop analysis.  
 Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
 Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703648

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
28-11		12" x 12" tan speckled floor tile with mastic	
28-12		(top layer)	
<del>28-13</del>			
28-14		12" x 12" yellow speckled floor tile with mastic	
28-15		(bottom layer)	
28-16			
28-17		Leveling compound under ceramic tile	
28-18			
28-19			
28-20		Caulk on shower stalls and bathroom sinks	
28-21			
28-22			
28-23		HVAC tape with mastic	
28-24			
28-25			
28-26		12" x 12" brown/orange floor tile with mastic	
28-27			
28-28			
28-29		Kitchen counter caulk	
28-30			
28-31			
28-32		HVAC Caulk	
28-33			
28-34			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703648

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/09/2017 10:20 AM

**Analysis Date:** 05/12/2017 - 05/13/2017

**Collected Date:** 05/05/2017

**Project:** 0317-55 Bldg. #28 Units 407 & 405

## 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
28-1-Drywall <small>411703648-0001</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
28-1-Joint Compound <small>411703648-0001A</small>	Drywall with Joint Compound and Tape	Beige Non-Fibrous Homogeneous		35% Ca Carbonate 63% Non-fibrous (Other)	2% Chrysotile
28-1-Tape <small>411703648-0001B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
28-2-Drywall <small>411703648-0002</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
28-2-Joint Compound <small>411703648-0002A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
28-2-Tape <small>411703648-0002B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
28-3-Drywall <small>411703648-0003</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
28-3-Joint Compound <small>411703648-0003A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
28-3-Tape <small>411703648-0003B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
28-4-Drywall <small>411703648-0004</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
28-4-Joint Compound <small>411703648-0004A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
28-4-Tape <small>411703648-0004B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
28-5-Drywall <small>411703648-0005</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
28-5-Joint Compound <small>411703648-0005A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
28-5-Tape <small>411703648-0005B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
28-6-Drywall <small>411703648-0006</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 13:57:05





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376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703648  
**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
28-6-Joint Compound <small>411703648-0006A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
28-6-Tape <small>411703648-0006B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
28-7-Drywall <small>411703648-0007</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
28-7-Joint Compound <small>411703648-0007A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
28-7-Tape <small>411703648-0007B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
28-8-Skim Coat <small>411703648-0008</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
28-8-Rough Coat <small>411703648-0008A</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
28-8-Drywall <small>411703648-0008B</small>	Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
28-9-Skim Coat <small>411703648-0009</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
28-9-Rough Coat <small>411703648-0009A</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
28-9-Drywall <small>411703648-0009B</small>	Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
28-10-Skim Coat <small>411703648-0010</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
28-10-Rough Coat <small>411703648-0010A</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		45% Quartz 55% Non-fibrous (Other)	None Detected
28-10-Drywall <small>411703648-0010B</small>	Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
28-11-Floor Tile <small>411703648-0011</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
28-11-Mastic <small>411703648-0011A</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	3% Cellulose	8% Ca Carbonate 5% Gypsum 84% Non-fibrous (Other)	None Detected
28-12-Floor Tile <small>411703648-0012</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
28-12-Mastic <small>411703648-0012A</small>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
28-14-Floor Tile <small>411703648-0013</small>	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Gray/Yellow Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 13:57:05



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**EMSL Order:** 411703648  
**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
28-14-Mastic 411703648-0013A	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Tan/Black Non-Fibrous Homogeneous		8% Ca Carbonate 90% Non-fibrous (Other)	2% Chrysotile
28-15-Floor Tile 411703648-0014	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
28-15-Mastic 411703648-0014A	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
28-17-Ceramic Tile 411703648-0015	Leveling Compound under Ceramic Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-17-Grout 411703648-0015A	Leveling Compound under Ceramic Tile	Gray Non-Fibrous Homogeneous	<1% Fibrous (Other)	25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
28-17-Leveler 411703648-0015B	Leveling Compound under Ceramic Tile	Gray/White Non-Fibrous Homogeneous		30% Quartz 70% Non-fibrous (Other)	None Detected
28-18-Ceramic Tile 411703648-0016	Leveling Compound under Ceramic Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-18-Grout 411703648-0016A	Leveling Compound under Ceramic Tile	Gray Non-Fibrous Homogeneous	2% Cellulose	5% Quartz 30% Ca Carbonate 63% Non-fibrous (Other)	None Detected
28-18-Leveler 411703648-0016B	Leveling Compound under Ceramic Tile	Gray/White Non-Fibrous Homogeneous		30% Quartz 70% Non-fibrous (Other)	None Detected
28-19-Ceramic Tile 411703648-0017	Leveling Compound under Ceramic Tile	White Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
28-19-Grout 411703648-0017A	Leveling Compound under Ceramic Tile	Gray Non-Fibrous Homogeneous	2% Cellulose	5% Quartz 20% Ca Carbonate 73% Non-fibrous (Other)	None Detected
28-19-Leveler 411703648-0017B	Leveling Compound under Ceramic Tile	Gray/White Non-Fibrous Homogeneous	2% Cellulose	25% Quartz 73% Non-fibrous (Other)	None Detected
28-20 411703648-0018	Caulk on Shower Stalls and Bathroom Sinks	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
28-21 411703648-0019	Caulk on Shower Stalls and Bathroom Sinks	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
28-23-Tape 411703648-0020	HVAC Tape with Mastic	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
28-23-Mastic 411703648-0020A	HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
28-24-Tape 411703648-0021	HVAC Tape with Mastic	Tan Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
28-24-Mastic 411703648-0021A	HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	15% Ca Carbonate 83% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 13:57:05



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**EMSL Order:** 411703648  
**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
28-25-Tape <small>411703648-0021B</small>	HVAC Tape with Mastic	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
28-26-Floor Tile <small>411703648-0022</small>	12"x12" Brown/Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
28-26-Mastic <small>411703648-0022A</small>	12"x12" Brown/Orange Floor Tile with Mastic	Black Non-Fibrous Homogeneous	3% Cellulose	94% Non-fibrous (Other)	3% Chrysotile
28-27-Floor Tile <small>411703648-0023</small>	12"x12" Brown/Orange Floor Tile with Mastic	Brown Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
28-27-Mastic <small>411703648-0023A</small>	12"x12" Brown/Orange Floor Tile with Mastic				Positive Stop (Not Analyzed)
28-29 <small>411703648-0024</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-30 <small>411703648-0025</small>	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
28-32 <small>411703648-0026</small>	HVAC Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
28-33 <small>411703648-0027</small>	HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
28-35 <small>411703648-0028</small>	Black Coating on Kitchen Sink	Black Non-Fibrous Homogeneous		20% Ca Carbonate 76% Non-fibrous (Other)	4% Chrysotile
28-36 <small>411703648-0029</small>	Black Coating on Kitchen Sink				Positive Stop (Not Analyzed)

Analyst(s) \_\_\_\_\_

Aaron Hartley (36)

Travis Hartney (19)

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: 05/15/2017 13:57:05



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703648  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Bldg. #28 Units 407 & 405

## 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
28-13-Floor Tile 411703648-0030	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-13-Mastic 411703648-0031	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-16-Floor Tile 411703648-0032	12"x12" Yellow Speckled Floor Tile with Mastic (Bottom Layer)	Yellow Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-22 411703648-0033	Caulk on Shower Stalls and Bathroom Sinks	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-25-Mastic 411703648-0034	HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-28-Floor Tile 411703648-0035	12"x12" Brown/ Orange Floor Tile with Mastic	Brown/Orange Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-31 411703648-0036	Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-34 411703648-0037	HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (8)

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: 05/22/2017 11:21:10





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

EMSL Order Number (Lab Use Only):

411704149

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Cloggett Bldg 2 B ext.</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled:

Samplers Name: Tom Oliver Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
28-38		Metal w/ rubber coating	
28-39			
28-40			
28-41		Globe vent caiks - white	
28-42		+ cream	
28-43			
28-44		2 <sup>nd</sup> layer of felt paper	
28-45			
28-46			

Client Sample # (s): 38 - 58 Total # of Samples: 21

Relinquished (Client): *[Signature]* Date: 5-24-17 Time:

Received (Lab): *Kyle Wilson* Date: 5/26/17 Time: 9:45, 9:10 AM FX

Comments/Special Instructions: 7952 9037 7778







# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704149

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017 - 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 28 Ext.

## 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
28-38-Metal <small>411704149-0001</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-39-Metal <small>411704149-0002</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-40-Metal <small>411704149-0002A</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-41-Caulk <small>411704149-0003</small>	Gable Vent Caulking - White & Cream	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
28-41-Glazing <small>411704149-0003A</small>	Gable Vent Caulking - White & Cream	White Non-Fibrous Homogeneous	3% Fibrous (Other)	8% Ca Carbonate 89% Non-fibrous (Other)	None Detected
28-42-Caulk <small>411704149-0004</small>	Gable Vent Caulking - White & Cream	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
28-42-Glazing <small>411704149-0004A</small>	Gable Vent Caulking - White & Cream	White Non-Fibrous Homogeneous	4% Fibrous (Other)	25% Ca Carbonate 71% Non-fibrous (Other)	None Detected
28-44 <small>411704149-0005</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
28-45 <small>411704149-0006</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
28-47-Shingle 1 <small>411704149-0007</small>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
28-47-Shingle 2 <small>411704149-0007A</small>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
28-47-Felt <small>411704149-0007B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
28-48-Shingle 1 <small>411704149-0008</small>	Roof Shingles (2) & Felt (1)	Brown/Red/Black Fibrous Homogeneous	10% Glass	8% Quartz 10% Ca Carbonate 72% Non-fibrous (Other)	None Detected
28-48-Shingle 2 <small>411704149-0008A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
28-48-Felt <small>411704149-0008B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 11:42:31



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704149  
**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
28-50 <small>411704149-0009</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
28-51 <small>411704149-0010</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
28-53 <small>411704149-0011</small>	Door Caulk - Grey	Gray Fibrous Homogeneous	2% Glass	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
28-54 <small>411704149-0012</small>	Door Caulk - Grey	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
28-56 <small>411704149-0013</small>	Window Caulk - Black	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
28-57 <small>411704149-0014</small>	Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Aaron Hartley (14)

Lacy Searcy (7)

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: 06/01/2017 11:42:31





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704149  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/02/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 28 Ext.

## 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
28-43-Caulk 411704149-0015	Gable Vent Caulking - White & Cream	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-43-Glazing 411704149-0016	Gable Vent Caulking - White & Cream	White Non-Fibrous Homogeneous	99.2	0.80 Fibrous_Other	No Asbestos Detected
28-46 411704149-0017	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	<0.1 Fibrous_Other	No Asbestos Detected
28-49-Shingle 1 411704149-0018	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	99.4	0.58 Fibrous_Other	No Asbestos Detected
28-49-Shingle 2 411704149-0019	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
28-49-Felt 411704149-0020	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
28-52 411704149-0021	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-55 411704149-0022	Door Caulk - Grey	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
28-58 411704149-0023	Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 06/05/2017 12:35:05

EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703644

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company : Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com + boliver@apex-ehs.com		Purchase Order:	
Project Name/Number: 0317-55 Bldg # 29 Units 413+411		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: 5-5-17

Samplers Name: Ben Oliver Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
29-1		Drywall with joint compound and tape	I
29-2			
29-3			
29-4			
29-5			
29-6			
29-7			
29-8		Plaster with finish over unfinished drywall	
29-9			
29-10			

Client Sample # (s): 29-1 - 29-46 Total # of Samples: 46

Relinquished (Client): [Signature] Date: 5-8-17 Time:

Received (Lab): [Signature] Date: 5/8/17 Time: 10:20 AM Fk

Comments/Special Instructions: Please utilize positive stop analysis. 7952 8323 4895  
 Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
 Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
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Asbestos Bulk Building Material  
Chain of Custody

EMSL Order Number (Lab Use Only):

411703644

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
29-11		12" x 12" tan speckled floor tile with mastic	
29-12		(top layer)	
29-13			
29-14		12" x 12" thin brown floor tile with mastic	
29-15		(bottom layer)	
29-16			
29-17		HVAC tape	
29-18			
29-19			
29-20		12" x 12" white speckled floor tile and mastic	
29-21		(bottom layer)	
29-22			
29-23		<del>the</del> Caulk on shower stall and bathroom sinks	
29-24			
29-25			
29-26		12" x 12" brown/orange floor tile and mastic	
29-27		(bottom layer)	
29-28			
29-29		<del>the</del> White coating on kitchen sink	
29-30			
29-31			
29-32		Black coating on kitchen sink	
29-33			
29-34			

\*Comments/Special Instructions:

