

REQUEST FOR PROPOSALS UK-2359-23 CM SERVICES – SCOVELL HALL RENOVATION Project #2591.2 ADDENDUM #1 6/20/2023

#### ATTENTION: This is not an order. Read all instructions, terms, and conditions carefully.

IMPORTANT: RFP AND ADDENDUM MUST BE RECEIVED BY 06-27-2023 @ 3:00 P.M. LEXINGTON, KY TIME

Offerors should acknowledge receipt of this, and any addendum, as directed in the Request for Proposals.

#### **ITEM #1: NOTICE TO OFFERORS**

 Offerors are encouraged to revisit section 4.9 Criteria 5 – Other Additional Information and consider this opportunity to provide information regarding any apprenticeships, employee development or subcontractor mentoring programs, business accelerators, or similar programs that your firm sponsors or administers for the benefit of diversity and economic development.

#### **ITEM #2: CLARIFICATIONS AND MODIFICATIONS TO THE SOLICITATION DOCUMENTS**

- The Designer of Record was misstated in section 7.1.1 as Sherman Carter Barnhart Architecture. The Designer of record/Consultant for this project is JRA Architects, Inc.
- Schematic Designs are attached. These are <u>early design documents</u> and significant changes are all-but guaranteed.
- An asbestos survey for Scovell Hall is attached.

#### UNIVERSITY OF KENTUCKY

Corey W. Leslie, Purchasing Officer

SIGNATURE

University of Kentucky Purchasing Division 322 Peterson Service Building Lexington, KY 40506-0005 Typed or Printed Name

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Marilyn Clark, supplier diversity manager | Marilyn.Clark@uky.edu | 859-218-5612 University of Kentucky | 322 Frank D. Peterson Service Building, 411 South Limestone, Lexington, KY 40506















## **EXTERIOR MATERIAL LEGEND**

- 1. EXISTING BRICK BEARING WALL TO BE CLEANED AND TUCK POINTED.
- 2. EXISTING LIMESTONE WALL, WINDOW SILLS, AND LINTELS TO BE CLEANED.

SHEATHING ON METAL STUDS.

- REPLACEMENT DOUBLE HUNG WINDOW SYSTEM WITH 1" LOW-E INSULATING GLASS.
- 4. ALUMINUM FRAMED CURTAIN WALL GLAZING SYSTEM
- WITH 1" LOW-E INSULATING GLASS. 5. COMPOSITE ALUMINUM METAL PANEL WITH AIR SPACE, 2 1/2" INSULATION, MOISTURE BARRIER, 5/8"
- 6. TAPERED SMOOTH LIMESTONE VENEER WINDOW SILL AND LINTEL.
- 7. BRICK VENEER WITH AIR SPACE, 2 1/2" INSULATION, MOISTURE BARRIER, 5/8" SHEATHING ON METAL STUDS.
- 8. 2" SMOOTH LIMESTONE VENEER WITH AIR SPACE, 2 1/2" INSULATION, MOISTURE BARRIER, 5/8" SHEATHING ON METAL STUDS.
- 9. EXTRUDED ALUMINUM SUN SHADE TRELLIS SYSTEM.
- 10. ALUMINUM CLAD STEEL COLUMNS.
- 11. 4" SPLIT FACE ASHLAR LIMESTONE VENEER ON CONCRETE RETAINING WALL.





EXISTING BUILDING SHELL TO REMAIN







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ſ	1.	EXISTING BRICK BEARING WALL TO BE CLEANED AND TUCK POINTED.	7.	BRICK VENEER WITH AIR SPACE, 2 1 MOISTURE BARRIER, 5/8" SHEATHIN STUDS.
	2.	EXISTING LIMESTONE WALL, WINDOW SILLS, AND LINTELS TO BE CLEANED.	8.	2" SMOOTH LIMESTONE VENEER WI
	3.	REPLACEMENT DOUBLE HUNG WINDOW SYSTEM WITH 1" LOW-E INSULATING GLASS.		SHEATHING ON METAL STUDS.
	4.	ALUMINUM FRAMED CURTAIN WALL GLAZING SYSTEM	9.	EXTRUDED ALUMINUM SUN SHADE
	5.	COMPOSITE ALUMINUM METAL PANEL WITH AIR SPACE, 2 1/2" INSULATION, MOISTURE BARRIER, 5/8" SHEATHING ON METAL STUDS.	10.	4" SPLIT FACE ASHLAR LIMESTONE CONCRETE RETAINING WALL.
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- 6. TAPERED SMOOTH LIMESTONE VENEER WINDOW SILL AND LINTEL.







2. CHANNEL GLASS WALL.

- 3. 1/2" TEMPERED GLASS RAILING WITH ETCH STAINLESS STEEL HARDWARE AT FLOOR OPENING.
- 4. PRE-CAST TERRAZZO TREADS WITH ZINC STRIPS.
- 5. FLOOR TO CEILING LOW-IRON TEMPERED, LAMINATED GLASS AT OPEN TO BELOW AREA.



## ASBESTOS CONTAINING MATERIALS, POLYCHLORINATED BIPHENYLS IN CAULK, LEAD-BASED PAINT, & HAZARDOUS MATERIALS INSPECTION REPORT

## University of Kentucky - Scovell Hall 115 Huguelet Drive Lexington, Fayette County, Kentucky 40508



**Prepared for:** 



University of Kentucky - Capital Project Management Division 222 Peterson Service Building Lexington, KY 40506

**Prepared by:** 



TriEco, LLC 7710 Springvale Drive, Suite 201 Louisville, Kentucky 40241-2745 Project No. 19S1024

**REPORT DATE** December 9, 2019

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#### 1.0 ASBESTOS CONTAINING MATERIALS INSPECTION

#### **1.1 INTRODUCTION**

TriEco, LLC (TriEco) was authorized in a work order authorized by Mrs. Roni Sue Lucas of the University of Kentucky's Capital Project Management Division to perform an asbestos containing materials (ACM) inspection at the University of Kentucky's (UK) Scovell Hall building located at 115 Huguelet Drive in Lexington, Kentucky. TriEco has prepared this report for use by UK, to outline identified environmental concerns associated with asbestos at this property prior to renovation activities. A site location figure and selected site photographs are included as Appendix A.

The objective of this project was to collect material that would assist in the identification of ACM prior to renovation activities associated with the subject building. All inspection and sampling activities were done in accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP) General Inspection Procedures found within 40 CFR 61, Subpart M. Historic building records and previous ACM inspections conducted by the UK Environmental Management Department were utilized as part of this assessment. Materials that had been previously sampled and found to contain asbestos may not have been collected during this inspection. A comprehensive list of all samples taken from the subject property can be found in Appendix B. This report provides background information, limitations and exceptions, scope-of-work performed, assessment results, findings and conclusions, and recommendations.

#### **1.2 BACKGROUND AND SITE SUMMARY**

UK has requested this asbestos inspection, as part of the environmental screening inspection, to be included as a component of the preparatory activities prior to renovations at the subject building. Scovell Hall was completed in 1905 as the original Agricultural Experiment Station Building on UK's campus and was expanded upon in 1913 and 1936. Lastly, a partial demolition of the central southwest portion of the structure and subsequent renovations occurred in the 1990s. Scovell Hall currently houses UK's Agricultural Department, Human Resource Services, and their respective offices. The assessed multi-story structure consists of stone and concrete foundations, block construction with a brick veneer, and multiple flat built-up roofs.

Asbestos is a general term for a group of fibrous minerals (primarily Chrysotile, Amosite, and Crocidolite) that have long been used as a fireproof insulation and as a strengthener in pipe insulation, roofing tiles, floor tiles, mastic, wall coverings, and other materials. Undisturbed ACMs are not dangerous. However, when ACMs are broken or torn (such as during renovation or demolition) the fibers can be spread into the air, especially if the material is friable. A material is considered an ACM if it is found to contain greater than 1% of asbestos. Studies have shown that inhaling high concentrations of these fibers over time can cause diseases such as asbestosis, lung cancer, and mesothelioma.

#### **1.3 LIMITATIONS AND EXCEPTIONS**

This assessment pertains directly to those areas observed and sampled within the subject property and is not intended to provide indoor air quality data or information for the entirety of

the building. Only those areas accessible during the site visit including living areas considered "typical" of those conditions and materials found throughout the property structure were sampled for laboratory analysis. Subsurface sampling was not included in this inspection.

None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings from the site visit. There are no warranties or guarantees, expressed or implied, included or intended by the report, except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by professional consultants or firms performing the same or similar service.

Changes in the condition of the building may occur with time due to either natural processes or human activities. The findings presented in this report are based on site conditions existing at the time of the investigation. This report was compiled for the sole use of UK. This report in not intended to be distributed or relied upon by third parties without the written permission of TriEco.

#### **1.4 SCOPE OF WORK**

TriEco performed the following scope-of-work, which was based, in part, upon information provided by persons deemed knowledgeable of the property and our experience with similar projects.

The ACM inspection conducted at Scovell Hall was performed to identify ACM on the interior and exterior of the subject building. Christopher Stovall and Gregory Bailey, Kentucky accredited asbestos inspectors, conducted the survey activities. Copies of all asbestos inspector credentials are included as Appendix D.

Samples of potential ACM were collected from homogeneous areas (HA), which consisted of materials that were similar in color, texture, and size. Suspect ACM samples were delivered under chain-of-custody protocols to McCall and Spero Environmental, Inc. (McCall & Spero) in Louisville, Kentucky for Polarized Light Microscopy (PLM) analysis. The National Voluntary Laboratory Accreditation Program (NVLAP) accredits McCall & Spero for Asbestos fiber analysis.

All positive sample locations are indicated on the sample location diagrams included as Appendix C. The laboratory analytical results can be found in Appendix E.

#### **1.5 RESULTS**

Activities associated with TriEco's Scovell Hall ACM inspection; including previous inspections by the UK Environmental Management Department, generated the following positive results:

#### ASBESTOS CONTAINING MATERIALS AND LOCATIONS

SAMPLE # LOCATION		MATERIAL	APPROXIMATE QUANTITY*	ASBESTOS (%)				
SECTION 1 - 1903 BUILD DATE								
S1-07A	Interior Basement - Room 9	Gray/Tan Window Frame Caulk	2,000 LF	3% Chrysotile				
S1-24A	Interior Basement - Hallway @ Rm. 12	White Fibrous Firestop @ Pipe Penetration	400 LF	10% Chrysotile				
S2-07A	<b>Interior</b> 2 <sup>nd</sup> Floor - Hallway	Gray/Tan Wood Cove Base Caulk (Top @ Wall)	600 LF	5% Chrysotile				
UK Historic Results	Interior Throughout	Various 9x9" & 12x12" VCT & Black Mastic	4,300 SF	Tile - > 1% Chrysotile Mastic - > 2% Chrysotile				
UK Historic Results	<b>Interior</b> Mechanical / Throughout	Thermal System Insulation (TSI)	3,000 LF	15-75% Chrysotile				
UK Historic Results	Interior Basement - Room 2	Thin Paper-like Sheeting on Shelves	Unknown	30-45% Chrysotile				
UK Historic Results	<b>Interior</b> 1 <sup>st</sup> Floor - Room 101	Loose Insulation Material inside Fireplace	Unknown	45 - 50% Chrysotile				
-	<b>Interior</b> Throughout	Fire Door Insulation	*TBD	Assumed				
-	<b>Interior</b> Throughout	Pipe Fitting Gaskets	All	Assumed				
UK Historic Results	<b>Exterior</b> Original Wooden Windows	White/Tan Window Putty/Glazing	2,700 LF	1.58% Chrysotile -TEM				
	SE	CTION 2 - 1913 BUILD DA	ГЕ					
S2-04A	<b>Interior</b> 1 <sup>st</sup> Floor - Room 124	White/Tan Door Frame Caulk	400 LF	3% Chrysotile				
S2-12A	<b>Interior</b> 2 <sup>nd</sup> Floor - Hallway @ Rm. 217	Black Mastic associated w/ Gray 12x12" VCT	6,200 SF	3% Chrysotile				
UK Historic Results	<b>Interior</b> Throughout	Various 9x9" & 12x12" VCT & Associated Black Mastic	Included Above	Tile - > 1% Chrysotile Mastic - > 1% Chrysotile				
UK Historic Results	<b>Interior</b> Throughout	Ceiling & Wall Plaster	43,500 SF	> 1% Chrysotile - PLM 4.19% Chrysotile - TEM				
UK Historic Results	<b>Interior</b> Mechanical / Throughout	Thermal System Insulation (TSI)	2,000 LF	40 - 45% Chrysotile				
UK Historic Results	Interior Basement - Room 14	Rolled Material on Side Wall	Unknown	35 - 40% Chrysotile				
-	Interior Throughout	Fire Door Insulation	*TBD	Assumed				
-	Interior Throughout	Pipe Fitting Gaskets	All	Assumed				
UK Historic Results	Exterior Original Wooden Windows	White/Tan Window Putty/Glazing	570 LF	1.58% Chrysotile -TEM				

\*ALL QUANTITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR RED—Considered an ACM as defined by the EPA

\*TBD - Dependent on scope of work.

#### ASBESTOS CONTAINING MATERIALS AND LOCATIONS (CONT.)

SAMPLE # LOCATION		MATERIAL	APPROXIMATE QUANTITY*	ASBESTOS (%)					
	SECTION 3 - 1936 BUILD DATE								
S3-01A	Interior Basement - Room 33	Gray 12x12" VCT & Associated Black Mastic	9,600 SF	Tile - 2% Chrysotile Mastic - 4% Chrysotile					
UK Historic Results	<b>Interior</b> Throughout	Various 12x12" VCT & Associated Black Mastic	Included Above	Tile - 3% Chrysotile Mastic - 5% Chrysotile					
UK Historic Results	<b>Interior</b> Throughout	Thermal System Insulation (TSI)	3,500 LF	Assumed					
-	<b>Interior</b> Throughout	Fire Door Insulation	*TBD	Assumed					
-	<b>Interior</b> Throughout	Pipe Fitting Gaskets	All	Assumed					
E3-01A Exterior Side B		Light Gray/Dark Gray Window Sill Caulk	450 LF	3% Chrysotile					
E3-02A	<b>Exterior</b> Side D	Tan/Gray Wooden Window Frame Caulk	2,200 LF	5% Chrysotile					
E3-03A Exterior Side D C		Tan/Brown Window Sill Caulk (Below Concrete Sill)	450 LF	7% Chrysotile					
UK Historic Results	<b>Exterior</b> Original Wooden Windows	White/Tan Window Putty/Glazing	3,300 LF	1.58% Chrysotile -TEM					
		ROOF							
R-02A	Roof-Section 1/2 (1903/1913) Brick Parapet	Gray/Black Tar Flashing on Brick	*TBD	10% Chrysotile					
R-03A Roof - Section 2 (1913) Concrete Parapet Coping		Residual Black Tar Seam Caulk (Below Tan Caulk)	*TBD	5% Chrysotile					

\*ALL QUANTITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR

**RED**—Considered an ACM as defined by the EPA

\*TBD - Dependent on scope of work.

#### 1.6 FINDINGS & CONCLUSIONS

TriEco has performed this ACM inspection at Scovell Hall on the campus of UK in Lexington, Fayette County, Kentucky according to the scope of services as defined in this report. Our assessment has revealed the following:

It should be noted that several renovations and associated asbestos abatement activities have occurred within the aforementioned section of the subject building; therefore, a number of UK's historically positive samples are no longer present at all locations noted within the UK historical results.

#### SECTION 1 - 1903 BUILD DATE

• Asbestos is present within the original gray/tan interior window frame caulk located on various wooden window frames on the interior of the subject building. All associated caulking is considered a Category II non-friable material. If renovation/demolition

activities are performed in accordance with the NESHAP regulations, this material is not considered a Regulated Asbestos Containing Material (RACM).

- Asbestos is present within the white fibrous firestop material located at various wall pipe penetrations throughout Section 1 of the subject building. All associated firestop is in friable condition and considered RACM.
- Asbestos is present in original gray/tan wooden cove base caulk (top @ wall) located on the 2<sup>nd</sup> floor hallway of Section 1. All associated caulking is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present within various 9x9" and 12x12" floor tiles and/or the associated black mastic (exposed and/or below finished flooring) within offices, vaults, closets, etc. throughout the interior of Section 1. All associated floor tile and mastic are in non-friable condition and considered a Category I non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos was historically found within the Thermal System Insulation (TSI) associated with various expansion tank(s), pipe elbows, tees, hangers, valves, and/or straight runs within Room 12 (Mechanical) located within the basement of Section 1. All associated TSI is in friable condition and considered RACM.
- Asbestos was historically found within the Thermal System Insulation (TSI) associated with the pipe elbows, tees, hangers, valves, and straight runs (exposed and within walls and ceilings) throughout Section 1 of the subject building in addition to the aforementioned mechanical room. All associated TSI is in friable condition and considered RACM.
- Asbestos was historically found within the thin paper-like sheeting material found on a shelf within 'Room 2' located in the basement of Section 1. The asbestos sheeting material, if present, is in friable condition and considered RACM.
- Asbestos was historically found within the loose insulation-like material inside of the fireplace within 'Room 101' on the 1<sup>st</sup> floor of Section 1. The asbestos material, if present, is in friable condition and considered RACM.
- Asbestos is assumed present within the insulation of various fire doors throughout Section 1 of the subject building. Due to the non-destructive nature of the sampling activities, access to the interior insulating core was prevented; therefore results are based on our experience with similarly aged structures and historically positive results. All associated insulating core material is in friable condition and is considered RACM.
- Asbestos is assumed within the fitting/union gaskets throughout Section 1 of the subject building. All associated gaskets are considered a Category I non-friable material. If

renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.

