

ADDENDUM NO.: TWO

DATE: November 20 2017

PROJECT TITLE: **USC Lieber College HVAC Renovation  
H27-Z313**  
University of South Carolina

WRITTEN BY: J. Sanders Tate, AIA NCARB

TO: Prospective Bidders / Plan Holders

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This addendum is issued pursuant to Article 1.1.1 of the AIA General Conditions of the Contract (A201) in connection with the revision of Bidding Documents which have been previously issued.

Addenda are issued prior to execution of Contract. All instructions contained herein shall be reflected in the Contract Sum and this Addendum will be made a part of the Contract Documents, if, as, and when a Construction Contract is awarded.

This Addendum forms a part of the Contract Documents and modifies the original documents as noted below. Acknowledge receipt of this Addendum in this space provided on the Bid Form. Failure to do so will subject the Bidder to disqualification.

This Addendum consists of 2 pages, and additional Hazardous Material Survey information (16 pages),

**NOTE TO BIDDERS:**

The crawl space under the building may be considered a confined space. Contractor shall comply with all applicable OSHA requirements

**BIDDER QUESTIONS:**

1. Is TAB by the GC or the owner?  
TAB is provided by Contractor per Specification Division 23
2. Are valve packages being provided by the owner?  
Yes, they are included in the Fan Coil Unit specs. Vendor will furnish.
3. Is all furniture being moved by the Owner and who is protecting the floors?  
All furniture is being moved from the building by the Owner. Any required protection and repair of existing surfaces is the responsibility of the Contractor.
4. The OAHU-1 is being provided by the Owner, is the unit coming in several sections and if this is the case will the unit still be warranted if a mechanical contractor install the section back together? The access to the upper floors will have to be in the elevator or stairs, this being said the OAHU may have to be broken up into several smaller sections.  
Yes, it is covered under the Delivery paragraph in the specs.

### **REVISIONS TO THE PROJECT MANUAL:**

1. Section 01100 Summary - paragraph 1.3.B: delete the sentence- "Painting will be provided by Owner". Painting required in Contract Documents will be by Contractor.
2. See the attached additional Hazardous Material Survey information provided by the Owner. **NOTE:** Contractor shall not handle any hazardous materials. USC will handle all Hazardous Materials. Contractor shall advise USC Project Manager whenever they encounter suspicious material and USC shall manage it.

### **REVISIONS TO THE DRAWINGS:**

1. E6 3<sup>rd</sup> Floor Electrical Demolition Plan, Electrical Room 308: There are 12 existing conduits routed from panelboards in the electrical room to serve 3<sup>rd</sup> floor and 4<sup>th</sup> floor loads that enter the shaft area adjacent to the electrical room at the ceiling, and are blocking the shaft where new vertical ductwork will be installed.
  - One is a 1-1/4" EMT raceway (with compression fittings) with four #3 AWG conductors and a #8 AWG ground wire routed from panel "C" on the 3<sup>rd</sup> floor to serve panel "E" on the 4<sup>th</sup> floor.
  - Two are 1/2" EMT raceways (with compression fittings) with branch circuits serving loads on the 3<sup>rd</sup> and/or 4<sup>th</sup> floors.
  - Eight are 3/4" EMT raceways (with compression fittings) with branch circuits serving loads on the 3<sup>rd</sup> and/or 4<sup>th</sup> floors.
  - One is a 1" EMT raceways (with compression fittings) with branch circuits serving loads on the 3<sup>rd</sup> and/or 4<sup>th</sup> floors.

The twelve raceways are routed adjacent to each other at the 3<sup>rd</sup> floor ceiling, in a horizontal plane across the shaft. The Contractor shall trace branch circuits in each raceway using electronic circuit tracing equipment to field verify the origin and endpoint of each feeder and branch circuit. The Contractor shall then disassemble the existing EMT raceways and pull out the existing feeder and branch circuit wiring in the shaft area. The contractor shall then provide new EMT raceways, stacked vertically along the shaft wall (instead of horizontally) and raceway fittings to reconnect and re-serve the existing feeder and branch circuit loads. Where existing conductors are not long enough to be-re-used based on new raceway routings, they shall be replaced with new, matching conductors.

