

# Asbestos and Lead Paint Survey Report of Findings

**Former St. Francis Hospital  
108 East Howell Street  
Marceline, Missouri**

May 9, 2018

Terracon Project No: 09187012

**Prepared for:**

Missouri Department of Natural Resources  
Jefferson City, Missouri

**Prepared by:**

Terracon Consultants, Inc.  
Columbia Missouri

terracon.com

**Terracon**

Environmental



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Geotechnical



Materials

May 9, 2018



Missouri Department of Natural Resources  
Brownfields Voluntary Cleanup Section  
1730 East Elm Street  
P.O. Box 176  
Jefferson City, Missouri 65102

Attn: Ms. Jennifer Surber  
P: (573) 526-0181  
E: Jennifer.Surber@dnr.mo.gov

Re: Asbestos and Lead Paint Survey Report of Findings  
Former St. Francis Hospital  
108 East Howell Street  
Marceline, Missouri 64658  
Contract No. CS170288003  
Vendor No. 54091344006  
Terracon Project No. 09187012

Dear Ms. Surber:

Terracon Consultants, Inc. is pleased to submit the attached Asbestos and Lead Paint Survey Report of Findings for the above-referenced site. This survey was performed in accordance with the Statewide Services Contract CS170288003 and Terracon's Proposal No. P09187012 dated March 14, 2018.

Asbestos containing materials were identified within the building. Lead based paint (LBP) as defined by the United States Environmental Protection Agency (USEPA) and the State of Missouri was identified in this building. Please refer to attached report for detailed information.

Terracon appreciates the opportunity to perform this service for the Missouri Department of Natural Resources Brownfields Voluntary Cleanup Section. If you have any questions regarding this report please contact the undersigned at 573-214-2677.

Sincerely,  
**Terracon Consultants, Inc.**

  
For: Timothy Easley  
Environmental Technician

  
For: Allen R. Bartels  
Senior Consultant

Terracon Consultants Inc. 3601 Mojave Court Columbia, MO 65202  
P 573-214-2677 F 573-214-2714 terracon.com

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**ASBESTOS AND LEAD PAINT SURVEY REPORT OF FINDINGS**  
**Former St. Francis Hospital**  
**108 East Howell Street**  
**Marceline, Missouri**  
**Terracon Project No.: 09187012**  
**May 9, 2018**

## **1.0 INTRODUCTION**

Terracon Consultants Inc. (Terracon) conducted an asbestos and lead paint survey of the above referenced site on April 23 and 24, 2018. The survey was conducted by state of Missouri certified asbestos inspectors and a state of Missouri licensed lead inspector in general accordance with the Statewide Services Contract CS170288003 and Terracon's Proposal No. P09187012 dated March 14, 2018. The accessible interior and exterior of the building was visually assessed for asbestos-containing materials (ACM) and lead-based paint (LBP). Reasonable effort was made to survey accessible areas. Additional suspect materials could within walls, in voids or in other concealed areas.

### **1.1 Reliance**

This report is for the exclusive use of the State of Missouri and City of Marceline for the project being discussed. Reliance by any other party on this report is prohibited without written authorization of Terracon and the State of Missouri and City of Marceline. Reliance on this report by the State of Missouri and City of Marceline and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report and the Statewide Services Contract No. CS170288003. The limitations of liability defined in the Statewide Services Contract No. CS170288003 is the aggregate limit of Terracon's liability to the State of Missouri and City of Marceline.

## **2.0 BUILDING DESCRIPTION**

The building is an approximate 18,250 square foot, three-story, former hospital building. The building was constructed in 1923 with an addition during the 1960's. Interior ceilings and walls are hard plaster or gypsum board. Interior floors are wood covered with floor tiles, carpet or ceramic tile in the original building and terrazzo in the addition. Exterior walls are brick.

## **3.0 ASBESTOS-CONTAINING MATERIAL SURVEY**

The survey was conducted by Timothy Easley and Jeremy Wood, state of Missouri certified asbestos inspectors. Copies of the asbestos inspector's certifications are attached in Appendix F. The survey was conducted in general accordance with the sample collection protocols established in USEPA 40 CFR Part 763.86, AHERA. A summary of survey activities is provided below.

### **3.1 Visual Assessment**

Survey activities were initiated with visual observation of the interior of the building to identify homogeneous areas of suspect ACM. A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color and texture with consideration given to the date of application. Interior assessment was conducted in visually accessible areas of the building proposed for renovation. Roof sampling was not conducted during this survey.

### **3.2 Physical Assessment**

A physical assessment of each homogeneous area (HA) of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the USEPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

### **3.3 Sample Collection**

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with USEPA AHERA sampling protocols. Samples of suspect materials were collected from randomly selected locations in each homogeneous area. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

The selection of sample locations and frequency of sampling were based on Terracon's observations and the assumption that like materials in the same area are homogeneous in content.

### **3.4 Sample Analysis**

Bulk samples were submitted under chain of custody to International Asbestos Testing Laboratories in Mount Laurel, NJ for analysis by Polarized Light Microscopy with dispersion staining techniques per USEPA methodology 600/R-93/116. The percentage of asbestos, where applicable, was determined by microscopic visual estimation. International Asbestos Testing Laboratories is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) Accreditation No. 101165-0.

### **3.5 Regulatory Overview**

The Missouri Department of Natural Resources, (MDNR) Air Pollution Control Program, enforces the Asbestos NESAHF as adopted by reference at 10 CSR 10-6.080. The owner or operator must provide MDNR with written notification at least 10 working days prior to the commencement of asbestos abatement activities that will disturb Regulated Asbestos Containing Materials (RACM) in amounts greater than or equal to 160 square feet, 260 linear feet or 35 cubic feet.

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. The asbestos NESHAP regulation also requires the identification and classification of existing ACM according to friability prior to demolition or renovation activity. Friable ACM is a material containing more than 1% asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. All friable ACM is considered regulated asbestos containing material (RACM).

The asbestos NESHAP regulation classifies ACM as either RACM, Category I non-friable ACM or Category II non-friable ACM. RACM includes all friable ACM, along with Category I and Category II non-friable ACM that has become friable, will be or has been subjected to sanding, grinding, cutting or abrading, or ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder in the course of renovation or demolition activity. Category I non-friable ACM are exclusively asbestos-containing packings, gaskets, resilient floor coverings, resilient floor covering mastics and asphalt roofing products that contain more than 1% asbestos. Category II non-friable ACM are all other non-friable materials other than Category I non-friable ACM that contain more than 1% asbestos. Category II non-friable ACM generally includes but is not limited to cementitious material such as: cement pipes, cement siding, cement panels, glazing, mortar and grouts.

The United States Occupational Safety and Health Administration (USOSHA) asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The USOSHA standard requires that employee exposure to airborne asbestos must not exceed 0.1 fibers per cubic centimeter of air (0.1 f/cc) as an eight hour time weighted average (TWA) and not exceed 1.0 fibers per cubic centimeter of air (1.0 f/cc) over a 30 minute time period known as an excursion limit (EL). The TWA and EL are known as USOSHA's asbestos permissible exposure limits (PELs). The USOSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

### 3.6 Findings and Recommendations

The following materials were identified by sampling and laboratory analysis to be asbestos containing:

Material Description	Material Location	NESHAP Category	Estimated Quantity
Textured wall plaster	Original building 1st floor waiting room	RACM	600 Sq. Ft.
Textured ceiling plaster	Original building 1st and 2nd floor ceilings throughout, basement maintenance shop ceiling	RACM	4400 Sq. Ft.
Boiler insulation	Addition basement boiler room - 2 boilers	RACM	360 Sq. Ft.
Breech insulation	Addition basement boiler room	RACM	280 Sq. Ft.
Tank insulation	Addition basement boiler room - 2 water tanks	RACM	220 Sq. Ft.
Tank insulation	Original building basement mechanical room above chiller equipment	RACM	15 Sq. Ft.

**Asbestos and Lead Paint Survey Report of Findings**

Former St. Francis Hospital, Marceline, MO

May 9, 2018 ■ Terracon Project No. 09187012



Material Description	Material Location	NESHAP Category	Estimated Quantity
Layered paper pipe insulation with mudded joint packings	Original building - basement mechanical room, west hall, utility room, 1st floor hallways, south center utility room, NE restroom, 2nd floor hallways. Addition -basement boiler room, kitchen cafeteria, restrooms, hallway, utility rooms, north stair, 1st and 2nd floor hallways, north stair and utility rooms and above hard plaster ceilings, 3rd floor hallway	RACM	1600 Lin. Ft. and 200 mudded joints
Preformed pipe insulation with mudded joint packings	Original building basement west hallway and utility rooms, 1st floor NE room closet, SE room closet, 2nd floor utility room closet. Addition basement boiler room, kitchen, cafeteria, north utility rooms and stairs, restrooms, hallway, beneath south stair, 1st and 2nd floors above hard plaster ceilings, 2nd floor SW room closet.	RACM	800 Lin. Ft. and 100 mudded joints
Corrugated pipe insulation with mudded joint packings	Original building basement mechanical room, west hallway and utility rooms, NE and SE storerooms, Attic steam loop	RACM	400 Lin. Ft. and 75 mudded joints
Mudded joint packings with fiberglass insulated piping	Original building - basement maintenance shop, east hall and east center storeroom, 2nd floor patient rooms in perimeter enclosures. Addition - basement boiler room, kitchen	RACM	75 mudded joints
12" x 12" Brown floor tile and mastic	Original building waiting area under carpet	Category I Non - friable	700 Sq. Ft.
9" x 9" White floor tile	Original building 1st floor throughout	Category I Non - friable	2500 Sq. Ft.
9" x 9" Tan floor tile	Original building 2nd floor throughout	Category I Non - friable	2500 Sq. Ft.
12" x 12" Tan floor tile and mastic	Original building west hall and room 103	Category I Non - friable	600 Sq. Ft.
12" x 12" Gold floor tile	Original building basement north center room, 1st floor NE room closet	Category I Non - friable	400 Sq. Ft.
Wood fire doors	Original building 1st and 2nd floor hall and stairs. Addition stairwells	RACM	30 Doors
Cement Panels	Addition basement boiler room ceiling	Category II Non -friable	800 Sq. Ft.
Window caulking	Original building and addition windows perimeter caulking	Category II Non -friable	94 windows

The above listed RACM must be removed by a state licensed abatement contractor prior to any activities (renovation and/or demolition) that may disturb this material in accordance with applicable federal, state and local regulations.

The above listed Category I non-friable ACM that is damaged or could be damaged to the extent that it could be crumbled, pulverized or reduced to powder when dry, making it friable, must be removed prior to any activities (renovation and/or demolition) that may disturb this material in accordance with applicable federal, state and local regulations.



The above listed Category II non-friable ACM that have a high probability of becoming crumbled, pulverized, or reduced to powder when dry, making it friable, must be removed prior to any activities (renovation and/or demolition) that may disturb this material in accordance with applicable federal, state and local regulations. USEPA believes that most demolition activities will subject Category II non-friable ACM to the asbestos NESHAP regulation.

The USEPA has determined drywall systems (joint compound, tape, and gypsum wallboard) that contains 1% or less asbestos, is not considered RACM and is not subject to NESHAP regulations.

A summary of materials reported to contain asbestos is presented in Appendix A. A summary of materials reported to contain less than 1% asbestos is presented in Appendix B. A summary of materials reported not to contain asbestos is presented in Appendix C. Asbestos laboratory analytical reports are included in Appendix D.

## **4.0 LEAD-BASED PAINT SURVEY**

Timothy Easley, a State of Missouri licensed lead inspector, conducted lead-based paint (LBP) testing using an Innov-X systems, Alpha series X-Ray Fluorescence instrument to determine if surface coatings contain lead. A copy of the inspector's certificate is included in Appendix F.

### **4.1 Visual Assessment**

The lead based paint inspection began by visually surveying accessible interior and exterior building components such as walls, ceilings, floors, doors, windows and trim. Various colors of paint were found on interior and exterior surfaces.

### **4.2 Sample Collection**

A total of 171 XRF readings were taken from testing combinations associated with the various components listed above. XRF readings are measured in milligrams per square centimeter (mg/cm<sup>2</sup>).

### **4.3 Sample Analysis**

An Innov-X Systems Alpha series X-Ray Fluorescence Spectrometer analyzed the surface coating for lead content. The instrument was used in accordance with guidelines detailed in the manufacturer's Standard Operating Procedures. Calibration checks were performed prior to and after sampling, using protocols provided by the instrument manufacturer.

### **4.4 Lead Paint Regulatory Overview**

The USOSHA 29 CFR 1926.62 has established permissible limits for airborne lead concentrations in the workplace. Owners or employers conducting renovation or demolition activities which may



disturb building materials containing lead (in any concentration) are required to protect their employees from airborne lead exposures in excess of the USOSHA permissible exposure limit (PEL).

USOSHA has established an “Action Level” for lead concentrations “in air” of 30 micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) and a “Permissible Exposure Limit” for lead concentrations “in air” of  $50 \mu\text{g}/\text{m}^3$ . At this time, USOSHA has no established limits for lead content in bulk paint (non-airborne). Their interpretation on this issue is that any amount of lead may cause airborne concentrations above the established limits.

#### **4.5 Findings and Recommendations**

Lead based paint (LBP) is defined by the United States Environmental Protection Agency (USEPA) and the State of Missouri as any paint or surface coating that contains  $1.0 \text{ mg}/\text{cm}^2$  or greater of lead.

Based on results of the lead paint testing, LBP was identified on the following surfaces:

##### Original Building

- § Plaster walls and ceilings
- § 1<sup>st</sup> floor waiting room wood ceiling
- § Wood window components
- § Wood doors and door jambs
- § Basement maintenance shop steel beam
- § Exterior downspouts

##### Addition

- § Plaster walls and ceilings
- § Metal stair components

Refer to Lead Paint XRF Data in Appendix E, for a complete list of surfaces tested.

The USOSHA hazard communication requirement states that when hazardous materials (lead, asbestos, etc.) are present, employers who have employees that may disturb the hazardous materials, employers must inform their employees of the presence of such materials.

While the painted surfaces containing lead in concentrations between  $0.0$  and  $1.0 \text{ mg}/\text{cm}^2$  do not meet the definition of lead-based paint under HUD, USEPA or the State of Missouri, the paint does contain lead and is subject to exposure limits under USOSHA. Therefore, it is the contractor's responsibility to make appropriate decisions concerning compliance with applicable USOSHA regulations.

## **5.0 GENERAL COMMENTS**

This survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during Terracon's survey of the building. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the State of Missouri and City of Marceline for specific application to their project. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information that may have been used in the preparation of this report. No warranty, express or implied is made.