• Asbestos is present within the white/tan window putty/glazing located on the exterior of Section 1's original wooden windows. All associated putty/glazing is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.

#### **SECTION 2 - 1913 BUILD DATE**

- Asbestos is present within the original white/tan door frame caulk located on various interior door frames throughout Section 2 of the subject building. All associated caulking is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present in various 9x9" and 12x12" floor tiles and/or the associated black mastic (exposed and/or below finished flooring) within hallways, offices, vaults, closets, etc. throughout the interior of Section 2. All associated floor tile and mastic are in non-friable condition and considered a Category I non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos was historically found within the gray cement based plaster located on various walls and ceilings throughout Section 2 of the subject building. All associated plaster is in friable condition and considered RACM.
- Asbestos was historically found within the Thermal System Insulation (TSI) associated with various expansion tank(s), pipe elbows, tees, hangers, valves, and/or straight runs within Room 15 (Mechanical) located within the basement of Section 2. All associated TSI is in friable condition and considered RACM.
- Asbestos was historically found within the Thermal System Insulation (TSI) associated with the pipe elbows, tees, hangers, valves, and straight runs (exposed and within walls and ceilings) throughout Section 2 of the subject building in addition to the aforementioned mechanical room. All associated TSI is in friable condition and considered RACM.
- Asbestos was historically found within a roll of material on the side wall of 'Room 14' located within the basement of Section 2. The roll of asbestos material, if present, is in friable condition and considered RACM.
- Asbestos is assumed present within the insulation of various fire doors throughout Section 2 of the subject building. Due to the non-destructive nature of the sampling activities, access to the interior insulating core was prevented; therefore results are based on our experience with similarly aged structures and historically positive results. All associated insulating core material is in friable condition and is considered RACM.

- Asbestos is assumed within the fitting/union gaskets throughout Section 2 of the subject building. All associated gaskets are considered a Category I non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present within the white/tan window putty/glazing located on the exterior of Section 2's original wooden windows. All associated putty/glazing is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.

#### **SECTION 3 - 1936 BUILD DATE**

- Asbestos is present in various 12x12" floor tiles and the associated black mastic (exposed and/or below finished flooring) within hallways, offices, vaults, closets, etc. throughout the interior of Section 3. All associated floor tile and mastic are in non-friable condition and considered a Category I non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos was historically found within the Thermal System Insulation (TSI) associated with various pipe elbows, tees, hangers, valves, and/or straight runs within Room 32 (Building Operator) located within the basement of Section 3. All associated TSI is in friable condition and considered RACM.
- Asbestos was historically found within the Thermal System Insulation (TSI) associated with the pipe elbows, tees, hangers, valves, and straight runs (exposed and within walls and ceilings) throughout Section 3 of the subject building in addition to the aforementioned building operator's room. All associated TSI is in friable condition and considered RACM.
- Asbestos is assumed present within the insulation of various fire doors throughout Section 3 of the subject building. Due to the non-destructive nature of the sampling activities, access to the interior insulating core was prevented; therefore results are based on our experience with similarly aged structures and historically positive results. All associated insulating core material is in friable condition and is considered RACM.
- Asbestos is assumed within the fitting/union gaskets throughout Section 3 of the subject building. All associated gaskets are considered a Category I non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present within the white/tan window putty/glazing located on the exterior of Section 3's original wooden windows. All associated putty/glazing is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.

- Asbestos is present within the light gray/dark gray window sill/vent caulk located on the exterior of Section 3. All associated caulking is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present within the tan/gray window frame/vent caulk located on the exterior of Section 3's original wooden windows. All associated caulking is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present within the tan/brown window/vent sill caulk located on the exterior of Section 3's original wooden windows. Caulking is located below the concrete window sills at the brick facade / stone foundation. All associated caulking is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.

#### <u>ROOF</u>

- Asbestos is present within the gray/black tar flashing located on the brick parapet between Section 1 and Section 2 of the subject building's roof. All associated roof flashing is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.
- Asbestos is present within the black tar seam caulk located between the concrete parapet coping on Section 2 of the subject building's roof. All associated coping seam caulk is considered a Category II non-friable material. If renovation/demolition activities are performed in accordance with the NESHAP regulations, this material is not considered RACM.

#### **1.7 RECOMMENDATIONS**

Since ACM is subject to a variety of specific local, state, and federal regulatory requirements, TriEco has included the following recommendations and major regulatory requirements for asbestos:

- All RACM present should be properly removed prior to the renovation/demolition of the subject building or any activity that will disturb said materials. Appropriate asbestos abatement should occur in accordance with federal, state, and local regulations.
- Care must be taken for all items listed as non-RACM to keep the materials in non-friable condition through proper handling, maintenance, and renovation/demolition techniques. Removal is not required for Category I or Category II non-friable materials by the Region 4 Asbestos NESHAP (40 CFR Part 61 Subpart M) and the Kentucky Division for Air Quality prior to renovation/demolition unless the materials become Regulated Asbestos Containing Material(s) (RACM), as defined by the regulation, during the renovation/demolition activities. Any renovation/demolition practice that will render a

Category I or Category II non-friable material to become RACM should be expressly prohibited.

- If renovation/demolition practices that are anticipated to be utilized will render any ACM to become RACM, abatement is required prior to said activities. ACM removal should occur in accordance with local, state, and federal regulations.
- Any/all defined quantities are estimates and must be field verified by the selected abatement contractor.
- All contractors and employees should be alerted to the presence and location of the identified and presumed ACM and hazards, in accordance with applicable Occupational and Safety Health Administration (OSHA) regulations. This is the responsibility of the demolition and abatement contractor(s).
- Various regulatory agencies (state and local) must be notified of any asbestos removal, repair, or encapsulation work prior to conducting said work. The licensed asbestos abatement contractor typically submits these notifications.
- All asbestos material must be disposed of in accordance with the Federal, State and Local asbestos regulations including, but not limited to, 40 CFR Part 61.
- Asbestos removal should be monitored to ensure that no asbestos is released into ambient air. Air monitoring must be performed in accordance with applicable regulations and potentially affected employees must be notified of any asbestos abatement work.
- A standardized specification for abatement should be established for the removal/demolition of asbestos containing materials identified at the referenced property. It is recommended that a licensed asbestos designer develop the specification to address important issues including an accurate scope of work, regulatory requirements, insurance requirements, notification procedures, air sampling requirements and other pertinent information.
- If renovation/demolition to any areas outside UK's project scope is planned, it will be necessary to investigate and collect bulk samples in order to confirm the presence or absence of asbestos content.
- If concealed ACM is observed during future renovation/demolition activities, it will be necessary to investigate and collect bulk samples in order to confirm the presence or absence of asbestos content. Should potential ACM be discovered during the renovation/demolition activities that have not previously been sampled, all activities that disturb said material shall cease until the suspect materials have been sampled. If suspect asbestos is discovered during renovation/demolition activities, the area shall be wetted, contained, doors sealed and a certified asbestos abatement contractor contacted to abate the material in accordance with federal, state, and local regulations.

Implementation of these recommendations will help ensure compliance with regulatory requirements.

#### 2.0 POLYCHLORINATED BIPHENYLS IN CAULK INSPECTION

#### 2.1 BACKGROUND AND SITE SUMMARY

TriEco was authorized in a work order authorized by Mrs. Roni Sue Lucas of the University of Kentucky's Capital Project Management Division to perform a polychlorinated biphenyl (PCB) inspection at the UK Scovell Hall building located at 115 Huguelet Drive in Lexington, Kentucky. TriEco has prepared this report for use by UK, to outline identified environmental concerns associated with PCBs at this property prior to renovation activities. A site location figure and selected site photographs are included as Appendix A.

The objective of this project was to collect material to assist in the identification of hazardous, non-liquid PCBs prior to the renovation of the subject building. This assessment included an inspection for PCBs in caulking materials likely to be disturbed during renovation activities. All on-site assessment activities were conducted on November 18, 2019. A comprehensive list of all samples taken from the subject property can be found in Appendix F. This report provides background information, scope-of-work performed, limitations and exceptions, assessment results, findings and conclusions, and recommendations

PCBs belong to a broad family of man-made organic chemicals known as chlorinated hydrocarbons. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979. They have a range of toxicity and vary in consistency from thin, light-colored liquids to yellow or black waxy solids. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment; as plasticizer in paints, plastic, and rubber products; in pigment, dyes, and carbonless copy paper; and many other industrial applications. PCBs have been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system (EPA. January 31, 2013).

#### **2.2 LIMITATIONS AND EXCEPTIONS**

This assessment pertains directly to those areas observed and sampled within the subject property and is not intended to provide indoor air quality data or information for the entirety of the building. Only those areas accessible during the site visit, including areas considered "typical" of those conditions were sampled for laboratory analysis. Samples of various roofing components were not tested for PCB content. If renovation activities are anticipated to occur in this area, testing should occur prior to disturbing potential PCB containing material(s).

None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings from the site visit. There are no warranties or guarantees, expressed or implied, included or intended by the report, except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by professional consultants or firms performing the same or similar service. Changes in the condition of the building may occur with time due to either natural processes or human activities. The findings presented in this report are based on site conditions existing at the time of the investigation. This report was compiled for the sole use of UK. This report in not intended to be distributed or relied upon by third parties without the written permission of TriEco.

#### 2.3 SCOPE OF WORK

The PCB in caulk sampling activities were conducted by TriEco personnel on November 18, 2019. Samples were collected to identify the presence of caulking and window glazing with a PCB content of greater than or equal to 50 parts per million (PPM). Caulking material containing PCBs with 50 PPM or greater are considered *PCB Bulk Product Waste* and are subject to regulated handling and disposal protocols specified in 40 CFR 761.62. As part of the inspection activities, PCB caulk samples were collected and shipped to Pace Analytical National Center for Testing & Innovation (Pace) in Mt. Juliet, Tennessee under chain-of-custody protocols for analysis by Method 8082 from the EPA's SW-846. A copy of the laboratory analytical report is included as Appendix G. No other material sampling was included.

#### 2.4 RESULTS

Activities associated with the PCB inspection at the UK Scovell Hall Building generated the following results. This chart only includes materials with a PCB content of  $\geq$  50PPM PCBs.

SAMPLE #	LOCATION	MATERIAL	RESULTS (PPM)
PA-01A	Exterior - Section 1 (1903) Side A	White/Gray Entry Door Caulk	27,000
PA-02A	Exterior - Section 1 (1903) Side A	White Metal Window Caulk @ Concrete Sill	156
PA-04B	Exterior - Section 1 (1903) Side B	Gray/Brown Wooden Window Frame Caulk @ Stone	37,400
PA-05B	Exterior - Section 1 (1903) Side B	White Wooden Window Caulk @ Concrete Sill	1,480
PA-10C	Exterior - Section 1 (1903) Side C	White/Gray Wooden Window Frame Caulk @ Stone	39,000
PB-02B	Exterior - Section 2 (1913) Side B	Gray Wooden Window Frame Caulk @ Stone	82,600
PB-03B	Exterior - Section 2 (1913) Side B	White/Gray Wooden Window Caulk @ Concrete Sill	3,660
PC-02A	Exterior - Section 3 (1936) Side A	White/Gray Wooden Window Caulk @ Concrete Sill	15,500
PC-04A	Exterior - Section 3 (1936) Side A	White/Gray Wooden Window Frame Caulk @ Concrete	42,800
PC-05B	Exterior - Section 3 (1936) Side B	White/Gray Wooden Window Frame Caulk @ Stone	63,100

#### PCB CONTAINING CAULKING AND GLAZING

\*ALL QUANTITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR

#### 2.5 FINDINGS & CONCLUSIONS

TriEco has performed this PCB inspection at Scovell Hall on the campus of UK in Lexington, Fayette County, Kentucky according to the scope of services as defined in this report. Our assessment has revealed the following:

- PCBs greater than 50 PPM were indicated within the 'White/Gray Entry Door Caulk' on Side A of Section 1 (1903).
- PCBs greater than 50 PPM were indicated within the 'White Metal Window Caulk at Concrete Sill' on Side A of Section 1 (1903).
- PCBs greater than 50 PPM were indicated within the 'Gray/Brown Wooden Window Frame Caulk at Stone' on Side B of Section 1 (1903).
- PCBs greater than 50 PPM were indicated within the 'White Wooden Window Caulk at Concrete Sill' on Side B of Section 1 (1903).
- PCBs greater than 50 PPM were indicated within the 'White/Gray Wooden Window Frame Caulk at Stone' on Side C of Section 1 (1903).
- PCBs greater than 50 PPM were indicated within the 'Gray Wooden Window Frame Caulk at Stone' on Side B of Section 2 (1913).
- PCBs greater than 50 PPM were indicated within the 'White/Gray Wooden Window Caulk at Concrete Sill' on Side B of Section 2 (1913).
- PCBs greater than 50 PPM were indicated within the 'White/Gray Wooden Window Caulk at Concrete Sill' on Side A of Section 3 (1936).
- PCBs greater than 50 PPM were indicated within the 'White/Gray Wooden Window Frame Caulk at Concrete' on Side A of Section 3 (1936).
- PCBs greater than 50 PPM were indicated within the 'White/Gray Wooden Window Frame Caulk at Stone' on Side B of Section 3 (1936).

NOTE: It is assumed that the caulking associated with the exterior vents are also PCB containing due to the homogenous nature of the framing caulk found to be positive on other areas of the structure.

#### 2.6 **RECOMMENDATIONS**

Based upon the results of this assessment, TriEco recommends the following:

PCBs are subject to a variety of specific federal, state, and local regulatory requirements. The following summarizes the major regulatory requirements:

- All materials with a non-liquid PCB content of ≥ 50PPM must be properly removed prior to the renovation of the subject building that disturbs the material(s). Due to the likelihood of PCBs migrating to adjacent surfaces, any porous substrate in contact with PCB containing caulking should be removed. Abatement should occur in accordance with federal, state, and local regulations.
- All PCB Bulk Product Waste must be disposed of in accordance with 40 CFR 761.62. Transportation of said material must occur in accordance with any and all applicable local, state, and federal regulations.
- The selected contractor must be trained in segregation, characterization, handling, transporting, and disposing of hazardous and non-hazardous materials. All abatement activities should implement procedures to minimize dust. Work areas should be restricted to authorized personnel.
- All contractors and employees should be alerted to the presence and location of the identified PCBs and hazards, in accordance with applicable Occupational and Safety Health Administration (OSHA) regulations. This is the responsibility of the contractor(s).
- If applicable, various regulatory agencies (state and local) must be notified of any work prior to conducting said work. The licensed contractor typically submits these notifications
- A standardized specification for abatement should be established for the removal of PCB containing materials identified at the referenced property.

Implementation of these recommendations will help ensure compliance with regulatory requirements.

#### **3.0 LEAD BASED PAINT INSPECTION**

#### 3.1 BACKGROUND AND SITE SUMMARY

TriEco was authorized in a work order authorized by Mrs. Roni Sue Lucas of the University of Kentucky's Capital Project Management Division to perform an inspection for lead-based paint (LBP) at the UK Scovell Hall building located at 115 Huguelet Drive in Lexington, Kentucky. TriEco has prepared this report for use by UK, to outline identified environmental concerns associated with LBP at the subject property prior to renovation activities. A site location figure and selected site photographs are included as Appendix A.

UK has requested this LBP inspection, as part of the environmental screening inspection, to be included as a component of the preparatory activities prior to renovations at the subject building. Scovell Hall was completed in 1905 as the original Agricultural Experiment Station Building on UK's campus and was expanded upon in 1913 and 1936. Lastly, a partial demolition of the central southwest portion of the structure and subsequent renovations occurred in the 1990s. Scovell Hall currently houses UK's Agricultural Department, Human Resource Services, and their respective offices. The assessed multi-story structure consists of stone and concrete foundations, block construction with a brick veneer, and multiple flat built-up roofs.

The on-site assessment was conducted on December 5, 2019. Many components including doors, windows, door frames, and window frames appeared to be mix of original and replacement components. The LBP inspection involved X-Ray Fluorescence (XRF) sampling of painted components on the interior and exterior of the subject building. TriEco did not conduct dust sampling or soil sampling as part of this inspection. This report provides background information, limitations and exceptions, scope-of-work performed, assessment results, findings and conclusions, and recommendations.

#### **3.2 LIMITATIONS AND EXCEPTIONS**

This inspection pertains directly to those areas observed and sampled within the subject property and the conclusions and recommendations of this report are based solely upon the conditions present at the facility during the sampling period. Only those areas accessible during the site visit including areas considered 'typical' of those conditions and materials found throughout the property structure were sampled for analysis. Analyses were limited to LBP by XRF of materials as they existed during the time of the investigation, including damaged painted components, and probable lead painted components. This inspection was not conducted as a HUD or EPA leadbased paint inspection, but rather a general evaluation of the building for LBP so conclusions on future use, or recommendations in regard to LBP during renovation activities, could be appropriately derived from the results of the sampling.