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703644  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/12/2017 - 05/13/2017  
**Collected Date:** 05/05/2017

**Project:** 0317-55 Bldg. #29 Units 413 & 411

## 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
29-1-Drywall <i>411703644-0001</i> <i>No tape present</i>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-1-Joint Compound <i>411703644-0001A</i>	Drywall with Joint Compound and Tape	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile
29-2-Drywall <i>411703644-0002</i> <i>No tape present</i>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-2-Joint Compound <i>411703644-0002A</i>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
29-3-Drywall <i>411703644-0003</i> <i>No joint compound or tape present</i>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-3-Skim Coat <i>411703644-0003A</i>	Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
29-3-Rough Coat <i>411703644-0003B</i>	Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
29-4-Drywall <i>411703644-0004</i>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-4-Joint Compound <i>411703644-0004A</i>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
29-4-Tape <i>411703644-0004B</i>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
29-5-Drywall <i>411703644-0005</i> <i>No tape present</i>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
29-5-Joint Compound <i>411703644-0005A</i>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
29-6-Drywall <i>411703644-0006</i> <i>No tape present</i>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-6-Joint Compound <i>411703644-0006A</i>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)

Initial report from: 05/15/2017 13:55:45



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703644  
**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
29-7-Drywall <i>411703644-0007</i> <i>No tape present</i>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-7-Joint Compound <i>411703644-0007A</i>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
29-8-Drywall <i>411703644-0008</i>	Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
29-8-Skim Coat <i>411703644-0008A</i>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
29-8-Rough Coat <i>411703644-0008B</i>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
29-9-Drywall <i>411703644-0009</i>	Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-9-Skim Coat <i>411703644-0009A</i>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
29-9-Rough Coat <i>411703644-0009B</i>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected
29-10-Drywall <i>411703644-0010</i>	Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
29-10-Skim Coat <i>411703644-0010A</i>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
29-10-Rough Coat <i>411703644-0010B</i>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	40% Quartz 59% Non-fibrous (Other)	None Detected
29-11-Floor Tile <i>411703644-0011</i>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
29-11-Mastic <i>411703644-0011A</i>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
29-12-Floor Tile <i>411703644-0012</i>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
29-12-Mastic <i>411703644-0012A</i>	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	10% Gypsum 88% Non-fibrous (Other)	None Detected
29-14-Floor Tile <i>411703644-0013</i>	12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
29-14-Mastic <i>411703644-0013A</i>	12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous		5% Ca Carbonate 91% Non-fibrous (Other)	4% Chrysotile
29-15-Floor Tile <i>411703644-0014</i>	12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
29-15-Mastic <i>411703644-0014A</i>	12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)

Initial report from: 05/15/2017 13:55:45



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**EMSL Order:** 411703644  
**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
29-17-Tape <small>411703644-0015</small>	HVAC Tape	Tan Fibrous Homogeneous	10% Cellulose	10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
29-17-Mastic <small>411703644-0015A</small>	HVAC Tape	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
29-18-Tape <small>411703644-0016</small>	HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
29-18-Mastic <small>411703644-0016A</small>	HVAC Tape	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
29-19-Tape <small>411703644-0016B</small>	HVAC Tape	Tan Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
29-20-Floor Tile <small>411703644-0017</small>	12"x12" White Speckled Floor Tile and Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
29-20-Mastic <small>411703644-0017A</small>	12"x12" White Speckled Floor Tile and Mastic (Bottom Layer)	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
29-21-Floor Tile <small>411703644-0018</small>	12"x12" White Speckled Floor Tile and Mastic (Bottom Layer)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
29-21-Mastic <small>411703644-0018A</small>	12"x12" White Speckled Floor Tile and Mastic (Bottom Layer)	Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
29-23 <small>411703644-0019</small>	Caulk on Shower Stall and Bathroom Sinks	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
29-24 <small>411703644-0020</small>	Caulk on Shower Stall and Bathroom Sinks	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
29-26-Floor Tile <small>411703644-0021</small>	12"x12" Brown/ Orange Floor Tile and Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous		35% Ca Carbonate 60% Non-fibrous (Other)	5% Chrysotile
29-26-Mastic <small>411703644-0021A</small>	12"x12" Brown/ Orange Floor Tile and Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous		5% Ca Carbonate 91% Non-fibrous (Other)	4% Chrysotile
29-27-Floor Tile <small>411703644-0022</small>	12"x12" Brown/ Orange Floor Tile and Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
29-27-Mastic <small>411703644-0022A</small>	12"x12" Brown/ Orange Floor Tile and Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
29-29 <small>411703644-0023</small>	White Coating on Kitchen Sink	White Non-Fibrous Homogeneous	10% Cellulose	8% Ca Carbonate 82% Non-fibrous (Other)	None Detected
29-30 <small>411703644-0024</small>	White Coating on Kitchen Sink	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
29-32 <small>411703644-0025</small>	Black Coating on Kitchen Sink	Black Non-Fibrous Homogeneous		10% Ca Carbonate 86% Non-fibrous (Other)	4% Chrysotile

Initial report from: 05/15/2017 13:55:45



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**EMSL Order:** 411703644  
**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
29-33 <small>411703644-0026</small>	Black Coating on Kitchen Sink				Positive Stop (Not Analyzed)
29-35 <small>411703644-0027</small>	Grey Backsplash Mastic	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-36 <small>411703644-0028</small>	Grey Backsplash Mastic	Gray/White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
29-38 <small>411703644-0029</small>	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
29-39 <small>411703644-0030</small>	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-41 <small>411703644-0031</small>	HVAC Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
29-42 <small>411703644-0032</small>	HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-44 <small>411703644-0033</small>	Black Caulk on Interior Windows	Black Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
29-45 <small>411703644-0034</small>	Black Caulk on Interior Windows	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (17)  
Lyterra Barrow (33)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/15/2017 13:55:45





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703644  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Bldg. #29 Units 413 & 411

## 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
29-13-Floor Tile 411703644-0035	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-13-Mastic 411703644-0036	12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-19-Mastic 411703644-0037	HVAC Tape	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-22-Floor Tile 411703644-0038	12"x12" White Speckled Floor Tile and Mastic (Bottom Layer)	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-22-Mastic 411703644-0039	12"x12" White Speckled Floor Tile and Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-25 411703644-0040	Caulk on Shower Stall and Bathroom Sinks	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-31 411703644-0041	White Coating on Kitchen Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-37 411703644-0042	Grey Backsplash Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-40 411703644-0043	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-43 411703644-0044	HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
29-46 411703644-0045	Black Caulk on Interior Windows	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/22/2017 11:18:11



**EMSL Analytical, Inc.**

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

**EMSL Order:** 411703644  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Bldg. #29 Units 413 & 411

**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**

Analyst(s)

Derrick Young (11)

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: 05/22/2017 11:18:11



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704150

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Claggett Bldg 29 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature:

Sample #	HA #	Sample Location	Material Description
29-47		Metal w/ rubber coating	
29-48			
29-49			
29-50		Awning/Flashing caulk	
29-51			
29-52			
29-53		2 <sup>nd</sup> layer of felt paper	
29-54			
29-55			

Client Sample # (s): *47 - 67*      Total # of Samples: *21*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *Kyle N...*      Date: *5/26/17*      Time: *9:10am FK*

Comments/Special Instructions: *7952 9037 7756*









# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704150

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 05/31/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 29 Ext.

## 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
29-47-Metal <i>411704150-0001</i> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-48-Metal <i>411704150-0002</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-49-Metal <i>411704150-0002A</i> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-50 <i>411704150-0003</i>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
29-51 <i>411704150-0004</i>	Awning/ Flashing Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-53 <i>411704150-0005</i>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
29-54 <i>411704150-0006</i>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
29-56-Shingle 1 <i>411704150-0007</i>	Roof Shingles (2) & Felt (1)	Red Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
29-56-Shingle 2 <i>411704150-0007A</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	10% Glass	8% Quartz 8% Ca Carbonate 74% Non-fibrous (Other)	None Detected
29-56-Felt <i>411704150-0007B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
29-57-Shingle 1 <i>411704150-0008</i>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	3% Glass	8% Quartz 10% Ca Carbonate 79% Non-fibrous (Other)	None Detected
29-57-Shingle 2 <i>411704150-0008A</i>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	3% Glass	10% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
29-57-Felt <i>411704150-0008B</i>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
29-59-Cream Caulk <i>411704150-0009</i>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-59-White Caulk <i>411704150-0009A</i>	Gable Vent Caulk - White & Cream	Gray/White Fibrous Homogeneous	3% Fibrous (Other)	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected

Initial report from: 05/31/2017 16:18:30



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704150  
**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
29-60-Cream Caulk <i>411704150-0010</i>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
29-60-White Caulk <i>411704150-0010A</i>	Gable Vent Caulk - White & Cream	Gray/White Non-Fibrous Homogeneous	3% Fibrous (Other)	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected
29-62 <i>411704150-0011</i>	Ext. Grey Door Caulk	Gray Fibrous Homogeneous	<1% Glass	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-63 <i>411704150-0012</i>	Ext. Grey Door Caulk	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
29-65 <i>411704150-0013</i>	Ext. Black Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-66 <i>411704150-0014</i>	Ext. Black Window Caulk	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (10)

Eric Loomis (1)

Lacy Searcy (10)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/31/2017 16:18:30



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704150  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 29 Ext.

## 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
29-52 411704150-0015	Awning/ Flashing Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
29-55 411704150-0016	2nd Layer of Felt Paper	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
29-58-Shingle 1 411704150-0017	Roof Shingles (2) & Felt (1)	Brown/Red/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
29-58-Shingle 2 411704150-0018	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
29-58-Felt 411704150-0019	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
29-61-Cream Caulk 411704150-0020	Gable Vent Caulk - White & Cream	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
29-61-White Caulk 411704150-0021	Gable Vent Caulk - White & Cream	Gray/White Non-Fibrous Heterogeneous	99.2	0.81 Fibrous_Other	No Asbestos Detected
21-64 411704150-0022	Ext. Grey Door Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
21-67 411704150-0023	Ext. Black Window Caulk	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (9)

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: 06/05/2017 11:46:58





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

EMSL ANALYTICAL, INC.  
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EMSL Order Number (Lab Use Only):

411704131

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Closset Bldg 30</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
30-1		Drywall w/ JC + tape	
30-2		↓	
30-3			
30-4			
30-5			
30-6			
30-7		Black cover base mastic (mastic only)	↓
30-8			

Client Sample # (s): *1 - 56*      Total # of Samples: *56*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *[Signature]*      Date: *5/26/17*      Time: *9:10AM Fk*

Comments/Special Instructions: *7952 9037 7767*





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704131

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
30-9		Painted Cove base mastic	
30-10		(mastic only)	
30-11			
30-12		12"x12" tan streaked F.T.	
30-13		+ mastic	
30-14			
30-15		12"x12" brown streaked F.T.	
30-16		+ mastic	
30-17			
30-18		12"x12" beige speckled f.T.	
30-19		+ mastic	
30-20			
30-21		12"x12" tan speckled f.T.	
30-22		+ mastic	
30-23			
30-24		Brown Cove base mastic	
30-25		(mastic only)	
30-26			
30-27		12"x12" white/cream speckled	
30-28		f.T. + mastic patches	
30-29			
30-30		Window cork	
30-31			
30-32			

\*Comments/Special Instructions:



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Bulk Building Material  
Chain of Custody**

EMSL Order Number (Lab Use Only):

411704131

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
30-33		Tan HVAC tape	
30-34			
30-35			
30-36		Bathroom caulk	
30-37			
30-38			
30-39		Roof shingles (2) + felt (1)	
30-40			
30-41			
30-42		Metal window glazing	
30-43			
30-44			
30-45		Metal window caulk - tan	
30-46			
30-47			
30-48		Metal door + window caulk -	
30-49		grey	
30-50			
30-51		Mastic on roof penetrations	
30-52			
30-53			
30-54		Grey flashing putty	
30-55			
30-56			

\*Comments/Special Instructions:





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704131  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 05/30/2017 - 05/31/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 30