## **APPENDIX A**

### **SUMMARY OF MATERIALS REPORTED TO CONTAIN ASBESTOS BY HOMOGENEOUS MATERIAL**

## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Metal Fire Door(s)	Miscellaneous Material	RACM	Yes

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to physical contact and is deteriorating with age.
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#### Estimated Quantity\* and Location:

Estimated - 30 Doors      Original building 1st and 2nd floor hall and stairs. Addition stairwells

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
01-FD1-01	1st Floor Entry To Rooms	White/Brown Fibrous	4/23/2018	25% Chrysotile
01-FD1-02	1st Floor Transition From Old To Addition	White Fibrous	4/23/2018	25% Chrysotile
01-FD1-03	3rd Floor, North	White Fibrous	4/23/2018	25% Chrysotile

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Textured wall plaster	Surfacing Material	RACM	Yes

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to physical contact.
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#### Estimated Quantity\* and Location:

Estimated - 600 Square Feet      Original building 1st floor waiting room

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
04-SC4-10	1st Floor, West Hall	Tan/Green Non-Fibrous	4/23/2018	None Detected
	1st Floor, West Hall	White Non-Fibrous	4/23/2018	None Detected
	1st Floor, West Hall	Off-White Texture	4/23/2018	None Detected
	1st Floor, West Hall	Grey Cementitious	4/23/2018	None Detected
04-SC4-11	1st Floor, East Hall	White Non-Fibrous	4/23/2018	None Detected
	1st Floor, East Hall	Off-White Texture	4/23/2018	None Detected
	1st Floor, East Hall	Tan/Green Non-Fibrous	4/23/2018	None Detected
04-SC4-12	1st Floor, North Entry Room	White Texture/Joint Compound	4/23/2018	PC 1.1% Chrysotile

# Appendix A

## Summary of Materials Reported to Contain Asbestos by Homogeneous Material

### Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>
12" x 12" Floor Tile and Mastic Brown	Miscellaneous Material	Category II      No Non-friable

**Damage Category:** Good Condition      **Reason for Damage:** This material is in good condition.

**Estimated Quantity\* and Location:**

Estimated - 700 Square      Original building waiting area under carpet  
Feet

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
08-FT2-22	Entry Room, Southwest	Yellow Mastic	4/23/2018	None Detected
	Entry Room, Southwest	White Leveling Compound	4/23/2018	None Detected
	Entry Room, Southwest	Black Mastic	4/23/2018	PC 2.1% Chrysotile
	Entry Room, Southwest	Brown Floor Tile	4/23/2018	PC 1.5% Chrysotile
08-FT2-23	Entry Room, Northwest	Yellow Mastic	4/23/2018	None Detected
	Entry Room, Northwest	Black Mastic	4/23/2018	PC 1.8% Chrysotile
	Entry Room, Northwest	Brown Floor Tile	4/23/2018	PC 1.1% Chrysotile
08-FT2-24	Entry Room, East	Black Mastic	4/23/2018	PC 2.2% Chrysotile
	Entry Room, East	Brown Floor Tile	4/23/2018	PC 1.3% Chrysotile

## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>
9" x 9" Floor Tile and Mastic White	Miscellaneous Material	Category I      No Non-friable

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to physical contact.
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**Estimated Quantity\* and Location:**

Estimated - 2500 Square Feet      Original building 1st floor throughout

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
09-FT1-25	1st Floor Reception Area, West	Yellow Mastic	4/23/2018	None Detected
	1st Floor Reception Area, West	Black Mastic	4/23/2018	None Detected
	1st Floor Reception Area, West	White Floor Tile	4/23/2018	PC 1.2% Chrysotile
09-FT1-26	1st Floor Eastern Most Room, North	Yellow Mastic	4/23/2018	None Detected
	1st Floor Eastern Most Room, North	Black Mastic	4/23/2018	None Detected
	1st Floor Eastern Most Room, North	White Floor Tile	4/23/2018	PC 1.1% Chrysotile
09-FT1-27	1st Floor, Center Room, South	Black Mastic	4/23/2018	None Detected
	1st Floor, Center Room, South	White Floor Tile	4/23/2018	PC 1.2% Chrysotile

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>
Textured ceiling plaster	Surfacing Material	RACM      Yes

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.
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**Estimated Quantity\* and Location:**

Estimated - 4400 Square Feet      Original building 1st and 2nd floor ceilings throughout, basement maintenance shop ceiling

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
10-SC4-28	1st Floor North Of Reception Area, Ceiling	Tan Non-Fibrous	4/23/2018	None Detected
	1st Floor North Of Reception Area, Ceiling	White Texture	4/23/2018	PC 1.2% Chrysotile
10-SC4-29	1st Floor, Reception Area	Tan Non-Fibrous	4/23/2018	None Detected
	1st Floor, Reception Area	White Texture	4/23/2018	PC 0.5% Chrysotile
10-SC4-30	1st Floor, Eastern Hallway	Tan Non-Fibrous	4/23/2018	None Detected
	1st Floor, Eastern Hallway	White Texture	4/23/2018	PC 0.5% Chrysotile

## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material

#### Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>
9" x 9" Floor Tile and Mastic Tan	Miscellaneous Material	Category I      No Non-friable

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to physical contact.
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**Estimated Quantity\* and Location:**

Estimated - 2500 Square      Original building 2nd floor throughout  
Feet

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
11-FT1-31	2nd Floor, Reception Area	Black Mastic	4/23/2018	None Detected
	2nd Floor, Reception Area	Tan Floor Tile	4/23/2018	PC 1.7% Chrysotile
	2nd Floor, Reception Area	Black Mastic	4/23/2018	None Detected
	2nd Floor, Reception Area	White Floor Tile	4/23/2018	PC 1.3% Chrysotile
11-FT1-32	Room 212	Black Mastic	4/23/2018	None Detected
	Room 212	Tan Floor Tile	4/23/2018	PC 1.2% Chrysotile
	Room 212	Black Mastic	4/23/2018	None Detected
	Room 212	White Floor Tile	4/23/2018	PC 1.3% Chrysotile
11-FT1-33	Room 206	Black Mastic	4/23/2018	None Detected
	Room 206	Tan Floor Tile	4/23/2018	PC 1.2% Chrysotile
	Room 206	Black Mastic	4/23/2018	None Detected
	Room 206	White Floor Tile	4/23/2018	PC 1.4% Chrysotile



## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>
12" x 12" Floor Tile and Mastic Tan	Miscellaneous Material	Category I      No Non-friable

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to physical contact.
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**Estimated Quantity\* and Location:**

Estimated - 600 Square Feet      Original building west hall and room 103

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
12-FT2-34	1st Floor, Western Hallway, North	Black Mastic	4/23/2018	PC 1.5% Chrysotile
	1st Floor, Western Hallway, North	Tan Floor Tile	4/23/2018	PC 1.4% Chrysotile
12-FT2-35	1st Floor, Western Most Room	Black Mastic	4/23/2018	PC 1.1% Chrysotile
	1st Floor, Western Most Room	Tan Floor Tile	4/23/2018	PC 1.2% Chrysotile
12-FT2-36	1st Floor, Western Hallway, South	Black Mastic	4/23/2018	PC 1.4% Chrysotile
	1st Floor, Western Hallway, South	Tan Floor Tile	4/23/2018	PC 1.1% Chrysotile

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>
Layered Paper Pipe Insulation	Thermal System Insulation	RACM      Yes

<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to physical contact and is deteriorating with age.
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**Estimated Quantity\* and Location:**

Estimated - 1600 Linear Feet      Original building - basement mechanical room, west hall, utility room, 1st floor hallways, south center utility room, NE restroom, 2nd floor hallways. Addition - basement boiler room, kitchen cafeteria, restrooms, hallway, utility rooms, north stair, 1st and 2nd floor hallways, north stair and utility rooms and above hard plaster ceilings, 3rd floor hallway

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
17-PI3-49	1st Floor, Hall By Stairs	Black/Tan/White Insulation	4/23/2018	PC 4.1% Chrysotile
17-PI3-50	Basement, North Storage Room	Grey/Brown Insulation	4/23/2018	20% Chrysotile
17-PI3-51	2nd Floor, North Hallway	Brown/White Insulation	4/23/2018	PC 6.3% Chrysotile

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## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Mudded Joint Packings With Layered Paper Pipe Insulation	Thermal System Insulation	RACM	Yes

**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to physical contact and is deteriorating with age.

**Estimated Quantity\* and Location:**

Estimated - 200 Joints      Original building - basement mechanical room, west hall, utility room, 1st floor hallways, south center utility room, NE restroom, 2nd floor hallways. Addition - basement boiler room, kitchen cafeteria, restrooms, hallway, utility rooms, north stair, 1st and 2nd floor hallways, north stair and utility rooms and above hard plaster ceilings, 3rd floor hallway

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
18-MJ3-52	1st Floor, Hall By Stairs	Grey Insulation	4/23/2018	PC <1% Chrysotile
18-MJ3-53	Basement, North Storage Room	Tan Insulation	4/23/2018	PC 4.8% Chrysotile 10% Amosite
18-MJ3-54	2nd Floor, North Hallway	White/Brown Insulation	4/23/2018	PC 6.8% Amosite

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Window Caulk	Miscellaneous Material	Category II	No
		Non-friable	

**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to age deterioration.

**Estimated Quantity\* and Location:**

Estimated - 34 Units      Original building windows perimeter caulking

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
20-CA1-58	2nd Floor, South Of Reception Area	Brown Glazing	4/23/2018	PC 8.3% Chrysotile
	2nd Floor, South Of Reception Area	White Glazing	4/23/2018	None Detected
20-CA1-59	Room 206	White Caulk	4/23/2018	None Detected
20-CA1-60	Room 201	Grey/White Caulk	4/23/2018	None Detected

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## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b> Window Caulk	<b>Category</b> Miscellaneous Material	<b>NESHAP Cat.: Friable:</b> Category II      No Non-friable
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**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to age deterioration.

**Estimated Quantity\* and Location:**  
Estimated - 60 Units      Addition windows perimeter caulking

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
22-CA1-64	Addition, 2nd Floor, Northern Room, East	Grey Glazing	4/23/2018	PC 2.4% Chrysotile
22-CA1-65	Addition, 2nd Floor, Center, West Room	Brown Glazing	4/23/2018	PC 3.1% Chrysotile
22-CA1-66	Addition, 3rd Floor, South End Of Hall	Grey Glazing	4/23/2018	PC 1.5% Chrysotile

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<b>Material Description:</b> 12" x 12" Floor Tile and Mastic Gold	<b>Category</b> Miscellaneous Material	<b>NESHAP Cat.: Friable:</b> Category I      No Non-friable
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**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to age deterioration.

**Estimated Quantity\* and Location:**  
Estimated - 400 Square Feet      Original building basement north center room, 1st floor NE room closet

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
23-FT2-67	Northern Storage Room In Basement	Yellow Floor Tile	4/23/2018	PC 2.6% Chrysotile
23-FT2-68	Northern Storage Room In Basement	Grey Debris	4/23/2018	None Detected
	Northern Storage Room In Basement	Tan Mastic	4/23/2018	None Detected
	Northern Storage Room In Basement	Yellow Floor Tile	4/23/2018	PC 1.8% Chrysotile
23-FT2-69	Northern Storage Room In Basement	Tan Mastic	4/23/2018	None Detected
	Northern Storage Room In Basement	Yellow Floor Tile	4/23/2018	PC 2.7% Chrysotile

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## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Boiler Insulation	Thermal System Insulation	RACM	Yes
<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.		

#### Estimated Quantity\* and Location:

Estimated - 360 Square Feet      Addition basement boiler room - 2 boilers

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
29-MI1-85	Addition Basement Boiler Room, Boiler 2	Grey Insulation	4/23/2018	35% Chrysotile
29-MI1-86	Boiler 2	Grey Insulation	4/23/2018	40% Chrysotile
29-MI1-87	Boiler 1	Grey Insulation	4/23/2018	40% Chrysotile

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Breech/Flue Insulation	Thermal System Insulation	RACM	Yes
<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.		

#### Estimated Quantity\* and Location:

Estimated - 280 Square Feet      Addition basement boiler room

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
30-MI6-88	Basement, Addition, Boiler Room Breach	Grey Insulation	4/23/2018	70% Chrysotile
30-MI6-89	Breach, Boiler Room	Grey/White Insulation	4/23/2018	45% Chrysotile PC 6.2% Amosite
30-MI6-90	Breach, Boiler Room	Grey/White Insulation	4/23/2018	50% Chrysotile PC 2.6% Amosite

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## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Tank Insulation	Thermal System Insulation	RACM	Yes
<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.		

#### Estimated Quantity\* and Location:

Estimated - 220 Square Feet      Addition basement boiler room - 2 water tanks

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
31-MI3-91	Boiler Room, Water Tank Insulation	Grey/White Insulation	4/23/2018	40% Chrysotile PC 5.5% Amosite
31-MI3-92	Boiler Room, Water Tank Insulation	Grey/White Insulation	4/23/2018	35% Chrysotile PC 6.3% Amosite
31-MI3-93	Boiler Room, Water Tank Insulation	Grey/White Insulation	4/23/2018	65% Chrysotile PC 1.2% Amosite

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Tank Insulation	Thermal System Insulation	RACM	Yes
<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.		

#### Estimated Quantity\* and Location:

Estimated - 15 Square Feet      Original building basement mechanical room above chiller equipment

#### Sample Collection and Laboratory Analysis Information for this HA.

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
32-MI3-94	Original Building, Water Tank, Above Chillers	Grey/White Insulation	4/23/2018	PC 1.2% Amosite
32-MI3-95	Original Building, Water Tank, Above Chillers	Grey/White Insulation	4/23/2018	PC 1.3% Amosite
32-MI3-96	Original Building, Water Tank, Above Chillers	White Insulation	4/23/2018	15% Amosite

## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Cement Panels	Miscellaneous Material	Category II	No
		Non-friable	

**Damage Category:** Good Condition      **Reason for Damage:** No damage observed.

**Estimated Quantity\* and Location:**

Estimated - 800 Square Feet      Addition basement boiler room

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
33-CP1-97	Addition, Boiler Room Ceiling	Tan/Black Fibrous	4/23/2018	None Detected
	Addition, Boiler Room Ceiling	Grey Cement Product	4/23/2018	25% Chrysotile
33-CP1-98	Addition, Boiler Room Ceiling	Tan/Black Fibrous	4/23/2018	None Detected
	Addition, Boiler Room Ceiling	Grey Cement Product	4/23/2018	25% Chrysotile
33-CP1-99	Addition, Boiler Room Ceiling	Tan/Black Fibrous	4/23/2018	None Detected
	Addition, Boiler Room Ceiling	Grey Cement Product	4/23/2018	25% Chrysotile

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Preformed Mag./Cal. Pipe Insulation	Thermal System Insulation	RACM	Yes

**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to age deterioration.

**Estimated Quantity\* and Location:**

Estimated - 800 Linear Feet      Original building basement west hallway and utility rooms, 1st floor NE room closet, SE room closet, 2nd floor utility room closet. Addition basement boiler room, kitchen, cafeteria, north utility rooms and stairs, restrooms, hallway, beneath south stair, 1st and 2nd floors above hard plaster ceilings, 2nd floor SW room closet.

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
34-PI1-100	Addition, Boiler Room	White Insulation	4/23/2018	PC 2.1% Chrysotile 10% Amosite
34-PI1-101	Addition, 2nd Floor, SW Room	White Insulation	4/23/2018	15% Amosite
34-PI1-102	Original, Basement, SW	White Insulation	4/23/2018	PC 4.3% Chrysotile 10% Amosite

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## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Mudded Joint Packings With Preformed Mag./Cal. Block Pipe Insulation	Thermal System Insulation	RACM	Yes

**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to age deterioration.

**Estimated Quantity\* and Location:**

Estimated - 100 Joints      Original building basement west hallway and utility rooms, 1st floor NE room closet, SE room closet, 2nd floor utility room closet. Addition basement boiler room, kitchen, cafeteria, north utility rooms and stairs, restrooms, hallway, beneath south stair, 1st and 2nd floors above hard plaster ceilings, 2nd floor SW room closet.

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
35-MJ1-103	Addition, Boiler Room	Grey Insulation	4/23/2018	70% Chrysotile
35-MJ1-104	Addition, 2nd Floor, SW Room	White Insulation	4/23/2018	25% Chrysotile PC <1% Amosite
35-MJ1-105	Original, Basement SW	Grey/White Insulation	4/23/2018	15% Chrysotile 10% Amosite

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.:</b>	<b>Friable:</b>
Corrugated Pipe Insulation	Thermal System Insulation	RACM	Yes

**Damage Category:** Damaged ACM      **Reason for Damage:** This material is damaged due to age deterioration.

**Estimated Quantity\* and Location:**

Estimated - 400 Linear Feet      Original building basement mechanical room, west hallway and utility rooms, NE and SE storerooms, Attic steam loop

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
36-PI2-106	Original, Basement, Mechanical Room	Grey Insulation	4/23/2018	75% Chrysotile
36-PI2-107	Original, Hallway At Stair, Basement	Grey Insulation	4/23/2018	75% Chrysotile
36-PI2-108	Attic, West Side, Original	Grey Insulation	4/23/2018	75% Chrysotile

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## Appendix A

### Summary of Materials Reported to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>	
Mudded Joint Packings With Corrugated Pipe Insulation	Thermal System Insulation	RACM	Yes
<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.		

**Estimated Quantity\* and Location:**

Estimated - 75 Joints      Original building basement mechanical room, west hallway and utility rooms, NE and SE storerooms, Attic steam loop

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
37-MJ2-109	Original, Mechanical Room	Tan Insulation	4/23/2018	40% Chrysotile
37-MJ2-110	Original, Hallway At Basement Stair	Grey/Tan Insulation	4/23/2018	50% Chrysotile
37-MJ2-111	Original, West Side Attic	Tan Insulation	4/23/2018	40% Chrysotile

---

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>	
Mudded Joint Packings With Fiberglass Pipe Insulation	Thermal System Insulation	Category II	Yes
		Non-friable	
<b>Damage Category:</b> Damaged ACM	<b>Reason for Damage:</b> This material is damaged due to age deterioration.		

**Estimated Quantity\* and Location:**

Estimated - 75 Joints      Original building - basement maintenance shop, east hall and east center storeroom, 2nd floor patient rooms in perimeter enclosures. Addition - basement boiler room, kitchen

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
38-MJ4-112	Basement, Original, Maintenance Store Room	White Insulation	4/23/2018	PC 0.25% Amosite
38-MJ4-113	Basement, Original, Maintenance Store Room	White Insulation	4/23/2018	PC 0.5% Chrysotile PC 1.3% Amosite
38-MJ4-114	Addition, Boiler Room	White Insulation	4/23/2018	PC 1.6% Amosite

\*Estimated quantities are based on a cursory field evaluation, and actual quantities may vary significantly, especially if asbestos containing materials are present in hidden and/or inaccessible areas not evaluated as part of this survey.

The materials listed in this table have been sampled and determined to contain asbestos in concentrations greater than 1%. When disturbed, various federal, state and local regulations may apply. These materials should be monitored for damage over time and repaired as necessary by appropriately trained personnel. Removal may be necessary before renovations and in most cases before a demolition.