None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings from the site visit. There are no warranties or guarantees, expressed or implied, included or intended by this report, except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by professional consultants or firms performing the same or similar services. Changes in the condition of building and property may occur with time due to either natural processes or human activities. The findings presented in this report are based on site conditions existing at the time of the investigation. TriEco was unable to access certain areas within walls and ceilings; therefore, the potential exists for LBP to be present in these areas, which should be sampled, if needed, during renovation activities. This report was compiled for the sole use of UK. This report is not intended to be distributed or relied upon by third parties without the written permission of TriEco.

#### 3.3 SCOPE OF WORK

TriEco performed the following scope-of-work, which was based, in part, upon information provided by persons deemed knowledgeable of the property and our experience with similar projects.

Since LBP was potentially used during the time the structure was constructed and maintained, there is the potential that painted surfaces contain LBP. On December 5, 2019 TriEco conducted an inspection on the areas of the interior and exterior of the Scovell Hall scheduled to be disturbed as part of the renovation activities, including analyzing locations throughout the structure where it is probable that LBP could have been used. The EPA uses a level of 1.0 mg/cm<sup>2</sup> or higher of lead by XRF to determine if the lead level in paint is considered LBP.

The LBP inspection was performed by Gregory Bailey (KY Lead Risk Assessor 41-231) of TriEco. A copy of Mr. Bailey's credentials are included as Appendix H.

This LBP inspection involved a screening of the subject property using a Heuresis Corporation, XRF meter, model Pb200i (Instrument #2063). Prior to the inspection, and periodically throughout inspection activities, TriEco preformed a field calibration checks of the XRF meter against known reference standards.

A total of 181 XRF readings, including calibration readings, were taken from painted surfaces throughout the assessed areas. All components tested were assigned a test location and room side within the XRF recording software with side "A" being the original entrance located on the side nearest South Limestone; and sides "B", "C", and "D" following in a clockwise direction.

#### 3.4 **RESULTS**

Results of the 181 XRF measurements analyzed during this LBP inspection indicated that LBP above the US EPA guidelines of 1.0 mg/cm<sup>2</sup> was detected on the exterior and interior of the subject property. The following chart lists the locations of LBP. The complete list of XRF testing sample locations is included within Appendix I. LBP sampling diagrams are included as Appendix J.

COMPONENT	SUBSTRATE	SIDE	CONDITION	COLOR	FLOOR	READING LOCATION	LPB CONCENTRATION (MG/CM <sup>2</sup> )
Window Jamb	Wood	C	Intact	White	1st	Exterior Section 1	1.7
Window Sash	Wood	С	Intact	White	1st	Exterior Section 1	3.7
Window Jamb	Wood	D	Intact	White	1st	Exterior Section 1	39
Window Sill	Wood	D	Intact	White	1st	Exterior Section 1	5.1
Window Sash	Wood	D	Intact	White	1st	Exterior Section 1	23
Door Casing	Wood	А	Intact	White	1st	Exterior Section 1	3.3
Door Casing	Wood	А	Intact	White	1st	Exterior Section 1	1.5
Door Casing	Wood	А	Intact	White	1st	Exterior Section 1	1.5
Window Jamb	Metal	А	Intact	White	1st	Exterior Section 1	1.5
Window Jamb	Metal	А	Intact	White	1st	Exterior Section 1	1.7
Window Jamb	Metal	А	Intact	White	1st	Exterior Section 1	1.1
Window Sill	Wood	В	Intact	White	1st	Exterior Section 2	37
Window Jamb	Wood	В	Intact	White	1st	Exterior Section 2	39
Window Sash	Wood	В	Intact	White	1st	Exterior Section 2	19.5
Window Sash	Wood	В	Intact	White	1st	Exterior Section 3	15.8
Window Sill	Wood	В	Intact	White	1st	Exterior Section 3	23.5
Window Jamb	Wood	В	Intact	White	1st	Exterior Section 3	28.8
Window Jamb	Wood	С	Intact	White	1st	Exterior Section 3	20.5
Window Sill	Wood	С	Intact	White	1st	Exterior Section 3	21.7
Window Sash	Wood	С	Intact	White	1st	Exterior Section 3	15.1
Window Sash	Wood	D	Intact	White	1st	Exterior Section 3	1.3

#### **LEAD-BASED PAINT LOCATIONS**

 $\geq$ 1.0 mg/cm<sup>2</sup> is considered LBP

COMPONENT	SUBSTRATE	SIDE	CONDITION	COLOR	FLOOR	READING LOCATION	LPB CONCENTRATION (MG/CM <sup>2</sup> )
Window Jamb	Wood	D	Intact	White	1st	Exterior Section 3	26
Window Sill	Wood	D	Intact	White	1st	Exterior Section 3	13.4
Door Jamb	Wood	А	Intact	Black	1st	Section 1 Hall	13.5
Vault Door Casing	Metal	D	Intact	Black	1st	1st Floor Section 2	5.5
Vault Door	Metal	D	Intact	Black	1st	1st Floor Section 2	11.4
Wall	Concrete	В	Intact	White	1st	1st Floor Section 3	8.3
Wall	Concrete	В	Intact	White	1st	1st Floor Section 3	7.4
Wall	Concrete	D	Intact	White	1st	1st Floor Section 3	9.7
Wall	Concrete	С	Intact	White	1st	1st Floor Section 3	8.2
Vault Door	Metal	D	Intact	Black	1st	1st Floor Section 3	1.7
Wall	Concrete	В	Intact	White	2nd	2nd Floor Section 3	16
Wall	Concrete	D	Intact	White	2nd	2nd Floor Section 3	10.3
Vault Door	Metal	D	Intact	Black	2nd	2nd Floor Section 3	2.4
Roof Line Components	Wood	All	Intact	White	n/a	Sections 1, 2 & 3	Assumed

#### **LEAD-BASED PAINT LOCATIONS (CONT.)**

 $\geq 1.0 \text{ mg/cm}^2 \text{ is considered LBP}$ 

#### 3.5 CONCLUSIONS AND RECOMMENDATIONS

TriEco has performed this LBP inspection at Scovell Hall on the campus of UK in Lexington, Fayette County, Kentucky according to the scope of services as defined in this report. Our assessment has revealed that LBP as defined by the EPA was detected on the exterior and interior of the subject property.

Based upon the results of this assessment, TriEco recommends the following:

• All contractors and employees should be alerted to the presence and location of the identified LBP and hazards, in accordance with applicable OSHA regulations.

- Employees who work with LBP should be provided with proper personal protective equipment, as well as the appropriate removal equipment, training and licensure as applicable to all local, state, and federal regulations.
- LBP removal should be monitored to ensure that no lead dust is released into ambient air. Air monitoring must be performed in accordance with applicable regulations and potentially affected employees must be notified of any LBP work.
- All LBP must be disposed of in accordance with the Federal, State and Local regulations. As required by the disposal facility, a toxicity characteristic leaching procedure (TCLP-lead) analysis of the renovation debris may be required in order to characterize the waste as hazardous or non-hazardous waste material. If the result of the analysis yields a lead level of greater than 5 parts per million, the waste is classified as hazardous waste and must be transported to a properly licensed and regulated hazardous water treatment, storage, or disposal facility.
- A standardized specification/design plan for the disturbance of substrates coated in LBP should be established for the renovation activities where LBP has been identified at the referenced property. It is recommended that a licensed LBP designer develop the specification to address important issues including an accurate scope of work, regulatory requirements, insurance requirements, notification procedures, air sampling requirements and other pertinent information.
- If concealed paint is observed during renovation activities, it will be necessary to assume it to be LBP, or collect samples in order to confirm the presence or absence of LBP.

#### 4.0 HAZARDOUS MATERIALS INSPECTION

#### 4.1 BACKGROUND AND SITE SUMMARY

TriEco was authorized in a work order authorized by Mrs. Roni Sue Lucas of the University of Kentucky's Capital Project Management Division to perform a hazardous materials inspection to assess potential environmental concerns at the UK Scovell Hall building located at 115 Huguelet Drive in Lexington, Kentucky. TriEco has prepared this report for use by UK, to outline identified environmental concerns at the subject property prior to renovation activities. A site location figure and selected site photographs are included as Appendix A.

UK has requested this hazardous materials inspection, as part of the environmental screening inspection, to be included as a component of the preparatory activities prior to renovations at the subject building. Scovell Hall was completed in 1905 as the original Agricultural Experiment Station Building on UK's campus and was expanded upon in 1913 and 1936. Lastly, a partial demolition of the central southwest portion of the structure and subsequent renovations occurred in the 1990's. Scovell Hall currently houses UK's Agricultural Department, Human Resource Services, and their respective offices. The assessed multi-story structure consists of stone and concrete foundations, block construction with a brick veneer, and multiple flat built-up roofs.

The objective of this project was to identify regulated materials that may have an environmental impact to the property during renovation activities. This assessment included an inspection for previously unidentified environmental concerns, other than asbestos, non-liquid PCBs, and LBP that may be disturbed during the renovation. Any environmental concerns identified within this report are based on visual observations present at the time of this assessment.

#### 4.2 LIMITATIONS AND EXCEPTIONS

This inspection pertains directly to those areas observed within the subject property and conclusions and recommendations of this report are based solely upon the conditions present at the facility during the sampling period. Only those areas accessible during the site visit including living areas considered 'typical' of those conditions and materials found throughout the property structure were observed. Lead-based paint sampling was not included within this inspection.

None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings from the site visit. There are no warranties or guarantees, expressed or implied, included or intended by this report, except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by professional consultants or firms performing the same or similar services.

Changes in the condition of the building may occur with time due to either natural processes or human activities. The findings presented in this report are based on site conditions existing at the time of the investigation. TriEco was unable to access certain areas within walls and ceilings. Therefore, the potential exists for environmental hazards to be present in these areas, which should be sampled and properly removed, if needed, during renovation activities.

This report was compiled for the sole use of UK. This report in not intended to be distributed or relied upon by third parties without the written permission of TriEco.

#### 4.3 SCOPE OF WORK

Scovell Hall building located at 115 Huguelet Drive in Lexington, Kentucky. The purpose of the site investigation was to visually inspect areas of the subject building for the below listed potential environmental concerns in addition to asbestos containing materials, PCBs in caulk, and LBP. Additional testing may be deemed necessary if waste characterization is required. Accessible areas were inspected by TriEco personnel for the presence of the following hazardous materials:

- Materials and equipment potentially containing PCB including transformers, capacitors, oil containing circuit breakers, and light ballasts;
- Materials and equipment potentially containing mercury including thermostats, thermometers, switches, relays, and high intensity lights;
- Equipment potentially containing radioactive materials including exit signs, smoke detectors, and controls;
- Materials and equipment potentially containing used oils including HVAC systems and hydraulic door closers;
- Equipment potentially containing Chlorofluorocarbons (CFCs) and/or Hydrochlorofluorocarbons (HCFCs) including components associated with the HVAC system and other cooling equipment; and
- Other potentially hazardous materials including: spent cleaning solvents, paints, and batteries.

#### 4.4 **RESULTS**

The investigation yielded the following results:

- Transformers and other various electrical components were noted within the subject property.
- Petroleum products were noted within the hydraulic door closers, HVAC systems, emergency backup generator, and elevator systems at the subject property;
- Emergency lighting, which may contain various types of batteries, were found throughout the subject building;
- Smoke detectors were found within the subject building that may contain a small amount of radioactive material;

- 'EXIT' signs were found within the subject building that may contain a small amount of radioactive material;
- Mercury containing thermometers, thermostats, and/or switches were found within the subject building;
- Refrigerators, HVAC systems, water fountains, and window air conditioning units were found within the subject building that contain various refrigerants CFCs and other harmful chemicals; and
- Fluorescent light bulbs were found within the subject building that contain a small amount of Mercury.

#### 4.5 CONCLUSIONS AND RECOMMENDATIONS

- Segregation, characterization, removal, and proper disposal of the above mentioned items must occur in accordance with all applicable local, state, and federal regulations prior to the proposed renovation activities. The selected contractor must be trained to segregate, characterize, handle, transport, and dispose of the materials. NOTE: UK is able to provide disposal of universal waste and mercury containing equipment once it has been segregated and containerized by the contractor. Coordination with UK regarding the disposal of these materials will be the requirement of the contractor.
- All contractors and employees should be alerted to the presence and locations of the identified and presumed hazards, in accordance with applicable Occupational and Safety Health Administration (OSHA) regulations.
- If applicable, various regulatory agencies (state and local) must be notified of any work prior to conducting said work. The licensed contractor typically submits these notifications.
- Employees who work with hazardous materials should be provided with proper personal protective equipment, as well as the appropriate removal equipment, training, and licensure as applicable.
- All hazardous materials must be disposed of in accordance with the federal, state and local regulations.
- Removal of hazardous materials should be monitored to ensure that no hazardous material is released into the environment.
- A standardized specification for hazardous materials removal should be established for the removal of hazardous materials identified at the referenced property. It is recommended that the specification address important issues including an accurate scope of work, regulatory requirements, insurance requirements, notification procedures, air sampling requirements, and other pertinent information.

- If renovation activities extend to any area outside of UK's project scope, it will be necessary to further investigate the areas in order to confirm the presence or absence of hazardous materials.
- If concealed hazardous materials are observed during renovation activities, it will be necessary to investigate. Should potential hazardous materials be discovered during the renovation activities that have not previously been identified, all activities shall cease until the suspect materials have been identified/sampled/characterized.

Implementation of these recommendations will help ensure compliance with regulatory requirements.

#### 5.0 SIGNATURES AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

**Prepared by:** 

12/9/2019 Date Christophe **Environmental Scientist** 

Qualifications: Mr. Stovall is an Environmental Site Supervisor for TriEco and has more than nine years of environmental consulting and remediation experience. Mr. Stovall holds a bachelor's degree in Environmental Health Science from Eastern Kentucky University. Mr. Stovall's experience includes the characterization, profiling, coordination, and disposal of hazardous and nonhazardous waste. Mr. Stovall serves as one of TriEco's main site supervisors for oversight related to various local and governmental consulting contracts, and has experience managing soil, water, asbestos, and mold remediation projects

12/9/2019 Date Suzanne Arnzen

Project Manager

Ms. Suzanne Arnzen is a Project Manager for TriEco and has over fifteen years of experience in the environmental field. Ms. Arnzen holds a Bachelor's degree in Environmental Health Science. Ms. Arnzen's experience includes performing various hazardous materials assessments, asbestos containing materials assessments, lead based paint risk assessments, microbial assessments, and other various consulting services for commercial and governmental clients. Ms. Arnzen hold many certificates for environmental work in addition to being a KY certified lead based paint inspector, risk assessor, supervisor, and project designer; a KY certified asbestos inspector, supervisor, and project designer; and a certified mold inspector. She also has experience performing Phase I and Phase II Environmental Site Assessments for a wide variety of residential and commercial sites and has experience designing and managing soil, water, lead, asbestos, and mold remediation projects.

#### 6.0 **APPENDICES**

- 6.1 Appendix A Site Location Figure and Selected Site Photographs
- 6.2 Appendix B Asbestos Field Sample Logs
- 6.3 Appendix C Asbestos Sample Location Diagrams
- 6.4 Appendix D Asbestos License and Certifications
- 6.5 Appendix E Asbestos Laboratory Analytical Results
- 6.6 Appendix F PCB in Caulk Field Sample Logs
- 6.7 Appendix G PCB in Caulk Laboratory Analytical Results
- 6.8 Appendix H Lead License and Certification
- 6.9 Appendix I XRF Results
- 6.10 Appendix J Lead Sample Location Diagrams

## **APPENDIX A**

## SITE LOCATION FIGURE AND SELECTED SITE PHOTOGRAPHS



<b>↑</b> N	Figure 1	Scovell Hall – University of Kentucky 115 Huguelet Drive – Lexington, Kentucky
■ 1N	NTS	December 2019








9	DESCRIPTION	Exterior view of Scovell Hall Section 3 (Side A).
	DATE	November / December 2019.
10	DESCRIPTION	Exterior view of Scovell Hall Section 4 (Side D).
	DATE	November / December 2019.

11	DESCRIPTION	View of the PCB containing door frame caulk located on the Side A entry door of Section 1. Sample # PA-01A
	DATE	November / December 2019.
12	DESCRIPTION	View of the PCB containing metal window caulk located on Side A of Section 1. Sample # PA-02A
	DATE	November / December 2019.



15	DESCRIPTION	View of a wooden window located on Side B of Section 2 showing the positive lead-based paint, asbestos window putty, and PCB caulking.
	DATE	November / December 2019.
16	DESCRIPTION	View of a 2 <sup>nd</sup> floor concrete window sill located on Side C of Section 3.
	DATE	November / December 2019.



19	DESCRIPTION	View of the asbestos containing TSI located above the suspended ceiling within the basement of Section 1.
	DATE	November / December 2019.
20	DESCRIPTION	View of the asbestos containing TSI and fittings located above the suspended ceiling within the basement of Section 1.
	DATE	November / December 2019.



23	DESCRIPTION	View of the diesel fuel backup generator located within the basement of Section 1 (Room 12 – Mechanical).
	DATE	November / December 2019.
24	DESCRIPTION	View of the electrical switch gear located within the basement of Section 1 (Room 12 – Mechanical).
	DATE	November / December 2019.