### **END OF ADDENDUM**

**Description** HAZMAT SURVEY - LIEBER COLLEGE HVAC REPLACEMENT

<b>Site</b>	COLUMBIA	<b>Assigned To</b>	JPROVENCE
<b>Building</b>	074 LIEBER COLLEGE	<b>Crew</b>	HAZMAT
<b>Floor</b>	<b>Room:</b>	<b>Start Date</b>	<b>Priority</b> 3
<b>Equipment</b>		<b>Due date</b>	22-JUN-16
		<b>Request Date</b>	08-JUN-16 <b>by</b> JABRAMS

**Request #** FM00520298 **Description** HAZMAT SURVEY - LIEBER COLLEGE HVAC REPLACEMENT**Parent WO #****CP Number** 50002876 **FY16 – E&GMR – LIEBER - INVESTIGATION/REPORT OF HUMIDITY CONTROL****State/Internal Project Number** H27-Z253

<b>Requestor</b>	ABRAMS,JEFF	<b>Project Manager</b>	ABRAMS, JEFFREY R
<b>Telephone</b>	239-8074	<b>Telephone</b>	777-3594
<b>Alternate</b>		<b>Estimated Cost</b>	\$ 1,150.00
<b>Telephone</b>		<b>Billing</b>	FIXED PRICE
<b>Non-Available Time</b>		<b>53200-W258-57120</b>	(FY16-INVESTIGATION & REPORT OF HUMIDITY)

**Task List**

ERIC, WE HAVE ALLOCATED \$1,150 NOT-TO-EXCEED FOR HAZMAT SURVEY AND ABATEMENT ESTIMATE. THANK YOU, JEFF ABRAMS, JUN 8, 2016.

<b>DATE WORK STARTED</b>	<b>CAUSE</b>
<b>DATE WORK COMPLETED</b>	<b>CONDITION</b>
<b>EQUIPMENT</b>	
<b>CLOSING REMARKS</b>	
<b>BENCHSTOCK MATERIALS</b>	
<b>Qty</b> <b>Description</b>	<b>Price Per Unit</b>

**Supervisor's Approval****Note Date** **Title**

21-JUN-16 HAZMAT SURVEY RESULTS

SURVEY DATE: 6/16/16

INSPECTOR #: DARRYL WASHINGTON II (BI-00568) AND ERIC MELARO (BI-01296)

STATUS: SCOPE OF WORK FOR THIS INCLUDES (1) CONSTRUCTING A MECHANICAL ROOM TO HOUSE AN AIR HANDLER UNIT ON THE FOURTH FLOOR, (2) ADDING SOFFITS ON THE FIRST AND FOURTH FLOORS, (3) REPLACING FAN COIL UNITS THROUGHOUT THE BUILDING, (4) ADDING VAV BOXES ABOVE THE CEILING IN SOME LOCATIONS, (5) REWORKING CHILL WATER PIPING IN MECHANICAL ROOM 111 AND THROUGHOUT THE BUILDING, (5) REPLACING CEILING TILE, (6) REPLACING THE DORMER WINDOW ON THE SOUTHEAST CORNER OF THE BUILDING WITH A LOUVER, AND (7) CREATING A FRESH AIR SUPPLY DUCT IN THE BUILDING'S CENTRAL CHASE.