## 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
30-1-Drywall <i>411704131-0001</i> <i>No tape present.</i>	Drywall w/ JC & Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
30-1-Joint Compound <i>411704131-0001A</i>	Drywall w/ JC & Tape	Beige Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
30-2-Drywall <i>411704131-0002</i> <i>No tape present.</i>	Drywall w/ JC & Tape	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
30-2-Joint Compound <i>411704131-0002A</i>	Drywall w/ JC & Tape				Positive Stop (Not Analyzed)
30-3-Drywall <i>411704131-0003</i>	Drywall w/ JC & Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
30-3-Joint Compound <i>411704131-0003A</i>	Drywall w/ JC & Tape				Positive Stop (Not Analyzed)
30-3-Tape <i>411704131-0003B</i>	Drywall w/ JC & Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
30-4-Drywall <i>411704131-0004</i>	Drywall w/ JC & Tape	Gray Fibrous Homogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected
30-4-Joint Compound <i>411704131-0004A</i>	Drywall w/ JC & Tape	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
30-4-Tape <i>411704131-0004B</i>	Drywall w/ JC & Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
30-5-Drywall <i>411704131-0005</i>	Drywall w/ JC & Tape	Gray Fibrous Homogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected
30-5-Joint Compound <i>411704131-0005A</i>	Drywall w/ JC & Tape	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
30-5-Tape <i>411704131-0005B</i>	Drywall w/ JC & Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
30-6 <i>411704131-0006</i>	Black Cove Base Mastic (Mastic Only)	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
30-7 <i>411704131-0007</i>	Black Cove Base Mastic (Mastic Only)	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 08:40:02



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704131  
**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
30-9 <small>411704131-0008</small>	Painted Cove Base Mastic (Mastic Only)	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
30-10 <small>411704131-0009</small>	Painted Cove Base Mastic (Mastic Only)	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
30-12-Floor Tile <small>411704131-0010</small>	12"x12" Tan Streaked F.T. & Mastic	Tan Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
30-12-Mastic <small>411704131-0010A</small>	12"x12" Tan Streaked F.T. & Mastic	Black Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
30-13-Floor Tile <small>411704131-0011</small>	12"x12" Tan Streaked F.T. & Mastic				Positive Stop (Not Analyzed)
30-13-Mastic <small>411704131-0011A</small>	12"x12" Tan Streaked F.T. & Mastic				Positive Stop (Not Analyzed)
30-15-Floor Tile <small>411704131-0012</small>	12"x12" Brown Streaked F.T. & Mastic	Brown Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
30-15-Mastic <small>411704131-0012A</small>	12"x12" Brown Streaked F.T. & Mastic	Black Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
30-16-Floor Tile <small>411704131-0013</small>	12"x12" Brown Streaked F.T. & Mastic				Positive Stop (Not Analyzed)
30-16-Mastic <small>411704131-0013A</small>	12"x12" Brown Streaked F.T. & Mastic				Positive Stop (Not Analyzed)
30-18-Floor Tile <small>411704131-0014</small>	12"x12" Beige Speckled F.T. & Mastic	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
30-18-Mastic <small>411704131-0014A</small>	12"x12" Beige Speckled F.T. & Mastic	Black Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
30-19-Floor Tile <small>411704131-0015</small>	12"x12" Beige Speckled F.T. & Mastic	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
30-19-Mastic <small>411704131-0015A</small>	12"x12" Beige Speckled F.T. & Mastic				Positive Stop (Not Analyzed)
30-21-Floor Tile <small>411704131-0016</small>	12"x12" Tan Speckled F.T. & Mastic	Tan Fibrous Homogeneous		30% Ca Carbonate 64% Non-fibrous (Other)	6% Chrysotile
30-21-Mastic <small>411704131-0016A</small>	12"x12" Tan Speckled F.T. & Mastic	Black Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
30-22-Floor Tile <small>411704131-0017</small>	12"x12" Tan Speckled F.T. & Mastic				Positive Stop (Not Analyzed)
30-22-Mastic <small>411704131-0017A</small>	12"x12" Tan Speckled F.T. & Mastic				Positive Stop (Not Analyzed)
30-24-Black Mastic <small>411704131-0018</small>	Brown Cove Base Mastic (Mastic Only)	Black Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile

Initial report from: 06/01/2017 08:40:02





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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704131  
**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
30-24-Tan/Brown Mastic <small>411704131-0018A</small>	Brown Cove Base Mastic (Mastic Only)	Brown/Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
30-25-Black Mastic <small>411704131-0019</small>	Brown Cove Base Mastic (Mastic Only)				Positive Stop (Not Analyzed)
30-25-Tan/Brown Mastic <small>411704131-0019A</small>	Brown Cove Base Mastic (Mastic Only)	Brown/Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
30-27-Floor Tile <small>411704131-0020</small>	12"x12" White/ Cream Speckled F.T. & Mastic	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
30-27-Mastic <small>411704131-0020A</small>	12"x12" White/ Cream Speckled F.T. & Mastic	Tan/Black Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
30-28-Floor Tile <small>411704131-0021</small>	12"x12" White/ Cream Speckled F.T. & Mastic	White/Beige Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
30-28-Mastic <small>411704131-0021A</small>	12"x12" White/ Cream Speckled F.T. & Mastic				Positive Stop (Not Analyzed)
30-30 <small>411704131-0022</small>	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
30-31 <small>411704131-0023</small>	Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
30-33-Tape <small>411704131-0024</small>	Tan HVAC Tape	Tan/Silver Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
30-33-Mastic <small>411704131-0024A</small>	Tan HVAC Tape	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
30-34-Tape <small>411704131-0025</small>	Tan HVAC Tape	Tan/Silver Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
30-34-Mastic <small>411704131-0025A</small>	Tan HVAC Tape	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
30-36 <small>411704131-0026</small>	Bathroom Caulk	Gray Fibrous Homogeneous	1% Cellulose	5% Quartz 5% Ca Carbonate 89% Non-fibrous (Other)	None Detected
30-37 <small>411704131-0027</small>	Bathroom Caulk	Gray Non-Fibrous Homogeneous	<1% Cellulose	5% Quartz 5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
30-39-Shingle 1 <small>411704131-0028</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
30-39-Shingle 2 <small>411704131-0028A</small>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	12% Glass	8% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
30-39-Felt <small>411704131-0028B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
30-40-Shingle 1 <small>411704131-0029</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 08:40:02



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**EMSL Order:** 411704131  
**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
30-40-Shingle 2 <small>411704131-0029A</small>	Roof Shingles (2) & Felt (1)	Brown Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
30-40-Felt <small>411704131-0029B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
30-42 <small>411704131-0030</small>	Metal Window Glazing	White Fibrous Homogeneous	<1% Cellulose	25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
30-43 <small>411704131-0031</small>	Metal Window Glazing	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
30-45 <small>411704131-0032</small>	Metal Window Caulk - Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30-46 <small>411704131-0033</small>	Metal Window Caulk - Tan	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
30-48 <small>411704131-0034</small>	Metal Door & Window Caulk - Grey	Gray Fibrous Homogeneous	<1% Glass	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
30-49 <small>411704131-0035</small>	Metal Door & Window Caulk - Grey	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
30-51 <small>411704131-0036</small>	Mastic on Roof Penetrations	Black Fibrous Homogeneous	10% Cellulose	5% Ca Carbonate 85% Non-fibrous (Other)	None Detected
30-52 <small>411704131-0037</small>	Mastic on Roof Penetrations	Black Non-Fibrous Homogeneous	10% Cellulose	8% Ca Carbonate 82% Non-fibrous (Other)	None Detected
30-54 <small>411704131-0038</small>	Grey Flashing Putty	Silver Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
30-55 <small>411704131-0039</small>	Grey Flashing Putty	Gray Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (31)  
Lyterra Barrow (23)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 08:40:02



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704131  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 30

## 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
30-8 411704131-0040	Black Cove Base Mastic (Mastic Only)	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-11 411704131-0041	Painted Cove Base Mastic (Mastic Only)	Brown/Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-20-Floor Tile 411704131-0042	12"x12" Beige Speckled F.T. & Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-26-Tan/Brown Mastic 411704131-0043	Brown Cove Base Mastic (Mastic Only)	Brown/Tan Non-Fibrous Heterogeneous	100	None	<0.1% Chrysotile
30-29-Floor Tile 411704131-0044	12"x12" White/ Cream Speckled F.T. & Mastic	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-32 411704131-0045	Window Caulk	White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-35-Tape 411704131-0046	Tan HVAC Tape	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-35-Mastic 411704131-0047	Tan HVAC Tape	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-38 411704131-0048	Bathroom Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-41-Shingle 1 411704131-0049	Roof Shingles (2) & Felt (1)	Brown/Red/Black Non-Fibrous Heterogeneous	99.2	0.83 Fibrous_Other	No Asbestos Detected
30-41-Shingle 2 411704131-0050	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Heterogeneous	99.6	0.39 Fibrous_Other	No Asbestos Detected
30-41-Felt 411704131-0051	Roof Shingles (2) & Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 06/05/2017 11:48:16



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704131  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/03/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 30

## 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
30-44 411704131-0052	Metal Window Glazing	Gray/Tan Non-Fibrous Heterogeneous	99.5	0.49 Fibrous_Other	No Asbestos Detected
30-47 411704131-0053	Metal Window Caulk - Tan	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-50 411704131-0054	Metal Door & Window Caulk - Grey	Gray Fibrous Heterogeneous	100	None	No Asbestos Detected
30-53 411704131-0055	Mastic on Roof Penetrations	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
30-56 411704131-0056	Grey Flashing Putty	Gray Non-Fibrous Heterogeneous	99.5	0.46 Fibrous_Other	No Asbestos Detected

Analyst(s)

Aaron Hartley (17)

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: 06/05/2017 11:48:16



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703695

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <i>Cammie Clagett Building 31</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group    Date Sampled: *5-8-17*

Samplers Name: *Nicholas Neerhof*    Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
31-1		Throughout	Drywall with joint compound and tape
31-2			
31-3			
31-4			
31-5			
31-6			
31-7			
31-8		Bathrooms	Plaster with finish over unfinished drywall
31-9			
31-10			

Client Sample # (s): <i>31-1 - 31-49</i>	Total # of Samples:	
Relinquished (Client): <i>Nicholas Neerhof</i>	Date: <i>5-9-17</i>	Time:
Received (Lab): <i>Kyle Nls</i>	Date: <i>5/10/17</i>	Time: <i>9:30 AM Fk</i>
Comments/Special Instructions: <small>Please utilize positive stop analysis.</small>		<b>7952 8418 0464</b>
<small>Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:</small>		





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703695

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
31-11		HVAC Ducts	<del>HVAC</del> HVAC tape with mastic
31-12			
31-13			
31-14		<del>Bedroom</del> Bathroom	shower-stall and bathroom sink
31-15			caulk
31-16			
31-17		Kitchen	Kitchen counter caulk
31-18			
31-19			
31-20		upstairs <del>BR</del>	12"x12" brown/orange floor tile
31-21			with mastic
31-22			
31-23		HVAC Closet	HVAC caulk
31-24			
31-25			
31-26		Bathroom	12"x12" white speckled floor tile
31-27			with mastic <del>with mastic</del>
31-28			
31-29		Bathroom	Tan square pattern vinyl
31-30			floor with mastic
31-31			
31-32		Throughout	12"x12" tan speckled floor tile
31-33			with mastic
31-34			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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EMSL Order: 411703695

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/10/2017 9:30 AM

**Analysis Date:** 05/13/2017 - 05/16/2017

**Collected Date:** 05/08/2017

**Project:** Cammie Clagett Building #31

## 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
31-1-Drywall <i>411703695-0001</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
31-1-Joint Compound <i>411703695-0001A</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		35% Ca Carbonate 63% Non-fibrous (Other)	2% Chrysotile
31-2-Drywall <i>411703695-0002</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
31-2-Joint Compound <i>411703695-0002A</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
31-3-Drywall <i>411703695-0003</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
31-3-Joint Compound <i>411703695-0003A</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
31-4-Drywall <i>411703695-0004</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
31-4-Joint Compound <i>411703695-0004A</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
31-5-Drywall <i>411703695-0005</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
31-5-Joint Compound <i>411703695-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
31-6-Drywall <i>411703695-0006</i> <i>No tape present.</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
31-6-Joint Compound <i>411703695-0006A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
31-7-Drywall <i>411703695-0007</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/16/2017 12:02:16





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703695  
**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
<i>No tape present</i>					
31-7-Joint Compound	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
411703695-0007A					
31-8-Skim Coat	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous	3% Cellulose	10% Ca Carbonate 87% Non-fibrous (Other)	None Detected
411703695-0008					
31-8-Rough Coat	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 70% Non-fibrous (Other)	None Detected
411703695-0008A					
31-8-Drywall	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
411703695-0008B					
31-9-Skim Coat	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
411703695-0009					
31-9-Rough Coat	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		35% Quartz 65% Non-fibrous (Other)	None Detected
411703695-0009A					
31-9-Drywall	Bathrooms - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
411703695-0009B					
31-10-Skim Coat	Bathrooms - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703695-0010					
31-10-Rough Coat	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
411703695-0010A					
31-10-Drywall	Bathrooms - Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
411703695-0010B					
31-11-Tape	HVAC Ducts - HVAC Tape with Mastic	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
411703695-0011					
31-11-Mastic	HVAC Ducts - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	10% Ca Carbonate 87% Non-fibrous (Other)	None Detected
411703695-0011A					
31-12-Tape	HVAC Ducts - HVAC Tape with Mastic	Tan Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
411703695-0012					
31-12-Mastic	HVAC Ducts - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
411703695-0012A					
31-13-Tape	HVAC Ducts - HVAC Tape with Mastic	Tan Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
411703695-0012B					
31-14	Bathroom - Shower Stall and Bathroom Sink Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
411703695-0013					
31-15	Bathroom - Shower Stall and Bathroom Sink Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
411703695-0014					
31-17	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
411703695-0015					