25	DESCRIPTION	View of the asbestos containing TSI and fittings located within the basement of Section 1 (Room 12 – Mechanical).
	DATE	November / December 2019.
26	DESCRIPTION	View of the asbestos containing TSI located on the expansion tank within the basement of Section 1 (Room 12 – Mechanical).
	DATE	November / December 2019.

27	DESCRIPTION	Interior view of the 1 <sup>st</sup> floor located within Section 1 of the subject building.
28	DESCRIPTION	Interior view of the 2 <sup>nd</sup> floor located within Section 1 of the subject building.
	DATE	November / December 2019.



31	DESCRIPTION	Interior view of the 2 <sup>nd</sup> floor located within Section 2 of the subject building.
32	DESCRIPTION	Interior view of the basement located within Section 3 of the subject building.
	DATE	November / December 2019.

33	DESCRIPTION	Interior view of the 1 <sup>st</sup> floor located within Section 3 of the subject building.
	DATE	November / December 2019.
34	DESCRIPTION	Interior view of the 3 <sup>rd</sup> floor located within Section 3 of the subject building.
	DATE	November / December 2019.

35	DESCRIPTION	Example view of a suspect asbestos containing fire door located within the subject building.
	DATE	November / December 2019.
36	DESCRIPTION	View of the asbestos containing gray $12x12$ " VCT and associated black mastic located within the basement of Section 3.
	DATE	November / December 2019.

37	DESCRIPTION	View of the asbestos containing Air Cell TSI located within the basement of Section 3 (Room 37).
38	DESCRIPTION	View of the asbestos containing TSI and fittings located within the basement of Section 3 (Room 37).
	DATE	November / December 2019.



41	DESCRIPTION	View of the asbestos containing TSI and elbow located within the basement of Section 3 (Hallway – 50C).
	DATE	November / December 2019.
42	DESCRIPTION	View of the asbestos containing TSI and fittings located within the basement of Section 3 (Room 32).
	DATE	November / December 2019.













## **APPENDIX B**

# ASBESTOS FIELD SAMPLE LOGS



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>INTERIOR - 1903 SECTION (1)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
S1-01A	WHITE/TAN STAIR STRINGER CAULK	BASEMENT - ST-B
S1-01B	WHITE/TAN STAIR STRINGER CAULK	BASEMENT - ST-B
S1-02A	WHITE/TAN EXTERIOR DOOR FRAME CAULK	1 <sup>ST</sup> FLOOR - DOOR @ 100B
S1-02B	WHITE/TAN EXTERIOR DOOR FRAME CAULK	1 <sup>ST</sup> FLOOR - ROOM 101
S1-03A	WHITE DOOR FRAME CAULK & TAN PAPER	BASEMENT - ROOM 11
S1-03B	WHITE DOOR FRAME CAULK	BASEMENT - ROOM 8
S1-03C	WHITE DOOR FRAME CAULK	BASEMENT - RM. 11A (SAFE)
S1-04A	WHITE STONE COVE BASE CAULK (TOP)	1 <sup>ST</sup> FLOOR - HALLWAY
S1-04B	WHITE STONE COVE BASE CAULK (TOP)	1 <sup>ST</sup> FLOOR - HALLWAY
S1-05A	GRAY/TAN WOODEN COVE BASE CAULK (TOP)	1 <sup>ST</sup> FLOOR - ROOM 104
S1-05B	GRAY/TAN WOODEN COVE BASE CAULK (TOP)	1 <sup>ST</sup> FLOOR - ROOM 104
S1-06A	GRAY WINDOW FRAME CLK. BELOW WOOD	BASEMENT - SW END OF HALL
S1-06B	GRAY WINDOW FRAME CLK. BELOW WOOD	BASEMENT - SW END OF HALL
S1-07A	GRAY/TAN WINDOW FRAME CAULK @ STONE	BASEMENT - ROOM 9
S1-07B	GRAY/TAN WINDOW FRAME CAULK @ STONE	BASEMENT - ROOM 11
S1-08A	TAN GYPSUM BOARD TAPE & MUD	BASEMENT - SOFFIT @ RM. 12
S1-08B	WHITE GYPSUM BOARD / TAN TAPE & MUD	BASEMENT - HALL @ RM. 13
S1-09A	GRAY STONE FOUNDATION / BROWN MORTAR	BASEMENT - ROOM 11
S1-09B	GRAY STONE FOUNDATION / BROWN MORTAR	BASEMENT - ROOM 12
S1-10A	GRAY CINDERBLOCK WALL @ DOOR	BASEMENT - ROOM 12
S1-10B	GRAY CINDERBLOCK WALL @ DOOR	BASEMENT - ROOM 12
S1-11A	GRAY CINDERBLOCK MORTAR @ DOOR	BASEMENT - ROOM 12
S1-11B	GRAY CINDERBLOCK MORTAR @ DOOR	BASEMENT - ROOM 12
S1-12A	WHITE SKIM / GRAY CONCRETE WINDOW SILL	BASEMENT - SW END OF HALL
S1-12B	WHITE SKIM / GRAY CONCRETE WINDOW SILL	BASEMENT - SW END OF HALL
S1-13A	GRAY CONCRETE SLAB FLOOR	BASEMENT - HALL @ RM. 12
S1-13B	GRAY CONCRETE SLAB FLOOR	BASEMENT - HALL @ RM. 12
S1-14A	GRAY CONCRETE GENERATOR PAD	BASEMENT - ROOM 12
S1-14B	GRAY CONCRETE GENERATOR PAD	BASEMENT - ROOM 12
S1-15A	1X1" CERAMIC FLOORING & GRAY GROUT	1 <sup>ST</sup> FLOOR - HALLWAY 100B
S1-15B	1X1" CERAMIC FLOORING & GRAY GROUT	1 <sup>ST</sup> FLOOR - HALLWAY 100B
S1-16A	BLACK VINYL COVE BASE & BROWN MASTIC	BASEMENT - HALL @ ST-B
S1-16B	BLACK VINYL COVE BASE & BROWN MASTIC	BASEMENT - HALLWAY
S1-17A	TAN 12X12" VCT & TAN MASTIC	BASEMENT - ST-B LANDING
S1-17B	TAN 12X12" VCT & TAN MASTIC	BASEMENT - ST-B LANDING



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>INTERIOR - 1903 SECTION (1)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
S1-18A	BEIGE MARBLE 12X12" VCT & BLACK MASTIC	BASEMENT - ST-B
S1-18B	BEIGE MARBLE 12X12" VCT & BLACK MASTIC	BASEMENT - ST-B
S1-19A	LT. GREEN 12X12" VCT & BROWN MASTIC	BASEMENT - SW HALLWAY
S1-19B	LT. GREEN 12X12" VCT & BROWN MASTIC	BASEMENT - HALL@ RM. 11
S1-20A	BROWN STAIR TREAD / ADHESIVE / BROWN UL	BASEMENT - ST-B
S1-20B	BROWN STAIR TREAD / ADHESIVE / BROWN UL	BASEMENT - ST-B
S1 21 A	TAN VCT FLOOR & MAROON FIBROUS	1 <sup>ST</sup> FLOOR - ROOM 104
51-21A	UNDERLAYMENT (BELOW CARPET)	
\$1-21B	TAN VCT FLOOR & MAROON FIBROUS	1 <sup>ST</sup> FLOOR - ROOM 104
51-21D	UNDERLAYMENT (BELOW CARPET)	1 1 1 LOOK - KOOWI 104
S1-22A	<b>RED FLOOR COATING &amp; FIBROUS PAD</b>	1 <sup>ST</sup> FLOOR - RM. 104A (SAFE)
S1-22B	<b>RED FLOOR COATING &amp; FIBROUS PAD</b>	1 <sup>ST</sup> FLOOR - RM. 104A (SAFE)
S1-23A	GRAY 2X2' ACOUSTIC CEILING TILE (HARD)	BASEMENT - HALL @ RM. 12
S1-23B	GRAY 2X2' ACOUSTIC CEILING TILE (HARD)	1 <sup>ST</sup> FLOOR - HALLWAY
S1-24A	WHITE FIRESTOP	BASEMENT - HALL @ RM. 12
S1-24B	WHITE FIRESTOP	BASEMENT - HALL @ RM. 12
S1-25A	WHITE CANVAS TSI JACKETING & FOIL	BASEMENT - ROOM 12
S1-25B	WHITE CANVAS TSI JACKETING & FOIL	BASEMENT - ROOM 12
S2-07A,B	GRAY/TAN WOOD COVE BASE CAULK (TOP)	2 <sup>ND</sup> FLOOR - HALLWAY 200A
***LABORATORY ANALYTICAL RESULTS IN SECTION 2 RESULTS***		



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>INTERIOR - 1913 SECTION (2)</u> PROJECT #: <u>1951024</u>

SAMPLE #	DESCRIPTION	LOCATION
S2-01A	BLACK VINYL COVE BASE & YELLOW MASTIC	BASEMENT - HALL @ RM. 20
S2-01B	BLACK VINYL COVE BASE & YELLOW MASTIC	BASEMENT - HALL @ ST-C
S2-02	SAMPLE # NOT USED	SAMPLE # NOT USED
S2-03A	WHITE/TAN STAIRWELL STRINGER CAULK	BASEMENT - ST-C
S2-03B	WHITE/TAN STAIRWELL STRINGER CAULK	BASEMENT - ST-C
S2-04A	WHITE/TAN DOOR FRAME CAULK	1 <sup>ST</sup> FLOOR - ROOM 124
S2-04B	WHITE/TAN DOOR FRAME CAULK	2 <sup>ND</sup> FLOOR - ROOM 212
S2-05A	GRAY CONCRETE SLAB FLOORING	BASEMENT - ROOM 30 (SAFE)
S2-05B	GRAY CONCRETE SLAB FLOORING	BASEMENT - ROOM 30 (SAFE)
S2-06A	WHITE/TAN 2X2' ACOUSTIC CEILING TILE	BASEMENT - HALLWAY
S2-06B	WHITE/TAN 2X2' ACOUSTIC CEILING TILE	BASEMENT - HALLWAY
S2-07A,B	GRAY/TAN WOOD COVE BASE CAULK (TOP)	2 <sup>ND</sup> FLOOR - HALLWAY
	***SAMPLE COLLECTED WITHIN HALLWAY 200A	OF SECTION 1***
S2-08A	GRAY 2X2' ACOUSTIC TILE (HARD)	BASEMENT - HALLWAY
S2-08B	GRAY 2X2' ACOUSTIC TILE (HARD)	BASEMENT - HALL @ RM. 15A
S2-08C	GRAY 2X2' ACOUSTIC TILE (HARD)	1 <sup>ST</sup> FLOOR - ROOM 12
S2-09A	WHITE GYPSUM BOARD / TAN TAPE & MUD	BASEMENT - ROOM 19
S2-09B	WHITE GYPSUM BOARD / TAN TAPE & MUD	1 <sup>ST</sup> FLOOR - RM. 116 (MEN'S)
S2-10A	WHITE/GRAY 12X12" VCT & YELLOW MASTIC	BASEMENT - HALL @ RM. 19
S2-10B	WHITE/GRAY 12X12" VCT & YELLOW MASTIC	BASEMENT - HALL @ RM. 15A
S2-10C	WHITE/GRAY 12X12" VCT & YELLOW MASTIC	BASEMENT - FOYER @ RM. 20
S2-11A	GRAY MARBLE PATTERN 12X12" VCT	GROUND - STAIR TO HALL 100
S2-11B	GRAY MARBLE PATTERN 12X12" VCT	GROUND - STAIR TO HALL 100
S2-12A	GRAY 12X12" VCT / BLK. MASTIC / BROWN UL.	2 <sup>ND</sup> FLOOR - HALL @ RM. 217
S2-12B	GRAY 12X12" VCT / BLK. MASTIC / BROWN UL.	2 <sup>ND</sup> FLOOR - HALL @ RM. 222
S2-13A	MAUVE GRAY 12X12" VCT & BROWN MASTIC	2 <sup>ND</sup> FLOOR - HALL FOYER
S2-13B	MAUVE GRAY 12X12" VCT & BROWN MASTIC	2 <sup>ND</sup> FLOOR - HALL FOYER
S2-14A	GRAY CERAMIC TILE & GRAY GROUT	1 <sup>ST</sup> FLOOR - ROOM 116 (MEN'S)
S2-14B	GRAY CERAMIC TILE & GRAY GROUT	1 <sup>ST</sup> FLOOR - ROOM 116 (MEN'S)
S2-15A	BLACK PAPER & TAN FIBROUS BACKER	1 <sup>ST</sup> FLOOR - ROOM 116 (MEN'S)
S2-15B	BLACK PAPER & TAN FIBROUS BACKER	1 <sup>ST</sup> FLOOR - ROOM 116 (MEN'S)
S2-16A	YELLOW CANVAS TSI JACKETING & FOIL	BASEMENT - ROOM 15B
S2-16B	YELLOW CANVAS TSI JACKETING & FOIL	BASEMENT - ROOM 15B
S2-17A	RED CANVAS TSI JACKETING & FOIL	BASEMENT - ROOM 15B
S2-17B	RED CANVAS TSI JACKETING & FOIL	BASEMENT - ROOM 15B



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>INTERIOR - 1936 SECTION (3)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
S3-01A	GRAY 12X12" VCT & BLACK MASTIC	BASEMENT - ROOM 33
S3-01B	GRAY 12X12" VCT & BLACK MASTIC	BASEMENT - ROOM 37
S3-02A	WHITE SKIM COAT & GRAY PLASTER WALL	BASEMENT - HALL @ ST-A
S3-02B	WHITE SKIM COAT & GRAY PLASTER WALL	BASEMENT - ROOM 32
S3-02C	WHITE SKIM COAT & GRAY PLASTER WALL	1 <sup>ST</sup> FLOOR - HALL @ RM. 118
S3-02D	WHITE SKIM COAT & GRAY PLASTER WALL	1 <sup>ST</sup> FLOOR - HALL @ RM. 141
S3-02E	WHITE SKIM COAT & GRAY PLASTER WALL	2 <sup>ND</sup> FLOOR - ROOM 249
S3-02F	WHITE SKIM COAT & GRAY PLASTER WALL	2 <sup>ND</sup> FLOOR - HALL @ RM. 244
S3-03A	WHITE PYRO-BAR BLOCK BEHIND PLASTER	2 <sup>ND</sup> FLOOR - ROOM 249
S3-03B	WHITE PYRO-BAR BLOCK BEHIND PLASTER	2 <sup>ND</sup> FLOOR - ROOM 249
S3-04A	GRAY PYRO-BAR BLOCK GROUT	2 <sup>ND</sup> FLOOR - ROOM 249
S3-04B	GRAY PYRO-BAR BLOCK GROUT	2 <sup>ND</sup> FLOOR - ROOM 249
S3-05A	GRAY STONE COVE BASE CAULK	2 <sup>ND</sup> FLOOR - ROOM 249
S3-05B	GRAY STONE COVE BASE CAULK	2 <sup>ND</sup> FLOOR - ROOM 249
S3-06A	GRAY CONCRETE WALL	BASEMENT - ROOM 32
S3-06B	GRAY CONCRETE WALL	BASEMENT - ROOM 32
S3-07A	TAN STRUCTURAL BLOCK BELOW PLASTER	BASEMENT - ROOM 32
S3-07B	TAN STRUCTURAL BLOCK BELOW PLASTER	BASEMENT - ROOM 32
S3-08A	WHITE GYPSUM BOARD / TAN TAPE & MUD	BASEMENT - ROOM 39
S3-08B	WHITE GYPSUM BOARD / TAN TAPE & MUD	1 <sup>ST</sup> FLOOR - ROOM 132
S3-08C	WHITE GYPSUM BOARD / TAN TAPE & MUD	2 <sup>ND</sup> FLOOR - HALL @ RM. 236
S3-09A	TAN GLAZED WALL BLOCK & GRAY MORTAR	1 <sup>ST</sup> FLOOR - HALL @ RM. 143
S3-09B	TAN GLAZED WALL BLOCK & GRAY MORTAR	2 <sup>ND</sup> FLOOR - HALL @ RM. 244
S3-10A	TAN/GRAY GLAZED BLOCK CAULK (TOP)	1 <sup>ST</sup> FLOOR - HALL @ RM. 143
S3-10B	TAN/GRAY GLAZED BLOCK CAULK (TOP)	2 <sup>ND</sup> FLOOR - HALL @ RM. 231A
S3-11A	TAN DOOR FRAME CAULK	BASEMENT - ROOM 39
S3-11B	TAN DOOR FRAME CAULK	1 <sup>ST</sup> FLOOR - ROOM 135
S3-11C	TAN DOOR FRAME CAULK	2 <sup>ND</sup> FLOOR - ROOM 249
S3-12A	BROWN VINYL COVE BASE & BROWN MASTIC	1 <sup>ST</sup> FLOOR - ROOM 139
S3-12B	BROWN VINYL COVE BASE & BROWN MASTIC	1 <sup>S1</sup> FLOOR - ROOM 139
S3-13A	BLACK VINYL COVE BASE & BROWN MASTIC	BASEMENT - ROOM 37
S3-13B	BLACK VINYL COVE BASE & BROWN MASTIC	BASEMENT - ROOM 37
S3-14A	BLACK FIBROUS VCT UNDERLAYMENT	BASEMENT - ROOM 38
S3-14B	BLACK FIBROUS VCT UNDERLAYMENT	BASEMENT - ROOM 38