**This completes Appendix A of this report.**

## **APPENDIX B**

### **SUMMARY OF MATERIALS REPORTED TO CONTAIN LESS THAN 1% ASBESTOS BY HOMOGENEOUS MATERIAL**

## Appendix B

### Summary of Materials Reported as 1% or Less Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>	
Gypsum Wallboard with Joint Compound and Tape	Miscellaneous Material	Cat. II	Yes

**Estimated Quantity\* and Location:**

Estimated - 600 Square Feet      Original building 1st floor waiting area

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
03-WB1-07	Entry Room, Middle	Composite	4/23/2018	PC 0.25% Chrysotile
	Entry Room, Middle	Off-White Joint Compound	4/23/2018	PC 1.1% Chrysotile
	Entry Room, Middle	White/Tan Drywall	4/23/2018	None Detected
03-WB1-08	Entry Room, East	White/Brown Drywall	4/23/2018	None Detected
03-WB1-09	Entry Room, South	Composite	4/23/2018	None Detected
	Entry Room, South	White Texture/Joint Compound	4/23/2018	None Detected
	Entry Room, South	White/Brown Drywall	4/23/2018	None Detected

<b>Material Description:</b>	<b>Category</b>	<b>NESHAP Cat.: Friable:</b>	
2' X 4' Ceiling Tile Smooth	Miscellaneous Material	RACM	Yes

**Estimated Quantity\* and Location:**

Estimated - 400 Square Feet      Original building scattered in 1st and 2nd floor patient rooms

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
06-CT4-16	1st Floor, Middle Room, North	Yellow/Off-White Ceiling Tile	4/23/2018	None Detected
06-CT4-17	1st Floor, Entry To Rooms	Yellow Insulation	4/23/2018	None Detected
	1st Floor, Entry To Rooms	White Ceiling Tile	4/23/2018	PC 0.75% Chrysotile
06-CT4-18	2nd Floor, East Or Reception Area	Yellow Insulation	4/23/2018	None Detected
	2nd Floor, East Or Reception Area	White Ceiling Tile	4/23/2018	PC 0.75% Chrysotile

\*Estimated quantities are based on a cursory field evaluation, and actual quantities may vary significantly, especially if asbestos containing materials are present in hidden and/or inaccessible areas not evaluated as part of this survey.

Materials containing 1% or less asbestos are not regulated by NESHAP or AHERA; however the United States Occupational Safety and Health Administration (USOSHA) personal exposure limits at or below 0.1 f/cc of air as an eight hour time weighted average or 1.0 f/cc of air over 30 minutes for asbestos apply when materials containing 1% asbestos or less are disturbed during renovations or demolitions. A listing of materials that contain 1% asbestos or less is provided above to enable the renovation/demolition contractor to make appropriate decisions concerning compliance issues with applicable USOSHA regulations.

**This completes Appendix B of this report.**

## **APPENDIX C**

### **SUMMARY OF MATERIALS REPORTED NOT TO CONTAIN ASBESTOS BY HOMOGENEOUS MATERIAL**

## Appendix C

### Summary of Materials Reported Not to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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**Material Description:**

Hard Finish Wall Plaster

**Estimated Quantity\* and Location:**

Estimated - 11, 750 Square Feet Original building interior ceilings and walls

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
02-HP1-04	1st Floor Entry To Rooms	Grey/Brown Plaster	4/23/2018	None Detected
02-HP1-05	1st Floor, Room Furthest East, South	Grey Plaster	4/23/2018	None Detected
02-HP1-06	1st Floor, Middle Room, North	Grey Plaster	4/23/2018	None Detected

---

**Material Description:**

2' X 4' Ceiling Tile Dot and Fissure pattern

**Estimated Quantity\* and Location:**

Estimated - 4000 Square Feet Original building 1st and 2nd floor patient rooms and hallways

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
05-CT4-13	1st Floor, Middle Room, North	White/Tan Ceiling Tile	4/23/2018	None Detected
05-CT4-14	2nd Floor, Reception Desk	White/Tan Ceiling Tile	4/23/2018	None Detected
05-CT4-15	Room 212	White/Tan Ceiling Tile	4/23/2018	None Detected

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**Material Description:**

Ceramic tile grout

**Estimated Quantity\* and Location:**

Estimated - 300 Square Feet Original building restrooms

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
07-MA4-19	1st Floor Bathroom, East	Grey/Off-White/Tan Glazing	4/23/2018	None Detected
07-MA4-20	2nd Floor, North Bathroom	Grey/Tan Glazing	4/23/2018	None Detected
07-MA4-21	1st Floor, West Bathroom	Tan/Grey Glazing	4/23/2018	None Detected

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## Appendix C

### Summary of Materials Reported Not to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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**Material Description:**

Grout Ceramic tile grout white

**Estimated Quantity\* and Location:**

Estimated - 100 Square Feet      Original building 1st floor NW utility room

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
13-MA4-37	1st Floor, Western Kitchen	Grey Grout	4/23/2018	None Detected
13-MA4-38	1st Floor, Western Kitchen	Grey Grout	4/23/2018	None Detected
	1st Floor, Western Kitchen	White Ceramic	4/23/2018	None Detected
13-MA4-39	1st Floor, Western Kitchen	Grey Grout	4/23/2018	None Detected
	1st Floor, Western Kitchen	White Ceramic	4/23/2018	None Detected

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**Material Description:**

2' X 4' Ceiling Tile

**Estimated Quantity\* and Location:**

Estimated - 600 Square Feet      Original building west hallway

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
14-CT4-40	1st Floor, Western Hallway	White Ceiling Tile	4/23/2018	None Detected
14-CT4-41	1st Floor, Western Hallway	White Ceiling Tile	4/23/2018	None Detected
14-CT4-42	1st Floor, Western Hallway	White Ceiling Tile	4/23/2018	None Detected

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## Appendix C

### Summary of Materials Reported Not to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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**Material Description:**

1' X 1' Ceiling Tile Glued on

**Estimated Quantity\* and Location:**

Estimated - 200 Square Feet      Original building west hall and NW office

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
15-CT1-43	1st Floor, Western Hallway, South	Brown Mastic	4/23/2018	None Detected
	1st Floor, Western Hallway, South	Grey/White Ceiling Tile	4/23/2018	None Detected
15-CT1-44	1st Floor, Western Hallway, North	Brown Mastic	4/23/2018	None Detected
	1st Floor, Western Hallway, North	Grey/White Ceiling Tile	4/23/2018	None Detected
15-CT1-45	1st Floor, Western Most Room	Brown Mastic	4/23/2018	None Detected
	1st Floor, Western Most Room	Grey/White Ceiling Tile	4/23/2018	None Detected

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**Material Description:**

Mastic Behind Cove Base

**Estimated Quantity\* and Location:**

Estimated - 100 Square Feet      Original building throughout at base of walls

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
16-MG3-46	1st Floor, Eastern Hallway	Brown Mastic	4/23/2018	None Detected
	1st Floor, Eastern Hallway	Tan Mastic	4/23/2018	None Detected
16-MG3-47	1st Floor, Western Hallway	Tan/Brown Mastic	4/23/2018	None Detected
16-MG3-48	2nd Floor, Reception Area	Brown Mastic	4/23/2018	None Detected
	2nd Floor, Reception Area	Tan Mastic	4/23/2018	None Detected

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## Appendix C

### Summary of Materials Reported Not to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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**Material Description:**

Window Pane Glazing

**Estimated Quantity\* and Location:**

Estimated - 34 Units      Original building windows

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
19-SC1-55	2nd Floor, South Of Reception Area	White Caulk	4/23/2018	None Detected
19-SC1-56	Room 206	White Glazing	4/23/2018	None Detected
19-SC1-57	Room 201	White Glazing	4/23/2018	None Detected

---

**Material Description:**

Window Pane Glazing

**Estimated Quantity\* and Location:**

Estimated - 14 Units      Addition basement windows

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
21-SC1-61	Addition, Eastern Basement Window, North	White Glazing	4/23/2018	None Detected
21-SC1-62	Addition, Eastern Basement Window, Center	White Glazing	4/23/2018	None Detected
21-SC1-63	Addition, Eastern Basement Window, South	White Glazing	4/23/2018	None Detected

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## Appendix C

### Summary of Materials Reported Not to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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**Material Description:**

Sheet Flooring (Linoleum)

**Estimated Quantity\* and Location:**

Estimated - 270 Square Feet      Original building 1st floor south center collapsed porch

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
24-FC1-70	Collapsed Porch, Center	Brown Mastic	4/23/2018	None Detected
	Collapsed Porch, Center	Off-White Vinyl Sheet Flooring	4/23/2018	None Detected
24-FC1-71	Collapsed Porch, East	Brown Mastic	4/23/2018	None Detected
	Collapsed Porch, East	Off-White Vinyl Sheet Flooring	4/23/2018	None Detected
24-FC1-72	Collapsed Porch, West	Brown Mastic	4/23/2018	None Detected
	Collapsed Porch, West	White Vinyl Sheet Flooring	4/23/2018	None Detected

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**Material Description:**

Terrazzo

**Estimated Quantity\* and Location:**

Estimated - 9,250 Square Feet      Addition floors throughout basement through 3rd floor

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
26-FC2-76	Addition, 3rd Floor, North	White/Tan Flooring	4/23/2018	None Detected
26-FC2-77	Addition, 2nd Floor, North	White/Tan Flooring	4/23/2018	None Detected
26-FC2-78	Addition, 1st Floor, North	Grey Cementitious	4/23/2018	None Detected
	Addition, 1st Floor, North	White/Tan Flooring	4/23/2018	None Detected

---

## Appendix C

### Summary of Materials Reported Not to Contain Asbestos by Homogeneous Material Missouri Department of Natural Resources

Information reported for the St. Francis Hospital located at 108 East Howell, Marceline, MO 64658.

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**Material Description:**

Hard Finish Wall Plaster

**Estimated Quantity\* and Location:**

Estimated - 22,500 Square Feet    Addition interior ceilings and walls throughout

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
27-HP1-79	1st Floor, Center, West, Addition	Grey Plaster	4/23/2018	None Detected
	1st Floor, Center, West, Addition	Tan Plaster	4/23/2018	None Detected
27-HP1-80	2nd Floor, Addition, South, East	Tan Plaster	4/23/2018	None Detected
	2nd Floor, Addition, South, East	White Plaster	4/23/2018	None Detected
27-HP1-81	3rd Floor, Addition, Center, East	Grey Plaster	4/23/2018	None Detected
	3rd Floor, Addition, Center, East	White Plaster	4/23/2018	None Detected

---

**Material Description:**

Batt Insulation

**Estimated Quantity\* and Location:**

Estimated - 3400 Square Feet    Original building attic

**Sample Collection and Laboratory Analysis Information for this HA.**

Sample #:	Sample Location:	Layer Description:	Collection Date:	Asbestos %:
28-AW1-82	West Attic, Original	Black Wrap	4/23/2018	None Detected
	West Attic, Original	White Insulation	4/23/2018	None Detected
28-AW1-83	West Attic, Original	Black Wrap	4/23/2018	None Detected
	West Attic, Original	White Insulation	4/23/2018	None Detected
28-AW1-84	West Attic, Original	Black Wrap	4/23/2018	None Detected
	West Attic, Original	White Insulation	4/23/2018	None Detected

---

**This completes Appendix C of this report.**

## **APPENDIX D**

### **ASBESTOS LABORATORY ANALYTICAL RESULTS**

### CERTIFICATE OF ANALYSIS


Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

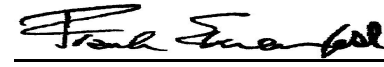
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499432 <b>Client No.:</b> 01-FD1-01	<b>Analyst Observation:</b> White/Brown Fibrous <b>Client Description:</b>	<b>Location:</b> 1st Floor Entry To Rooms <b>Facility:</b>
<u>Percent Asbestos:</u> <b>25 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 75
<b>Lab No.:</b> 6499433 <b>Client No.:</b> 01-FD1-02	<b>Analyst Observation:</b> White Fibrous <b>Client Description:</b>	<b>Location:</b> 1st Floor Transition From Old To Addition <b>Facility:</b>
<u>Percent Asbestos:</u> <b>25 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 75
<b>Lab No.:</b> 6499434 <b>Client No.:</b> 01-FD1-03	<b>Analyst Observation:</b> White Fibrous <b>Client Description:</b>	<b>Location:</b> 3rd Floor, North <b>Facility:</b>
<u>Percent Asbestos:</u> <b>25 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 75
<b>Lab No.:</b> 6499435 <b>Client No.:</b> 02-HP1-04	<b>Analyst Observation:</b> Grey/Brown Plaster <b>Client Description:</b>	<b>Location:</b> 1st Floor Entry To Rooms <b>Facility:</b>
<u>Percent Asbestos:</u> <b>None Detected</b>	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Hair 1 Cellulose	<u>Percent Non-Fibrous Material:</u> 98
<b>Lab No.:</b> 6499436 <b>Client No.:</b> 02-HP1-05	<b>Analyst Observation:</b> Grey Plaster <b>Client Description:</b>	<b>Location:</b> 1st Floor, Room Furthest East, South <b>Facility:</b>
<u>Percent Asbestos:</u> <b>None Detected</b>	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Hair 1 Cellulose	<u>Percent Non-Fibrous Material:</u> 98
<b>Lab No.:</b> 6499437 <b>Client No.:</b> 02-HP1-06	<b>Analyst Observation:</b> Grey Plaster <b>Client Description:</b>	<b>Location:</b> 1st Floor, Middle Room, North <b>Facility:</b>
<u>Percent Asbestos:</u> <b>None Detected</b>	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Hair 1 Cellulose	<u>Percent Non-Fibrous Material:</u> 98

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Michael Lagarde

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499438 <b>Client No.:</b> 03-WB1-07	<b>Analyst Observation:</b> White/Tan Drywall <b>Client Description:</b>	<b>Location:</b> Entry Room, Middle <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 35 Cellulose	<u>Percent Non-Fibrous Material:</u> 65

<b>Lab No.:</b> 6499438(L2) <b>Client No.:</b> 03-WB1-07	<b>Analyst Observation:</b> Off-White Joint Compound <b>Client Description:</b>	<b>Location:</b> Entry Room, Middle <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 1.1 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.9


<b>Lab No.:</b> 6499438(L3) <b>Client No.:</b> 03-WB1-07	<b>Analyst Observation:</b> Composite <b>Client Description:</b>	<b>Location:</b> Entry Room, Middle <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 0.25 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 18 Cellulose	<u>Percent Non-Fibrous Material:</u> 81.75

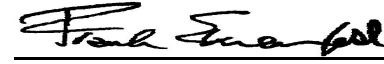
<b>Lab No.:</b> 6499439 <b>Client No.:</b> 03-WB1-08	<b>Analyst Observation:</b> White/Brown Drywall <b>Client Description:</b>	<b>Location:</b> Entry Room, East <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 35 Cellulose	<u>Percent Non-Fibrous Material:</u> 65

<b>Lab No.:</b> 6499440 <b>Client No.:</b> 03-WB1-09	<b>Analyst Observation:</b> White/Brown Drywall <b>Client Description:</b>	<b>Location:</b> Entry Room, South <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 35 Cellulose	<u>Percent Non-Fibrous Material:</u> 65

<b>Lab No.:</b> 6499440(L2) <b>Client No.:</b> 03-WB1-09	<b>Analyst Observation:</b> White Texture/Joint Compound <b>Client Description:</b>	<b>Location:</b> Entry Room, South <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 1 Cellulose	<u>Percent Non-Fibrous Material:</u> 99

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Michael Lagarde

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499440(L3)	<b>Analyst Observation:</b> Composite	<b>Location:</b> Entry Room, South
<b>Client No.:</b> 03-WB1-09	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	18 Cellulose	82

<b>Lab No.:</b> 6499441	<b>Analyst Observation:</b> Grey Cementitious	<b>Location:</b> 1st Floor, West Hall
<b>Client No.:</b> 04-SC4-10	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	1 Cellulose	99


<b>Lab No.:</b> 6499441(L2)	<b>Analyst Observation:</b> Off-White Texture	<b>Location:</b> 1st Floor, West Hall
<b>Client No.:</b> 04-SC4-10	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

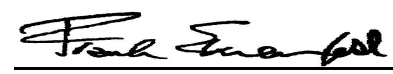
<b>Lab No.:</b> 6499441(L3)	<b>Analyst Observation:</b> White Non-Fibrous	<b>Location:</b> 1st Floor, West Hall
<b>Client No.:</b> 04-SC4-10	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	2 Cellulose	98

<b>Lab No.:</b> 6499441(L4)	<b>Analyst Observation:</b> Tan/Green Non-Fibrous	<b>Location:</b> 1st Floor, West Hall
<b>Client No.:</b> 04-SC4-10	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499442	<b>Analyst Observation:</b> Tan/Green Non-Fibrous	<b>Location:</b> 1st Floor, East Hall
<b>Client No.:</b> 04-SC4-11	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Michael Lagarde

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499442(L2)  
**Client No.:** 04-SC4-11

Percent Asbestos:  
*None Detected*

**Analyst Observation:** Off-White Texture  
**Client Description:**

Percent Non-Asbestos Fibrous Material:  
1 Cellulose

**Location:** 1st Floor, East Hall  
**Facility:**

Percent Non-Fibrous Material:  
99

**Lab No.:** 6499442(L3)  
**Client No.:** 04-SC4-11

Percent Asbestos:  
*None Detected*

**Analyst Observation:** White Non-Fibrous  
**Client Description:**

Percent Non-Asbestos Fibrous Material:  
2 Cellulose

**Location:** 1st Floor, East Hall  
**Facility:**

Percent Non-Fibrous Material:  
98

**Lab No.:** 6499443  
**Client No.:** 04-SC4-12

Percent Asbestos:  
**PC 1.1 Chrysotile**

**Analyst Observation:** White Texture/Joint Compound  
**Client Description:**

Percent Non-Asbestos Fibrous Material:  
10 Cellulose

**Location:** 1st Floor, North Entry Room  
**Facility:**

Percent Non-Fibrous Material:  
88.9

**Lab No.:** 6499444  
**Client No.:** 05-CT4-13

Percent Asbestos:  
*None Detected*

**Analyst Observation:** White/Tan Ceiling Tile  
**Client Description:**

Percent Non-Asbestos Fibrous Material:  
30 Fibrous Glass  
20 Cellulose

**Location:** 1st Floor, Middle Room, North  
**Facility:**

Percent Non-Fibrous Material:  
50

**Lab No.:** 6499445  
**Client No.:** 05-CT4-14

Percent Asbestos:  
*None Detected*

**Analyst Observation:** White/Tan Ceiling Tile  
**Client Description:**

Percent Non-Asbestos Fibrous Material:  
30 Fibrous Glass  
20 Cellulose

**Location:** 2nd Floor, Reception Desk  
**Facility:**

Percent Non-Fibrous Material:  
50

**Lab No.:** 6499446  
**Client No.:** 05-CT4-15

Percent Asbestos:  
*None Detected*

**Analyst Observation:** White/Tan Ceiling Tile  
**Client Description:**

Percent Non-Asbestos Fibrous Material:  
30 Fibrous Glass  
20 Cellulose

**Location:** Room 212  
**Facility:**

Percent Non-Fibrous Material:  
50

Please refer to the Appendix of this report for further information regarding your analysis.