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**EMSL Order:** 411703695  
**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
31-18 <small>411703695-0016</small>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
31-20-Floor Tile <small>411703695-0017</small>	Upstairs - 12"x12" Brown/ Orange Floor Tile with Mastic	Brown Non-Fibrous Homogeneous	2% Cellulose	25% Ca Carbonate 73% Non-fibrous (Other)	None Detected
31-20-Mastic <small>411703695-0017A</small>	Upstairs - 12"x12" Brown/ Orange Floor Tile with Mastic	Black Non-Fibrous Homogeneous	5% Cellulose	92% Non-fibrous (Other)	3% Chrysotile
31-21-Floor Tile <small>411703695-0018</small>	Upstairs - 12"x12" Brown/ Orange Floor Tile with Mastic	Brown/Yellow Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
31-21-Mastic <small>411703695-0018A</small>	Upstairs - 12"x12" Brown/ Orange Floor Tile with Mastic				Positive Stop (Not Analyzed)
31-23 <small>411703695-0019</small>	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
31-24 <small>411703695-0020</small>	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
31-26-Floor Tile <small>411703695-0021A</small>	Bathroom - 12"x12" White Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-26-Mastic <small>411703695-0021B</small>	Bathroom - 12"x12" White Speckled Floor Tile with Mastic	Brown Non-Fibrous Homogeneous	3% Cellulose	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected
31-27-Floor Tile <small>411703695-0022</small>	Bathroom - 12"x12" White Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	<1% Cellulose	40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
31-27-Mastic <small>411703695-0022A</small>	Bathroom - 12"x12" White Speckled Floor Tile with Mastic	Brown Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
31-29-Flooring <small>411703695-0023</small>	Bathroom - Tan Square Pattern Vinyl Floor with Mastic	Pink Fibrous Homogeneous	10% Cellulose	15% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-29-Mastic <small>411703695-0023A</small>	Bathroom - Tan Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	10% Ca Carbonate 88% Non-fibrous (Other)	None Detected
31-30-Flooring <small>411703695-0024</small>	Bathroom - Tan Square Pattern Vinyl Floor with Mastic	Pink Non-Fibrous Homogeneous	10% Cellulose	8% Ca Carbonate 82% Non-fibrous (Other)	None Detected
31-30-Mastic <small>411703695-0024A</small>	Bathroom - Tan Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
31-32-Floor Tile <small>411703695-0025</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-32-Mastic <small>411703695-0025A</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
31-33-Floor Tile <small>411703695-0026</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
31-33-Mastic <small>411703695-0026A</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	,1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 05/16/2017 12:02:16



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**EMSL Order:** 411703695  
**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
31-35-Leveler <small>411703695-0027</small>	Kitchen - Leveling Compound on 12"x12" Tile (Leveler Only)	Beige Non-Fibrous Homogeneous	2% Cellulose	20% Quartz 5% Ca Carbonate 73% Non-fibrous (Other)	None Detected
31-35-Black Mastic <small>411703695-0027A</small>	Kitchen - Leveling Compound on 12"x12" Tile (Leveler Only)	Black Non-Fibrous Homogeneous		5% Ca Carbonate 92% Non-fibrous (Other)	3% Chrysotile
31-36-Leveler <small>411703695-0028</small>	Kitchen - Leveling Compound on 12"x12" Tile (Leveler Only)	Beige Non-Fibrous Homogeneous	<1% Cellulose	10% Quartz 15% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-36-Black Mastic <small>411703695-0028A</small>	Kitchen - Leveling Compound on 12"x12" Tile (Leveler Only)				Positive Stop (Not Analyzed)
31-37-Leveler <small>411703695-0029</small>	Kitchen - Leveling Compound on 12"x12" Tile (Leveler Only)	Beige Non-Fibrous Homogeneous	3% Cellulose	15% Quartz 82% Non-fibrous (Other)	None Detected
31-38 <small>411703695-0030</small>	Exterior Doors - Door Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
31-39 <small>411703695-0031</small>	Exterior Doors - Door Caulk	Gray Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
31-41 <small>411703695-0032</small>	Exterior Windows - Window Caulk	Brown Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
31-42 <small>411703695-0033</small>	Exterior Windows - Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31-44 <small>411703695-0034</small>	Kitchen - Black Coating on Sink	Black Fibrous Homogeneous		10% Ca Carbonate 86% Non-fibrous (Other)	4% Chrysotile
31-45 <small>411703695-0035</small>	Kitchen - Black Coating on Sink				Positive Stop (Not Analyzed)
31-47 <small>411703695-0036</small>	Kitchen - White Coating on Sink	White Non-Fibrous Homogeneous	10% Cellulose	10% Ca Carbonate 3% Mica 77% Non-fibrous (Other)	None Detected
31-48 <small>411703695-0037</small>	Kitchen - White Coating on Sink	White Non-Fibrous Homogeneous	8% Cellulose	5% Ca Carbonate 87% Non-fibrous (Other)	None Detected



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**EMSL Order:** 411703695

**Customer ID:** AXEM25

**Customer PO:**

**Project ID:**

Analyst(s)

*Eric Loomis (24)*

*Travis Hartney (30)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/16/2017 12:02:16





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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**EMSL Order:** 411703695  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/10/2017 9:30 AM  
**Analysis Date:** 05/23/2017  
**Collected Date:** 05/08/2017  
**Project:** Cammie Clagett Building #31

## 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
31-13-Mastic 411703695-0038	HVAC Ducts - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	99.8	0.25 Fibrous_Other	No Asbestos Detected
31-16 411703695-0039	Bathroom - Shower Stall and Bathroom Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-19 411703695-0040	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-22-Floor Tile 411703695-0041	Upstairs - 12"x12" Brown/Orange Floor Tile with Mastic	Orange Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-25 411703695-0042	HVAC Closet - HVAC Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-28-Floor Tile 411703695-0043	Bathroom - 12"x12" White Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-28-Mastic 411703695-0044	Bathroom - 12"x12" White Speckled Floor Tile with Mastic	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-31-Flooring 411703695-0045	Bathroom - Tan Square Pattern Vinyl Floor with Mastic	Pink Fibrous Heterogeneous	100	None	No Asbestos Detected
31-31-Mastic 411703695-0046	Bathroom - Tan Square Pattern Vinyl Floor with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-34-Floor Tile 411703695-0047	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-34-Mastic 411703695-0048	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-40 411703695-0049	Exterior Doors - Door Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 05/23/2017 11:20:02



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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**EMSL Order:** 411703695  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/10/2017 9:30 AM  
**Analysis Date:** 05/23/2017  
**Collected Date:** 05/08/2017  
**Project:** Cammie Clagett Building #31

## 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
31-43 411703695-0050	Exterior Windows - Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-49 411703695-0051	Kitchen - White Coating on Sink	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (14)

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: 05/23/2017 11:20:02



# Asbestos Bulk Building Material Chain of Custody

**EMSL Order Number** (Lab Use Only):

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

411704158

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Closset Bldg 31 ext. SC</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
31-50		Metal w/ rubber Coatings	
31-51			
31-52			
31-53		Gable vent caulk - white +	
31-54		cream	
31-55			
31-56		Roof shingles (2) + felt (1)	
31-57			
31-58			

Client Sample # (s): *50-64*      Total # of Samples: *15*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *[Signature]*      Date: *5/26/17*      Time: *9:10am Fk*

Comments/Special Instructions: *7952 9037 7778*









# EMSL Analytical, Inc.

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EMSL Order: 411704158

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 31 Ext.

## 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
31-50-Metal <small>411704158-0001</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31-51-Metal <small>411704158-0002</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31-52-Metal <small>411704158-0002A</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
31-53-Gray Caulk <small>411704158-0003</small>	Gable Vent Caulk - White & Cream	Gray Non-Fibrous Homogeneous	3% Glass	15% Ca Carbonate 82% Non-fibrous (Other)	None Detected
31-53-White Caulk <small>411704158-0003A</small>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-54-Gray Caulk <small>411704158-0004</small>	Gable Vent Caulk - White & Cream	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
31-54-White Caulk <small>411704158-0004A</small>	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
31-56-Shingle 1 <small>411704158-0005</small>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
31-56-Shingle 2 <small>411704158-0005A</small>	Roof Shingles (2) & Felt (1)	Gray/Black Non-Fibrous Homogeneous	12% Glass	5% Quartz 8% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-56-Felt <small>411704158-0005B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
31-57-Shingle 1 <small>411704158-0006</small>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
31-57-Shingle 2 <small>411704158-0006A</small>	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
31-57-Felt <small>411704158-0006B</small>	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
31-59 <small>411704158-0007</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
31-60 <small>411704158-0008</small>	2nd Layer of Felt Paper	Black Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 12:07:06



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704158  
**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
31-62 <small>411704158-0009</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		5% Quartz 20% Ca Carbonate 75% Non-fibrous (Other)	None Detected
31-63 <small>411704158-0010</small>	Awning & Flashing Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Aaron Hartley (8)

Lacy Searcy (9)

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: 06/01/2017 12:07:06



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704158  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/06/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 31 Ext.

## 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
31-55-Gray Caulk 411704158-0011	Gable Vent Caulk - White & Cream	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-55-White Caulk 411704158-0012	Gable Vent Caulk - White & Cream	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
31-58-Shingle 1 411704158-0013	Roof Shingles (2) & Felt (1)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
31-58-Shingle 2 411704158-0014	Roof Shingles (2) & Felt (1)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
31-58-Felt 411704158-0015	Roof Shingles (2) & Felt (1)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
31-61 411704158-0016	2nd Layer of Felt Paper	Black Fibrous Homogeneous	100	None	No Asbestos Detected
31-64 411704158-0017	Awning & Flashing Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (7)

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: 06/07/2017 07:52:51



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

**411703694**

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: <u>Cammie Clayton building 32</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled: **5-8-17**

Samplers Name: Nicholas Neerhof Samplers Signature:

Sample #	HA #	Sample Location	Material Description
32-1		throughout	Drywall with joint compound
32-2			and tape
32-3			
32-4			
32-5			
32-6		Bathroom	plaster with finish over
32-7			unfinished drywall
32-8			
32-9		throughout	12"x12" tan speckled floor
32-10			tile with mastic (top layer)

Client Sample # (s): 32-1 - 32-47 Total # of Samples:

Relinquished (Client): Nicholas Neerhof Date: 5-9-17 Time:

Received (Lab): Kyle Nelson Date: 5/9/17 Time: 9:30 AM FK

Comments/Special Instructions:  
Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: **7952 8418 0464**





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703694

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
32-11		throughout	12"x12" tan speckled floor tile with mastic
32-12		Throughout	12"x12" thin brown floor tile
32-13			with mastic (Bottom layer)
32-14			
32-15		Kitchen	Kitchen counter caulk
32-16			
32-17			
32-18		Bathrooms	shower stall and sink caulk
32-19			
32-20			
32-21		Kitchen	white coating on kitchen sink
32-22			
32-23			
32-24		Kitchen	Back splash mastic
32-25			
32-26			
32-27		HVAC closets	HVAC tape with mastic
32-28			
32-29			
32-30		HVAC <del>closet</del>	HVAC <del>caulk</del> caulk - red
32-31		<del>closet</del> closet	
32-32			
32-33		HVAC vents	HVAC vent caulk
32-34			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703694

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/10/2017 9:30 AM

**Analysis Date:** 05/13/2017 - 05/15/2017

**Collected Date:** 05/08/2017

**Project:** Cammie Clagett Building #32

## 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
32-1-Drywall <i>411703694-0001</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
32-1-Joint Compound <i>411703694-0001A</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
32-2-Drywall <i>411703694-0002</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
32-2-Joint Compound <i>411703694-0002A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
32-3-Drywall <i>411703694-0003</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Brown/White Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
32-3-Joint Compound <i>411703694-0003A</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
32-4-Drywall <i>411703694-0004</i> <i>No tape present</i>	Throughout - Drywall with Joint Compound and Tape	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
32-4-Joint Compound <i>411703694-0004A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
32-5-Drywall <i>411703694-0005</i>	Throughout - Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
32-5-Joint Compound <i>411703694-0005A</i>	Throughout - Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
32-5-Tape <i>411703694-0005B</i>	Throughout - Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
32-6-Skim Coat <i>411703694-0006</i>	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-6-Rough Coat <i>411703694-0006A</i>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
32-6-Drywall <i>411703694-0006B</i>	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 16:30:50