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>INTERIOR - 1936 SECTION (3)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
S3-15A	TAN ACOUSTIC WALL PANEL	BASEMENT - ROOM 38
S3-15B	TAN ACOUSTIC WALL PANEL	BASEMENT - ROOM 38
S3-16A	WHITE/TAN 2X2' ACOUSTIC CEILING TILE	BASEMENT - HALL @ RM. 35
S3-16B	WHITE/TAN 2X2' ACOUSTIC CEILING TILE	BASEMENT - HALL @ RM. 35
S3-17A	BLACK/PEACH SAFE DOOR COATING	BASEMENT - ROOM 41 (SAFE)
S3-17B	BLACK/PEACH SAFE DOOR COATING	BASEMENT - ROOM 41 (SAFE)
S3-18A	BLUE CANVAS TSI JACKETING & FOIL	2 <sup>ND</sup> FLOOR - ROOM 215
S3-18B	BLUE CANVAS TSI JACKETING & FOIL	2 <sup>ND</sup> FLOOR - ROOM 215
S3-19A	YELLOW CANVAS TSI JACKETING & FOIL	2 <sup>ND</sup> FLOOR - ROOM 215
S3-19B	YELLOW CANVAS TSI JACKETING & FOIL	2 <sup>ND</sup> FLOOR - ROOM 215



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>INTERIOR - 1990s SECTION (4)</u> PROJECT #: <u>1951024</u>

SAMPLE #	DESCRIPTION	LOCATION
S4-01A	WHITE DOOR FRAME CAULK	1 <sup>ST</sup> FLOOR - ROOM 115
S4-01B	WHITE DOOR FRAME CAULK	2 <sup>ND</sup> FLOOR - ROOM 218
S4-02A	BLACK VINYL COVE BASE & YELLOW MASTIC	1 <sup>ST</sup> FLOOR - LOBBY @ RM. 115
S4-02B	BLACK VINYL COVE BASE & YELLOW MASTIC	2 <sup>ND</sup> FLOOR - HALLWAY
S4-03A	WHITE GYPSUM BOARD / TAN TAPE & MUD	1 <sup>st</sup> Floor - Room 119
S4-03B	WHITE GYPSUM BOARD / TAN TAPE & MUD	2 <sup>ND</sup> FLOOR - HALLWAY
S4-04A	BLACK 12X12" VCT & YELLOW MASTIC	GROUND FL ENTRY FOYER
S4-04B	BLACK 12X12" VCT & YELLOW MASTIC	1 <sup>ST</sup> FLOOR - ELEV. LOBBY
S4-05A	WHITE/GRAY 12X12" VCT & YELLOW MASTIC	1 <sup>ST</sup> FLOOR - ELEV. LOBBY
S4-05B	WHITE/GRAY 12X12" VCT & YELLOW MASTIC	2 <sup>ND</sup> FLOOR - ELEV. LOBBY
S4-06A	LIGHT BLUE 12X12" VCT & YELLOW MASTIC	1 <sup>ST</sup> FLOOR - ELEV. LOBBY
S4-06B	BLACK 12X12" VCT & YELLOW MASTIC	2 <sup>ND</sup> FLOOR - HALLWAY



**FACILITY:** <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> **BUILDING # / AREA:** <u>EXTERIOR - 1903 SECTION (1)</u> **PROJECT #:** <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
E1-01A	WHITE METAL WINDOW FRAME CAULK	EXTERIOR - SIDE A
E1-01B	WHITE METAL WINDOW FRAME CAULK	EXTERIOR - SIDE A
E1-02A	GRAY/TAN WOODEN WINDOW SILL CAULK	EXTERIOR - SIDE C
E1-02B	GRAY/TAN WOODEN WINDOW SILL CAULK	EXTERIOR - SIDE D
E1-03A	GRAY CONCRETE WINDOW SILL	EXTERIOR - SIDE A
E1-03B	GRAY CONCRETE WINDOW HEADER	EXTERIOR - SIDE B
E1-04A	TAN CONCRETE COLUMN	EXTERIOR - SIDE A
E1-04B	TAN CONCRETE COLUMN	EXTERIOR - SIDE A
E1-05A	TAN CONCRETE COLUMN MORTAR	EXTERIOR - SIDE A
E1-05B	TAN CONCRETE COLUMN MORTAR	EXTERIOR - SIDE A
E1-06A	TAN BRICK	EXTERIOR - SIDE A
E1-06B	TAN BRICK	EXTERIOR - SIDE D
E1-07A	TAN BRICK MORTAR	EXTERIOR - SIDE A
E1-07B	TAN BRICK MORTAR	EXTERIOR - SIDE D
E1-08A	WHITE/TAN ENTRY DOOR FRAME CAULK	EXTERIOR - SIDE A
E1-08B	WHITE/TAN ENTRY DOOR FRAME CAULK	EXTERIOR - SIDE A
E1-09A	GRAY/TAN WOODEN DOOR FRAME CAULK	EXTERIOR - SIDE C
E1-09B	GRAY/TAN WOODEN DOOR FRAME CAULK	EXTERIOR - SIDE C

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FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>EXTERIOR - 1913 SECTION (2)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
E2-01A	TAN CONCRETE COLUMN	EXTERIOR - SIDE B
E2-01B	TAN CONCRETE COLUMN	EXTERIOR - SIDE B
E2-02A	TAN/GRAY ENTRY DOOR FRAME CAULK	EXTERIOR - SIDE B
E2-02B	TAN/GRAY ENTRY DOOR FRAME CAULK	EXTERIOR - SIDE B
E2-03A	TAN/GRAY WOODEN WINDOW FRAME CAULK	EXTERIOR - SIDE B
E2-03B	TAN/GRAY WOODEN WINDOW FRAME CAULK	EXTERIOR - SIDE B
E2-04A	LT. GRAY/DK. GRAY WINDOW SILL CAULK	EXTERIOR - SIDE B
E2-04B	LT. GRAY/DK. GRAY WINDOW SILL CAULK	EXTERIOR - SIDE B
E2-05A	TAN BRICK	EXTERIOR - SIDE B
E2-05B	TAN BRICK	EXTERIOR - SIDE B
E2-06A	TAN BRICK MORTAR	EXTERIOR - SIDE B
E2-06B	TAN BRICK MORTAR	EXTERIOR - SIDE B
E2-07A	GRAY CONCRETE WINDOW SILL	EXTERIOR - SIDE B
E2-07B	GRAY CONCRETE WINDOW HEADER	EXTERIOR - SIDE B



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>EXTERIOR - 1936 SECTION (3)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
E3-01A	LT. GRAY/DK. GRAY WINDOW SILL CAULK	EXTERIOR - SIDE B
E3-01B	LT. GRAY/DK. GRAY WINDOW SILL CAULK	EXTERIOR - SIDE D
E3-02A	TAN/GRAY WOODEN WINDOW FRAME CAULK	EXTERIOR - SIDE D
E3-02B	TAN/GRAY WOODEN WINDOW FRAME CAULK	EXTERIOR - SIDE D
E3-03A	TAN/BROWN WINDOW SILL (BELOW) CAULK	EXTERIOR - SIDE D
E3-03B	TAN/BROWN WINDOW SILL (BELOW) CAULK	EXTERIOR - SIDE D
E3-04A	TAN BRICK	EXTERIOR - SIDE B
E3-04B	TAN BRICK	EXTERIOR - SIDE C
E3-05A	TAN BRICK MORTAR	EXTERIOR - SIDE B
E3-05B	TAN BRICK MORTAR	EXTERIOR - SIDE C
E3-06A	GRAY CONCRETE WINDOW SILL	EXTERIOR - SIDE B
E3-06B	GRAY CONCRETE WINDOW HEADER	EXTERIOR - SIDE C



FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>EXTERIOR - 1990s SECTION (4)</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
E4-01A	TAN BRICK	EXTERIOR - SIDE D
E4-01B	TAN BRICK	EXTERIOR - SIDE D
E4-02A	TAN BRICK MORTAR	EXTERIOR - SIDE D
E4-02B	TAN BRICK MORTAR	EXTERIOR - SIDE D
E4-03A	GRAY CONCRETE WINDOW SILL	EXTERIOR - SIDE D
E4-03B	GRAY CONCRETE WINDOW HEADER	EXTERIOR - SIDE D


#### ACM BUILDING SURVEY SAMPLE LOG – ROOF

FACILITY: <u>UNIVERSITY OF KENTUCKY - SCOVELL HALL</u> BUILDING # / AREA: <u>ROOF</u> PROJECT #: <u>19S1024</u>

SAMPLE #	DESCRIPTION	LOCATION
R-01A	GRAY CAULK JOINT @ BRICK & METAL	<b>ROOF - SECTION 1/2 PARAPET</b>
R-01B	GRAY CAULK JOINT @ BRICK & METAL	<b>ROOF - SECTION 1/2 PARAPET</b>
R-02A	GRAY/BLACK TAR FLASHING ON BRICK	ROOF - SECTION 1/2 PARAPET
R-02B	GRAY/BLACK TAR FLASHING ON BRICK	<b>ROOF - SECTION 1/2 PARAPET</b>
R-03A	TAN CAULK & BLACK TAR STONE CAP SEAM	<b>ROOF - SECTION 2 PARAPET</b>
R-03B	TAN CAULK & BLACK TAR STONE CAP SEAM	<b>ROOF - SECTION 2 PARAPET</b>
R-04A	GRAY CAULK JOINT @ BRICK & METAL	<b>ROOF - SECTION 2 PARAPET</b>
R-04B	GRAY CAULK JOINT @ BRICK & METAL	<b>ROOF - SECTION 2 PARAPET</b>
R-05A	WHITE CAP STONE CAULK (OLD RESIDUAL)	<b>ROOF - SECTION 2 PARAPET</b>
R-05B	WHITE CAP STONE CAULK (OLD RESIDUAL)	<b>ROOF - SECTION 2 PARAPET</b>
R-06A	RED BRICK	<b>ROOF - SECTION 2 PARAPET</b>
R-06B	RED BRICK	<b>ROOF - SECTION 2 PARAPET</b>
R-07A	GRAY BRICK MORTAR	<b>ROOF - SECTION 2 PARAPET</b>
R-07B	GRAY BRICK MORTAR	<b>ROOF - SECTION 2 PARAPET</b>
R-08A	BLACK TAR & GRAY AGGREGATE ROOF TAR	ROOF - SECTION 4 EDGE @ S. 2
R-08B	BLACK TAR & GRAY AGGREGATE ROOF TAR	ROOF - SECTION 4 EDGE @ S. 2
R-09A	TAN STONE CAP SEAM CAULK	ROOF - SECTION 4 PARAPET
R-09B	TAN STONE CAP SEAM CAULK	<b>ROOF - SECTION 4 PARAPET</b>

### **APPENDIX C**

## ASBESTOS SAMPLE LOCATION DIAGRAMS









### **APPENDIX D**

## **ASBESTOS LICENSES & CERTIFICATIONS**

Commonwealth of Kentucky Department for Environmental Protection Division for Air Quality

#### **Christopher J Stovall**

Has met the requirements of 401 KAR 58:005 and is accredited as an:

#### **Asbestos Inspector**

Agency Interest Id: 154554 License Number: 61781 Issue Date: 09/04/2019 1.10 5 Expiration Date: 08/27/2020

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Commonwealth of Kentucky Department for Environmental Protection Division for Air Quality					
Gregor	y Bailey				
Asbestos	Inspector				
Agency Interest Id:	157056				
License Number:	61783				
Issue Date:	09/04/2019				
Expiration Date:	08/27/2020				

### **APPENDIX E**

### ASBESTOS LABORATORY ANALYTICAL RESULTS





1831 Williamson Court • Suite 100 • Louisville, KY 40223 Phone (502) 244-7135 • FAX (502) 244-7136

E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.8 U of K; Scovell Hall, Section 1, Interior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U of K; Scovell Hall, Section 1, Interior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the seventy-eight (78) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

Kevin R. Bean, B.A. PLM Laboratory Director



#### Page 1

#### Project Name: U of K; Scovell Hall, Section 1, Interior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.8

MSE # PD99TRI.8-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS	% NON-FIBROUS Material	COLOR
001	S1-01A Stair Stringer Caulk	ND**	Cellulose / 2%	98%	Tan / White
002	S1-01B Stair Stringer Caulk	ND**	Cellulose / 2%	98%	Tan / White
003	S1-02A Door Frame Caulk	ND**	Cellulose / 2%	98%	Tan / White
004	S1-02B Door Frame Caulk	ND**	Cellulose / 2%	98%	Tan / White
005	S1-03A Door Frame Caulk	ND**	Cellulose / 5%	95%	Tan / White
006	S1-03B Door Frame Caulk	ND**	Cellulose / 5%	95%	Tan / White
007	S1-03C Door Frame Caulk	ND**	Cellulose / 5%	95%	Tan / White
008	S1-04A Cove Base Caulk	ND**	Cellulose / 2%	98%	White
009	S1-04B Cove Base Caulk	ND**	Cellulose / 2%	98%	White
010	S1-05A Cove Base Caulk	ND**	Cellulose / 2%	98%	Gray
011	S1-05B Cove Base Caulk	ND**	Cellulose / 2%	98%	Gray
012	S1-06A Window Frame Caulk	ND**	Cellulose / 2%	98%	Gray
013	S1-06B Window Frame Caulk	ND**	Cellulose / 2%	98%	Gray
014	S1-07A Window Frame Caulk	СН / 3%	Cellulose / 2%	95%	Gray
015	S1-07B Window Frame Caulk	Ass	umed Positive, See	MSE# 014	Gray

MSE # PD99TRI.8-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
016 (A)	S1-08A (A) Gypsum Board Tape	ND	Cellulose / 30%	70%	Tan
016 (B)	S1-08A (B) Mud	ND	Cellulose / 3%	97%	White
017 (A)	S1-08B (A) Gypsum Board	ND	Cellulose / 15%	85%	White
017 (B)	S1-08B (B) Tape	ND	Cellulose / 30%	70%	Tan
017 (C)	S1-08B (C) Mud	ND*	Cellulose / 3%	97%	White
018 (A)	S1-09A (A) Stone Foundation	ND**	Cellulose / 2%	98%	Gray
018 (B)	S1-09A (B) Mortar	ND**	Cellulose / 2%	98%	Brown
019 (A)	S1-09B (A) Stone Foundation	ND**	Cellulose / 2%	98%	Gray
019 (B)	S1-09B (B) Mortar	ND**	Cellulose / 2%	98%	Brown
020	S1-10A Cinder Block Wall	ND**	Cellulose / 2%	98%	Gray
021	S1-10B Cinder Block Wall	ND**	Cellulose / 2%	98%	Gray
022	S1-11A Cinder Block Mortar	ND**	Cellulose / 2%	98%	Gray
023	S1-11B Cinder Block Mortar	ND**	Cellulose / 2%	98%	Gray
024 (A)	S1-12A (A) Skim Coat	ND**	Cellulose / 2%	98%	White
024 (B)	S1-12A (B) Concrete Window Sill	ND**	Cellulose / 2%	98%	Gray

MSE # PD99TRI.8-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
025 (A)	S1-12B (A) Skim Coat	ND**	Cellulose / 2%	98%	White
025 (B)	S1-12B (B) Concrete Window Sill	ND**	Cellulose / 2%	98%	Gray
026	S1-13A Concrete Floor	ND**	Cellulose / 2%	98%	Gray
027	S1-13B Concrete Floor	ND**	Cellulose / 2%	98%	Gray
028	S1-14A Concrete Pad	ND**	Cellulose / 2%	98%	Gray
029	S1-14B Concrete Pad	ND**	Cellulose / 2%	98%	Gray
030 (A)	S1-15A (A) Ceramic Floor	ND**	Cellulose / 2%	98%	White
030 (B)	S1-15A (B) Grout	ND**	Cellulose / 2%	98%	Gray
031 (A)	S1-15B (A) Ceramic Floor	ND**	Cellulose / 2%	98%	White
031 (B)	S1-15B (B) Grout	ND**	Cellulose / 2%	98%	Gray
032 (A)	S1-16A (A) Cove Base	ND**	Cellulose / 2%	98%	Black
032 (B)	S1-16A (B) Mastic	ND**	Cellulose / 3%	97%	Brown
033 (A)	S1-16B (A) Cove Base	ND**	Cellulose / 2%	98%	Black
033 (B)	S1-16B (B) Mastic	ND**	Cellulose / 3%	97%	Brown
034 (A)	S1-17A (A) Floor Tile	ND**	Cellulose / 3%	97%	Tan