**ASBESTOS SECTION:**

WHITE MASTIC ON CHILL WATER LINES ( MECHANICAL ROOM 111) - POSITIVE FOR ASBESTOS

12X12 FLOOR TILE AND BLACK MASTIC (4TH FLOOR BREAK ROOM AND CLOSET) - POSITIVE FOR ASBESTOS

JOINT COMPOUND (ALL OF THE BUILDING) - NEGATIVE FOR ASBESTOS

SHEETROCK (ALL OF THE BUILDING) - NEGATIVE FOR ASBESTOS

2X2 CEILING TILE- NEGATIVE FOR ASBESTOS  
TAN VINYL BASE AND GLUE (4TH FLOOR KITCHEN AND ROOM 402) - NEGATIVE FOR ASBESTOS  
PLASTER (ALL OF THE BUILDING EXCEPT ROOM 305) - NEGATIVE FOR ASBESTOS

LEAD SECTION:  
OFF WHITE PLASTER PAINT- NEGATIVE FOR LEAD

**INSPECTOR'S NOTES:**

- ASBESTOS JOINT COMPOUND WAS PREVIOUSLY FOUND ON PLASTER BEHIND SHEETROCK ON THE WEST WALL WAS DETECTED IN ROOM 305 AND SHOULD NOT BE DISTURBED AS A RESULT, THE PLASTER WALLS IN ROOM 305 ARE DEEMED POSITIVE FOR ASBESTOS. INSPECTORS LOOKED IN NUMEROUS LOCATIONS IN THE BUILDING AND DID NOT SEE THE SAME SCENARIO. DURING WORK IF THIS IS FOUND IT SHOULD BE TREATED AS POSITIVE AND CONTACT USC HAZMAT TEAM FOR ASSISTANCE.
- ROOM 402 APPEARS TO HAVE CARPET OVER WOODEN FLOORING WITH YELLOW AND GREEN GLUE. IF WOOD WILL BE REMOVED AND ANY SUSPECT FLOORING IS DETECTED BELOW, STOP WORK AND CALL USC HAZMAT INSPECTORS TO PERFORM ADDITIONAL TESTING.
- SOIL IN THE CRAWL SPACE OF THE BUILDING IS PRESUMED POSITIVE FOR ASBESTOS, AND POLY SHOULD BE LAID IN THIS SPACE FOR CONTRACTOR ACCESS.
- ASBESTOS 9X9 FLOORING AND BLACK MASTIC HAS BEEN DETECTED UNDER WOOD FLOORING IN THIS BUILDING.
- INSPECTORS CHECKED INTERIOR OF MANY OF THE FAN COIL UNITS IN THE BUILDING AS WELL AS MECHANICAL ROOM 111 AND THE CENTRAL CHASE AND IT APPEARS THAT THE COPPER LINES ARE INSULATED WITH BLACK FOAM INSULATION WITH NO SUSPECT MASTIC.
- OFF WHITE PAINT WAS PREVIOUSLY TESTED ON THE SHEETROCK IN THE BUILDING AND IS NEGATIVE FOR LEAD.
- NO SUSPECT GLAZING OR CAULK WAS OBSERVED ON THE DORMER WINDOW THAT WILL BE REMOVED.

IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT.

PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.

REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.

**25-OCT-13 ASBESTOS IN JOINT COMPOUND**

ASBESTOS CONTAINING JOINT COMPOUND HAS BEEN FOUND IN THIS BUILDING. DO NOT CUT, SAND OR DRILL WALLS. FOR FURTHER INFORMATION OR ASSISTANCE, PLEASE CONTACT THE USC HAZMAT PROGRAM.

3892



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Building # 074 LIEBER COLLEGE Sample Analysis Type of Analysis: Lead / Asbestos Date: 6/12/16 Turn Around Time 24 HRS

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
A	1	PLASTER	ROOM 103	F	G	<5000 SQ FT	LOW
A	2	PLASTER	4TH FLOOR KITCHEN EAST WALL	F	G	<5000 SQ FT	LOW
A	3	PLASTER	3RD FLOOR WOMENS ROOM EAST WALL	F	G	<5000 SQ FT	LOW
A	4	PLASTER	ROOM 201 SOUTH WALL	F	G	<5000 SQ FT	LOW
A	5	PLASTER	MECHANICAL ROOM 111	F	G	<5000 SQ FT	LOW
B	6	WHITE MASTIC	ON WATER LINES IN MECH ROOM 111	NF	G	<10 SQ FT	LOW
B	7	WHITE MASTIC	ON WATER LINES IN MECH ROOM 111	NF	G	<10 SQ FT	LOW
B	8	WHITE MASTIC	ON WATER LINES IN MECH ROOM 111	NF	G	<10 SQ FT	LOW
C	9	2X2 CEILING TILE	3RD FLOOR MENS ROOM	F	G	>5000 SQ FT	LOW
C	10	2X2 CEILING TILE	ROOM 205B	F	G	>5000 SQ FT	LOWP