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376 Crompton Street Charlotte, NC 28273

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

**EMSL Order:** 411703694  
**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
32-7-Skim Coat <small>411703694-0007</small>	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-7-Rough Coat <small>411703694-0007A</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
32-7-Drywall <small>411703694-0007B</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
32-8-Skim Coat <small>411703694-0008</small>	Bathroom - Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
32-8-Rough Coat <small>411703694-0008A</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
32-8-Drywall <small>411703694-0008B</small>	Bathroom - Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
32-9-Floor Tile <small>411703694-0009</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
32-9-Mastic <small>411703694-0009A</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
32-10-Floor Tile <small>411703694-0010</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
32-10-Mastic <small>411703694-0010A</small>	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-12-Floor Tile <small>411703694-0011</small>	Throughout - 12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)	Brown Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile
32-12-Mastic <small>411703694-0011A</small>	Throughout - 12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)	Black Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
32-13-Floor Tile <small>411703694-0012</small>	Throughout - 12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
32-13-Mastic <small>411703694-0012A</small>	Throughout - 12"x12" Thin Brown Floor Tile with Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
32-15 <small>411703694-0013</small>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
32-16 <small>411703694-0014</small>	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 16:30:50





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**EMSL Order:** 411703694  
**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
32-18 <small>411703694-0015</small>	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
32-19 <small>411703694-0016</small>	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
32-21 <small>411703694-0017</small>	Kitchen - White Coating on Kitchen Sink	White Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
32-22 <small>411703694-0018</small>	Kitchen - White Coating on Kitchen Sink				Positive Stop (Not Analyzed)
32-24 <small>411703694-0019</small>	Kitchen - Backsplash Mastic	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-25 <small>411703694-0020</small>	Kitchen - Backsplash Mastic	White Non-Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
32-27-Tape <small>411703694-0021</small>	HVAC Closets - HVAC Tape with Mastic	Tan Fibrous Homogeneous	50% Cellulose 40% Synthetic	8% Ca Carbonate 2% Non-fibrous (Other)	None Detected
32-27-Mastic <small>411703694-0021A</small>	HVAC Closets - HVAC Tape with Mastic	Tan Fibrous Homogeneous	2% Synthetic	10% Ca Carbonate 88% Non-fibrous (Other)	None Detected
32-28-Tape <small>411703694-0022</small>	HVAC Closets - HVAC Tape with Mastic	Tan/Silver Non-Fibrous Homogeneous	35% Cellulose 30% Synthetic	8% Ca Carbonate 27% Non-fibrous (Other)	None Detected
32-28-Mastic <small>411703694-0022A</small>	HVAC Closets - HVAC Tape with Mastic	Gray Non-Fibrous Homogeneous	1% Synthetic	15% Ca Carbonate 84% Non-fibrous (Other)	None Detected
32-30 <small>411703694-0023</small>	HVAC Closet - HVAC Caulk - Red	Red Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
32-31 <small>411703694-0024</small>	HVAC Closet - HVAC Caulk - Red	Red Non-Fibrous Homogeneous	3% Synthetic	97% Non-fibrous (Other)	None Detected
32-33 <small>411703694-0025</small>	HVAC Vents - HVAC Vent Caulk	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-34 <small>411703694-0026</small>	HVAC Vents - HVAC Vent Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
32-36-Shingle 1 <small>411703694-0027</small>	Roof - Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
32-36-Shingle 2 <small>411703694-0027A</small>	Roof - Shingles (2 Layers) and Felt (1 Layer)	Red/Black Fibrous Homogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
32-36-Felt <small>411703694-0027B</small>	Roof - Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
32-37-Shingle 1 <small>411703694-0028</small>	Roof - Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Heterogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
32-37-Shingle 2 <small>411703694-0028A</small>	Roof - Shingles (2 Layers) and Felt (1 Layer)	Red/Black Fibrous Heterogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 16:30:50



# 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:** 411703694  
**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
32-37-Felt <small>411703694-0028B</small>	Roof - Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
32-39 <small>411703694-0029</small>	Exterior Doors and Windows - Exterior Door Caulk and Window Frame Caulk	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-40 <small>411703694-0030</small>	Exterior Doors and Windows - Exterior Door Caulk and Window Frame Caulk	Gray Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
32-42 <small>411703694-0031</small>	Windows - Exterior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32-43 <small>411703694-0032</small>	Windows - Exterior Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32-45 <small>411703694-0033</small>	Exterior HVAC Drip Line Brick Penetrations - Red Brick Filler	Red Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
32-46 <small>411703694-0034</small>	Exterior HVAC Drip Line Brick Penetrations - Red Brick Filler	Red Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
32-47 <small>411703694-0035</small>	Exterior HVAC Drip Line Brick Penetrations - Red Brick Filler	Red Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Eric Loomis (21)

Lacy Searcy (29)

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: 05/15/2017 16:30:50



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703694  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/10/2017 9:30 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/08/2017  
**Project:** Cammie Clagett Building #32

## 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
32-11-Floor Tile 411703694-0036	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-11-Mastic 411703694-0037	Throughout - 12"x12" Tan Speckled Floor Tile with Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-17 411703694-0038	Kitchen - Kitchen Counter Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-20 411703694-0039	Bathrooms - Shower Stall and Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-26 411703694-0040	Kitchen - Backsplash Mastic	Tan Non-Fibrous Homogeneous	100	None	<0.1% Chrysotile
32-29-Tape 411703694-0041	HVAC Closets - HVAC Tape with Mastic	Tan/Silver Fibrous Homogeneous	100	None	No Asbestos Detected
32-29-Mastic 411703694-0042	HVAC Closets - HVAC Tape with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-32 411703694-0043	HVAC Closet - HVAC Caulk - Red	Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-35 411703694-0044	HVAC Vent - HVAC Vent Caulk	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-38-Shingle 1 411703694-0045	Roof - Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
32-38-Shingle 2 411703694-0046	Roof - Shingles (2 Layers) and Felt (1 Layer)	Red/Black Fibrous Homogeneous	100	None	No Asbestos Detected
32-38-Felt 411703694-0047	Roof - Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/22/2017 11:26:02



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703694  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/10/2017 9:30 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:** 05/08/2017  
**Project:** Cammie Clagett Building #32

## 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
32-41 411703694-0048	Exterior Doors and Windows - Exterior Door Caulk and Window Frame Caulk	Brown/Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-44 411703694-0049	Windows - Exterior Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (14)

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: 05/22/2017 11:26:02





# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only):

411704169

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Carnegie Class Bldg 32 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled: *[Signature]*

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
32-48		Metal w/ rubber Coating	
32-49			
32-50			
32-51		Block mastic	
32-52			
32-53			
32-54		Gable vent couiks	
32-55			
32-56			

Client Sample # (s): *48 - 56*      Total # of Samples: *9*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *[Signature]*      Date: *5/26/17*      Time: *9:10AM FK*

Comments/Special Instructions: *7952 9037 7778*



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704169  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/01/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 32 Ext.

## 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
32-48-Metal <small>411704169-0001</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32-49-Metal <small>411704169-0002</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32-50-Metal <small>411704169-0002A</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32-51 <small>411704169-0003</small>	Black Mastic	Black Fibrous Homogeneous	8% Cellulose	5% Ca Carbonate 87% Non-fibrous (Other)	None Detected
32-52 <small>411704169-0004</small>	Black Mastic	Black Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
32-54-Tan Caulk <small>411704169-0005</small>	Gable Vent Caulks	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
32-54-Gray Caulk <small>411704169-0005A</small>	Gable Vent Caulks	Gray Fibrous Homogeneous	<1% Glass	25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
32-55-Tan Caulk <small>411704169-0006</small>	Gable Vent Caulks	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
32-55-Gray Caulk <small>411704169-0006A</small>	Gable Vent Caulks	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected

Analyst(s)  
Anupriya Tyagi (4)  
Lacy Searcy (5)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 13:25:20



# EMSL Analytical, Inc.

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

**EMSL Order:** 411704169  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/05/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 32 Ext.

## 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
32-53 411704169-0007	Black Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-56-Tan Caulk 411704169-0008	Gable Vent Caulks	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
32-56-Gray Caulk 411704169-0009	Gable Vent Caulks	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (3)

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: 06/06/2017 08:08:32



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

4W703693

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com + boliver@apex-ehs.com		Purchase Order:	
Project Name/Number: 0317-55 Bldg # 33 Units 456 + 458		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: 5-8-17

Samplers Name: Ben Oliver      Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
33-1		Drywall with joint compound and tape	
33-2			
33-3			
33-4			
33-5			
33-6		Plaster with finish over unfinished drywall	
33-7			
33-8			
33-9		12" x 12" tan speckled floor tile with mastic	↓
33-10			

Client Sample # (s): 33-1 - 33-50      Total # of Samples: 50

Relinquished (Client): [Signature]      Date: 5-9-17      Time:

Received (Lab): [Signature]      Date: 5/10/17      Time: 9:30am TX

Comments/Special Instructions: Please utilize positive stop analysis. 7952 8418 0464

Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
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### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703693

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
33-11		└	
33-12		Red HVAC Caulk	
33-13		└	
33-14		└	
33-15		Leveling compound	
33-16		└	
33-17		└	
33-18		Caulk on Kitchen counter	
33-19		└	
33-20		└	
33-21		Caulk on shower stalls + bathroom sinks	
33-22		└	
33-23		└	
33-24		Interior windows	
33-25		└	
33-26		└	
33-27		Roof shingles (2 layers) and felt (1 layer)	
33-28		└	
33-29		└	
33-30		Black exterior window caulk	
33-31		└	
33-32		└	
33-33		Exterior door caulk	
33-34		↓	

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703693

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/10/2017 9:30 AM

**Analysis Date:** 05/13/2017 - 05/16/2017

**Collected Date:** 05/08/2017

**Project:** 0317-55 Bldg. #33 Units 456 & 458

## 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
33-1-Drywall <small>411703693-0001</small>	Drywall with Joint Compound and Tape	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
33-1-Joint Compound <small>411703693-0001A</small>	Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
33-1-Tape <small>411703693-0001B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
33-2-Drywall <small>411703693-0002</small>	Drywall with Joint Compound and Tape	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
33-2-Joint Compound <small>411703693-0002A</small>	Drywall with Joint Compound and Tape	White Non-Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
33-2-Tape <small>411703693-0002B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
33-3-Drywall <small>411703693-0003</small>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
33-3-Joint Compound <small>411703693-0003A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
33-3-Tape <small>411703693-0003B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
33-4-Drywall <small>411703693-0004</small>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
33-4-Joint Compound <small>411703693-0004A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
33-4-Tape <small>411703693-0004B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
33-5-Drywall <small>411703693-0005</small>	Drywall with Joint Compound and Tape	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
33-5-Joint Compound <small>411703693-0005A</small>	Drywall with Joint Compound and Tape				Positive Stop (Not Analyzed)
33-5-Tape <small>411703693-0005B</small>	Drywall with Joint Compound and Tape	Tan Fibrous Homogeneous	100% Cellulose		None Detected
33-6-Drywall <small>411703693-0006</small>	Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/16/2017 12:07:52



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703693  
**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
33-6-Skim Coat <small>411703693-0006A</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
33-6-Rough Coat <small>411703693-0006B</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
33-7-Drywall <small>411703693-0007</small>	Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
33-7-Skim Coat <small>411703693-0007A</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
33-7-Rough Coat <small>411703693-0007B</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
33-8-Drywall <small>411703693-0008</small>	Plaster with Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
33-8-Skim Coat <small>411703693-0008A</small>	Plaster with Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
33-8-Rough Coat <small>411703693-0008B</small>	Plaster with Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
33-9-Floor Tile <small>411703693-0009</small>	12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
33-9-Mastic <small>411703693-0009A</small>	12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
33-10-Floor Tile <small>411703693-0010</small>	12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
33-10-Mastic <small>411703693-0010A</small>	12"x12" Tan Speckled Floor Tile with Mastic	Tan Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
33-12 <small>411703693-0011</small>	Red HVAC Caulk	Red Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
33-13 <small>411703693-0012</small>	Red HVAC Caulk	Red Fibrous Homogeneous	1% Cellulose <1% Glass	8% Ca Carbonate 91% Non-fibrous (Other)	None Detected
33-15-Top Mastic <small>411703693-0013</small>	Leveling Compound	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
33-15-Leveler <small>411703693-0013A</small>	Leveling Compound	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
33-15-Bottom Mastic <small>411703693-0013B</small>	Leveling Compound	Black Non-Fibrous Homogeneous		5% Ca Carbonate 91% Non-fibrous (Other)	4% Chrysotile
33-16-Top Mastic <small>411703693-0014</small>	Leveling Compound	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
33-16-Leveler <small>411703693-0014A</small>	Leveling Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected

Initial report from: 05/16/2017 12:07:52





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703693  
**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
33-16-Bottom Mastic	Leveling Compound				Positive Stop (Not Analyzed)
<i>411703693-0014B</i>					
33-17-Leveler	Leveling Compound	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
<i>411703693-0015A</i>					
33-18	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
<i>411703693-0016</i>					
33-19	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
<i>411703693-0017</i>					
33-21	Caulk on Shower Stalls & Bathroom Sinks	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
<i>411703693-0018</i>					
33-22	Caulk on Shower Stalls & Bathroom Sinks	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
<i>411703693-0019</i>					
33-24	Interior Windows	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
<i>411703693-0020</i>					
33-25	Interior Windows	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
<i>411703693-0021</i>					
33-27-Shingle 1	Roof Shingles (2 Layers) and Felt (1 Layer)	Red/Black Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
<i>411703693-0022</i>					
33-27-Shingle 2	Roof Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	8% Glass	8% Quartz 10% Ca Carbonate 74% Non-fibrous (Other)	None Detected
<i>411703693-0022A</i>					
33-27-Felt	Roof Shingles (2 Layers) and Felt (1 Layer)	Black Non-Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
<i>411703693-0022B</i>					
33-28-Shingle 1	Roof Shingles (2 Layers) and Felt (1 Layer)	Red/Black Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
<i>411703693-0023</i>					
33-28-Shingle 2	Roof Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	10% Glass	8% Quartz 8% Ca Carbonate 74% Non-fibrous (Other)	None Detected
<i>411703693-0023A</i>					
33-28-Felt	Roof Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
<i>411703693-0023B</i>					
33-30	Black Exterior Window Caulk	Black Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
<i>411703693-0024</i>					
33-31	Black Exterior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
<i>411703693-0025</i>					
33-33	Exterior Door Caulk	Gray Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
<i>411703693-0026</i>					
33-34	Exterior Door Caulk	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
<i>411703693-0027</i>					
33-36	Caulk on HVAC Vents	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
<i>411703693-0028</i>					

Initial report from: 05/16/2017 12:07:52



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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**EMSL Order:** 411703693  
**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
33-37 <small>411703693-0029</small>	Caulk on HVAC Vents	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
33-39 <small>411703693-0030</small>	White Exterior Window Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
33-40 <small>411703693-0031</small>	White Exterior Window Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
33-42 <small>411703693-0032</small>	Red Brick Filler	Red Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
33-43 <small>411703693-0033</small>	Red Brick Filler	Red Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
33-44 <small>411703693-0034</small>	Red Brick Filler	Red Non-Fibrous Homogeneous		30% Quartz 10% Ca Carbonate 60% Non-fibrous (Other)	None Detected
33-45-Wrap <small>411703693-0035</small>	Mud/ Mastic on HVAC Duct Insulation	Tan/Silver Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
33-45-Mastic <small>411703693-0035A</small>	Mud/ Mastic on HVAC Duct Insulation	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
33-45-Insulation <small>411703693-0035B</small>	Mud/ Mastic on HVAC Duct Insulation	White Non-Fibrous Homogeneous	98% Glass	2% Non-fibrous (Other)	None Detected
33-46-Wrap <small>411703693-0036</small>	Mud/ Mastic on HVAC Duct Insulation	Brown Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
33-46-Mastic <small>411703693-0036A</small>	Mud/ Mastic on HVAC Duct Insulation	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
33-46-Insulation <small>411703693-0036B</small>	Mud/ Mastic on HVAC Duct Insulation	White Fibrous Homogeneous	99% Glass	1% Non-fibrous (Other)	None Detected
33-47-Wrap <small>411703693-0036C</small>	Mud/ Mastic on HVAC Duct Insulation	Brown Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
33-47-Insulation <small>411703693-0036D</small>	Mud/ Mastic on HVAC Duct Insulation	White Fibrous Homogeneous	99% Glass	1% Non-fibrous (Other)	None Detected
33-48 <small>411703693-0037</small>	Black Coating on Kitchen Sinks	Black Non-Fibrous Homogeneous		10% Ca Carbonate 86% Non-fibrous (Other)	4% Chrysotile
33-49 <small>411703693-0038</small>	Black Coating on Kitchen Sinks				Positive Stop (Not Analyzed)

Initial report from: 05/16/2017 12:07:52



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376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703693

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

*Anupriya Tyagi (23)*

*Lytterra Barrow (42)*

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/16/2017 12:07:52



# EMSL Analytical, Inc.

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Tel/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703693  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/10/2017 9:30 AM  
**Analysis Date:** 05/22/2017  
**Collected Date:** 05/08/2017  
**Project:** 0317-55 Bldg. #33 Units 456 & 458

## 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
33-11-Floor Tile 411703693-0039	12"x12" Tan Speckled Floor Tile with Mastic	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-11-Mastic 411703693-0040	12"x12" Tan Speckled Floor Tile with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-14 411703693-0041	Red HVAC Caulk	Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-17-Top Mastic 411703693-0042	Leveling Compound	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-20 411703693-0043	Caulk on Kitchen Counter	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-23 411703693-0044	Caulk on Shower Stalls & Bathroom Sinks	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-26 411703693-0045	Interior Windows	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-29-Shingle 1 411703693-0046	Roof Shingles (2 Layers) and Felt (1 Layer)	Red/Black Fibrous Heterogeneous	100	None	No Asbestos Detected
33-29-Shingle 2 411703693-0047	Roof Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
33-29-Felt 411703693-0048	Roof Shingles (2 Layers) and Felt (1 Layer)	Black Fibrous Homogeneous	100	None	No Asbestos Detected
33-32 411703693-0049	Black Exterior Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-35 411703693-0050	Exterior Door Caulk	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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: 05/23/2017 08:32:53





# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703693  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/10/2017 9:30 AM  
**Analysis Date:** 05/22/2017  
**Collected Date:** 05/08/2017  
**Project:** 0317-55 Bldg. #33 Units 456 & 458

## 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
33-38 411703693-0051	Caulk on HVAC Vents	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-41 411703693-0052	White Exterior Window Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-47-Mastic 411703693-0053	Mud/ Mastic on HVAC Duct Insulation	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (15)

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: 05/23/2017 08:32:53



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704168

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Lammie Claggett Bldg 33 ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
33-51		<i>metal w/ rubber Coatings</i>	
33-52			
33-53			
33-54		<i>Black mastic</i>	
33-55			
33-56			
33-57		<i>Roof gable vent caulks</i>	
33-58		<i>cream + grey</i>	
33-59			

Client Sample # (s): *51 - 59*      Total # of Samples: *9*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *[Signature]*      Date: *5/26/17*      Time: *9:10am FX*

Comments/Special Instructions: *7952 9037 7756*



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704168  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/01/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 33 Ext.

## 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
33-51-Metal <small>411704168-0001</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33-52-Metal <small>411704168-0002</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33-53-Metal <small>411704168-0002A</small> <i>No rubber coating present</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33-54 <small>411704168-0003</small>	Black Mastic	Black Fibrous Homogeneous	2% Cellulose	8% Ca Carbonate 90% Non-fibrous (Other)	None Detected
33-55 <small>411704168-0004</small>	Black Mastic	Black Non-Fibrous Homogeneous	5% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
33-57-Gray Caulk <small>411704168-0005</small>	Roof Gable Vent Caulks - Cream & Grey	Gray Non-Fibrous Homogeneous	2% Glass	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
33-57-Tan Caulk <small>411704168-0005A</small>	Roof Gable Vent Caulks - Cream & Grey	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
33-58-Gray caulk <small>411704168-0006</small>	Roof Gable Vent Caulks - Cream & Grey	Gray Fibrous Homogeneous	<1% Glass	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
33-58-Tan Caulk <small>411704168-0006A</small>	Roof Gable Vent Caulks - Cream & Grey	Tan Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

Analyst(s)  
Anupriya Tyagi (4)  
Lacy Searcy (5)

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

Initial report from: 06/01/2017 14:32:23





# EMSL Analytical, Inc.

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

**EMSL Order:** 411704168  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/05/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 33 Ext.

## 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
33-56 411704168-0007	Black Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-59-Gray Caulk 411704168-0008	Roof Gable Vent Caulks - Cream & Grey	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
33-59-Tan Caulk 411704168-0009	Roof Gable Vent Caulks - Cream & Grey	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (3)

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: 06/06/2017 08:09:48



EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY-PRODUCTS-TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703645

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: 0317-55 Build # 34		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Rebecca Shultz      Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
34-1		Throughout	Drywall, tape & jc
34-2			
34-3			
34-4			
34-5			
34-6		Bathrooms	Plaster w/ finish
34-7			over unfinished drywall
34-8			

Client Sample # (s): 1-45      Total # of Samples:

Relinquished (Client): [Signature]      Date: 5-8-17      Time: 10:00 am

Received (Lab): [Signature]      Date: 5/9/17      Time: 10:20 AM FX

Comments/Special Instructions: 7952 8323 4895

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703645

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

no-15

Sample #	HA #	Sample Location	Material Description
34-9			12x12 tan speckled F.T.
34-10			w/ mastic
34-11			(Top layer)
34-12			12x12 thin brown F.T.
34-13			w/ mastic
34-14			(bottom layer)
34-16		Bath rm	Shower stall & sink
34-17			caulk, white
34-18			
34-19		Roof	2 shingles
34-20			1 felt
34-21			
34-22		ext. windows	Window caulk, black
34-23			
34-24			
34-25		ext. doors	door caulk, grey
34-26			
34-27			
34-28		HVAC closet	Red HVAC caulk
34-29			
34-30			
34-31		kitchen sinks	kitchen sink undercoating
34-32			<del>white</del>   Black
34-33			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703645

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/09/2017 10:20 AM

**Analysis Date:** 05/12/2017 - 05/13/2017

**Collected Date:**

**Project:** 0317-55 Build #34

## 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
34-1-Drywall <i>411703645-0001</i> <i>No tape present.</i>	Throughout - Drywall, Tape & JC	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
34-1-Joint Compound <i>411703645-0001A</i>	Throughout - Drywall, Tape & JC	Beige Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile
34-2-Drywall <i>411703645-0002</i> <i>No tape present.</i>	Throughout - Drywall, Tape & JC	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
34-2-Joint Compound <i>411703645-0002A</i>	Throughout - Drywall, Tape & JC				Positive Stop (Not Analyzed)
34-3-Drywall <i>411703645-0003</i>	Throughout - Drywall, Tape & JC	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
34-3-Joint Compound <i>411703645-0003A</i>	Throughout - Drywall, Tape & JC				Positive Stop (Not Analyzed)
34-3-Tape <i>411703645-0003B</i>	Throughout - Drywall, Tape & JC	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
34-4-Drywall <i>411703645-0004</i> <i>No tape present</i>	Throughout - Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
34-4-Joint Compound <i>411703645-0004A</i>	Throughout - Drywall, Tape & JC				Positive Stop (Not Analyzed)
34-5-Drywall <i>411703645-0005</i> <i>No tape present</i>	Throughout - Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
34-5-Joint Compound <i>411703645-0005A</i>	Throughout - Drywall, Tape & JC				Positive Stop (Not Analyzed)
34-6-Skim Coat <i>411703645-0006</i>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
34-6-Rough Coat <i>411703645-0006A</i>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
34-6-Drywall <i>411703645-0006B</i>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
34-7-Skim Coat <i>411703645-0007</i>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 14:01:58