MSE # PD99TRI.8-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
034 (B)	S1-17A (B) Mastic	ND**	Cellulose / 3%	97%	Tan
035 (A)	S1-17B (A) Floor Tile	ND**	Cellulose / 3%	97%	Tan
035 (B)	S1-17B (B) Mastic	ND**	Cellulose / 3%	97%	Tan
036 (A)	S1-18A (A) Floor Tile	ND**	Cellulose / 2%	98%	Beige
036 (B)	S1-18A (B) Mastic	ND**	Cellulose / 5%	95%	Black
037 (A)	S1-18B (A) Floor Tile	ND**	Cellulose / 2%	98%	Beige
037 (B)	S1-18B (B) Mastic	ND**	Cellulose / 5%	95%	Black
038 (A)	S1-19A (A) Floor Tile	ND**	Cellulose / 3%	97%	Green
038 (B)	S1-19A (B) Mastic	ND**	Cellulose / 5%	95%	Brown
039 (A)	S1-19B (A) Floor Tile	ND**	Cellulose / 3%	97%	Green
039 (B)	S1-19B (B) Mastic	ND**	Cellulose / 5%	95%	Brown
040 (A)	S1-20A (A) Stair Tread	ND**	Cellulose / 2%	98%	Brown
040 (B)	S1-20A (B) Adhesive	ND**	Cellulose / 3%	97%	Brown
040 (C)	S1-20A (C) Underlayment	ND	Cellulose / 90%	10%	Brown
041 (A)	S1-20B (A) Stair Tread	ND**	Cellulose / 2%	98%	Brown

Page 5

MSE # PD99TRI.8-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
041 (B)	S1-20B (B) Adhesive	ND**	Cellulose / 3%	97%	Brown
041 (C)	S1-20B (C) Underlayment	ND	Cellulose / 90%	10%	Brown
042 (A)	S1-21A (A) Floor Tile	ND**	Cellulose / 2%	98%	Tan
042 (B)	S1-21A (B) Mastic	ND**	Cellulose / 3%	97%	Yellow
042 (C)	S1-21A (C) Underlayment	ND	Cellulose / 90%	10%	Brown
043 (A)	S1-21B (A) Floor Tile	ND**	Cellulose / 2%	98%	Tan
043 (B)	S1-21B (B) Mastic	ND**	Cellulose / 3%	97%	Yellow
043 (C)	S1-21B (C) Underlayment	ND	Cellulose / 90%	10%	Brown
044 (A)	S1-22A (A) Floor Coating	ND**	Cellulose / 10%	90%	Red
044 (B)	S1-22A (B) Pad	ND	Cellulose / 90%	10%	Tan
045 (A)	S1-22B (A) Floor Coating	ND**	Cellulose / 10%	90%	Red
045 (B)	S1-22B (B) Pad	ND	Cellulose / 90%	10%	Tan
046	S1-23A Ceiling Tile	ND	Glass / 85%	15%	Gray
047	S1-23B Ceiling Tile	ND	Glass / 85%	15%	Gray
048	S1-24A Fire Stop	CH / 10%	Cellulose / 30%	60%	White

Page 6

MSE # PD99TRI.8-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
049	S1-24B Fire Stop	Assı	umed Positive, See	MSE # 048	White
050	S1-25A TSI Jacketing	ND	Cellulose / 30% Glass / 50%	20%	Silver / White
051	S1-25B TSI Jacketing	ND	Cellulose / 30% Glass / 50%	20%	Silver / White

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm 10\%$ . Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Kevin R. Bean, B.A.



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E-mail: customerservice@mselabs.com • Website: www.mselabs.com

#### BULK SAMPLE CHAIN OF CUSTODY FORM

Company:	TriEco, LLC	Telephone # _5(	)2-553-9336	Fax #:	
Contact:	Chris Stovall		Client Project Number	<u>19S102</u>	4
Relinquishe	by:Chris Stovall		Date: <u>12/9/2019</u>		Time: 8:00am
Written Rep	ort To: <u>cstovall@trieco.n</u>	et			
Project Nam	e: <u>U of K - Scovell Hall (</u>	Section 1 - Interi	or)		
Turn-Aroun	d (Circle One): Same Day	24 Hour 2-3 Day	y 4-5 Day Wee	kend Rı	ish After Hour Rush
Analysis Red	quested (Circle One): PLM B	ulk nalysis TE	M Qualitative Analysis	TEM Quan	utitative Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # **PD99TRI.8** Samples Received by: Mha

Method: <u>EPA/600/R-93/116</u> Date: <u>12-12-119</u>

Time: 10 sech

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		



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E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.6 U Of K; Scovell Hall, Section 2, Interior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Section 2, Interior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the fifty-seven (57) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

Amber D. Schultz, B.A. Senior Analyst



#### Page 1

#### Project Name: U Of K; Scovell Hall, Section 2, Interior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.6

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MSE # PD99TRI.6-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001 (A)	S2-01A (A) Vinyl Cove Base	ND**	Cellulose / 3%	97%	Black
001 (B)	S2-01A (B) Mastic	ND**	Cellulose / 4%	96%	Yellow
002 (A)	S2-01B (A) Vinyl Cove Base	ND**	Cellulose / 3%	97%	Black
002 (B)	S2-01B (B) Mastic	ND**	Cellulose / 4%	96%	Yellow
003	S2-03A Stairwell Stringer Caulk	ND**	Cellulose / 2%	98%	Tan / White
004	S2-03B Stairwell Stringer Caulk	ND**	Cellulose / 2%	98%	Tan / White
005	SR-04A Door Frame Caulk	CH / 3%	Cellulose / 3%	94%	Tan / White
006	SR-04B Door Frame Caulk	Ass	umed Positive, See	MSE # 005	Tan / White
007	S2-05A Concrete Slab Flooring	ND**	Cellulose / 2%	98%	Gray / White
008	S2-05B Concrete Slab Flooring	ND**	Cellulose / 2%	98%	Gray / White
009	S2-06A 2x2 Acoustic Tile	ND	Cellulose / 40% Glass / 30%	30%	Tan / White
010	S2-06B 2x2 Acoustic Tile	ND	Cellulose / 40% Glass / 30%	30%	Tan / White
011	S2-07A Wood Cove Base Caulk	CH / 5%	Cellulose / 3%	92%	Gray / Tan
012	S2-07B Wood Cove Base Caulk	Ass	umed Positive, See	MSE # 011	Gray / Tan

MSE # PD99TRI.6-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
013	S2-08A 2x2 Acoustic Tile	ND	Cellulose / 10% Glass / 50%	40%	Gray
014	S2-08B 2x2 Acoustic Tile	ND	Cellulose / 10% Glass / 50%	40%	Gray
015	S2-08C 2x2 Acoustic Tile	ND	Cellulose / 10% Glass / 50%	40%	Gray
016 (A)	S2-09A (A) Gypsum Board	ND	Cellulose / 15%	85%	White
016 (B)	S2-09A (B) Tape	ND	Cellulose / 60%	40%	Tan
016 (C)	S2-09A (C) Mud	ND	Cellulose / 3%	97%	White
017 (A)	S2-09B (A) Gypsum Board	ND	Cellulose / 15%	85%	White
017 (B)	S2-09B (B) Tape	ND	Cellulose / 60%	40%	Tan
017 (C)	S2-09B (C) Mud	ND	Cellulose / 3%	97%	White
018 (A)	S2-10A (A) 12x12 Floor Tile	ND**	Cellulose / 2%	98%	Gray / White
018 (B)	S2-10A (B) Mastic	ND**	Cellulose / 3%	97%	Yellow
019 (A)	S2-10B (A) 12x12 Floor Tile	ND**	Cellulose / 2%	98%	Gray / White
019 (B)	S2-10B (B) Mastic	ND**	Cellulose / 3%	97%	Yellow
020 (A)	S2-10C (A) 12x12 Floor Tile	ND**	Cellulose / 2%	98%	Gray / White
020 (B)	S2-10C (B) Mastic	ND**	Cellulose / 3%	97%	Yellow

MSE # PD99TRI.6-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
021	S2-11A 12x12 VCT	ND**	Cellulose / 3%	97%	Gray
022	S2-11B 12x12 VCT	ND**	Cellulose / 3%	97%	Gray
023 (A)	S2-12A (A) 12x12 VCT	ND**	Cellulose / 2%	98%	Gray
023 (B)	S2-12A (B) Mastic	CH / 3%	Cellulose / 7%	90%	Black
023 (C)	S2-12A (A) Under Layer	ND	Cellulose / 90%	10%	Brown
024 (A)	S2-12B (A) 12x12 VCT	ND**	Cellulose / 2%	98%	Gray
024 (B)	S2-12B (B) Mastic	Assur	Assumed Positive, See MSE# 023 (B)		
024 (C)	S2-12B (A) Under Layer	ND	Cellulose / 90%	10%	Brown
025 (A)	S2-13A (A) 12x12 VCT	ND**	Cellulose / 2%	98%	Mauve Gray
025 (B)	S2-13A (B) Mastic	ND**	Cellulose / 5%	95%	Brown
026 (A)	S2-13B (A) 12x12 VCT	ND**	Cellulose / 2%	98%	Mauve Gray
026 (B)	S2-13B (B) Mastic	ND**	Cellulose / 5%	95%	Brown
027 (A)	S2-14A (A) Ceramic Tile	ND**	Cellulose / 2%	98%	Gray
027 (B)	S2-14A (B) Grout	ND**	Cellulose / 2%	98%	Gray
028 (A)	S2-14B (A) Ceramic Tile	ND**	Cellulose / 2%	98%	Gray

MSE # PD99TRI.6-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
028 (B)	S2-14B (B) Grout	ND**	Cellulose / 2%	98%	Gray
029 (A)	S2-15A (A) Paper	ND**	Cellulose / 10%	90%	Black
029 (B)	S2-15A (B) Fibrous Backer	ND	Cellulose / 85%	15%	Tan
030 (A)	S2-15B (A) Paper	ND**	Cellulose / 10%	90%	Black
030 (B)	S2-15B (B) Fibrous Backer	ND	Cellulose / 85%	15%	Tan
031 (A)	S2-16A (A) Canvas TSI Jacketing	ND**	Cellulose / 45%	55%	Yellow
031 (B)	S2-16A (B) Foil	ND**	Cellulose / 10%	90%	Beige / Silver
032 (A)	S2-16B (A) Canvas TSI Jacketing	ND**	Cellulose / 45%	55%	Yellow
032 (B)	S2-16B (B) Foil	ND**	Cellulose / 10%	90%	Beige / Silver
033 (A)	S2-17A (A) Canvas TSI Jacketing	ND**	Cellulose / 45%	55%	Red
033 (B)	S2-17A (B) Foil	ND**	Cellulose / 10% Glass / 5%	85%	Beige / Silver
034 (A)	S2-17B (A) Canvas TSI Jacketing	ND**	Cellulose / 45%	55%	Red
034 (B)	S2-17B (B) Foil	ND**	Cellulose / 10% Glass / 5%	85%	Beige / Silver

Page 5

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm 10\%$ . Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Amber D. Schultz, B.A.



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E-mail: customerservice@mselabs.com • Website: www.mselabs.com

### **BULK SAMPLE CHAIN OF CUSTODY FORM**

Company:	TriEco, LLC	Telephone # _5(	02-553-9336	Fax #:	
Contact:	Chris Stovall		Client Project Number:	<u>19S102</u> 4	1
Relinquishe	d by: <u>Chris Stovall</u>	5a.	Date: <u>12/9/2019</u>		Time: 8:00am
Written Rep	oort To: <u>cstovall@trieco.n</u>	et			
Project Nan	ne: <u>U of K - Scovell Hall (</u>	Section 2 - Interi	or)		
Turn-Aroun	d (Circle One): Same Day	24 Hour 2-3 Da	y 4-5 Day Week	kend Ru	sh After Hour Rush
Analysis Re	quested (Circle One): PLM B	olk Analysis TE	M Qualitative Analysis	TEM Quan	titative Analysis (4-5 Day)
		· · · · ·			

For Laboratory Use Only

MSE Project # PD99TRILO	Method:EPA/600/R-93/116
Samples Received by:	Date: 1299 Time: 10'00

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		
N			



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E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.7 U Of K; Scovell Hall, Section 3, Interior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Section 3, Interior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the sixty-eight (68) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

Amber D. Schultz, B.A. Senior Analyst



#### Page 1

#### Project Name: U Of K; Scovell Hall, Section 3, Interior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.7

<b>_</b>	5	-			
MSE # PD99TRI.7-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001 (A)	S3-01A (A) 12x12 VCT	CH / 2%	Cellulose / 2%	96%	Gray
001 (B)	S3-01A (B) Mastic	CH / 4%	Cellulose / 6%	90%	Black
002 (A)	S3-01A (A) 12x12 VCT	Assun	ned Positive, See M	ISE # 001 (A)	Gray
002 (B)	S3-01A (B) Mastic	Assur	ned Positive, See M	ISE # 001 (B)	Black
003 (A)	S3-02A (A) Skim Coat	ND**	Cellulose / 2%	98%	White
003 (B)	S3-02A (B) Plaster Wall	ND**	Cellulose / 5%	95%	Gray
004 (A)	S3-02B (A) Skim Coat	ND**	Cellulose / 2%	98%	White
004 (B)	S3-02B (B) Plaster Wall	ND**	Cellulose / 5%	95%	Gray
005 (A)	S3-02C (A) Skim Coat	ND**	Cellulose / 2%	98%	White
005 (B)	S3-02C (B) Plaster Wall	ND**	Cellulose / 5%	95%	Gray
006 (A)	S3-02D (A) Skim Coat	ND**	Cellulose / 2%	98%	White
006 (B)	S3-02D (B) Plaster Wall	ND**	Cellulose / 5%	95%	Gray
007 (A)	S3-02E (A) Skim Coat	ND**	Cellulose / 2%	98%	White
007 (B)	S3-02E (B) Plaster Wall	ND**	Cellulose / 5%	95%	Gray
008 (A)	S3-02F (A) Skim Coat	ND**	Cellulose / 2%	98%	White

MSE # PD99TRI.7-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
008 (B)	S3-02F (B) Plaster Wall	ND**	Cellulose / 5%	95%	Gray
009	S3-03A Pyro-Bar Block	ND**	Cellulose / 15%	85%	White
010	S3-03B Pyro-Bar Block	ND**	Cellulose / 15%	85%	White
011	S3-04A Pyro Bar Block Grout	ND**	Cellulose / 3%	97%	Gray
012	S3-04B Pyro Bar Block Grout	ND**	Cellulose / 3%	97%	Gray
013	S3-05A Stone Cove Base Caulk	ND**	Cellulose / 4%	96%	Gray
014	S3-05B Stone Cove Base Caulk	ND**	Cellulose / 4%	96%	Gray
015	S3-06A Concrete Wall	ND**	Cellulose / 2%	98%	Gray
016	S3-06B Concrete Wall	ND**	Cellulose / 2%	98%	Gray
017	S3-07A Structural Block	ND**	Cellulose / 4%	96%	Tan
018	S3-07B Structural Block	ND**	Cellulose / 4%	96%	Tan
019 (A)	S3-08A (A) Gypsum Board	ND	Cellulose / 15%	85%	White
019 (B)	S3-08A (B) Tape	ND	Cellulose / 55%	45%	Tan
019 (C)	S3-08A (C) Mud	ND	Cellulose / 3%	97%	White
020 (A)	S3-08B (A) Gypsum Board	ND	Cellulose / 15%	85%	White

Page 3

MSE # PD99TRI.7-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
020 (B)	S3-08B (B) Tape	ND	Cellulose / 55%	45%	Tan
020 (C)	S3-08B (C) Mud	ND	Cellulose / 3%	97%	White
021 (A)	S3-08C (A) Gypsum Board	ND	Cellulose / 15%	85%	White
021 (B)	S3-08C (B) Tape	ND	Cellulose / 55%	45%	Tan
021 (C)	S3-08C (C) Mud	ND	Cellulose / 3%	97%	White
022 (A)	S3-09A (A) Glazed Wall Block	ND**	Cellulose / 2%	98%	Tan
022 (B)	S3-09A (B) Mortar	ND**	Cellulose / 3%	97%	Gray
023 (A)	S3-09B (A) Glazed Wall Block	ND**	Cellulose / 2%	98%	Tan
023 (B)	S3-09B (B) Mortar	ND**	Cellulose / 3%	97%	Gray
024	S3-10A Glazed Block Caulk	ND**	Cellulose / 3%	97%	Gray / Tan
025	S3-10B Glazed Block Caulk	ND**	Cellulose / 3%	97%	Gray / Tan
026	S3-11A Door Frame Caulk	ND**	Cellulose / 5%	95%	Tan / White
027	S3-11B Door Frame Caulk	ND**	Cellulose / 5%	95%	Tan / White
028	S3-11C Door Frame Caulk	ND**	Cellulose / 5%	95%	Tan / White
029 (A)	S3-12A (A) Vinyl Cove Base	ND**	Cellulose / 2%	98%	Brown

	[]				
MSE # PD99TRI.7-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS Material	COLOR
029 (B)	S3-12A (B) Mastic	ND**	Cellulose / 3%	97%	Brown
030 (A)	S3-12B (A) Vinyl Cove Base	ND**	Cellulose / 2%	98%	Brown
030 (B)	S3-12B (B) Mastic	ND**	Cellulose / 3%	97%	Brown
031 (A)	S3-13A (A) Vinyl Cove Base	ND**	Cellulose / 2%	98%	Black
031 (B)	S3-13A (B) Mastic	ND**	Cellulose / 3%	97%	Brown
032 (A)	S3-13B (A) Vinyl Cove Base	ND**	Cellulose / 2%	98%	Black
032 (B)	S3-13B (B) Mastic	ND**	Cellulose / 3%	97%	Brown
033	S3-14A Fibrous VCT Underlayment	ND	Cellulose / 40% Synthetics / 10%	50%	Black
034	S3-14B Fibrous VCT Underlayment	ND	Cellulose / 40% Synthetics / 10%	50%	Black
035	S3-15A Acoustic Wall Panel	ND	Cellulose / 85%	15%	Tan
036	S3-15B Acoustic Wall Panel	ND	Cellulose / 85%	15%	Tan
037	S3-16A 2x2 Acoustic Ceiling Tile	ND	Cellulose / 40% Glass / 30%	30%	Tan / White
038	S3-16B 2x2 Acoustic Ceiling Tile	ND	Cellulose / 40% Glass / 30%	30%	Tan / White
039	S3-17A Safe Door Coating	ND**	Cellulose / 2% Glass / 3%	95%	Black / Peach
040	Safe Door Coating	ND**	Cellulose / 2% Glass / 3%	95%	Black / Peach

Page 5

MSE #	SAMPLE #	ASBESTOS	OTHER FIBROUS	% NON-FIBROUS	
PD99TRI.7-	DESCRIPTION	TYPE & %	MATERIAL & %	MATERIAL	COLOR
	S3-18A (A)				
041 (A)	Canvas TSI Jacketing	ND**	Cellulose / 60%	40%	Beige / Blue
0.41 (D)	S3-18A (B)	NID**	Cellulose / 35%	65%	Beige / Silver
041 (D)	Pon	ND		0570	Sirver
	S3-18B (A)				
042 (A)	Canvas TSI Jacketing	ND**	Cellulose / 60%	40%	Beige / Blue
	S3-18B (B)			(50)	Beige /
042 (B)	Foil	ND**	Cellulose / 35%	65%	Silver
043 (A)	S3-19A (A) Canvas TSI Jacketing	ND**	Cellulose / 60%	40%	Beige / Blue
	S3-19A (B)				Beige /
043 (B)	Foil	ND**	Cellulose / 35%	65%	Silver
	S3-19B (A)			100/	D : (D)
044 (A)	Canvas TSI Jacketing	ND**	Cellulose / 60%	40%	Beige / Blue
044 (B)	S3-19B (B) Foil	ND**	Cellulose / 35%	65%	Beige / Silver
	1011		2011010007 3370	1 00.0	

Page 6

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm$  10%. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Amber D. Schultz, B.A.