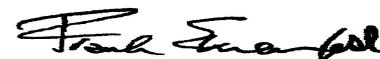
Date Received: 4/25/2018

Date Analyzed: 05/02/2018

Signature:

Analyst: Michael Lagarde

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director



### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499447	<b>Analyst Observation:</b> Yellow/Off-White Ceiling Tile	<b>Location:</b> 1st Floor, Middle Room, North
<b>Client No.:</b> 06-CT4-16	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	90 Mineral Wool	10

<b>Lab No.:</b> 6499448	<b>Analyst Observation:</b> White Ceiling Tile	<b>Location:</b> 1st Floor, Entry To Rooms
<b>Client No.:</b> 06-CT4-17	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 0.75 Chrysotile</i>	1 Cellulose	98.25


<b>Lab No.:</b> 6499448(L2)	<b>Analyst Observation:</b> Yellow Insulation	<b>Location:</b> 1st Floor, Entry To Rooms
<b>Client No.:</b> 06-CT4-17	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	95 Mineral Wool	5

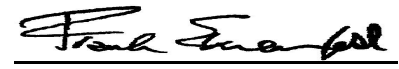
<b>Lab No.:</b> 6499449	<b>Analyst Observation:</b> White Ceiling Tile	<b>Location:</b> 2nd Floor, East Or Reception Area
<b>Client No.:</b> 06-CT4-18	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 0.75 Chrysotile</i>	1 Cellulose	98.25

<b>Lab No.:</b> 6499449(L2)	<b>Analyst Observation:</b> Yellow Insulation	<b>Location:</b> 2nd Floor, East Or Reception Area
<b>Client No.:</b> 06-CT4-18	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	98 Mineral Wool	2

<b>Lab No.:</b> 6499450	<b>Analyst Observation:</b> Grey/Off-White/Tan Glazing	<b>Location:</b> 1st Floor Bathroom, East
<b>Client No.:</b> 07-MA4-19	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	1 Cellulose	99

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Michael Lagarde

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

---

CERTIFICATE OF ANALYSIS

---

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

---

PLM BULK SAMPLE ANALYSIS SUMMARY

---

Lab No.: 6499451  
Client No.: 07-MA4-20

Analyst Observation: Grey/Tan Glazing  
Client Description:

Location: 2nd Floor, North Bathroom  
Facility:

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
2 Cellulose

Percent Non-Fibrous Material:  
98

Lab No.: 6499452  
Client No.: 07-MA4-21

Analyst Observation: Tan/Grey Glazing  
Client Description:

Location: 1st Floor, West Bathroom  
Facility:

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
3 Cellulose

Percent Non-Fibrous Material:  
97

---

Please refer to the Appendix of this report for further information regarding your analysis.

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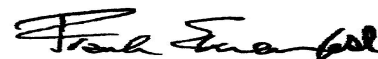
Date Received: 4/25/2018

Date Analyzed: 05/02/2018

Signature:

Analyst: Michael Lagarde

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499453  
**Client No.:** 08-FT2-22

Percent Asbestos:  
**PC 1.5 Chrysotile**

**Analyst Observation:** Brown Floor Tile  
**Client Description:**  
Percent Non-Asbestos Fibrous Material:  
None Detected

**Location:** Entry Room, Southwest  
**Facility:**  
Percent Non-Fibrous Material:  
98.5

**Lab No.:** 6499453(L2)  
**Client No.:** 08-FT2-22

Percent Asbestos:  
**PC 2.1 Chrysotile**

**Analyst Observation:** Black Mastic  
**Client Description:**  
Percent Non-Asbestos Fibrous Material:  
None Detected

**Location:** Entry Room, Southwest  
**Facility:**  
Percent Non-Fibrous Material:  
97.9

**Lab No.:** 6499453(L3)  
**Client No.:** 08-FT2-22

Percent Asbestos:  
**None Detected**

**Analyst Observation:** White Leveling Compound  
**Client Description:**  
Percent Non-Asbestos Fibrous Material:  
None Detected

**Location:** Entry Room, Southwest  
**Facility:**  
Percent Non-Fibrous Material:  
100

**Lab No.:** 6499453(L4)  
**Client No.:** 08-FT2-22

Percent Asbestos:  
**None Detected**

**Analyst Observation:** Yellow Mastic  
**Client Description:**  
Percent Non-Asbestos Fibrous Material:  
Trace Synthetic

**Location:** Entry Room, Southwest  
**Facility:**  
Percent Non-Fibrous Material:  
100

**Lab No.:** 6499454  
**Client No.:** 08-FT2-23

Percent Asbestos:  
**PC 1.1 Chrysotile**

**Analyst Observation:** Brown Floor Tile  
**Client Description:**  
Percent Non-Asbestos Fibrous Material:  
None Detected

**Location:** Entry Room, Northwest  
**Facility:**  
Percent Non-Fibrous Material:  
98.9


**Lab No.:** 6499454(L2)  
**Client No.:** 08-FT2-23

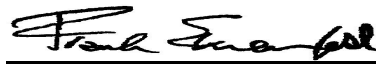
Percent Asbestos:  
**PC 1.8 Chrysotile**

**Analyst Observation:** Black Mastic  
**Client Description:**  
Percent Non-Asbestos Fibrous Material:  
None Detected

**Location:** Entry Room, Northwest  
**Facility:**  
Percent Non-Fibrous Material:  
98.2

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499454(L3)	<b>Analyst Observation:</b> Yellow Mastic	<b>Location:</b> Entry Room, Northwest
<b>Client No.:</b> 08-FT2-23	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	Trace Synthetic	100

<b>Lab No.:</b> 6499455	<b>Analyst Observation:</b> Brown Floor Tile	<b>Location:</b> Entry Room, East
<b>Client No.:</b> 08-FT2-24	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 1.3 Chrysotile</i>	None Detected	98.7

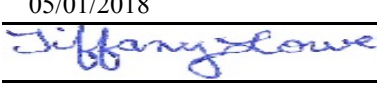
<b>Lab No.:</b> 6499455(L2)	<b>Analyst Observation:</b> Black Mastic	<b>Location:</b> Entry Room, East
<b>Client No.:</b> 08-FT2-24	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 2.2 Chrysotile</i>	None Detected	97.8

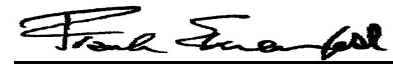
<b>Lab No.:</b> 6499456	<b>Analyst Observation:</b> White Floor Tile	<b>Location:</b> 1st Floor Reception Area, West
<b>Client No.:</b> 09-FT1-25	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 1.2 Chrysotile</i>	None Detected	98.8

<b>Lab No.:</b> 6499456(L2)	<b>Analyst Observation:</b> Black Mastic	<b>Location:</b> 1st Floor Reception Area, West
<b>Client No.:</b> 09-FT1-25	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499456(L3)	<b>Analyst Observation:</b> Yellow Mastic	<b>Location:</b> 1st Floor Reception Area, West
<b>Client No.:</b> 09-FT1-25	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	Trace Synthetic	100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499457  
**Client No.:** 09-FT1-26

**Analyst Observation:** White Floor Tile  
**Client Description:**

**Location:** 1st Floor Eastern Most Room,  
North

Percent Asbestos:  
**PC 1.1 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
98.9

**Lab No.:** 6499457(L2)  
**Client No.:** 09-FT1-26

**Analyst Observation:** Black Mastic  
**Client Description:**

**Location:** 1st Floor Eastern Most Room,  
North

Percent Asbestos:  
**None Detected**

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
100

**Lab No.:** 6499457(L3)  
**Client No.:** 09-FT1-26

**Analyst Observation:** Yellow Mastic  
**Client Description:**

**Location:** 1st Floor Eastern Most Room,  
North

Percent Asbestos:  
**None Detected**

Percent Non-Asbestos Fibrous Material:  
Trace Synthetic

**Facility:**  
Percent Non-Fibrous Material:  
100

**Lab No.:** 6499458  
**Client No.:** 09-FT1-27

**Analyst Observation:** White Floor Tile  
**Client Description:**

**Location:** 1st Floor, Center Room, South  
**Facility:**

Percent Asbestos:  
**PC 1.2 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
98.8

**Lab No.:** 6499458(L2)  
**Client No.:** 09-FT1-27

**Analyst Observation:** Black Mastic  
**Client Description:**

**Location:** 1st Floor, Center Room, South  
**Facility:**

Percent Asbestos:  
**None Detected**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499459  
**Client No.:** 10-SC4-28

**Analyst Observation:** White Texture  
**Client Description:**


**Location:** 1st Floor North Of Reception  
Area, Ceiling

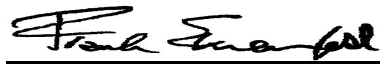
Percent Asbestos:  
**PC 1.2 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
98.8

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS


Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

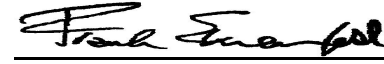
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499459(L2) <b>Client No.:</b> 10-SC4-28	<b>Analyst Observation:</b> Tan Non-Fibrous <b>Client Description:</b>	<b>Location:</b> 1st Floor North Of Reception Area, Ceiling <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499460 <b>Client No.:</b> 10-SC4-29	<b>Analyst Observation:</b> White Texture <b>Client Description:</b>	<b>Location:</b> 1st Floor, Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 0.5 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 99.5
<b>Lab No.:</b> 6499460(L2) <b>Client No.:</b> 10-SC4-29	<b>Analyst Observation:</b> Tan Non-Fibrous <b>Client Description:</b>	<b>Location:</b> 1st Floor, Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499461 <b>Client No.:</b> 10-SC4-30	<b>Analyst Observation:</b> White Texture <b>Client Description:</b>	<b>Location:</b> 1st Floor, Eastern Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 0.5 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 99.5
<b>Lab No.:</b> 6499461(L2) <b>Client No.:</b> 10-SC4-30	<b>Analyst Observation:</b> Tan Non-Fibrous <b>Client Description:</b>	<b>Location:</b> 1st Floor, Eastern Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499462 <b>Client No.:</b> 11-FT1-31	<b>Analyst Observation:</b> White Floor Tile <b>Client Description:</b>	<b>Location:</b> 2nd Floor, Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 1.3 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.7

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



# CERTIFICATE OF ANALYSIS


Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

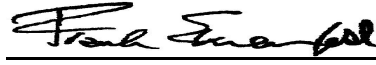
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

## PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499462(L2) <b>Client No.:</b> 11-FT1-31 <u>Percent Asbestos:</u> <i>None Detected</i>	<b>Analyst Observation:</b> Black Mastic <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> 2nd Floor, Reception Area <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499462(L3) <b>Client No.:</b> 11-FT1-31 <u>Percent Asbestos:</u> <i>PC 1.7 Chrysotile</i>	<b>Analyst Observation:</b> Tan Floor Tile <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> 2nd Floor, Reception Area <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 98.3
<b>Lab No.:</b> 6499462(L4) <b>Client No.:</b> 11-FT1-31 <u>Percent Asbestos:</u> <i>None Detected</i>	<b>Analyst Observation:</b> Black Mastic <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> 2nd Floor, Reception Area <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499463 <b>Client No.:</b> 11-FT1-32 <u>Percent Asbestos:</u> <i>PC 1.3 Chrysotile</i>	<b>Analyst Observation:</b> White Floor Tile <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Room 212 <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 98.7
<b>Lab No.:</b> 6499463(L2) <b>Client No.:</b> 11-FT1-32 <u>Percent Asbestos:</u> <i>None Detected</i>	<b>Analyst Observation:</b> Black Mastic <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Room 212 <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499463(L3) <b>Client No.:</b> 11-FT1-32 <u>Percent Asbestos:</u> <i>PC 1.2 Chrysotile</i>	<b>Analyst Observation:</b> Tan Floor Tile <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Room 212 <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 98.8

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499463(L4)	<b>Analyst Observation:</b> Black Mastic	<b>Location:</b> Room 212
<b>Client No.:</b> 11-FT1-32	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499464	<b>Analyst Observation:</b> White Floor Tile	<b>Location:</b> Room 206
<b>Client No.:</b> 11-FT1-33	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 1.4 Chrysotile</i>	None Detected	98.6


<b>Lab No.:</b> 6499464(L2)	<b>Analyst Observation:</b> Black Mastic	<b>Location:</b> Room 206
<b>Client No.:</b> 11-FT1-33	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

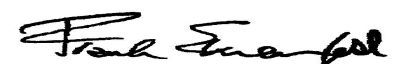
<b>Lab No.:</b> 6499464(L3)	<b>Analyst Observation:</b> Tan Floor Tile	<b>Location:</b> Room 206
<b>Client No.:</b> 11-FT1-33	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 1.2 Chrysotile</i>	None Detected	98.8

<b>Lab No.:</b> 6499464(L4)	<b>Analyst Observation:</b> Black Mastic	<b>Location:</b> Room 206
<b>Client No.:</b> 11-FT1-33	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499465	<b>Analyst Observation:</b> Tan Floor Tile	<b>Location:</b> 1st Floor, Western Hallway,
<b>Client No.:</b> 12-FT2-34	<b>Client Description:</b>	North
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>PC 1.4 Chrysotile</i>	None Detected	98.6

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



### CERTIFICATE OF ANALYSIS


Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

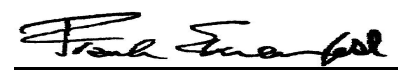
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499465(L2) <b>Client No.:</b> 12-FT2-34	<b>Analyst Observation:</b> Black Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Hallway, North <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.5 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.5
<b>Lab No.:</b> 6499466 <b>Client No.:</b> 12-FT2-35	<b>Analyst Observation:</b> Tan Floor Tile <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Most Room <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.2 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.8
<b>Lab No.:</b> 6499466(L2) <b>Client No.:</b> 12-FT2-35	<b>Analyst Observation:</b> Black Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Most Room <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.1 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.9
<b>Lab No.:</b> 6499467 <b>Client No.:</b> 12-FT2-36	<b>Analyst Observation:</b> Tan Floor Tile <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Hallway, South <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.1 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.9
<b>Lab No.:</b> 6499467(L2) <b>Client No.:</b> 12-FT2-36	<b>Analyst Observation:</b> Black Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Hallway, South <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.4 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.6
<b>Lab No.:</b> 6499468 <b>Client No.:</b> 13-MA4-37	<b>Analyst Observation:</b> Grey Grout <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Kitchen <b>Facility:</b>
<u>Percent Asbestos:</u> <b>None Detected</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

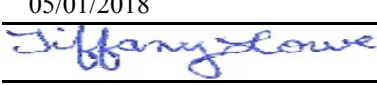
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

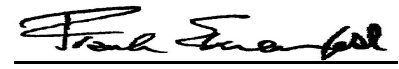
Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499469 <b>Client No.:</b> 13-MA4-38	<b>Analyst Observation:</b> White Ceramic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Kitchen <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499469(L2) <b>Client No.:</b> 13-MA4-38	<b>Analyst Observation:</b> Grey Grout <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Kitchen <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499470 <b>Client No.:</b> 13-MA4-39	<b>Analyst Observation:</b> White Ceramic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Kitchen <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499470(L2) <b>Client No.:</b> 13-MA4-39	<b>Analyst Observation:</b> Grey Grout <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Kitchen <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499471 <b>Client No.:</b> 14-CT4-40	<b>Analyst Observation:</b> White Ceiling Tile <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 95 Fibrous Glass	<u>Percent Non-Fibrous Material:</u> 5
<b>Lab No.:</b> 6499472 <b>Client No.:</b> 14-CT4-41	<b>Analyst Observation:</b> White Ceiling Tile <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 95 Fibrous Glass	<u>Percent Non-Fibrous Material:</u> 5

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

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CERTIFICATE OF ANALYSIS

---

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

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PLM BULK SAMPLE ANALYSIS SUMMARY

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Lab No.: 6499473  
Client No.: 14-CT4-42

Analyst Observation: White Ceiling Tile  
Client Description:

Location: 1st Floor, Western Hallway  
Facility:

Percent Asbestos:  
*None Detected*


Percent Non-Asbestos Fibrous Material:  
95 Fibrous Glass

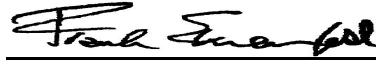
Percent Non-Fibrous Material:  
5

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Please refer to the Appendix of this report for further information regarding your analysis.