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703645  
**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
34-7-Rough Coat <small>411703645-0007A</small>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
34-7-Drywall <small>411703645-0007B</small>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
34-8-Skim Coat <small>411703645-0008</small>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
34-8-Rough Coat <small>411703645-0008A</small>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
34-8-Drywall <small>411703645-0008B</small>	Bathrooms - Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
34-9-Floor Tile <small>411703645-0009</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
34-9-Mastic <small>411703645-0009A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
34-10-Floor Tile <small>411703645-0010</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
34-10-Mastic <small>411703645-0010A</small>	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
34-12-Floor Tile <small>411703645-0011</small>	12x12 Thin Brown F.T. w/ Mastic (Bottom Layer)	Brown Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
34-12-Mastic <small>411703645-0011A</small>	12x12 Thin Brown F.T. w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
34-13-Floor Tile <small>411703645-0012</small>	12x12 Thin Brown F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
34-13-Mastic <small>411703645-0012A</small>	12x12 Thin Brown F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
34-16 <small>411703645-0013</small>	Bathroom - Shower Stall & Sink Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
34-17 <small>411703645-0014</small>	Bathroom - Shower Stall & Sink Caulk - White	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
34-19-Shingle 1 <small>411703645-0015</small>	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
34-19-Shingle 2 <small>411703645-0015A</small>	Roof - 2 Shingles, 1 Felt	Brown Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
34-19-Felt <small>411703645-0015B</small>	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
34-20-Shingle 1 <small>411703645-0016</small>	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 14:01:58



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411703645  
**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
34-20-Shingle 2 <small>411703645-0016A</small>	Roof - 2 Shingles, 1 Felt	Red/Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
34-20-Felt <small>411703645-0016B</small>	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
34-22 <small>411703645-0017</small>	Ext. Windows - Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-23 <small>411703645-0018</small>	Ext. Windows - Window Caulk - Black	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-25 <small>411703645-0019</small>	Ext. Doors - Door Caulk - Grey	Gray Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
34-26 <small>411703645-0020</small>	Ext. Doors - Door Caulk - Grey	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
34-28 <small>411703645-0021</small>	HVAC Closet - Red HVAC Caulk	Red Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
34-29 <small>411703645-0022</small>	HVAC Closet - Red HVAC Caulk	Red Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
34-31 <small>411703645-0023</small>	Kitchen Sinks - Kitchen Sink Undercoating - Black	Black Fibrous Homogeneous		8% Ca Carbonate 90% Non-fibrous (Other)	2% Chrysotile
34-32 <small>411703645-0024</small>	Kitchen Sinks - Kitchen Sink Undercoating - Black				Positive Stop (Not Analyzed)
34-34 <small>411703645-0025</small>	Kitchen Sinks - Kitchen Sink Undercoat - White	White Fibrous Homogeneous	12% Cellulose	8% Ca Carbonate 5% Mica 75% Non-fibrous (Other)	None Detected
34-35 <small>411703645-0026</small>	Kitchen Sinks - Kitchen Sink Undercoat - White	White Fibrous Homogeneous	15% Cellulose	5% Ca Carbonate 80% Non-fibrous (Other)	None Detected
34-37 <small>411703645-0027</small>	HVAC Vents - HVAC Supply Vent Caulk	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
34-38 <small>411703645-0028</small>	HVAC Vents - HVAC Supply Vent Caulk	Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
34-40 <small>411703645-0029</small>	Kitchens - Kit. Counter Caulk - White	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
34-41 <small>411703645-0030</small>	Kitchens - Kit. Counter Caulk - White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-43 <small>411703645-0031</small>	Windows - Interior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-44 <small>411703645-0032</small>	Windows - Interior Window Caulk	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected

Initial report from: 05/15/2017 14:01:58



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703645

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (2)

Anupriya Tyagi (27)

Lacy Searcy (16)

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: 05/15/2017 14:01:58



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703645  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:**  
**Project:** 0317-55 Build #34

## 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
34-11-Floor Tile 411703645-0033	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-11-Mastic 411703645-0034	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-18 411703645-0035	Bathroom - Shower Stall & Sink Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-21-Shingle 1 411703645-0036	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
34-21-Shingle 2 411703645-0037	Roof - 2 Shingles, 1 Felt	Red/Black Fibrous Homogeneous	100	None	No Asbestos Detected
34-21-Felt 411703645-0038	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
34-24 411703645-0039	Ext. Windows - Window Caulk - Black	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-27 411703645-0040	Ext. Doors - Door Caulk - Grey	Brown/Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-30 411703645-0041	HVAC Closet - Red HVAC Caulk	Tan/Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-36 411703645-0042	Kitchen Sinks - Kitchen Sink Undercoat - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-39 411703645-0043	HVAC Vents - HVAC Supply Vent Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-42 411703645-0044	Kitchens - Kit. Counter Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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: 05/22/2017 11:19:11





# EMSL Analytical, Inc.

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

**EMSL Order:** 411703645  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/19/2017  
**Collected Date:**  
**Project:** 0317-55 Build #34

## 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
34-45 411703645-0045	Windows - Interior Window Caulk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (13)

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: 05/22/2017 11:19:11



# Asbestos Bulk Building Material Chain of Custody

Charlotte, NC 28273

PHONE: (704) 525-2205

FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** (Lab Use Only):

411704166

Company: Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Clesget Bldg 34 ext. SC</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: Tom Oliver      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
34-46		Beige HVAC mastic	
34-47		↓	
34-48			
34-49		Metal w/ rubber Coating	
34-50		↓	
34-51			
34-52		Black mastic + white cork	
34-53		↓	
34-54			

Client Sample # (s): *46 - 57*      Total # of Samples: *12*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *[Signature]*      Date: *5/26/17*      Time: *9:10 AM FK*

Comments/Special Instructions: *7152 9037 7718*







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704166

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/26/2017 9:10 AM

**Analysis Date:** 06/01/2017

**Collected Date:**

**Project:** Cammie Clagget Bldg. 34 Ext.

## 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
34-46 <small>411704166-0001</small>	Beige HVAC Mastic	Beige Non-Fibrous Homogeneous	2% Synthetic <1% Glass	15% Ca Carbonate 83% Non-fibrous (Other)	None Detected
34-47 <small>411704166-0002</small>	Beige HVAC Mastic	Beige Fibrous Homogeneous	<1% Synthetic <1% Glass	15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
34-49-Metal <small>411704166-0003</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-50-Metal <small>411704166-0004</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-51-Metal <small>411704166-0004A</small> <i>No rubber coating present.</i>	Metal w/ Rubber Coating	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-52-Mastic <small>411704166-0005</small>	Black Mastic & White Caulk	Black Non-Fibrous Homogeneous	5% Cellulose	10% Ca Carbonate 85% Non-fibrous (Other)	None Detected
34-52-Caulk <small>411704166-0005A</small>	Black Mastic & White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-53-Mastic <small>411704166-0006</small>	Black Mastic & White Caulk	Black Fibrous Homogeneous	8% Cellulose	8% Ca Carbonate 84% Non-fibrous (Other)	None Detected
34-53-Caulk <small>411704166-0006A</small>	Black Mastic & White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-55-Gray Caulk <small>411704166-0007</small>	Gable Vent Caulks	Gray/Tan Non-Fibrous Homogeneous	<1% Glass	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
34-55-Tan Caulk <small>411704166-0007A</small>	Gable Vent Caulks	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
34-56-Gray Caulk <small>411704166-0008</small>	Gable Vent Caulks	Gray Non-Fibrous Homogeneous	2% Glass	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
34-56-Tan Caulk <small>411704166-0008A</small>	Gable Vent Caulks	Tan Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 12:30:19





# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411704166

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (2)

Anupriya Tyagi (7)

Travis Hartney (4)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 06/01/2017 12:30:19



# EMSL Analytical, Inc.

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**EMSL Order:** 411704166  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/06/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 34 Ext.

## 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
34-48 411704166-0009	Beige HVAC Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-54-Mastic 411704166-0010	Black Mastic & White Caulk	Black Fibrous Homogeneous	100	None	No Asbestos Detected
34-54-Caulk 411704166-0011	Black Mastic & White Caulk	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-57-Gray Caulk 411704166-0012	Gable Vent Caulks	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
34-57-Tan Caulk 411704166-0013	Gable Vent Caulks	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (5)

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: 06/07/2017 07:54:36

EMSL Analytical, Inc.  
376 Crompton Street



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703646

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Company: Apex Environmental Management		EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		Third Party Billing requires written authorization from third party	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Nicholas Neerhof		Telephone #: 864-404-3210	
Email Address: nneerhof@apex-ehs.com		Fax #:	Purchase Order:
Project Name/Number: 0317-55 Build. # 35		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options\* - Please Check

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<input type="checkbox"/> Other
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: 5-5-17

Samplers Name: Ted Shultz      Samplers Signature: [Signature]

Sample #	HA #	Sample Location	Material Description
35-1		roof	2 shingles 1 felt
35-2			
35-3			
35-4			window caulk Bk
35-5		ext. windows	
35-6			
35-7		ext. doors	door caulk gray
35-8			
35-9			

Client Sample # (s): 1-44      Total # of Samples:

Relinquished (Client): [Signature]      Date: 5-8-17      Time: 10:00 am

Received (Lab): [Signature]      Date: 5/1/17      Time: 10:20 am PK

Comments/Special Instructions: Please utilize positive stop analysis. Bill To: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order: 7952 8323 4895





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

### Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

411703646

EMSL Analytical, Inc.  
376 Crompton Street

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525-2382

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
35-10		449	Drywall, tape + J.C.
35-11		449	
35-12		449	
35-13		447	
35-14		447	
35-15		Bathroom	Plaster w/ finish ove
35-16			un finished drywall
35-17			
35-18		bathroom	Shower stall + sink
35-19			caulk
35-20			
35-21		Top layer F.T.	12x12 tan speckled F.T.
35-22			w/ mastic
35-23			(top layer)
35-24		bottom layer F.T.	Thin brown 12x12 F.T.
35-25			w/ mastic
35-26			(bottom layer)
35-27		bottom layer F.T.	12x12 thick brown F.T.
35-28			w/ mastic
35-29			(bottom layer)
35-30		Kitchen	Kitchen counter caulk
35-31			white
35-32			

**\*Comments/Special Instructions:**

Please utilize positive stop analysis.  
BillTo: Apex Environmental Management, 7 Winchester Court, Mauldin, SC, 29662, US  
Attention: Rebecca Shultz Phone: 864-404-3210 Email: rshultz@apex-ehs.com Purchase Order:







# EMSL Analytical, Inc.

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703646

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274

**Fax:**

**Received Date:** 05/09/2017 10:20 AM

**Analysis Date:** 05/12/2017

**Collected Date:** 05/05/2017

**Project:** 0317-55 Build. #35

## 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
35-1-Brown Shingle <i>411703646-0001</i>	Roof - 2 Shingles, 1 Felt	Brown/Black Fibrous Homogeneous	10% Glass	5% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
35-1-Gray Shingle <i>411703646-0001A</i>	Roof - 2 Shingles, 1 Felt	Gray/Black Fibrous Homogeneous	12% Glass	5% Quartz 8% Ca Carbonate 75% Non-fibrous (Other)	None Detected
35-1-Felt <i>411703646-0001B</i>	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
35-2-Brown Shingle <i>411703646-0002</i>	Roof - 2 Shingles, 1 Felt	Brown/Black Fibrous Homogeneous	10% Glass	8% Quartz 8% Ca Carbonate 74% Non-fibrous (Other)	None Detected
35-2-Gray Shingle <i>411703646-0002A</i>	Roof - 2 Shingles, 1 Felt	Gray/Black Fibrous Homogeneous	10% Glass	5% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
35-2-Felt <i>411703646-0002B</i>	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
35-4 <i>411703646-0003</i>	Ext. Windows - Window Caulk - Blk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-5 <i>411703646-0004</i>	Ext. Windows - Window Caulk - Blk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-7 <i>411703646-0005</i>	Ext. Doors - Door Caulk - Gray	Gray Non-Fibrous Homogeneous	1% Cellulose	5% Quartz 94% Non-fibrous (Other)	None Detected
35-8 <i>411703646-0006</i>	Ext. Doors - Door Caulk - Gray	Gray Non-Fibrous Homogeneous	<1% Cellulose	5% Quartz 95% Non-fibrous (Other)	None Detected
35-10-Drywall <i>411703646-0007</i> <i>No tape present</i>	449 - Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
35-10-Joint Compound <i>411703646-0007A</i>	449 - Drywall, Tape & JC	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
35-11-Drywall <i>411703646-0008</i> <i>No tape present</i>	449 - Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
35-11-Joint Compound <i>411703646-0008A</i>	449 - Drywall, Tape & JC				Positive Stop (Not Analyzed)
35-12-Drywall <i>411703646-0009</i>	449 - Drywall, Tape & JC	Brown/Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Initial report from: 05/12/2017 14:11:13