License # BI-00568 FM# FM00520298 Signature Requestor JEFF ABRAMS



## Sample Analysis

Type of Analysis: Lead / Asbestos Date: Turn Around Time Building # 

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
C	11	2X2 CEILING TILE	HALL OUTSIDE ROOM 103	F	G	>5000 SQ FT	LOW
D	12	12X12 FLOOR TILE / MASTIC	4TH FLOOR KITCHEN FLOORING	NF	G	<600 SQ FT	LOW
D	13	12X12 FLOOR TILE / MASTIC	4TH FLOOR KITCHEN FLOORING	NF	G	<600 SQ FT	LOW
D	14	12X12 FLOOR TILE / MASTIC	4TH FLOOR KITCHEN FLOORING (1 <sup>st</sup> 2 <sup>nd</sup> neg)	NF	G	<600 SQ FT	LOW
E	15	TAN VINYL BASE / GLUE	ROOM 402 WEST WALL	NF	G	<200 LIN FT	LOW
E	16	TAN VINYL BASE / GLUE	4TH FLOOR KITCHEN SOUTH WALL	NF	G	<200 LIN FT	LOW
E	17	TAN VINYL BASE / GLUE	4TH FLOOR KITCHEN WEST WALL (1 <sup>st</sup> 2 <sup>nd</sup> neg)	NF	G	<200 LIN FT	LOW
F	18	JOINT COMPOUND	MECH ROOM 111	F	G	<1000 SQ FT	LOW
F	19	JOINT COMPOUND	HALL OUTSIDE ROOM 103	F	G	<1000 SQ FT	LOW
F	20	JOINT COMPOUND	HALL OUTSIDE 1ST FLOOR ELEVATOR	F	G	<1000 SQ FT	LOW

Requestor Signature FM# License #



Print Form

Reset Form

3892



Sample Analysis

Type of Analysis: Lead / Asbestos Date:

Turn Around Time

Building #

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
G	21	SHEETROCK	MECH ROOM 111	F	G	<1000 SQ Ft	LOW
G	22	SHEETROCK	HALLWAY OUTSIDE ROOM 103	F	G	<1000 SQ Ft	LOW
G	23	SHEETROCK	HALL OUTSIDE 1ST FLOOR ELEVATOR	F	G	<1000 SQ Ft	LOW
H	24	JOINT COMPOUND	ROOM 402	F	G	<1000 SQ Ft	LOW
H	25	JOINT COMPOUND	4TH FLOOR KITCHEN	F	G	<1000 SQ Ft	LOW
H	26	JOINT COMPOUND	ROOM 405 NORTH WALL	F	G	<1000 SQ Ft	LOW
I	27	SHEETROCK	ROOM 402	F	G	<1000 SQ Ft	LOW
I	28	SHEETROCK	4TH FLOOR KITCHEN	F	G	<1000 SQ Ft	LOW
I	29	SHEETROCK	ROOM 405 NORTH WALL	F	G	<1000 SQ Ft	LOW
J	30	JOINT COMPOUND	3RD FLOOR COPY AREA EAST WALL	F	G	<1000 SQ Ft	LOW