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Date Received: 4/25/2018  
Date Analyzed: 05/01/2018  
Signature:   
Analyst: Tiffany Lowe

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499474  
**Client No.:** 15-CT1-43

**Analyst Observation:** Grey/White Ceiling Tile  
**Client Description:**

**Location:** 1st Floor, Western Hallway,  
South  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
55 Fibrous Glass  
30 Cellulose

Percent Non-Fibrous Material:  
15

**Lab No.:** 6499474(L2)  
**Client No.:** 15-CT1-43

**Analyst Observation:** Brown Mastic  
**Client Description:**

**Location:** 1st Floor, Western Hallway,  
South  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499475  
**Client No.:** 15-CT1-44

**Analyst Observation:** Grey/White Ceiling Tile  
**Client Description:**

**Location:** 1st Floor, Western Hallway,  
North  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
55 Fibrous Glass  
30 Cellulose

Percent Non-Fibrous Material:  
15

**Lab No.:** 6499475(L2)  
**Client No.:** 15-CT1-44

**Analyst Observation:** Brown Mastic  
**Client Description:**

**Location:** 1st Floor, Western Hallway,  
North  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499476  
**Client No.:** 15-CT1-45

**Analyst Observation:** Grey/White Ceiling Tile  
**Client Description:**

**Location:** 1st Floor, Western Most Room  
**Facility:**

Percent Asbestos:  
*None Detected*


Percent Non-Asbestos Fibrous Material:  
55 Fibrous Glass  
30 Cellulose

Percent Non-Fibrous Material:  
15

Please refer to the Appendix of this report for further information regarding your analysis.

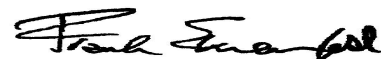
Date Received: 4/25/2018

Date Analyzed: 05/02/2018

Signature: 

Analyst: Rebecca Hargrove

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

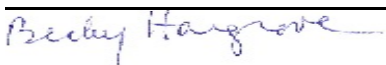
Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

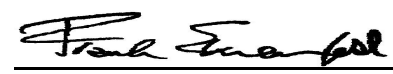
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499476(L2) <b>Client No.:</b> 15-CT1-45	<b>Analyst Observation:</b> Brown Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Most Room <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499477 <b>Client No.:</b> 16-MG3-46	<b>Analyst Observation:</b> Tan Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Eastern Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499477(L2) <b>Client No.:</b> 16-MG3-46	<b>Analyst Observation:</b> Brown Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Eastern Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499478 <b>Client No.:</b> 16-MG3-47	<b>Analyst Observation:</b> Tan/Brown Mastic <b>Client Description:</b>	<b>Location:</b> 1st Floor, Western Hallway <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499479 <b>Client No.:</b> 16-MG3-48	<b>Analyst Observation:</b> Tan Mastic <b>Client Description:</b>	<b>Location:</b> 2nd Floor, Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499479(L2) <b>Client No.:</b> 16-MG3-48	<b>Analyst Observation:</b> Brown Mastic <b>Client Description:</b>	<b>Location:</b> 2nd Floor, Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499480  
**Client No.:** 17-PI3-49

**Analyst Observation:** Black/Tan/White Insulation  
**Client Description:**

**Location:** 1st Floor, Hall By Stairs  
**Facility:**

Percent Asbestos:  
**PC 4.1 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
85 Cellulose

Percent Non-Fibrous Material:  
10.9

**Lab No.:** 6499481  
**Client No.:** 17-PI3-50

**Analyst Observation:** Grey/Brown Insulation  
**Client Description:**

**Location:** Basement, North Storage Room  
**Facility:**

Percent Asbestos:  
**20 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
70 Cellulose

Percent Non-Fibrous Material:  
10

**Lab No.:** 6499482  
**Client No.:** 17-PI3-51

**Analyst Observation:** Brown/White Insulation  
**Client Description:**

**Location:** 2nd Floor, North Hallway  
**Facility:**

Percent Asbestos:  
**PC 6.3 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
85 Cellulose

Percent Non-Fibrous Material:  
8.7

**Lab No.:** 6499483  
**Client No.:** 18-MJ3-52

**Analyst Observation:** Grey Insulation  
**Client Description:**

**Location:** 1st Floor, Hall By Stairs  
**Facility:**

Percent Asbestos:  
**PC Trace Chrysotile**

Percent Non-Asbestos Fibrous Material:  
30 Fibrous Glass  
10 Cellulose

Percent Non-Fibrous Material:  
60

**Lab No.:** 6499484  
**Client No.:** 18-MJ3-53

**Analyst Observation:** Tan Insulation  
**Client Description:**

**Location:** Basement, North Storage Room  
**Facility:**

Percent Asbestos:  
**PC 4.8 Chrysotile**  
**10 Amosite**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
85.2

**Lab No.:** 6499485  
**Client No.:** 18-MJ3-54

**Analyst Observation:** White/Brown Insulation  
**Client Description:**

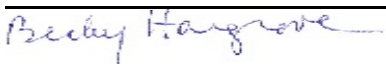
**Location:** 2nd Floor, North Hallway  
**Facility:**

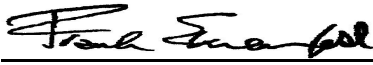
Percent Asbestos:  
**PC 6.8 Amosite**

Percent Non-Asbestos Fibrous Material:  
35 Hair  
5 Cellulose

Percent Non-Fibrous Material:  
53.2

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499486 <b>Client No.:</b> 19-SC1-55	<b>Analyst Observation:</b> White Caulk <b>Client Description:</b>	<b>Location:</b> 2nd Floor, South Of Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

<b>Lab No.:</b> 6499487 <b>Client No.:</b> 19-SC1-56	<b>Analyst Observation:</b> White Glazing <b>Client Description:</b>	<b>Location:</b> Room 206 <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

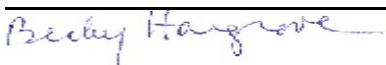
<b>Lab No.:</b> 6499488 <b>Client No.:</b> 19-SC1-57	<b>Analyst Observation:</b> White Glazing <b>Client Description:</b>	<b>Location:</b> Room 201 <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

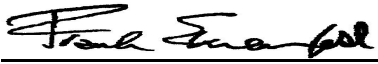
<b>Lab No.:</b> 6499489 <b>Client No.:</b> 20-CA1-58	<b>Analyst Observation:</b> White Glazing <b>Client Description:</b>	<b>Location:</b> 2nd Floor, South Of Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

<b>Lab No.:</b> 6499489(L2) <b>Client No.:</b> 20-CA1-58	<b>Analyst Observation:</b> Brown Glazing <b>Client Description:</b>	<b>Location:</b> 2nd Floor, South Of Reception Area <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 8.3 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 91.7

<b>Lab No.:</b> 6499490 <b>Client No.:</b> 20-CA1-59	<b>Analyst Observation:</b> White Caulk <b>Client Description:</b>	<b>Location:</b> Room 206 <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

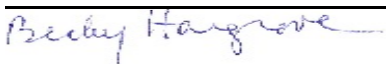
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

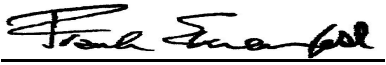
Client: TER590

PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499491 <b>Client No.:</b> 20-CA1-60	<b>Analyst Observation:</b> Grey/White Caulk <b>Client Description:</b>	<b>Location:</b> Room 201 <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499492 <b>Client No.:</b> 21-SC1-61	<b>Analyst Observation:</b> White Glazing <b>Client Description:</b>	<b>Location:</b> Addition, Eastern Basement Window, North <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499493 <b>Client No.:</b> 21-SC1-62	<b>Analyst Observation:</b> White Glazing <b>Client Description:</b>	<b>Location:</b> Addition, Eastern Basement Window, Center <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499494 <b>Client No.:</b> 21-SC1-63	<b>Analyst Observation:</b> White Glazing <b>Client Description:</b>	<b>Location:</b> Addition, Eastern Basement Window, South <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499495 <b>Client No.:</b> 22-CA1-64	<b>Analyst Observation:</b> Grey Glazing <b>Client Description:</b>	<b>Location:</b> Addition, 2nd Floor, Northern Room, East <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 2.4 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 97.6
<b>Lab No.:</b> 6499496 <b>Client No.:</b> 22-CA1-65	<b>Analyst Observation:</b> Brown Glazing <b>Client Description:</b>	<b>Location:</b> Addition, 2nd Floor, Center, West Room <b>Facility:</b>
<u>Percent Asbestos:</u> <i>PC 3.1 Chrysotile</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 96.9

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499497 <b>Client No.:</b> 22-CA1-66	<b>Analyst Observation:</b> Grey Glazing <b>Client Description:</b>	<b>Location:</b> Addition, 3rd Floor, South End Of Hall <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.5 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.5

<b>Lab No.:</b> 6499498 <b>Client No.:</b> 23-FT2-67	<b>Analyst Observation:</b> Yellow Floor Tile <b>Client Description:</b>	<b>Location:</b> Northern Storage Room In Basement <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 2.6 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 97.4

<b>Lab No.:</b> 6499499 <b>Client No.:</b> 23-FT2-68	<b>Analyst Observation:</b> Yellow Floor Tile <b>Client Description:</b>	<b>Location:</b> Northern Storage Room In Basement <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 1.8 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 98.2

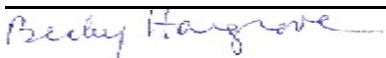
<b>Lab No.:</b> 6499499(L2) <b>Client No.:</b> 23-FT2-68	<b>Analyst Observation:</b> Tan Mastic <b>Client Description:</b>	<b>Location:</b> Northern Storage Room In Basement <b>Facility:</b>
<u>Percent Asbestos:</u> <b>None Detected</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100

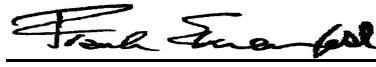
<b>Lab No.:</b> 6499499(L3) <b>Client No.:</b> 23-FT2-68	<b>Analyst Observation:</b> Grey Debris <b>Client Description:</b>	<b>Location:</b> Northern Storage Room In Basement <b>Facility:</b>
<u>Percent Asbestos:</u> <b>None Detected</b>	<u>Percent Non-Asbestos Fibrous Material:</u> 30 Fibrous Glass	<u>Percent Non-Fibrous Material:</u> 70

Not a building material.

<b>Lab No.:</b> 6499500 <b>Client No.:</b> 23-FT2-69	<b>Analyst Observation:</b> Yellow Floor Tile <b>Client Description:</b>	<b>Location:</b> Northern Storage Room In Basement <b>Facility:</b>
<u>Percent Asbestos:</u> <b>PC 2.7 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 97.3

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499500(L2)  
**Client No.:** 23-FT2-69

**Analyst Observation:** Tan Mastic  
**Client Description:**

**Location:** Northern Storage Room In  
Basement

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
100

**Lab No.:** 6499501  
**Client No.:** 24-FC1-70

**Analyst Observation:** Off-White Vinyl Sheet Flooring  
**Client Description:**

**Location:** Collapsed Porch, Center  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499501(L2)  
**Client No.:** 24-FC1-70

**Analyst Observation:** Brown Mastic  
**Client Description:**

**Location:** Collapsed Porch, Center  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499502  
**Client No.:** 24-FC1-71

**Analyst Observation:** Off-White Vinyl Sheet Flooring  
**Client Description:**

**Location:** Collapsed Porch, East  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499502(L2)  
**Client No.:** 24-FC1-71

**Analyst Observation:** Brown Mastic  
**Client Description:**

**Location:** Collapsed Porch, East  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499503  
**Client No.:** 24-FC1-72

**Analyst Observation:** White Vinyl Sheet Flooring  
**Client Description:**

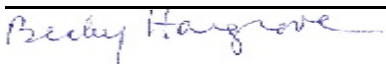
**Location:** Collapsed Porch, West  
**Facility:**

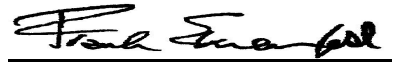
Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499503(L2)  
**Client No.:** 24-FC1-72

**Analyst Observation:** Brown Mastic  
**Client Description:**

**Location:** Collapsed Porch, West  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499504  
**Client No.:** 25-FT2-73

**Analyst Observation:** White Floor Tile  
**Client Description:**

**Location:** Basement Addition, North  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499504(L2)  
**Client No.:** 25-FT2-73

**Analyst Observation:** Tan Mastic  
**Client Description:**

**Location:** Basement Addition, North  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499505  
**Client No.:** 25-FT2-74

**Analyst Observation:** White Floor Tile  
**Client Description:**

**Location:** Basement Addition, Center  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499505(L2)  
**Client No.:** 25-FT2-74

**Analyst Observation:** Tan Mastic  
**Client Description:**

**Location:** Basement Addition, Center  
**Facility:**

Percent Asbestos:  
*None Detected*

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

**Lab No.:** 6499506  
**Client No.:** 25-FT2-75

**Analyst Observation:** White Floor Tile  
**Client Description:**

**Location:** Basement Addition, South  
**Facility:**

Percent Asbestos:  
*None Detected*


Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
100

Please refer to the Appendix of this report for further information regarding your analysis.