1831 Williamson Court • Suite 100 • Louisville, KY 40223 Phone (502) 244-7135 • (800) 841-0180 • FAX (502) 244-7136

E-mail: customerservice@mselabs.com • Website: www.mselabs.com

### **BULK SAMPLE CHAIN OF CUSTODY FORM**

am					
Written Report To: cstovall@trieco.net					
Project Name: U of K - Scovell Hall (Section 3 - Interior)					
r Hour Rush					
Analysis Requested (Circle One): PLM Bulk Analysis TEM Qualitative Analysis TEM Quantitative Analysis (4-5 Day)					
-					

For Laboratory Use Only

MSE Project#	PDgg	ITRI.	<b>}</b> Method:	EPA/600/R-93/116	
Samples Receive	ed by:	Ato	Dyte: _	12/9/19	Time: 10 500

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG	5	
	*POSITIVE STOP*		



1831 Williamson Court • Suite 100 • Louisville, KY 40223 Phone (502) 244-7135 • FAX (502) 244-7136

E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.2 U Of K; Scovell Hall, Section 4 / Interior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Section 4 / Interior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the twenty-two (22) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely.

Kevin R. Bean, B.A. PLM Laboratory Director



Page 1

#### Project Name: U Of K; Scovell Hall, Section 4 / Interior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.2

			1		
MSE # PD99TRI.2-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001	S4-01A Door Frame Caulk	ND**	Cellulose / 3%	97%	White
002	S4-01B Door Frame Caulk	ND**	Cellulose / 3%	97%	White
003 (A)	S4-02A (A) Cove Base	ND**	Cellulose / 2%	98%	Black
003 (B)	S4-02A (B) Mastic	ND**	Cellulose / 2%	98%	Yellow
004 (A)	S4-02B (A) Cove Base	ND**	Cellulose / 2%	98%	Black
004 (B)	S4-02B (B) Mastic	ND**	Cellulose / 2%	98%	Yellow
005 (A)	S4-03A (A) Gypsum Board	ND	Cellulose / 15%	85%	White
005 (B)	S4-03A (B) Tape & Mud	ND	Cellulose / 5%	95%	Tan / White
006 (A)	S4-03B (A) Gypsum Board	ND	Cellulose / 15%	85%	White
006 (B)	S4-03B (B) Tape & Mud	ND	Cellulose / 5%	95%	Tan / White
007 (A)	S4-04A (A) Floor Tile	ND**	Cellulose / 3%	97%	Black
007 (B)	S4-04A (B) Mastic	ND**	Cellulose / 3%	97%	Yellow
008 (A)	S4-04B (A) Floor Tile	ND**	Cellulose / 3%	97%	Black
008 (B)	S4-04B (B) Mastic	ND**	Cellulose / 3%	97%	Yellow
009 (A)	S4-05A (A) Floor Tile	ND**	Cellulose / 3%	97%	Gray
Page 2

MSE # PD99TRI 2-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS Material	COLOR
10))/110.2					
	S4-05A (B)				
009 (B)	Mastic	ND**	Cellulose / 3%	97%	Yellow
	S4.05B(A)		17		
010 (A)	Floor Tile	ND**	Cellulose / 3%	97%	Gray
	C4 05D (D)				
010 (D)	S4-05B (B)		Callulana / 20/	070/	Vallary
010 (B)	Mastic	ND**	Cellulose / 3%	97%	Yellow
	S4-06A (A)				
011 (A0	Floor Tile	ND**	Cellulose / 3%	97%	Blue
	$C_{1} O(A (D))$				
011 (D)	S4-00A (B)	NID**	Callulace / 20/	070/	Vallary
	Mastic	ND	Cellulose / 3%	97%	renow
	S4-06B (A)				
012 (A)	Floor Tile	ND**	Cellulose / 3%	97%	Blue
	S4.06B (B)				
012 (B)	Mastic	ND**	Cellulose / 3%	97%	Vellow
012 (B)	Mastic	ND**	Cellulose / 3%	97%	Yellow

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm 10\%$ . Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Kevin R. Bean, B.A.



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

## **BULK SAMPLE CHAIN OF CUSTODY FORM**

Company:	TriEco, LLC	Telephone # _5	502-553-	9336	Fax #:	-	
Contact:	Chris Stovall		Client	Project Number:	<u>19S102</u>	24	a
Relinquishe	d by: <u>Chris Stovall</u>		Date:	12/9/2019		Time:	8:00am
Written Rej	oort To: <u>cstovall@trieco.n</u>	et					
Project Nan	ne: <u>U of K - Scovell Hall (</u>	Section 4 - Inter	ior)				
Turn-Arour	d (Circle One): Same Day	24 Hour 2-3 D	ay 4-	5 Day Week	kend R	ush	After Hour Rush
Analysis Re	quested (Circle One): PLM B	uk Analysis Tl	EM Quali	tative Analysis	TEM Qua	ntitative	Analysis (4-5 Day)

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MSE Project # **PO99Th I. 2** Samples Received by: MM

Method: EPA/600/R-93/116 Date: 12-/91-19

Time: 10 Eer

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		

# EXTERIOR



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.4 U Of K; Scovell Hall, Section 1, Exterior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Section 1, Exterior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the eighteen (18) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Kevin R. Bean, B.A. PLM Laboratory Director



#### Page 1

#### Project Name: U Of K; Scovell Hall, Section 1, Exterior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.4

SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
E1 01 A				
Window Frame Caulk	ND**	Cellulose / 2%	98%	White
<b>E1 01D</b>				
E1-01B Window Frame Caulk	ND**	Cellulose / 2%	98%	White
			,,,,,	
E1-02A Window Sill Caulk	ND**	Cellulose / 3%	97%	Gray
E1 02D				
Window Sill Caulk	ND**	Cellulose / 3%	97%	Gray
E1 02 A				
Concrete Window Sill	ND**	Cellulose / 2%	98%	Grav
	1.2		,,,,,	
E1-03B Concrete Window Sill	ND**	Cellulose / 2%	98%	Grav
	ND			Giay
E1-04A	×۳D**	Callulara / 20/	0.80/	Crow
	ND**	Cellulose / 2%	98%0	Gray
E1-04B			000/	
Concrete Column	ND**	Cellulose / 2%	98%	Gray
E1-05A				
Concrete Mortar	ND**	Cellulose / 2%	98%	Gray
E1-05B				
Concrete Mortar	ND**	Cellulose / 2%	98%	Gray
E1-06A				
Brick	ND**	Cellulose / 2%	98%	Tan
E1-06B				
Brick	ND**	Cellulose / 2%	98%	Tan
F1_07A				
Brick Mortar	ND**	Cellulose / 2%	98%	Tan
E1.07D				
Brick Mortar	ND**	Cellulose / 2%	98%	Tan
E1_08A				
Door Frame Caulk	ND**	Cellulose / 2%	98%	White
	SAMPLE # DESCRIPTION E1-01A Window Frame Caulk E1-01B Window Frame Caulk E1-02A Window Sill Caulk E1-02B Window Sill Caulk E1-02B Window Sill Caulk E1-03A Concrete Window Sill E1-03B Concrete Window Sill E1-04A Concrete Column E1-04B Concrete Column E1-04B Concrete Mortar E1-05A Concrete Mortar E1-05B Concrete Mortar E1-05B Concrete Mortar E1-06B Brick E1-06B Brick E1-07A Brick Mortar	SAMPLE # DESCRIPTIONASBESTOS TYPE & %E1-01A Window Frame CaulkND**E1-01B Window Frame CaulkND**E1-02A Window Sill CaulkND**E1-02B Window Sill CaulkND**E1-03A Concrete Window SillND**E1-03B Concrete Window SillND**E1-04A Concrete ColumnND**E1-04B Concrete ColumnND**E1-04B Concrete MortarND**E1-05A Concrete MortarND**E1-05B Concrete MortarND**E1-05B Concrete MortarND**E1-06A BrickND**E1-06B BrickND**E1-07A Brick MortarND**E1-07B Brick MortarND**E1-07B Brick MortarND**E1-08A Door Frame CaulkND**	SAMPLE # DESCRIPTIONASBESTOS TYPE & %OTHER FIBROUS MATERIAL & %E1-01A Window Frame CaulkND**Cellulose / 2%E1-01B Window Frame CaulkND**Cellulose / 2%E1-02A Window Sill CaulkND**Cellulose / 3%E1-02B Window Sill CaulkND**Cellulose / 3%E1-02B Window Sill CaulkND**Cellulose / 3%E1-03A Concrete Window SillND**Cellulose / 2%E1-03B Concrete ColumnND**Cellulose / 2%E1-04A Concrete ColumnND**Cellulose / 2%E1-04B Concrete MortarND**Cellulose / 2%E1-05A Concrete MortarND**Cellulose / 2%E1-05B Concrete MortarND**Cellulose / 2%E1-05B Concrete MortarND**Cellulose / 2%E1-06A BrickND**Cellulose / 2%E1-06B Brick MortarND**Cellulose / 2%E1-07A Brick MortarND**Cellulose / 2%E1-07B Brick MortarND**Cellulose / 2%E1-07B Brick MortarND**Cellulose / 2%E1-07B Brick MortarND**Cellulose / 2%E1-08A Door Frame CaulkND**Cellulose / 2%	SAMPLE # DESCRIPTIONASBESTOS TYPE & %OTHER FIBROUS MATERIAL & %% NON-FIBROUS MATERIAL & %E1-01A Window Frame CaulkND**Cellulose / 2%98%E1-01B Window Frame CaulkND**Cellulose / 2%98%E1-02A Window Sill CaulkND**Cellulose / 3%97%E1-02B Window Sill CaulkND**Cellulose / 3%97%E1-02B Window Sill CaulkND**Cellulose / 3%97%E1-03A Concrete Window SillND**Cellulose / 2%98%E1-03B Concrete Window SillND**Cellulose / 2%98%E1-03B Concrete ColumnND**Cellulose / 2%98%E1-04A Concrete ColumnND**Cellulose / 2%98%E1-04B Concrete MortarND**Cellulose / 2%98%E1-05B Concrete MortarND**Cellulose / 2%98%E1-05B Concrete MortarND**Cellulose / 2%98%E1-06A BrickND**Cellulose / 2%98%E1-06B BrickND**Cellulose / 2%98%E1-07A Brick MortarND**Cellulose / 2%98%E1-07B Brick MortarND**Cellulose / 2%98%E1-08A Door Frame CaulkND**Cellulose / 2%98%

Page 2

MSE # PD99TRI.4-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
	E1-08B				
016	Door Frame Caulk	ND**	Cellulose / 2%	98%	White
	E1-09A				
017	Door Frame Caulk	ND**	Cellulose / 2%	98%	Gray
	E1-09B				
018	Door Frame Caulk	ND**	Cellulose / 2%	98%	Gray

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm$  10%. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Kevin R. Bean, B.A. Think Sun



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

## **BULK SAMPLE CHAIN OF CUSTODY FORM**

Company:	TriEco, LLC	Telephone #	502-553-	9336	Fax #:	-	
Contact:	Chris Stovall		Client	Project Number:	<u>198102</u>	24	
Relinquishe	d by: <u>Chris Stovall</u>		Date:	12/9/2019		Time:	8:00am
Written Re	port To: <u>cstovall@trieco.n</u>	et					
Project Nar	ne: <u>U of K - Scovell Hall (</u>	Section 1 - E	xterior)				
Turn-Arou	nd (Circle One): Same Day	24 Hour 2-3	3 Day 4	5 Day Wee	kend R	ush	After Hour Rush
Analysis Re	quested (Circle One): PLM B	alk Analysis	TEM Quali	tative Analysis	TEM Qua	ntitative	Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # **PD99TRI**, 4 Samples Received by: <u>mh</u> gr

Method: EPA/600/R-93/116 Date: 12-19/19

10a Time:

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		
	5		
	io.		



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.5 U Of K; Scovell Hall, Section 2, Exterior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Section 2, Exterior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the fourteen (14) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Kevin R. Bean, B.A. PLM Laboratory Director



#### Page 1

#### Project Name: U Of K; Scovell Hall, Section 2, Exterior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.5

^			T		
MSE # PD99TRI.5-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001	E2-01A Concrete Column	ND**	Cellulose / 2%	98%	Tan
002	E2-01B Concrete Column	ND**	Cellulose / 2%	98%	Tan
003	E2-02A Door Frame Caulk	ND**	Cellulose / 2%	98%	Gray
004	E2-02B Door Frame Caulk	ND**	Cellulose / 2%	98%	Gray
005	E2-03A Window Frame Caulk	ND**	Cellulose / 2%	98%	Gray
006	E2-03B Window Frame Caulk	ND**	Cellulose / 2%	98%	Gray
007	E2-04A Window Sill Caulk	ND**	Cellulose / 25	98%	Gray
008	E2-04B Window Sill Caulk	ND**	Cellulose / 25	98%	Gray
009	E2-05A Brick	ND**	Cellulose / 2%	98%	Tan
010	E2-05B Brick	ND**	Cellulose / 2%	98%	Tan
011	E2-06A Brick Mortar	ND**	Cellulose / 2%	98%	Tan
012	E2-06B Brick Mortar	ND**	Cellulose / 2%	98%	Tan
013	E2-07A Concrete Window Sill	ND**	Cellulose / 2%	98%	Gray
014	E2-07B Concrete Window Sill	ND**	Cellulose / 2%	98%	Gray

Page 2

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm 10\%$ . Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Kevin R. Bean, B.A. K. D. San



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

## BULK SAMPLE CHAIN OF CUSTODY FORM

Company:	TriEco, LLC	Telephone # _50	)2-553-9	9336	Fax #:		
Contact: (	Chris Stovall		Client I	Project Number:	<u>19S102</u>	4	
Relinquished	by: <u>Chris Stovall</u>	с) -	Date:	12/9/2019		Time:	8:00am
Written Repo	rt To:cstovall@trieco.nd	et					
Project Name	: U of K - Scovell Hall (S	Section 2 - Exteri	ior)		5		
Turn-Around	(Circle One): Same Day	24 Hour 2-3 Day	y 4-:	5 Day Week	end Ri	ush	After Hour Rush
Analysis Requ	uested (Circle One): PLM B	uk Analysis TE	M Qualit	tative Analysis	TEM Quar	ntitative	Analysis (4-5 Day)
			a contra di finis prosti i con de prosenta fontegra co				

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MSE Project # <u>P099TRI.5</u> Samples Received by: <u>Mhhh</u>

Method: EPA/600/R-93/116

Date: 12/9/19

Time: 900

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.1 U Of K; Scovell Hall, Section 3, Exterior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Section 3, Exterior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the twelve (12) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Kevin R. Bean, B.A. PLM Laboratory Director



#### Page 1

#### Project Name: U Of K; Scovell Hall, Section 3, Exterior Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.1

^	ý				
MSE # PD99TRI.1-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
	E3 01 A				
001	Window Sill Caulk	CH / 3%	Cellulose / 2%	95%	Grav
	E2 01 A		L	L	
002	Window Sill Caulk	Ass	umed Positive See	MSF #001	Grav
		1 100			Gray
003	E3-02A Window Frame Caulk	CH / 5%	Cellulose / 2%	020/	Creat
		0117 570	Cellulose / 2/0	9370	Glay
004	E3-02A		1		
004	window Frame Caulk	ASSI	imed Positive, See	MSE # 003	Gray
	E3-03A				
005	Window Sill Caulk	CH / 7%	Cellulose / 3%	90%	Gray
	E3-03A				
006	Window Sill Caulk	Assi	umed Positive, See	MSE # 005	Gray
	E3-04A	0			
007	Brick	ND**	Cellulose / 2%	98%	Tan
	F3-04B				
008	Brick	ND**	Cellulose / 2%	98%	Tan
	F2.05A				
009	E3-05A Brick Mortar	ND**	Cellulose / 2%	98%	Tan
		112		2070	1 411
010	E3-05B Brick Morter	NID**	Cellulose / 2%	0.80%	Ton
010	Direk Wortan			7070	1 811
011	E3-06A	NID**	Callulars (20)	0.004	
	Concrete	ND**	Cellulose / 2%	98%	Gray
	E3-06B				
012	Concrete	ND**	Cellulose / 2%	98%	Gray

Page 2

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm 10\%$ . Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

-n Bun Analyst: Kevin R. Bean, B.A.