Requestor

Signature

FM#

License #



Print Form

Reset Form

3892



## Sample Analysis

Type of Analysis: Lead / Asbestos Date: Turn Around Time Building # 

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
J	31	JOINT COMPOUND	3RD FLOOR MENS ROOM WEST WALL	F	G	<1000 SQ FT	LOW
J	32	JOINT COMPOUND	3RD FLOOR WOMENS ROOM WEST WALL	F	G	<1000 SQ FT	LOW
K	33	SHEETROCK	3RD FLOOR MENS ROOM WEST WALL	F	G	<1000 SQ FT	LOW
K	34	SHEETROCK	3RD FLOOR WOMENS ROOM WEST WALL	F	G	<1000 SQ FT	LOW
K	35	SHEETROCK	3RD FLOOR COPY AREA EAST WALL	F	G	<1000 SQ FT	LOW
L	36	JOINT COMPOUND	ROOM 202 SOUTH WALL	F	G	<1000 SQ FT	LOW
L	37	JOINT COMPOUND	ROOM 205B NORTH WALL	F	G	<1000 SQ FT	LOW
L	38	JOINT COMPOUND	ROOM 205B NORTH WALL	F	G	<1000 SQ FT	LOW
M	39	SHEETROCK	ROOM 202 SOUTH WALL	F	G	<1000 SQ FT	LOW
M	40	SHEETROCK	HALL OUTSIDE ROOM 201 SOUTH WALL	F	G	<1000 SQ FT	LOW

License # FM# Signature Requestor

Send lab results in PDF and CSV format as soon as possible to: [asbestos@mailbox.sc.edu](mailto:asbestos@mailbox.sc.edu)

**EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284

Phone/Fax (336) 992-1025 / (336) 992-4175

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

EMSL Order: 021603892

CustomerID: UNSC62

CustomerPO:

ProjectID:

Attn: **USC Hazmat**  
**University of South Carolina**  
**743 Greene Street**  
**Columbia, SC 29208**

Phone: (803) 777-7000  
Fax: (803) 777-3990  
Received: 06/17/16 10:15 AM  
Analysis Date: 6/21/2016  
Collected: 6/16/2016

Project: 74 Lieber College

**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-Floor Tile 021603892-0014	12x12 Floor Tile/Mastic	Gray/Beige Fibrous Homogeneous	100	None	No Asbestos Detected
17-Cove Base 021603892-0017	Tan Vinyl Base/Glue	Gray/Tan Fibrous Homogeneous	100	None	No Asbestos Detected
17-Mastic 021603892-0017A	Tan Vinyl Base/Glue	Tan Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Stephen Bennett (3)

Stephen Bennett, 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. Kernersville, NC

Initial report from 06/21/2016 10:32:08

**EMSL Analytical, Inc.**

706 Galin Street Kornersville, NC 27284  
 Tel/Fax: (336) 992-1025 / (336) 992-4175  
<http://www.EMSL.com> / [greensborolab@emsl.com](mailto:greensborolab@emsl.com)

EMSL Order: 021603892

Customer ID: UNSC62

Customer PO:

Project ID:

**Attention:** USC Hazmat  
 University of South Carolina  
 743 Greene Street  
 Columbia, SC 29208

Phone: (803) 777-7000

Fax: (803) 777-3990

Received Date: 06/17/2016 10:15 AM

Analysis Date: 06/17/2016

Collected Date: 06/16/2016

Project: 74 Lieber College

### 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-Skim Coat 021603892-0001	Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
1-Rough Coat 021603892-0001A	Plaster	Tan Non-Fibrous Heterogeneous	1% Cellulose 1% Hair	35% Quartz 63% Non-fibrous (Other)	None Detected
2-Skim Coat 021603892-0002	Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
2-Rough Coat 021603892-0002A	Plaster	Gray Non-Fibrous Homogeneous	<1% Cellulose	20% Perlite 80% Non-fibrous (Other)	None Detected
3-Skim Coat 021603892-0003	Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
3-Rough Coat 021603892-0003A	Plaster	Gray Non-Fibrous Homogeneous	<1% Cellulose	20% Perlite 80% Non-fibrous (Other)	None Detected
4-Skim Coat 021603892-0004 4	Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4-Rough Coat 021603892-0004A	Plaster	Tan/Beige Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 70% Non-fibrous (Other)	None Detected
5-Skim Coat 021603892-0005	Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
5-Rough Coat 021603892-0005A	Plaster	Gray Non-Fibrous Homogeneous		20% Perlite 80% Non-fibrous (Other)	None Detected
6 021603892-0006	White Mastic	Tan/White Non-Fibrous Homogeneous	<1% Cellulose <1% Glass 1% Wollastonite	99% Non-fibrous (Other)	None Detected
7 021603892-0007	White Mastic	White Fibrous Heterogeneous	20% Cellulose 1% Glass	79% Non-fibrous (Other)	None Detected
8 021603892-0008	White Mastic	Gray/Tan Fibrous Homogeneous	5% Cellulose 1% Glass	91% Non-fibrous (Other)	3% Chrysotile
9 021603892-0009	2x2 Ceiling Tile	Gray/Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	20% Perlite 10% Non-fibrous (Other)	None Detected
10 021603892-0010	2x2 Ceiling Tile	Gray/Tan/White Fibrous Heterogeneous	30% Cellulose 45% Min. Wool	15% Perlite 10% Non-fibrous (Other)	None Detected