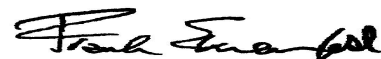
Date Received: 4/25/2018

Date Analyzed: 05/02/2018

Signature: 

Analyst: Rebecca Hargrove

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499506(L2)	<b>Analyst Observation:</b> Tan Mastic	<b>Location:</b> Basement Addition, South
<b>Client No.:</b> 25-FT2-75	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499507	<b>Analyst Observation:</b> White/Tan Flooring	<b>Location:</b> Addition, 3rd Floor, North
<b>Client No.:</b> 26-FC2-76	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

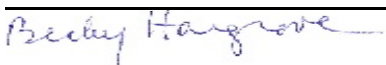
<b>Lab No.:</b> 6499508	<b>Analyst Observation:</b> White/Tan Flooring	<b>Location:</b> Addition, 2nd Floor, North
<b>Client No.:</b> 26-FC2-77	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100


<b>Lab No.:</b> 6499509	<b>Analyst Observation:</b> White/Tan Flooring	<b>Location:</b> Addition, 1st Floor, North
<b>Client No.:</b> 26-FC2-78	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499509(L2)	<b>Analyst Observation:</b> Grey Cementitious	<b>Location:</b> Addition, 1st Floor, North
<b>Client No.:</b> 26-FC2-78	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

<b>Lab No.:</b> 6499510	<b>Analyst Observation:</b> Tan Plaster	<b>Location:</b> 1st Floor, Center, West, Addition
<b>Client No.:</b> 27-HP1-79	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	None Detected	100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

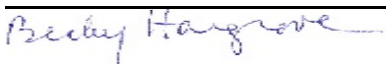
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

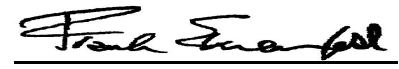
Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499510(L2) <b>Client No.:</b> 27-HP1-79	<b>Analyst Observation:</b> Grey Plaster <b>Client Description:</b>	<b>Location:</b> 1st Floor, Center, West, Addition <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499511 <b>Client No.:</b> 27-HP1-80	<b>Analyst Observation:</b> White Plaster <b>Client Description:</b>	<b>Location:</b> 2nd Floor, Addition, South, East <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499511(L2) <b>Client No.:</b> 27-HP1-80	<b>Analyst Observation:</b> Tan Plaster <b>Client Description:</b>	<b>Location:</b> 2nd Floor, Addition, South, East <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499512 <b>Client No.:</b> 27-HP1-81	<b>Analyst Observation:</b> White Plaster <b>Client Description:</b>	<b>Location:</b> 3rd Floor, Addition, Center, East <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499512(L2) <b>Client No.:</b> 27-HP1-81	<b>Analyst Observation:</b> Grey Plaster <b>Client Description:</b>	<b>Location:</b> 3rd Floor, Addition, Center, East <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 100
<b>Lab No.:</b> 6499513 <b>Client No.:</b> 28-AW1-82	<b>Analyst Observation:</b> White Insulation <b>Client Description:</b>	<b>Location:</b> West Attic, Original <b>Facility:</b>
<u>Percent Asbestos:</u> <i>None Detected</i>	<u>Percent Non-Asbestos Fibrous Material:</u> 98 Fibrous Glass	<u>Percent Non-Fibrous Material:</u> 2

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
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Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499513(L2)	<b>Analyst Observation:</b> Black Wrap	<b>Location:</b> West Attic, Original
<b>Client No.:</b> 28-AW1-82	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	65 Cellulose	35

<b>Lab No.:</b> 6499514	<b>Analyst Observation:</b> White Insulation	<b>Location:</b> West Attic, Original
<b>Client No.:</b> 28-AW1-83	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	98 Fibrous Glass	2

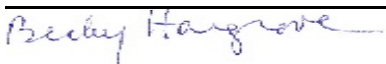
<b>Lab No.:</b> 6499514(L2)	<b>Analyst Observation:</b> Black Wrap	<b>Location:</b> West Attic, Original
<b>Client No.:</b> 28-AW1-83	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	65 Cellulose	35

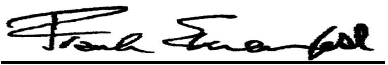
<b>Lab No.:</b> 6499515	<b>Analyst Observation:</b> White Insulation	<b>Location:</b> West Attic, Original
<b>Client No.:</b> 28-AW1-84	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	98 Fibrous Glass	2

<b>Lab No.:</b> 6499515(L2)	<b>Analyst Observation:</b> Black Wrap	<b>Location:</b> West Attic, Original
<b>Client No.:</b> 28-AW1-84	<b>Client Description:</b>	<b>Facility:</b>
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<i>None Detected</i>	65 Cellulose	35

<b>Lab No.:</b> 6499516	<b>Analyst Observation:</b> Grey Insulation	<b>Location:</b> Addition Basement Boiler Room,
<b>Client No.:</b> 29-MI1-85	<b>Client Description:</b>	Boiler 2
<u>Percent Asbestos:</u>	<u>Percent Non-Asbestos Fibrous Material:</u>	<u>Percent Non-Fibrous Material:</u>
<b>35 Chrysotile</b>	50 Fibrous Glass	15

Please refer to the Appendix of this report for further information regarding your analysis.

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Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499517  
**Client No.:** 29-MI1-86

**Analyst Observation:** Grey Insulation  
**Client Description:**

**Location:** Boiler 2  
**Facility:**

Percent Asbestos:  
**40 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
50 Fibrous Glass

Percent Non-Fibrous Material:  
10

**Lab No.:** 6499518  
**Client No.:** 29-MI1-87

**Analyst Observation:** Grey Insulation  
**Client Description:**

**Location:** Boiler 1  
**Facility:**

Percent Asbestos:  
**40 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
50 Fibrous Glass

Percent Non-Fibrous Material:  
10

**Lab No.:** 6499519  
**Client No.:** 30-MI6-88

**Analyst Observation:** Grey Insulation  
**Client Description:**

**Location:** Basement, Addition, Boiler Room  
Breach  
**Facility:**

Percent Asbestos:  
**70 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
10 Fibrous Glass

Percent Non-Fibrous Material:  
20

**Lab No.:** 6499520  
**Client No.:** 30-MI6-89

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Breach, Boiler Room  
**Facility:**

Percent Asbestos:  
**45 Chrysotile**  
**PC 6.2 Amosite**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
48.8

**Lab No.:** 6499521  
**Client No.:** 30-MI6-90

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Breach, Boiler Room  
**Facility:**

Percent Asbestos:  
**50 Chrysotile**  
**PC 2.6 Amosite**


Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
47.4

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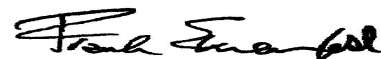
Date Received: 4/25/2018

Date Analyzed: 05/02/2018

Signature: 

Analyst: Rebecca Hargrove

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499522  
**Client No.:** 31-MI3-91

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Boiler Room, Water Tank  
Insulation

Percent Asbestos:  
**40 Chrysotile**  
**PC 5.5 Amosite**

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
54.5

**Lab No.:** 6499523  
**Client No.:** 31-MI3-92

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Boiler Room, Water Tank  
Insulation

Percent Asbestos:  
**35 Chrysotile**  
**PC 6.3 Amosite**

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
58.7

**Lab No.:** 6499524  
**Client No.:** 31-MI3-93

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Boiler Room, Water Tank  
Insulation

Percent Asbestos:  
**65 Chrysotile**  
**PC 1.2 Amosite**

Percent Non-Asbestos Fibrous Material:  
20 Fibrous Glass

**Facility:**  
Percent Non-Fibrous Material:  
13.8

**Lab No.:** 6499525  
**Client No.:** 32-MI3-94

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Original Building, Water Tank,  
Above Chillers

Percent Asbestos:  
**PC 1.2 Amosite**

Percent Non-Asbestos Fibrous Material:  
40 Fibrous Glass

**Facility:**  
Percent Non-Fibrous Material:  
58.8

**Lab No.:** 6499526  
**Client No.:** 32-MI3-95

**Analyst Observation:** Grey/White Insulation  
**Client Description:**

**Location:** Original Building, Water Tank,  
Above Chillers

Percent Asbestos:  
**PC 1.3 Amosite**

Percent Non-Asbestos Fibrous Material:  
50 Fibrous Glass

**Facility:**  
Percent Non-Fibrous Material:  
48.7

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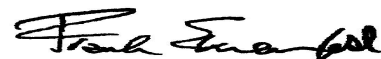
Date Received: 4/25/2018

Date Analyzed: 05/02/2018

Signature:

Analyst: Rebecca Hargrove

Approved By:



Frank E. Ehrenfeld, III  
Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499527  
**Client No.:** 32-MI3-96

**Analyst Observation:** White Insulation  
**Client Description:**

**Location:** Original Building, Water Tank,  
Above Chillers

Percent Asbestos:  
**15 Amosite**

Percent Non-Asbestos Fibrous Material:  
None Detected

**Facility:**  
Percent Non-Fibrous Material:  
85

**Lab No.:** 6499528  
**Client No.:** 33-CP1-97

**Analyst Observation:** Grey Cement Product  
**Client Description:**

**Location:** Addition, Boiler Room Ceiling  
**Facility:**

Percent Asbestos:  
**25 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
75

**Lab No.:** 6499528(L2)  
**Client No.:** 33-CP1-97

**Analyst Observation:** Tan/Black Fibrous  
**Client Description:**

**Location:** Addition, Boiler Room Ceiling  
**Facility:**

Percent Asbestos:  
**None Detected**

Percent Non-Asbestos Fibrous Material:  
95 Cellulose

Percent Non-Fibrous Material:  
5

**Lab No.:** 6499529  
**Client No.:** 33-CP1-98

**Analyst Observation:** Grey Cement Product  
**Client Description:**

**Location:** Addition, Boiler Room Ceiling  
**Facility:**

Percent Asbestos:  
**25 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
75

**Lab No.:** 6499529(L2)  
**Client No.:** 33-CP1-98

**Analyst Observation:** Tan/Black Fibrous  
**Client Description:**

**Location:** Addition, Boiler Room Ceiling  
**Facility:**

Percent Asbestos:  
**None Detected**

Percent Non-Asbestos Fibrous Material:  
95 Cellulose

Percent Non-Fibrous Material:  
5

**Lab No.:** 6499530  
**Client No.:** 33-CP1-99

**Analyst Observation:** Grey Cement Product  
**Client Description:**

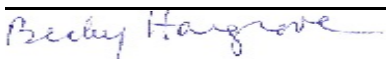
**Location:** Addition, Boiler Room Ceiling  
**Facility:**

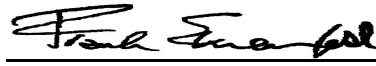
Percent Asbestos:  
**25 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
75

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Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499530(L2) <b>Client No.:</b> 33-CP1-99 <u>Percent Asbestos:</u> <i>None Detected</i>	<b>Analyst Observation:</b> Tan/Black Fibrous <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> 95 Cellulose	<b>Location:</b> Addition, Boiler Room Ceiling <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 5
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<b>Lab No.:</b> 6499531 <b>Client No.:</b> 34-PI1-100 <u>Percent Asbestos:</u> <b>PC 2.1 Chrysotile</b> <b>10 Amosite</b>	<b>Analyst Observation:</b> White Insulation <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Addition, Boiler Room <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 87.9
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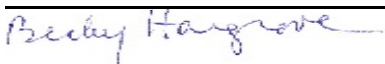
<b>Lab No.:</b> 6499532 <b>Client No.:</b> 34-PI1-101 <u>Percent Asbestos:</u> <b>15 Amosite</b>	<b>Analyst Observation:</b> White Insulation <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Addition, 2nd Floor, SW Room <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 85
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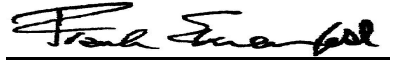
<b>Lab No.:</b> 6499533 <b>Client No.:</b> 34-PI1-102 <u>Percent Asbestos:</u> <b>PC 4.3 Chrysotile</b> <b>10 Amosite</b>	<b>Analyst Observation:</b> White Insulation <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Original, Basement, SW <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 85.7
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<b>Lab No.:</b> 6499534 <b>Client No.:</b> 35-MJ1-103 <u>Percent Asbestos:</u> <b>70 Chrysotile</b>	<b>Analyst Observation:</b> Grey Insulation <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Addition, Boiler Room <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 30
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<b>Lab No.:</b> 6499535 <b>Client No.:</b> 35-MJ1-104 <u>Percent Asbestos:</u> <b>25 Chrysotile</b> <b>PC Trace Amosite</b>	<b>Analyst Observation:</b> White Insulation <b>Client Description:</b> <u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<b>Location:</b> Addition, 2nd Floor, SW Room <b>Facility:</b> <u>Percent Non-Fibrous Material:</u> 75
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Date Received: 4/25/2018  
 Date Analyzed: 05/02/2018  
 Signature:   
 Analyst: Rebecca Hargrove

Approved By:   
 Frank E. Ehrenfeld, III  
 Laboratory Director

# CERTIFICATE OF ANALYSIS

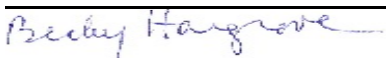
Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

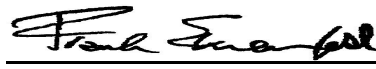
Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

## PLM BULK SAMPLE ANALYSIS SUMMARY

<b>Lab No.:</b> 6499536 <b>Client No.:</b> 35-MJ1-105	<b>Analyst Observation:</b> Grey/White Insulation <b>Client Description:</b>	<b>Location:</b> Original, Basement SW <b>Facility:</b>
<u>Percent Asbestos:</u> <b>15 Chrysotile</b> <b>10 Amosite</b>	<u>Percent Non-Asbestos Fibrous Material:</u> 15 Fibrous Glass	<u>Percent Non-Fibrous Material:</u> 60
<b>Lab No.:</b> 6499537 <b>Client No.:</b> 36-PI2-106	<b>Analyst Observation:</b> Grey Insulation <b>Client Description:</b>	<b>Location:</b> Original, Basement, Mechanical Room <b>Facility:</b>
<u>Percent Asbestos:</u> <b>75 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 25
<b>Lab No.:</b> 6499538 <b>Client No.:</b> 36-PI2-107	<b>Analyst Observation:</b> Grey Insulation <b>Client Description:</b>	<b>Location:</b> Original, Hallway At Stair, Basement <b>Facility:</b>
<u>Percent Asbestos:</u> <b>75 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 25
<b>Lab No.:</b> 6499539 <b>Client No.:</b> 36-PI2-108	<b>Analyst Observation:</b> Grey Insulation <b>Client Description:</b>	<b>Location:</b> Attic, West Side, Original <b>Facility:</b>
<u>Percent Asbestos:</u> <b>75 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 25
<b>Lab No.:</b> 6499540 <b>Client No.:</b> 37-MJ2-109	<b>Analyst Observation:</b> Tan Insulation <b>Client Description:</b>	<b>Location:</b> Original, Mechanical Room <b>Facility:</b>
<u>Percent Asbestos:</u> <b>40 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 60
<b>Lab No.:</b> 6499541 <b>Client No.:</b> 37-MJ2-110	<b>Analyst Observation:</b> Grey/Tan Insulation <b>Client Description:</b>	<b>Location:</b> Original, Hallway At Basement Stair <b>Facility:</b>
<u>Percent Asbestos:</u> <b>50 Chrysotile</b>	<u>Percent Non-Asbestos Fibrous Material:</u> None Detected	<u>Percent Non-Fibrous Material:</u> 50

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Date Received: 4/25/2018  
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Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

### CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Client: TER590

### PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 6499542  
**Client No.:** 37-MJ2-111

**Analyst Observation:** Tan Insulation  
**Client Description:**

**Location:** Original, West Side Attic  
**Facility:**

Percent Asbestos:  
**40 Chrysotile**

Percent Non-Asbestos Fibrous Material:  
None Detected

Percent Non-Fibrous Material:  
60

**Lab No.:** 6499543  
**Client No.:** 38-MJ4-112

**Analyst Observation:** White Insulation  
**Client Description:**

**Location:** Basement, Original, Maintenance  
Store Room

**Facility:**  
Percent Non-Fibrous Material:  
59.75

Percent Asbestos:  
**PC 0.25 Amosite**

Percent Non-Asbestos Fibrous Material:  
40 Fibrous Glass

**Lab No.:** 6499544  
**Client No.:** 38-MJ4-113

**Analyst Observation:** White Insulation  
**Client Description:**

**Location:** Basement, Original, Maintenance  
Store Room

**Facility:**  
Percent Non-Fibrous Material:  
58.2

Percent Asbestos:  
**PC 0.5 Chrysotile**  
**PC 1.3 Amosite**

Percent Non-Asbestos Fibrous Material:  
40 Fibrous Glass

**Lab No.:** 6499545  
**Client No.:** 38-MJ4-114

**Analyst Observation:** White Insulation  
**Client Description:**

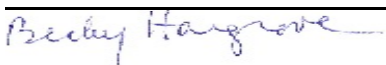
**Location:** Addition, Boiler Room  
**Facility:**

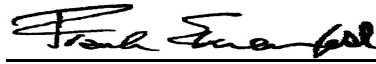
Percent Asbestos:  
**PC 1.6 Amosite**

Percent Non-Asbestos Fibrous Material:  
40 Fibrous Glass

Percent Non-Fibrous Material:  
58.4

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 4/25/2018  
Date Analyzed: 05/02/2018  
Signature:   
Analyst: Rebecca Hargrove

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

---

CERTIFICATE OF ANALYSIS

---

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202  
  
Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

## Appendix to Analytical Report

**Customer Contact:**

**Method:** US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

**iATL Customer Service:** customerservice@iatl.com

**iATL Office Manager:** cdavis@iatl.com

**iATL Account Representative:** Cassie Doherty

**Sample Login Notes:** See Batch Sheet Attached

**Sample Matrix:** Bulk Building Materials

**Exceptions Noted:** See Following Pages

### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at [www.iATL.com](http://www.iATL.com) and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

### Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

#### Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)  
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

## CERTIFICATE OF ANALYSIS

Client: Terracon  
3601 Mojave Court, Suite A  
Columbia MO 65202

Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

### Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at [customerservice@iatl.com](mailto:customerservice@iatl.com).

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
- 16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

### Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gänge, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov), United States Geological Survey (USGS) [www.minerals.usgs.gov/minerals/](http://www.minerals.usgs.gov/minerals/), US EPA [www.epa.gov/asbestos](http://www.epa.gov/asbestos). The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

- 1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116  
**Requirements/Comments:** Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.
- 2) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.
- 3) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004



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CERTIFICATE OF ANALYSIS

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Client: Terracon  
3601 Mojave Court,Suite A  
Columbia MO 65202

Client: TER590

Report Date: 5/2/2018  
Report No.: 562441 - PLM  
Project: St Francis Hospital  
Project No.: 09187012

**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004

**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004

**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Suspension" only.

LOQ, Limit of Quantitation estimates for mass and volume analyses.

\*With advance notice and confirmation by the laboratory.