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**EMSL Order:** 411703646  
**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
35-12-Joint Compound	449 - Drywall, Tape & JC				Positive Stop (Not Analyzed)
<i>411703646-0009A</i>					
35-12-Tape	449 - Drywall, Tape & JC	Tan Fibrous Homogeneous	100% Cellulose		None Detected
<i>411703646-0009B</i>					
35-13	447 - Drywall, Tape & JC				Not Submitted
<i>411703646-0010</i>					
35-14	447 - Drywall, Tape & JC				Not Submitted
<i>411703646-0011</i>					
35-15-Skim Coat	Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703646-0012</i>					
35-15-Rough Coat	Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous	1% Cellulose	35% Quartz 64% Non-fibrous (Other)	None Detected
<i>411703646-0012A</i>					
35-15-Drywall	Bathroom - Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703646-0012B</i>					
35-16-Skim Coat	Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703646-0013</i>					
35-16-Rough Coat	Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
<i>411703646-0013A</i>					
35-16-Drywall	Bathroom - Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703646-0013B</i>					
35-17-Skim Coat	Bathroom - Plaster w/ Finish over Unfinished Drywall	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<i>411703646-0014</i>					
35-17-Rough Coat	Bathroom - Plaster w/ Finish over Unfinished Drywall	Gray Non-Fibrous Homogeneous		40% Quartz 60% Non-fibrous (Other)	None Detected
<i>411703646-0014A</i>					
35-17-Drywall	Bathroom - Plaster w/ Finish over Unfinished Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
<i>411703646-0014B</i>					
35-18	Bathroom - Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
<i>411703646-0015</i>					
35-19	Bathroom - Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
<i>411703646-0016</i>					
35-21-Floor Tile	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
<i>411703646-0017</i>					
35-21-Mastic	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
<i>411703646-0017A</i>					
35-22-Floor Tile	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
<i>411703646-0018</i>					
35-22-Mastic	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
<i>411703646-0018A</i>					

Initial report from: 05/12/2017 14:11:13



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**EMSL Order:** 411703646  
**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
35-24-Floor Tile 411703646-0019	Thin Brown 12x12 F.T. w/ Mastic (Bottom Layer)	Brown Non-Fibrous Homogeneous		10% Ca Carbonate 85% Non-fibrous (Other)	5% Chrysotile
35-24-Mastic 411703646-0019A	Thin Brown 12x12 F.T. w/ Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
35-25-Floor Tile 411703646-0020	Thin Brown 12x12 F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
35-25-Mastic 411703646-0020A	Thin Brown 12x12 F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
35-27-Floor Tile 411703646-0021	12x12 Thick Brown F.T. w/ Mastic (Bottom Layer)	Brown/Gray Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
35-27-Mastic 411703646-0021A	12x12 Thick Brown F.T. w/ Mastic (Bottom Layer)	Black Non-Fibrous Homogeneous	5% Cellulose	93% Non-fibrous (Other)	2% Chrysotile
35-28-Floor Tile 411703646-0022	12x12 Thick Brown F.T. w/ Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
35-28-Mastic 411703646-0022A	12x12 Thick Brown F.T. w/ Mastic (Bottom Layer)				Positive Stop (Not Analyzed)
35-30 411703646-0023	Kitchen - Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-31 411703646-0024	Kitchen - Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-33 411703646-0025	HVAC Closet - HVAC Caulk - Red	White/Red Non-Fibrous Homogeneous	1% Cellulose	10% Ca Carbonate 89% Non-fibrous (Other)	None Detected
35-34 411703646-0026	HVAC Closet - HVAC Caulk - Red	White/Red Non-Fibrous Homogeneous	1% Cellulose	8% Ca Carbonate 91% Non-fibrous (Other)	None Detected
35-36 411703646-0027	Interior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-37 411703646-0028	Interior Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-39 411703646-0029	Kitchen Sink - Kitchen Sink Undercoating	Black Non-Fibrous Homogeneous		20% Ca Carbonate 76% Non-fibrous (Other)	4% Chrysotile
35-40 411703646-0030	Kitchen Sink - Kitchen Sink Undercoating				Positive Stop (Not Analyzed)
35-42 411703646-0031	HVAC Vent Duct - HVAC Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
35-43 411703646-0032	HVAC Vent Duct - HVAC Caulk - White	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 05/12/2017 14:11:13





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376 Crompton Street Charlotte, NC 28273

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

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411703646

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (26)

Derrick Young (18)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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

Initial report from: 05/12/2017 14:11:13



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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**EMSL Order:** 411703646  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Build. #35

## 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
35-3-Brown Shingle 411703646-0033	Roof - 2 Shingles, 1 Felt	Brown/Black Fibrous Homogeneous	100	None	No Asbestos Detected
35-3-Gray Shingle 411703646-0034	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
35-3-Felt 411703646-0035	Roof - 2 Shingles, 1 Felt	Black Fibrous Homogeneous	100	None	No Asbestos Detected
35-6 411703646-0036	Ext. Windows - Window Caulk - Blk	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-9 411703646-0037	Ext. Doors - Door Caulk - Gray	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-20 411703646-0038	Bathroom - Shower Stall & Sink Caulk	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-23-Floor Tile 411703646-0039	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-23-Mastic 411703646-0040	12x12 Tan Speckled F.T. w/ Mastic (Top Layer)	Brown/Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-29-Floor Tile 411703646-0041	12x12 Thick Brown F.T. w/ Mastic (Bottom Layer)	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-32 411703646-0042	Kitchen - Kitchen Counter Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-35 411703646-0043	HVAC Closet - HVAC Caulk - Red	Red Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-38 411703646-0044	Interior Window Caulk	Brown Non-Fibrous Homogeneous	100	None	No Asbestos Detected

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from: 05/19/2017 08:34:02



# EMSL Analytical, Inc.

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

**EMSL Order:** 411703646  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Nicholas Neerhof  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/09/2017 10:20 AM  
**Analysis Date:** 05/18/2017  
**Collected Date:** 05/05/2017  
**Project:** 0317-55 Build. #35

## 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
35-44 411703646-0045	HVAC Vent Duct - HVAC Caulk - White	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (13)

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: 05/19/2017 08:34:02





# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

Charlotte, NC 28273  
PHONE: (704) 525-2205  
FAX: (704) 525 2382

**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

411704160

Company : Apex Environmental Management, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 7 Winchester Court		<i>Third Party Billing requires written authorization from third party</i>	
City: Mauldin	State/Province: SC	Zip/Postal Code: 29662	Country: US
Report To (Name): Tom Oliver		Telephone #: 864-404-3210	
Email Address: tolover@apex-ehs.com		Fax #: 864-404-3213	Purchase Order:
Project Name/Number: <i>Cammie Closet Rlds 35ext</i>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: <i>SC</i>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* – Please Check**

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

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

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<b>Other</b>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

Check For Positive Stop – Clearly Identify Homogenous Group      Date Sampled:

Samplers Name: **Tom Oliver**      Samplers Signature: *[Signature]*

Sample #	HA #	Sample Location	Material Description
35-13		Drywall w/ JC + tape	
35-14		↓	
35-45		Beige HVAC mask	
35-46		↓	
35-47		↓	
35-48		Metal w/ rubber sealant	
35-49		↓	
35-50		↓	

Client Sample # (s): *13, 14, 45* - *56*      Total # of Samples: *14*

Relinquished (Client): *[Signature]*      Date: *5-24-17*      Time:

Received (Lab): *Kyle Nelson*      Date: *5/26/17*      Time: *9:10am Fx*

Comments/Special Instructions: *7952 9037 7756*







# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704160  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/01/2017  
**Collected Date:**

**Project:** Cammie Clagget Bldg. 35 Ext.

## 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
35-13-Drywall <i>411704160-0001</i>	Drywall w/ JC & Tape	Brown/White Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
35-13-Joint Compound <i>411704160-0001A</i>	Drywall w/ JC & Tape	Tan Non-Fibrous Homogeneous		20% Ca Carbonate 78% Non-fibrous (Other)	2% Chrysotile
35-13-Tape <i>411704160-0001B</i>	Drywall w/ JC & Tape	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
35-14-Drywall <i>411704160-0002</i>	Drywall w/ JC & Tape	Brown/Gray Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
35-14-Joint Compound <i>411704160-0002A</i>	Drywall w/ JC & Tape				Positive Stop (Not Analyzed)
35-14-Tape <i>411704160-0002B</i>	Drywall w/ JC & Tape	Tan Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
35-45-Insulation <i>411704160-0003</i>	Beige HVAC Mastic	White Fibrous Homogeneous	99% Glass	1% Non-fibrous (Other)	None Detected
35-45-Mastic <i>411704160-0003A</i>	Beige HVAC Mastic	Beige Non-Fibrous Homogeneous	3% Synthetic <1% Glass	30% Ca Carbonate 67% Non-fibrous (Other)	None Detected
35-46-Insulation <i>411704160-0004</i>	Beige HVAC Mastic	White Fibrous Homogeneous	99% Glass	1% Non-fibrous (Other)	None Detected
35-46-Mastic <i>411704160-0004A</i>	Beige HVAC Mastic	Tan Fibrous Homogeneous	<1% Glass	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
35-47-Insulation <i>411704160-0004B</i>	Beige HVAC Mastic	White Fibrous Homogeneous	99% Glass	1% Non-fibrous (Other)	None Detected
35-48-Metal <i>411704160-0005</i> <i>No rubber sealant present.</i>	Metal w/ Rubber Sealant	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-49-Metal <i>411704160-0006</i> <i>No rubber sealant present.</i>	Metal w/ Rubber Sealant	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-50-Metal <i>411704160-0006A</i> <i>No rubber sealant present.</i>	Metal w/ Rubber Sealant	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-51 <i>411704160-0007</i>	Black Mastic	Black Non-Fibrous Homogeneous	5% Cellulose	10% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Initial report from: 06/01/2017 13:19:39



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376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411704160  
**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
35-52 <small>411704160-0008</small>	Black Mastic	Black Fibrous Homogeneous	8% Cellulose	5% Ca Carbonate 87% Non-fibrous (Other)	None Detected
35-54-Gray Caulk <small>411704160-0009</small>	Gable Vent Caulks	Gray Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
35-54-White Caulk <small>411704160-0009A</small>	Gable Vent Caulks	White Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
35-55-Gray Caulk <small>411704160-0010</small>	Gable Vent Caulks	Gray Non-Fibrous Homogeneous	<1% Glass	25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
35-55-White Caulk <small>411704160-0010A</small>	Gable Vent Caulks	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Anupriya Tyagi (10)

Travis Hartney (9)

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: 06/01/2017 13:19:39



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273  
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**EMSL Order:** 411704160  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

**Attention:** Tom Oliver  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662  
**Phone:** (864) 640-5274  
**Fax:**  
**Received Date:** 05/26/2017 9:10 AM  
**Analysis Date:** 06/05/2017  
**Collected Date:**  
**Project:** Cammie Clagget Bldg. 35 Ext.

## 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
35-47-Mastic 411704160-0011	Beige HVAC Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-53 411704160-0012	Black Mastic	Black Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-56-Gray Caulk 411704160-0013	Gable Vent Caulks	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
35-56-White Caulk 411704160-0014	Gable Vent Caulks	White Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Derrick Young (4)

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: 06/06/2017 08:06:58



**APPENDIX IV**

**SC DHEC ASBESTOS INSPECTOR LICENSES**

**SCDHEC ISSUED**  
Asbestos ID Card

**Nicholas Neerhof**



	Expiration Date
<b>AIR SAMPLER AS-00500</b>	<b>09/02/17</b>
<b>CONSULT BI-01545</b>	<b>08/10/17</b>

This card is nontransferable and considered invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced. This card is property of SCDHEC. It must be returned to the department if the holder's accreditation is revoked or if this card is invalidated. Any person performing regulated asbestos activities without current accreditation shall be subject to legal sanction. This card must be returned upon expiration and/or issuance of a new card.

**YOU MUST HAVE THIS IDENTIFICATION CARD WITH YOU ON THE JOB.**

For information or corrections contact: SCDHEC - Asbestos Section  
2600 Bull Street  
Columbia, SC 29201  
(803) 898-4289

---

**SCDHEC ISSUED**  
Asbestos ID Card

---

**John Oliver**



Expiration Date

<b>AIRSAMPLER</b>	<b>AS-00486</b>	<b>03/17/18</b>
<b>CONSULTBI</b>	<b>BI-01528</b>	<b>03/22/18</b>

---

**SCDHEC ISSUED**  
Asbestos ID Card

---

**Thomas H Oliver**



Expiration Date

**AIRSAMPLER AS-00202 03/17/18**  
**CONSULTBI BI-00680 01/18/18**



---

**SCDHEC ISSUED**  
Asbestos ID Card

---

**Tedman K Shultz**



		Expiration Date
<b>AIRSAMPLER</b>	<b>AS-00355</b>	<b>02/24/18</b>
<b>CONSULTBI</b>	<b>BI-00971</b>	<b>01/18/18</b>