**EMSL Analytical, Inc.**

706 Gralin Street Kenersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

<http://www.EMSL.com> / [greensborolab@emsl.com](mailto:greensborolab@emsl.com)**EMSL Order:** 021603892**Customer ID:** UNSC62**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 021603892-0011	2x2 Ceiling Tile	Tan/White Fibrous Homogeneous	45% Cellulose 20% Min. Wool	30% Perlite 5% Non-fibrous (Other)	None Detected
12-Floor Tile 021603892-0012	12x12 Floor Tile/Mastic	Gray/Beige Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
12-Mastic 021603892-0012A	12x12 Floor Tile/Mastic	Black Non-Fibrous Homogeneous	1% Cellulose	94% Non-fibrous (Other)	5% Chrysotile
13-Floor Tile 021603892-0013	12x12 Floor Tile/Mastic	Gray/Beige Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
13-Mastic 021603892-0013A	12x12 Floor Tile/Mastic	Black Non-Fibrous Homogeneous	<1% Cellulose	95% Non-fibrous (Other)	5% Chrysotile
14-Floor Tile 021603892-0014	12x12 Floor Tile/Mastic	Gray/Beige Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
14-Mastic 021603892-0014A	12x12 Floor Tile/Mastic	Black Non-Fibrous Homogeneous	1% Cellulose	94% Non-fibrous (Other)	5% Chrysotile
15-Cove Base 021603892-0015	Tan Vinyl Base/Glue	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-Mastic 021603892-0015A	Tan Vinyl Base/Glue	Beige Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
16-Cove Base 021603892-0016	Tan Vinyl Base/Glue	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-Mastic 021603892-0016A	Tan Vinyl Base/Glue	Beige Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
17-Cove Base 021603892-0017	Tan Vinyl Base/Glue	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17-Mastic 021603892-0017A	Tan Vinyl Base/Glue	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
18 021603892-0018	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
19 021603892-0019	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
20 021603892-0020	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
21 021603892-0021	Sheetrock	Gray Non-Fibrous Homogeneous	1% Cellulose 1% Glass	98% Non-fibrous (Other)	None Detected
22 021603892-0022	Sheetrock	Brown/Gray Fibrous Heterogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected
23 021603892-0023	Sheetrock	Brown/Gray Fibrous Homogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected

Initial Report From: 06/17/2016 17:24:16

**EMSL Analytical, Inc.**

706 Grallin Street Kernersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

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

EMSL Order: 021603892

Customer ID: UNSC62

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	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
24 021603892-0024	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
25 021603892-0025	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
26 021603892-0026	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
27 021603892-0027	Sheetrock	Gray Non-Fibrous Homogeneous	1% Cellulose 1% Glass	98% Non-fibrous (Other)	None Detected
28 021603892-0028	Sheetrock	Brown/Gray Fibrous Heterogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected
29 021603892-0029	Sheetrock	Gray Fibrous Homogeneous	3% Cellulose 1% Glass	96% Non-fibrous (Other)	None Detected
30 021603892-0030	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
31 021603892-0031	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
32 021603892-0032	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
33 021603892-0033	Sheetrock	Brown/Gray Fibrous Heterogeneous	3% Cellulose 1% Glass	96% Non-fibrous (Other)	None Detected
34 021603892-0034	Sheetrock	Tan Non-Fibrous Homogeneous	1% Cellulose 1% Glass	98% Non-fibrous (Other)	None Detected
35 021603892-0035	Sheetrock	Gray Fibrous Homogeneous	2% Cellulose 1% Glass	97% Non-fibrous (Other)	None Detected
36 021603892-0036	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
37 021603892-0037	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
38 021603892-0038	Joint Compound	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
39 021603892-0039	Sheetrock	Gray Non-Fibrous Homogeneous	2% Cellulose 1% Glass	97% Non-fibrous (Other)	None Detected
40 021603892-0040	Sheetrock	Brown/Gray Fibrous Heterogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected
41 021603892-0041	Sheetrock	Gray Fibrous Homogeneous	2% Cellulose 1% Glass	97% Non-fibrous (Other)	None Detected





## EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

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

EMSL Order: 021603892

Customer ID: UNSC62

Customer PO:

Project ID:

Analyst(s)

Kristie Elliott (18)

Nicole Shutts (34)

Stephen Bennett, Laboratory Manager  
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321

Initial Report From: 06/17/2016 17:24:16



Reading No	Time	Type	Duration	Units	Sequence	Component	Substrate	Side
57	6/16/2016 9:37	PAINT	1.27	mg / cm ^2	Final	calibrate		
58	6/16/2016 9:38	PAINT	3.32	mg / cm ^2	Final	wall	plaster	
59	6/16/2016 9:38	PAINT	3.33	mg / cm ^2	Final	wall	plaster	
60	6/16/2016 9:48	PAINT	20	mg / cm ^2	Final	wall	plaster	
61	6/16/2016 9:49	PAINT	10.13	mg / cm ^2	Final	wall	plaster	
62	6/16/2016 10:13	PAINT	5.05	mg / cm ^2	Final	wall	plaster	
63	6/16/2016 10:13	PAINT	6.47	mg / cm ^2	Final	wall	plaster	
64	6/16/2016 10:43	PAINT	8.87	mg / cm ^2	Final	wall	plaster	
65	6/16/2016 10:44	PAINT	5.7	mg / cm ^2	Final	wall	plaster	
66	6/16/2016 10:58	PAINT	1.26	mg / cm ^2	Final	calibrate		

Condition	Color	Site	Inspector	Floor	Room	Misc 1	Misc 2	Results	Depth Index
	green	lieber	melaro					Negative	1
good	off white	lieber	melaro			103		Negative	1
good	off white	lieber	melaro			103		Negative	1
good	off white	lieber	melaro			105		Null	9.59
good	off white	lieber	melaro			105		Negative	7.14
good	off white	lieber	melaro		4th floor kitchen			Null	1
good	off white	lieber	melaro		4th floor kitchen			Negative	1
good	off white	lieber	melaro			201		Negative	1.36
good	off white	lieber	melaro			201		Negative	1
	green	lieber	melaro					Negative	1

Action Level	PbC	PbC Error	PbL	PbL Error	PbK	PbK Error
0.7	0.3	0.18	0.3	0.18 < LOD		2.75
0.7 < LOD		0.03 < LOD		0.03 < LOD		1.1
0.7 < LOD		0.03 < LOD		0.03 < LOD		1.22
0.7	0.8	0.4	0.22	0.1	0.8	0.4
0.7	0.15	0.09	0.15	0.09 < LOD		0.75
0.7 < LOD		0.03 < LOD		0.03 < LOD		1.2
0.7 < LOD		0.03 < LOD		0.03 < LOD		1.05
0.7 < LOD		0.03 < LOD		0.03 < LOD		0.75
0.7 < LOD		0.03 < LOD		0.03 < LOD		1.05
0.7	0.3	0.18	0.3	0.18 < LOD		2.57