\*\*Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

## Chain of Custody

–Bulk Asbestos–

### Contact Information

<b>Client Company:</b> Terracon	<b>Project Number:</b> 09187012
<b>Office Address:</b> 3601 Mojave Court, Suite A	<b>Project Name:</b> St. Francis Hospital
<b>City, State, Zip:</b> Columbia, MO 65202	<b>Primary Contact:</b> Jeremy Wood
<b>Fax Number:</b> 573-214-2714	<b>Office Phone:</b> 573-214-2677
<b>Email Address:</b> jeremy.wood@terracon.com	<b>Cell Phone:</b> 660-537-3332

### PLM Instructions:

CC: Tim. Easley@terracon.com

- ☒ PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993
- ☐ PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982
- ☐ PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985
- ☐ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002
- ☐ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010
- ☐ TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009
  
- ☐ PLM: Point Counting
  - ☐ PC: via ELAP 198.1
  - ☐ PC: 400 Points
  - ☐ PC: 800 Points \*
  - ☐ PC: 1600 Points \*
- ☒ PLM: Instructions for Multi-Layered Samples
  - ☒ Analyze and Report All Separable Layers per EPA 600
  - ☐ Report Composite for Drywall Systems per NESHAP
  - ☒ Report All Layers and Composite Where Applicable
  - ☐ Only Analyze and Report Specifically Noted Layer
- ☐ PLM: Analyze Until Positive (Positive Stop)
  - ☐ AUP: by Homogenous Area as Noted
  - ☐ AUP: by Material Type as Noted
- ☐ PLM: NOB via 198.6
  - ☐ PLM: Friable via EPA 600 2.3
  - ☐ If <1% by PLM, to TEM via 198.4 \*
  - ☐ If <1% by PLM, Hold for Instructions
- ☐ PLM: Non-Building Material\*\*\* (Dust, Wipe, Tape)
  - ☐ Soil or Vermiculite Analysis
  - ☐ CARB 435

### Special Instructions:

\* Additional charge and turnaround may be required

\*\* Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory

### Turnaround Time

Preliminary Results Requested Date: \_\_\_\_\_

Specific date / time

☐ Verbal ☒ Email ☐ Fax

☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day\* ☐ 12 Hour\*\* ☐ 6 Hour\*\* ☐ RUSH\*\*

\* End of next business day unless otherwise specified. \*\* Matrix Dependent. \*\*\*Please notify the lab before shipping\*\*\*

### Chain of Custody

Relinquished (Name/Organization): _____	Date: _____	Time: _____
Received (Name / iATL): _____	Date: _____	Time: _____
Sample Login (Name / iATL): _____	Date: _____	Time: _____
Analysis(Name(s) / iATL): <i>MLA</i>	Date: <i>5/2/18</i>	Time: _____
QA/QC Review (Name / iATL): <i>MLA</i>	Date: <i>5-2-18</i>	Time: _____
Archived / Released: _____	QA/QC InterLAB Use: _____	Date: _____

**RECEIVED**  
APR 25 2018  
iATL - BY *[Signature]*



## Chain of Custody

—Bulk Asbestos—

### Contact Information

Client Company: Terracon

Office Address: 3601 Mojave Court, Suite A

City, State, Zip: Columbia, MO 65202

Fax Number: 573-214-2714

Email Address: jeremy.wood@terracon.com

Project Number: 09187012

Project Name: St. Francis Hospital

Primary Contact: Jeremy Wood

Office Phone: 573-214-2677

Cell Phone: 660-537-3332

### PLM Instructions:

CC: Tim. Easley@terracon.com

- ☒ PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993
- ☐ PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982
- ☐ PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985
- ☐ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002
- ☐ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010
- ☐ TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009

- ☐ PLM: Point Counting
  - ☐ PC: via ELAP 198.1
  - ☐ PC: 400 Points
  - ☐ PC: 800 Points \*
  - ☐ PC: 1600 Points \*

- ☒ PLM: Instructions for Multi-Layered Samples
  - ☒ Analyze and Report All Separable Layers per EPA 600
  - ☐ Report Composite for Drywall Systems per NESHAP
  - ☒ Report All Layers and Composite Where Applicable
  - ☐ Only Analyze and Report Specifically Noted Layer

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  - ☐ AUP: by Homogenous Area as Noted
  - ☐ AUP: by Material Type as Noted
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  - ☐ PLM: Friable via EPA 600 2.3
  - ☐ If <1% by PLM, to TEM via 198.4 \*
  - ☐ If <1% by PLM, Hold for Instructions

- ☐ PLM: Non-Building Material \*\*\* (Dust, Wipe, Tape)
  - ☐ Soil or Vermiculite Analysis \*
  - ☐ CARB 435

### Special Instructions:

\* Additional charge and turnaround may be required

\*\* Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory

### Turnaround Time

Preliminary Results Requested Date: \_\_\_\_\_

Specific date / time

- ☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day\* ☐ 12 Hour\*\* ☐ 6 Hour\*\* ☐ RUSH\*\*

\* End of next business day unless otherwise specified. \*\* Matrix Dependent. \*\*\*Please notify the lab before shipping\*\*\*

☐ Verbal

☒ Email

☐ Fax

CC: Tim. Easley@terracon.com

### Chain of Custody

Relinquished (Name/Organization): \_\_\_\_\_

Received (Name / iATL): \_\_\_\_\_

Sample Login (Name / iATL): \_\_\_\_\_

Analysis(Name(s) / iATL): Stone

QA/QC Review (Name / iATL): dlr

Archived / Released: \_\_\_\_\_

QA/QC InterLAB Use: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: 5-1-18

Date: 5-2-18

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Time: \_\_\_\_\_

Time: \_\_\_\_\_

Time: \_\_\_\_\_

Time: \_\_\_\_\_

Time: \_\_\_\_\_

RECEIVED  
APR 25 2018

## Chain of Custody

–Bulk Asbestos –

### Contact Information

**Client Company:** Terracon  
**Office Address:** 3601 Mojave Court, Suite A  
**City, State, Zip:** Columbia, MO 65202  
**Fax Number:** 573-214-2714  
**Email Address:** jeremy.wood@terracon.com

**Project Number:** 09187012  
**Project Name:** St. Francis Hospital  
**Primary Contact:** Jeremy Wood  
**Office Phone:** 573-214-2677  
**Cell Phone:** 660-537-3332

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  - ☐ AUP: by Material Type as Noted
- ☐ PLM: NOB via 198.6
  - ☐ PLM: Friable via EPA 600 2.3
  - ☐ If <1% by PLM, to TEM via 198.4 \*
  - ☐ If <1% by PLM, Hold for Instructions

- ☐ PLM: Non-Building Material\*\*\* (Dust, Wipe, Tape)
  - ☐ Soil or Vermiculite Analysis\*
  - ☐ CARB 435

### Special Instructions:

\* Additional charge and turnaround may be required

\*\* Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory

### Turnaround Time

Preliminary Results Requested Date: \_\_\_\_\_

☐ Verbal ☒ Email ☐ Fax

CC: Tim. Easley@terracon.com

☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day\* ☐ 12 Hour\*\* ☐ 6 Hour\*\* ☐ RUSH\*\*

\* End of next business day unless otherwise specified. \*\* Matrix Dependent. \*\*\*Please notify the lab before shipping\*\*\*

### Chain of Custody

Relinquished (Name/Organization): \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Received (Name / iATL): \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Sample Login (Name / iATL): \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Analysis(Name(s) / iATL): \_\_\_\_\_

Date: 5-2-18

Time: \_\_\_\_\_

QA/QC Review (Name / iATL): \_\_\_\_\_

Date: 5-2-18

Time: \_\_\_\_\_

Archived / Released: \_\_\_\_\_ QA/QC InterLAB Use: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

# Sample Log

**—Bulk Asbestos —**

Client: St. Francis Hospital Project: 09187012

Sampling Date/Time: 4/23/2018 9:00 A.M.

[illegible]

# Asbestos Sample Location Log

Page 1 of 6

Client Name: St. Francis Hospital

Building Name: Original Building

Inspector: Jeremy Wood

Terracon Project Number: 09187512

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
01 - FDI - 01	First floor entry to rooms 6499432	4/23/18
01 - FDI - 02	First floor transition from old to addition 6499433	
01 - FDI - 03	3rd floor, north 6499434	
02 - HPI - 04	First floor entry to rooms 6499435	
02 - HPI - 05	First floor, room farthest east, south 6499436	
02 - HPI - 06	First floor, middle room, North 6499437	
03 - WBI - 07	Entry room, middle 6499438	
03 - WBI - 08	Entry room, east 6499439	
03 - WBI - 09	Entry room south 6499440	
04 - SC4 - 10	1st floor, west hall 6499441	
04 - SC4 - 11	1st floor, east hall 6499442	
04 - SC4 - 12	1st floor, <del>west</del> <del>hall</del> <del>room</del> North Entry room 6499443	
05 - CT4 - 13	<del>1st</del> 1st floor, middle room, North Dots + fixtures 6499444	
05 - CT4 - 14	2nd floor, reception desk 6499445	
05 - CT4 - 15	Room 212 6499446	
06 - CT4 - 16	1st floor, middle room, north smooth 6499447	
06 - CT4 - 17	1st floor, entry to rooms 6499448	
06 - CT4 - 18	2nd floor, east or reception area 6499449	
07 - MAY - 19	1st floor bathroom, east 6499450	
07 - MAY - 20	2nd floor, north bathroom 6499451	
07 - MAY - 21	1st floor, west bathroom 6499452	

Client Name: St. Francis Hospital  
 Building Name: Original Building  
 Inspector: Jeremy Wood  
 Terracon Project Number: 09187012

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
08 - FT2 - 22	Entry room, southwest 6499453	4/23/18
08 - FT2 - 23	Entry room, North west 6499454	
08 - FT2 - 24	Entry room, east 6499455	
09 - FT21 - 25	Reception area, west 1st Floor 6499456	
09 - FT21 - 26	Easternmost room, North 1st Floor 6499457	
09 - FT21 - 27	Center room, south 1st Floor 6499458	
10 - SC4 - 28	North of reception area, ceiling 1st Floor 6499459	
10 - SC4 - 29	Reception area, 1st Floor 6499460	
10 - SC4 - 30	Eastern hallway 1st Floor 6499461	
11 - FT1 - 31	2nd floor reception area	
11 - FT1 - 32	Room 212 6499462	
11 - FT1 - 33	Room 206 6499463	
12 - FT2 - 34	1st floor, western hallway, north 6499464	
12 - FT2 - 35	1st Floor, Westernmost Room 6499465	
12 - FT2 - 36	1st Floor, western hallway, south 6499466	
13 - MA4 - 37	Western Kitchen 1st Floor 6499467	
13 - MA4 - 38	Western Kitchen 1st Floor 6499468	
13 - MA4 - 39	Western Kitchen 1st Floor 6499469	
14 - CT4 - 40	Western Hallway 1st Floor 6499470	
14 - CT4 - 41	Western Hallway 1st Floor 6499471	
14 - CT4 - 42	Western Hallway 1st Floor 6499472	
		6499473

✓

# Asbestos Sample Location Log

Page 3 of 6

Client Name: St. Francis Hospital  
 Building Name: Original Building  
 Inspector: Jeremy Wood  
 Terracon Project Number: 09187012

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
15 - CT1 - 43	Western hallway, South 1st Floor 6499474	4/23/18
15 - CT1 - 44	Western hallway north 1st Floor 6499475	
15 - CT1 - 45	Westernmost room 1st Floor 6499476	
16 - MG3 - 46	Eastern hallway, 1st floor 6499477	
16 - MG3 - 47	Western hallway, 1st floor 6499478	
16 - MG3 - 48	Reception Area, 2nd Floor 6499479	
17 - PI3 - 49	1st Floor hall by stairs 6499480	
17 - PI3 - 50	<del>Basement</del> Basement, North storage room 6499481	
17 - PI3 - 51	2nd Floor, North hallway 6499482	
18 - <del>PI3</del> MS3 - 52	1st Floor hall by stairs 6499483	
18 - <del>PI3</del> MS3 - 53	Basement, North storage room 6499484	
18 - <del>PI3</del> MS3 - 54	2nd Floor North hallway 6499485	
19 - SC1 - 55	South of reception area, 2nd floor 6499486	
19 - SC1 - 56	Room 206 6499487	
19 - SC1 - 57	Room 201 6499488	
20 - CA1 - 58	South of reception area, 2nd floor 6499489	
20 - CA1 - 59	Room 206 6499490	
20 - CA1 - 60	Room 201 6499491	
21 - SC1 - 61	Addition, eastern Basement window, North 6499492	
21 - SC1 - 62	Addition, eastern Basement window, center 6499493	
21 - SC1 - 63	Addition, eastern Basement window, South 6499494	

## Asbestos Sample Location Log

Page 4 of 6

Client Name: St. Francis Hospital  
 Building Name: Original Building  
 Inspector: Jeremy Wood  
 Terracon Project Number: 09187012

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
22 - CA1 - 64	Northern room, east, 2nd floor addition	4/23/18
22 - CA1 - 65	Center, west room, 2nd floor addition	6499495
22 - CA1 - 66	South end of hall, 3rd floor addition	6499496
23 - <del>FT</del> 2 - 67	Northern storage room in basement	6499497
23 - FT2 - 68	Northern storage room in basement	6499498
23 - FT2 - 69	Northern storage room in basement	6499499
24 - FC1 - 70	Collapsed porch, center	6499500
24 - FC1 - 71	Collapsed porch east	6499501
24 - FC1 - 72	Collapsed porch west	6499502
25 - FT2 - 73	Basement addition, north	6499503
25 - FT2 - 74	Basement addition, center	6499504
25 - FT2 - 75	Basement addition, south	6499505
26 - FC2 - 76	Addition, 3rd floor, North	6499506
26 - FC2 - 77	Addition, 2nd floor, North	6499507
26 - FC2 - 78	Addition, 1st floor North	6499508
27 - HPI - 79	1st floor, Center, west, Addition	6499509
27 - HPI - 80	2nd floor addition, south, east	6499510
27 - HPI - 81	3rd floor addition, center, east	6499511
28 - AW1 - 82	West Attic, Original	6499512
28 - AW1 - 83	West Attic, Original	6499513
28 - AW1 - 84	West Attic, original	6499514
		6499515

# Asbestos Sample Location Log

Page 5 of 6

Client Name: St. Francis Hospital  
 Building Name: Original Building  
 Inspector: Jeremy Wood  
 Terracon Project Number: 09187012

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
29 - MI1 - 85	Addition Basement Boiler room, Boiler #2 6499516	4/23/18
29 - MI1 - 86	Boiler #2 6499517	
29 - MI1 - 87	Boiler #1 6499518	
30 - MI6 - 88	Basement, Addition, Boiler Room Breach 6499519	
30 - MI6 - 89	Breach, Boiler room 6499520	
30 - MI6 - 90	Breach Boiler room 6499521	
31 - MI3 - 91	Boiler Room Water Tank insulation 6499522	
31 - MI3 - 92	Boiler Room, Water Tank insulation 6499523	
31 - MI3 - 93	Boiler Room, Water Tank insulation 6499524	
32 - MI3 - 94	Original building, Water Tank, above chillers 6499525	
32 - MI3 - 95	Original, water tank above chillers 6499526	
32 - MI3 - 96	Original, water tank above chillers 6499527	
33 - CP1 - 97	Addition, Boiler room ceiling 6499528	
33 - CP1 - 98	Addition, Boiler room ceiling 6499529	
33 - CP1 - 99	Addition, Boiler room ceiling 6499530	
34 - PI1 - 100	Addition, Boiler room 6499531	
34 - PI1 - 101	Addition, 2nd Floor, SW room 6499532	
34 - PI1 - 102	Original, Basement SW 6499533	
35 - MSI - 103	Addition, Boiler room 6499534	
35 - MSI - 104	Addition, 2nd Floor, SW room 6499535	
35 - MSI - 105	Original, Basement SW 6499536	



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Terracon Project Number: 09187012

[illegible]

## **APPENDIX E**

### **XRF PAINT TEST RESULTS**

Reading	Classification	Pb	Location	Side	Component	Substrate	Color	Condition
1	PASS		Instrument Standardization					
2	Positive	1.28	Instrument Calibration NIST 2573				Red	
3	Positive	1.28	Instrument Calibration NIST 2573				Red	
4	Negative	0	Instrument Calibration NIST 2570				White	
5	Negative	0	Original Building Basement NE room	South	Wall	Concrete	White	Intact
6	Negative	0	Original Building Basement NE room	North	Wall	Concrete	White	Intact
7	Negative	0	Original Building Basement NE room		Ceiling	Drywall	White	Intact
8	Negative	0.49	Original Building Basement NE room	South	Door	Wood	White	Intact
9	Negative	0	Original Building Basement NE room	South	Door Jamb	Wood	White	Intact
10	Negative	0	Original Building Basement east hall	South	Wall	Concrete	White	Intact
11	Negative	0	Original Building Basement SE room	South	Wall	Concrete	White	Intact
12	Negative	0.67	Original Building Basement east hall	West	Door	Wood	White	Peeling
13	Negative	0.55	Original Building Basement east hall	West	Door Jamb	Wood	White	Intact
14	Negative	0	Original Building Basement maintenance shop	North	Wall	Concrete	White	Intact
15	Negative	0	Original Building Basement maintenance shop	West	Wall	Concrete	White	Intact
16	Negative	0	Original Building Basement maintenance shop		Ceiling	Drywall	White	Intact
17	Positive	5	Original Building Basement maintenance shop		Beam	Steel	White	Fair
18	Negative	0.13	Original Building Basement maintenance shop	East	Door	Wood	White	Fair
19	Positive	1.77	Original Building Basement maintenance shop	East	Door Jamb	Wood	White	Intact
20	Negative	0.38	Original Building Basement stair		Stair Tread	Wood	Grey	Poor
21	Negative	0.84	Original Building Basement stair		Stair Stringer	Wood	White	Intact
22	Negative	0.35	Original Building Basement stair		Stair Handrail	Wood	Grey	Poor
23	Negative	0	Original Building Basement mech room	South	Wall	Concrete	White	Intact
24	Negative	0	Original Building Basement west hall	West	Wall	Concrete	White	Intact
25	Negative	0	Original Building Basement west hall		Ceiling	Drywall	White	Intact
26	Negative	0	Original Building Basement west room	West	Wall	Concrete	White	Intact
27	Negative	0.04	Original Building Basement west room	East	Door	Wood	White	Intact
28	Negative	0.86	Original Building Basement SW room	East	Window Sash	Wood	White	Peeling
29	Positive	1.2	Original Building Basement SW room	North	Door Jamb	Wood	White	Peeling
30	Positive	5	Original Building Basement south exit	South	Door Jamb	Wood	White	Peeling
31	Negative	0	Original Building 1st floor NE room	East	Wall	Plaster	Blue	Poor
32	Positive	2.07	Original Building 1st floor NE room	North	Window Sash	Wood	Blue	Intact
33	Positive	1.79	Original Building 1st floor NE room	North	Window sill	Wood	Blue	Intact
34	Negative	0.57	Original Building 1st floor NE room closet	South	Wall	Plaster	Tan	Poor
35	Negative	0	Original Building 1st floor NE room		Ceiling	Plaster	Tan	Intact
36	Negative	0.03	Original Building 1st floor east hall	North	Wall	Plaster	Tan	Poor
37	Negative	0.04	Original Building 1st floor east hall		Ceiling	Plaster	Tan	Poor
38	Negative	0.03	Original Building 1st floor east hall	South	Beam	Steel	Brown	Intact
39	Negative	0.04	Original Building 1st floor SE room	South	Wall	Plaster	Tan	Poor
40	Negative	0.11	Original Building 1st floor SE room	South	Window Sash	Wood	White	Intact
41	Negative	0.17	Original Building 1st floor SE room	South	Window sill	Wood	White	Peeling
42	Positive	1	Original Building 1st floor SE room closet	East	Wall	Plaster	Tan	Peeling
43	Negative	0.14	Original Building 1st floor SE room closet	East	Door Jamb	Wood	White	Peeling
44	Negative	0.07	Original Building 1st floor SE room closet	East	Door	Wood	White	Peeling
45	Negative	0.1	Original Building 1st floor SE room	North	Door Jamb	Metal	White	Intact
46	Negative	0.06	Original Building 1st floor north center room	West	Wall	Plaster	White	Peeling
47	Negative	0.05	Original Building 1st floor north center room	South	Wall	Plaster	Yellow	Peeling
48	Negative	0.23	Original Building 1st floor office	North	Wall	Plaster	Green	Poor
49	Negative	0.01	Original Building 1st floor office	South	Wall	Plaster	White	Peeling
50	Negative	0	Original Building 1st floor waiting room	North	Wall	Drywall	White	Poor
51	Negative	0	Original Building 1st floor waiting room	West	Wall	Drywall	Grey	Peeling
52	Positive	2.65	Original Building 1st floor waiting room		Ceiling	Wood	Blue	Peeling
53	Positive	1	Original Building 1st floor center hall closet	West	Wall	Plaster	White	Peeling
54	Negative	0.03	Original Building 1st floor center hall		Ceiling	Plaster	White	Peeling
55	Negative	0.01	Original Building 1st floor south center room	East	Wall	Plaster	Tan	Peeling
56	Negative	0	Original Building 1st floor south center room		Ceiling	Plaster	Tan	Peeling
57	Positive	1	Original Building 1st floor south center room	East	Window Sash	Wood	White	Peeling
58	Negative	0.18	Original Building 1st floor south center room	East	Window Apron	Wood	Tan	Peeling
59	Negative	0.04	Original Building 1st floor south center room	West	Wall	Plaster	Grey	Peeling
60	Negative	0.02	Original Building 1st floor south center room	West	Door Jamb	Wood	Tan	Peeling
61	Negative	0.06	Original Building 1st floor center hall	West	Wall	Plaster	White	Intact
62	Negative	0.01	Original Building 1st floor NW room	North	Wall	Drywall	Tan	Intact
63	Negative	0.08	Original Building 1st floor NW room	West	Window Sash	Wood	White	Intact

64	Positive	1	Original Building 1st floor NW room		Ceiling	Plaster	Tan	Peeling
65	Positive	1	Original Building 1st floor NW bathroom	East	Wall	Plaster	White	Peeling
66	Negative	0.06	Original Building 1st floor NW utility room	West	Wall	Plaster	Blue	Intact
67	Negative	0.13	Original Building 1st floor NW utility room	North	Wall	Plaster	Blue	Peeling
68	Negative	0	Original Building 1st floor NW utility room		Ceiling	Plaster	White	Peeling
69	Negative	0.14	Original Building 1st floor NW utility room		Ceiling	Plaster	Green	Peeling
70	Negative	0.05	Original Building 1st floor room 103	North	Wall	Plaster	White	Peeling
71	Negative	0	Original Building 1st floor west restroom	South	Wall	Metal	White	Peeling
72	Negative	0.02	Original Building 2nd floor NE room	East	Wall	Plaster	White	Peeling
73	Negative	0.14	Original Building 2nd floor NE room	East	Window Sash	Wood	White	Fair
74	Positive	1	Original Building 2nd floor NE room	East	Wall	Plaster	Tan	Peeling
75	Negative	0.13	Original Building 2nd floor NE room	East	Window Apron	Wood	White	Peeling
76	Positive	1	Original Building 2nd floor NE room closet	West	Wall	Plaster	Tan	Peeling
77	Positive	1	Original Building 2nd floor SE room	South	Wall	Plaster	Pink	Peeling
78	Negative	0.1	Original Building 2nd floor SE room	South	Window Sash	Wood	White	Intact
79	Positive	2.41	Original Building 2nd floor SE room exterior	South	Window trim	Wood	White	Intact
80	Negative	0.03	Original Building 2nd floor hall	South	Wall	Plaster	Tan	Intact
81	Positive	1	Original Building 2nd floor hall		Ceiling	Plaster	Tan	Intact
82	Negative	0.01	Original Building 2nd floor women's restroom	East	Wall	Plaster	White	Peeling
83	Negative	0.06	Original Building 2nd floor women's restroom		Ceiling	Plaster	White	Peeling
84	Negative	0.3	Original Building 2nd floor 205	West	Wall	Plaster	Green	Peeling
85	Positive	1	Original Building 2nd floor 205	South	Wall	Plaster	Pink	Peeling
86	Positive	1	Original Building 2nd floor 205	South	Wall	Plaster	White	Peeling
87	Negative	0	Original Building 2nd floor 205	South	Window Sash	Wood	White	Intact
88	Positive	2.14	Original Building 2nd floor 205 exterior	South	Window trim	Wood	White	Peeling
89	Negative	0.06	Original Building 2nd floor 205		Ceiling	Plaster	Green	Peeling
90	Positive	1	Original Building 2nd floor linen closet	West	Wall	Plaster	White	Peeling
91	Negative	0	Original Building 2nd floor west hall		Ceiling	Plaster	Tan	Intact
92	Negative	0.06	Original Building 2nd floor west hall	West	Wall	Plaster	Brown	Peeling
93	Negative	0	Original Building 2nd floor NW room	East	Wall	Plaster	Tan	Intact
94	Positive	1	Original Building 2nd floor NW room	West	Wall	Plaster	White	Peeling
95	Negative	0.09	Original Building 2nd floor NW room		Ceiling	Plaster	Tan	Peeling
96	Negative	0.01	Original Building 2nd floor SW room	East	Wall	Plaster	White	Peeling
97	Positive	1	Original Building 2nd floor SW room	South	Wall	Plaster	Tan	Poor
98	Positive	1	Original Building 2nd floor SW room	South	Wall	Plaster	Tan	Peeling
99	Negative	0.01	Addition Basement north stair	South	Wall	Plaster	White	Peeling
100	Positive	1	Addition Basement north stair	South	Wall	Plaster	Green	Peeling
101	Negative	0	Addition Basement north stair	South	Wall	Glazed block	Tan	Intact
102	Negative	0.01	Addition Basement kitchen	West	Wall	Plaster	Grey	Peeling
103	Negative	0	Addition Basement kitchen		Ceiling	Plaster	White	Peeling
104	Positive	1	Addition Basement kitchen	South	Wall	Plaster	Brown	Peeling
105	Negative	0.17	Addition Basement kitchen		Air duct	Metal	Brown	Peeling
106	Negative	0.02	Addition Basement kitchen	South	Door Jamb	Metal	Tan	Peeling
107	Positive	1	Addition Basement hall	East	Wall	Metal	Tan	Poor
108	Negative	0	Addition Basement hall		Ceiling	Plaster	White	Peeling
109	Negative	0	Addition Basement women's restroom	West	Door	Wood	White	Intact
110	Positive	1	Addition Basement men's restroom	North	Wall	Plaster	White	Peeling
111	Negative	0	Addition Basement cafeteria	East	Wall	Plaster	Grey	Poor
112	Negative	0.02	Addition Basement cafeteria	East	Window	Metal	Black	Intact
113	Positive	1	Addition Basement cafeteria	West	Wall	Plaster	White	Peeling
114	Negative	0	Addition Basement cafeteria		Ceiling	Plaster	White	Peeling
115	Negative	0	Addition Basement boiler room	East	Wall	Concrete block	White	Fair
116	Negative	0	Addition Basement boiler room	South	Chimney	Brick	White	Peeling
117	Negative	0	Addition Basement boiler room	East	Wall	Concrete block	White	Fair
118	Positive	2.07	Addition Basement boiler room	South	Door	Metal	White	Fair
119	Positive	5	Addition Basement boiler room	South	Door Jamb	Metal	White	Fair
120	Negative	0	Addition Basement boiler room		Ceiling	Asbestos	White	Intact
121	Positive	5	Addition 1st floor south stair	South	Stair Riser	Metal	Green	Peeling
122	Positive	5	Addition 1st floor south stair	South	Stair Newell	Metal	Green	Peeling
123	Negative	0.08	Addition 1st floor SE room	East	Wall	Plaster	White	Peeling
124	Negative	0.09	Addition 1st floor SE room		Ceiling	Plaster	Yellow	Peeling
125	Positive	1	Addition 1st floor SE room	North	Wall	Plaster	Pink	Intact
126	Positive	1	Addition 1st floor SE room closet	West	Wall	Plaster	Green	Peeling
127	Negative	0.03	Addition 1st floor SE room	West	Door Jamb	Metal	White	Peeling

128	Negative	0	Addition 1st floor hall	West	Upper Wall	Plaster	Brown	Peeling
129	Negative	0	Addition 1st floor hall		Ceiling	Plaster	White	Intact
130	Negative	0.09	Addition 1st floor west center room	East	Wall	Plaster	White	Peeling
131	Negative	0.01	Addition 1st floor west center room	West	Wall	Plaster	Tan	Peeling
132	Negative	0	Addition 1st floor west center room		Ceiling	Plaster	White	Peeling
133	Negative	0.08	Addition 1st floor NW room	North	Wall	Plaster	White	Peeling
134	Negative	0.05	Addition 1st floor NW room	West	Wall	Plaster	Grey	Peeling
135	Negative	0	Addition 1st floor NW room		Ceiling	Plaster	Grey	Peeling
136	Negative	0.04	Addition 1st floor NW room	East	Wall	Plaster	Yellow	Peeling
137	Positive	1.47	Addition 1st floor north stair	North	Door	Metal	Brown	Intact
138	Positive	1	Addition 1st floor north stair	East	Wall	Metal	White	Peeling
139	Positive	2.2	Addition 1st floor north stair		Stair Riser	Metal	Green	Intact
140	Negative	0	Addition 2nd floor utility room		Ceiling	Plaster	White	Fair
141	Positive	1	Addition 2nd floor bathroom	North	Wall	Plaster	White	Peeling
142	Positive	1	Addition 2nd floor bathroom	North	Wall	Glazed block	Tan	Intact
143	Test aborted		No test					
144	Positive	1	Addition 2nd floor bathroom		Ceiling	Plaster	White	Peeling
145	Negative	0.01	Addition 2nd floor hall	West	Wall	Plaster	Brown	Peeling
146	Negative	0.01	Addition 2nd floor hall		Ceiling	Plaster	Tan	Peeling
147	Positive	1	Addition 2nd floor hall	North	Wall	Plaster	White	Peeling
148	Positive	1	Addition 2nd floor west center room	East	Wall	Plaster	Yellow	Peeling
149	Negative	0	Addition 2nd floor west center room		Ceiling	Plaster	White	Peeling
150	Negative	0.11	Addition 2nd floor west center room	East	Door Jamb	Metal	Tan	Peeling
151	Positive	1	Addition 2nd floor SE room	North	Wall	Plaster	White	Peeling
152	Negative	0	Addition 2nd floor SE room closet	West	Wall	Plaster	Green	Peeling
153	Negative	0.02	Addition 2nd floor SE room		Ceiling	Plaster	White	Peeling
154	Positive	1	Addition 3rd floor bathroom	South	Wall	Plaster	White	Peeling
155	Positive	1	Addition 3rd floor bathroom		Ceiling	Plaster	White	Peeling
156	Negative	0.06	Addition 3rd floor hall	West	Wall	Plaster	Brown	Peeling
157	Negative	0.02	Addition 3rd floor hall		Ceiling	Plaster	Brown	Peeling
158	Positive	1	Addition 3rd floor east center room	East	Wall	Plaster	White	Peeling
159	Positive	1	Addition 3rd floor east center room		Ceiling	Plaster	White	Peeling
160	Positive	1	Addition 3rd floor north stair	South	Wall	Plaster	White	Peeling
161	Negative	0	Addition 3rd floor north stair		Ceiling	Plaster	White	Fair
162	Negative	0	Original Building exterior	North	Wall	Concrete	White	Peeling
163	Negative	0	Original Building exterior	North	Lower wall drippedge	Metal	Brown	Intact
164	Negative	0	Original Building exterior	North	Wall	Concrete	White	Peeling
165	Negative	0.12	Original Building exterior	North	Downspout	Metal	Brown	Intact
166	Negative	0.44	Original Building exterior	East	Stair Stringer	Metal	Black	Intact
167	Negative	0.3	Original Building exterior	East	Stair Riser	Metal	Black	Peeling
168	Negative	0.79	Original Building exterior	East	Door Jamb	Wood	White	Peeling
169	Negative	0.02	Original Building exterior	East	Door	Wood	White	Peeling
170	Negative	0.99	Original Building exterior	South	Downspout	Metal	White	Peeling
171	Positive	1.37	Original Building exterior	South	Downspout	Metal	White	Peeling
172	Positive	5	Original Building exterior	South	Window trim	Wood	White	Peeling
173	Negative	0	Addition exterior	East	Door	Wood	White	Intact
174	Negative	0.05	Addition exterior	East	Entry Ceiling	Metal	White	Peeling
175	Negative	0.04	Addition exterior basement	East	Window	Metal	Grey	Intact
176	Positive	1.2	Instrument Calibration NIST 2573				Red	
177	Positive	1.11	Instrument Calibration NIST 2573				Red	
178	Negative	0	Instrument Calibration NIST 2570				White	

## **APPENDIX F**

### **CERTIFICATIONS/LICENSES**

Expiration Date **8/11/2018**

Certificate Number: 7118080417MOIR17919

Training Date: **8/4/2017**

**Missouri State Certificate for Asbestos Related Occupations**

issued by Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102

Phone (573) 751-4817

**Jeremy D Wood**

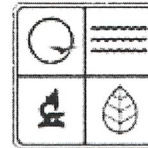
has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

8/11/2017

Date

*Kyra L Moore*

Director of Air Pollution Control Program





CERTIFICATION NUMBER:

**7113110317MOIR3337**

THIS CERTIFIES

**Timothy E Easley**

HAS COMPLETED THE CERTIFICATION

REQUIREMENTS FOR

**Inspector**



APPROVED: **11/14/2017**

EXPIRES: **11/14/2018**

TRAINING DATE: **11/03/2017**

*Kyra L Moore*

Director of Air Pollution Control Program



**STATE OF MISSOURI**  
**DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

**Timothy E. Easley**

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

**Lead Inspector**  
Category of License

Issuance Date: **10/1/2016**  
Expiration Date: **10/1/2018**  
License Number: **101001-001794**



A handwritten signature in black ink, appearing to read "Peter Lyskowski".

Peter Lyskowski  
Director

Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102