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

## BULK SAMPLE CHAIN OF CUSTODY FORM

Company:	TriEco, LLC	Telephone # _5	02-553-9336	Fax #:	
Contact:	Chris Stovall		Client Project Number	·: <u>198102</u>	24
Relinquishe	d by:Chris Stovall		Date: <u>12/9/2019</u>		Time: 8:00am
Written Rep	port To: cstovall@trieco.n	iet			
Project Nan	ne: U of K - Scovell Hall (	Section 3 - Exter	rior)		
Turn-Arour	nd (Circle One): Same Day	24 Hour 2-3 Da	ay 4-5 Day We	ekend R	ush After Hour Rush
Analysis Re	quested (Circle One): PLM E	ulk Analysis TF	CM Qualitative Analysis	TEM Quai	ntitative Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # **PD99TNI**. | Samples Received by: <u>*mh*</u>

Method: EPA/600/R-93/116 Date: 12-19/19

Time: 10'00

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		
			<i>x</i>



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI U Of K; Scovell Hall / Section 4 Exterior Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall / Section 4 Exterior Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the six (6) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Kevin R. Bean, B.A. PLM Laboratory Director



Page 1

Project Name: U Of K; Scovell Hall / Section 4 Exterior Project TRI# 19S1024
McCall & Spero Environmental Project No. MSE-PD99TRI

		1	1		
MSE # PD99TRI-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
	E4-01A				
001	Brick	ND**	Cellulose / 2%	98%	Tan
	E4-01B				
002	Brick	ND**	Cellulose / 2%	98%	Tan
	E4-02A				
003	Brick Mortar	ND**	Cellulose / 2%	98%	Tan
004	E4-02B Brick Mortar	ND**	Cellulose / 2%	98%	Tan
005	E4-03A Concrete	ND**	Cellulose / 2%	98%	Gray
006	E4-03B Concrete	ND**	Cellulose / 2%	98%	Gray

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm$  10%. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/116).

Analyst: Kevin R. Bean, B.A.



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

## BULK SAMPLE CHAIN OF CUSTODY FORM

Company:	TriEco, LLC	Telephone #	502-553-	9336	Fax #:	-	
Contact:	Chris Stovall		Client	Project Number:	<u>19S102</u>	24	
Relinquishe	by: Chris Stovall		Date:	12/9/2019		Time:	8:00am
Written Rep	ort To: cstovall@trieco.n	et					
Project Nam	e: U of K - Scovell Hall (	Section 4 - Exte	erior)	0			
Turn-Aroun	d (Circle One): Same Day	24 Hour 2-3 D	ay 4-	5 Day Weel	kend R	ush	After Hour Rush
Analysis Re	quested (Circle One): PLM B	uk Analysis T	EM Quali	tative Analysis	TEM Qua	ntitative	Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # PD99TREI Samples Received by: Manh

Method: EPA/600/R-93/116 Date: 12/9/19

Time: 10 CM

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		1. I. I.
	*POSITIVE STOP*		





E-mail: customerservice@mselabs.com • Website: www.mselabs.com

- Date: December 9, 2019
- Attention: Chris Stovall TriEco, LLC
  - Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)
    - RE: MSE-PD99TRI.3 U Of K; Scovell Hall, Roof Project TRI# 19S1024

Dear Mr. Stovall:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on December 9, 2019. These samples represent the bulk samples from the U Of K; Scovell Hall, Roof Project.

The PLM bulk analysis was performed according to the 'Method of the Determination of Asbestos in Bulk Building Materials', R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the twenty (20) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Kevin R. Bean, B.A. PLM Laboratory Director



#### Page 1

#### Project Name: U Of K; Scovell Hall, Roof Project TRI# 19S1024 McCall & Spero Environmental Project No. MSE-PD99TRI.3

<u></u>					
MSE # PD99TRI.3-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001	R-01A Caulk Joint	ND**	Cellulose / 2%	98%	Gray
002	R-01B Caulk Joint	ND**	Cellulose / 2%	98%	Gray
003	R-02A Tar Flashing	CH / 10%	Cellulose / 5%	85%	Black
004	R-02A Tar Flashing	A	ssumed Positive, M	ISE # 003	Black
005 (A)	R-03A (A) Caulk	ND**	Cellulose / 2%	98%	Tan
005 (B)	R-03A (B) Tar Stone Cap	CH / 5%	Cellulose / 3%	92%	Black
006 (A)	R-03B (A) Caulk	ND**	Cellulose / 2%	98%	Tan
006 (B)	R-03B (B) Tar Stone Cap	Assur	ned Positive, See N	1SE # 005 (B)	Black
007	R-04A Caulk Joint	ND**	Cellulose / 2%	98%	Gray
008	R-04B Caulk Joint	ND**	Cellulose / 2%	98%	Gray
009	R-05A Cap Stone Caulk	ND**	Cellulose / 2%	98%	White
010	R-05B Cap Stone Caulk	ND**	Cellulose / 2%	98%	White
011	R-06A Brick	ND**	Cellulose /2%	98%	Red
012	R-06B Brick	ND**	Cellulose /2%	98%	Red
013	R-07A Brick Mortar	ND**	Cellulose / 2%	98%	Gray

Page 2

MSE # PD99TRI.3-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
	R-07B				
014	Brick Mortar	ND**	Cellulose / 2%	98%	Gray
	R-08A				Black /
015	Tar	ND**	Cellulose / 2%	98%	Gray
	R-08B				Black /
016	Tar	ND**	Cellulose / 2%	98%	Gray
	R-09A				
	Stone Cap Seam				
017	Caulk	ND**	Cellulose / 2%	98%	Gray
	R-09B				
	Stone Cap Seam				
018	Caulk	ND**	Cellulose / 2%	98%	Gray

NOTES:

ND = None Detected	CH = Chrysotile	A = Amosite	AC = Actinolite
CR = Crocidolite	AN = Anthophyllite	TR = Tremolite	

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within  $\pm 10\%$ . Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

\*\* EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Vin Bu Analyst: Kevin R. Bean, B.A.



E-mail: customerservice@mselabs.com • Website: www.mselabs.com

## BULK SAMPLE CHAIN OF CUSTODY FORM

Company:	TriEco, LLC	Telephone #	502-553	-9336	Fax #:	-	
Contact:	Chris Stovall		Client	Project Numb	er: <u>198102</u>	24	
Relinquishe	d by: Chris Stovall		Date:	12/9/2019		Time:	8:00am
Written Re	port To: cstovall@trieco.n	let					
Project Nar	ne: U of K - Scovell Hall (	Roof)					
Turn-Arou	nd (Circle One): Same Day	24 Hour 2-	-3 Day 4	I-5 Day W	eekend R	ush	After Hour Rush
Analysis Re	quested (Circle One): PLM E	ulk Analysis	TEM Qua	litative Analysi	s TEM Qua	ntitative	Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # PD99TRI.3 Samples Received by: Mh R

Method: EPA/600/R-93/116

Date: 12/9/19

Time: 10:00

Client Sample Number	Location	Sample Description	Sampled By
	PLEASE SEE ATTACHED SAMPLE LOG		
	*POSITIVE STOP*		
	·		
		-	

# HISTORIC UK SAMPLES

ViewAsbestos												
Sector	BldgNo	BldgName	RoomNo	SampleNo	SampleDate	Description	Results	Condition	AbatedDate	Identity I	.ink1 L	ink2
CA	0064	Scovell Hall	022	45		material from plaster on ceiling				9231		
CA	0064	Scovell Hall	025	046		plaster material outside wall	none			9232		
CA	0064	Scovell Hall	119B	047		plaster material inside wall	none			9233		
CA	0064	Scovell Hall	117B	048		plaster material outside wall	none			9234		
CA	0064	Scovell Hall	216	049		palster material inside wall	1-5% chrysotile asbestos			9235		
CA	0064	Scovell Hall	218B	50		plaster material outside wall				9236		
CA	0064	Scovell Hall	119	51		9x9 floor tile grey marble	none			9237		
CA	0064	Scovell Hall	112	43		12x12 grey and white floor tile				9238		
CA	0064	Scovell Hall	100C	42		plaster material center corridor	1-5% chrysotile asbestos			9239		
CA	0064	Scovell Hall	113	38		plaster material South wall	1-5% chrysotile asbestos			9240		
CA	0064	Scovell Hall	124	039		plaster material East wall	5-10% chysotile asbestos			9241		
CA	0064	Scovell Hall	216	40		plaster material South wall	trace asbestos			9242		
CA	0064	Scovell Hall	119	041		plaster material North wall	1-5% chrysotile asbestos			9243		
CA	0064	Scovell Hall	113	037		plaster material	none			9244		
CA	0064	Scovell Hall	104	33		plaster material South wall	trace asbestos			9245		
CA	0064	Scovell Hall	110	034		plaster material East wall	none			9246		
CA	0064	Scovell Hall	023	57		12x12 floor tile grey/white colored	1-5% chrysotile asbestos			9247		
CA	0064	Scovell Hall	GCOR	058		12x12 floor tile green/white	1-5% chrysotile asbestos			9248		
CA	0064	Scovell Hall	020	059		12x12 floor tile green/white	1-5% chrysotile asbestos			9249		

CA	0064	Scovell Hall	022	060	12x12 floor tile grey/white	1-5% chrysotile asbestos	9250	
CA	0064	Scovell Hall	026	061	12x12 floor tile brown/white/rust	1-5% chrysotile asbestos	9251	
CA	0064	Scovell Hall	025	062	12x12 floor tile white	1-5% chrysotile asbestos	9252	
CA	0064	Scovell Hall	116	063	9x9 floor tile grey marble	none	9253	
CA	0064	Scovell Hall	117A	064	9x9 floor tile grey marble	none	9254	
CA	0064	Scovell Hall	119A	065	12x12 floor tile grey/white colored	1-5% chrysotile asbestos	9255	
CA	0064	Scovell Hall	118	066	12x12 floor tile putty brown	1-5% chysotile asbestos	9256	
CA	0064	Scovell Hall	218C	068	12x12 floor tile putty brown	5-10% chysotile asbestos	9257	
CA	0064	Scovell Hall	218B	067	12x12 floor tile putty brown	1-5% chysotile asbestos	9258	
CA	0064	Scovell Hall	218A	069	12x12 floor tile grey/white	1-5% chrysotile asbestos	9259	
CA	0064	Scovell Hall	218A	070	12x12 floor tile grey/white	1-5% chrysotile asbestos	9260	
CA	0064	Scovell Hall	021	044	material from plaster	none	9261	
CA	0064	Scovell Hall	218B	023	12x12 floor tile blue and brown color	<1%asbestos	9262	
CA	0064	Scovell Hall	214	24	12x12 floor tile light and dark green		9263	
CA	0064	Scovell Hall	215	025	adhesive on back of 12x12 floor tile	1-5% chrysotile asbestos	9264	
CA	0064	Scovell Hall	209	26	material of 12x12 cellulose ceiling tile		9265	
CA	0064	Scovell Hall	024	077	ceiling plaster	none	9266	
CA	0064	Scovell Hall	022	078	ceiling plaster	1-5% chrysotile asbestos	9267	
CA	0064	Scovell Hall	024	076	ceiling plaster	1-5% chrysotile asbestos	9268	
CA	0064	Scovell Hall	018	075	ceiling plaster	none	9269	
CA	0064	Scovell Hall	012	073	dust material inside	none	9270	

CA	0064	Scovell Hall	012	074	dust material inside transformer	none	9271
CA	0064	Scovell Hall	024	072	plaster finish coat	none	9272
CA	0064	Scovell Hall	028	052	9x9 floor tile blue/grey	5-10% chrysotile asbestos	9273
CA	0064	Scovell Hall	028	053	9x9 floor tile blue/grey	1-5% chrysotile asbestos	9274
CA	0064	Scovell Hall	028	054	9x9 floor tile blue/grey	1-5% chrysotile asbestos	9275
CA	0064	Scovell Hall	027	055	12x12 floor tile green/white	1-5% chrysotile asbestos	9276
CA	0064	Scovell Hall	024	056	12x12 floor tile green/white	1-5% chrysotile asbestos	9277
CA	0064	Scovell Hall	08	07	hard insulation material from pipe run of line	40-45% chrysotile asbestos	9278
CA	0064	Scovell Hall	08	08	hard insulation material from pipe fitting of pipe	30-35% chrysotile asbestos	9279
CA	0064	Scovell Hall	02	09	thin paper like sheet material on shelf	30-45% chrysotile asbestos	9280
CA	0064	Scovell Hall	CRDIA	010	12x12 floor tile cream/blue		9281
CA	0064	Scovell Hall	015	11	hard insulation material on pipe run	40-45% chrysotile asbestos	9282
CA	0064	Scovell Hall	014	012	asbestos roll material of side of wall	35-40% chrysotile asbestos	9283
CA	0064	Scovell Hall	41A	13	12x12 floor tile black and brown	5-10% chrysotile asbestos	9284
CA	0064	Scovell Hall	44	014	hard insulation material on pipe run		9285
CA	0064	Scovell Hall	022	015	hard plaster from ceiling	1520% chrysotile asbestos	9286
CA	0064	Scovell Hall	023	016	12x12 floor tile green and cream	10-15% chrysotile asbestos	9287
CA	0064	Scovell Hall	028	017	9x9 floor tile blue-grey and white		9288
CA	0064	Scovell Hall	119	18	9x9 floor tile cream and	1-5% abbestos	9289

CA	0064	Scovell Hall	134	019	12x12 floor tile blue and brown	1-5% chrysotile asbestos	9290
CA	0064	Scovell Hall	124	020	hard insulation material from pipe run	45-50% chrysotile asbestos	9291
CA	0064	Scovell Hall	101	021	material from fire	45-50% chrysotile asbestos	9292
CA	0064	Scovell Hall	109A	022	2x4 acoustical lay-in ceiling tile		9293
CA	0064	Scovell Hall	WBST	088	12x12 floor tile bsmt corridor - light brown	2% chrysotile asbestos	9294
CA	0064	Scovell Hall	112	087	12x12 glue on ceiling tile	none	9295
СА	0064	Scovell Hall	020	079	plaster material West wall	none	9296
CA	0064	Scovell Hall	025	080	plaster material in West wall	none	9297
СА	0064	Scovell Hall	BCOR	081	plaster material West wall	none	9298
CA	0064	Scovell Hall	120	082	plaster material North wall	3% chrysotile asbestos	9299
CA	0064	Scovell Hall	117A	083	plaster from ceiling	2% chrysotile asbestos	9300
CA	0064	Scovell Hall	120	084	plaster material East wall	2% chrysotile asbestos	9301
СА	0064	Scovell Hall	214	085	plaster material North wall	none	9302
CA	0064	Scovell Hall	215	086	plaster material West wall	none	9303
CA	0064	Scovell Hall	012	01	hard ins.mat. from pipe elbows dom. cold water line	40-45% chrysotile asbestos	9304
CA	0064	Scovell Hall	012	02	hard insulation material domestic cold water line	15-20% chrysotile asbestos	9305
CA	0064	Scovell Hall	012	003	hard ins. mat. pipe run of medium pressure steam line	40-45% chrysotile asbestos	9306
CA	0064	Scovell Hall	CRD1	004	2x2 acoustical lay-in ceilig tile		9307
CA	0064	Scovell Hall	CRDIA	05	hard insulation material pipe run above suspended ceiling	70-75% chrysotile asbestos	9308
CA	0064	Scovell Hall	7B	006	9x9 floor tile dark brown and green in color	1-5% chrysotile asbestos	9309
CA	0064	Scovell	103	035	wall plaster West	none	9310

		Hall				wall				
CA	0064	Scovell Hall	102	036		covering material on eletrical wiring	none		9311	
CA	0064	Scovell Hall	CORE	027		plaster material by room 35	none		9312	
CA	0064	Scovell Hall	027	028		material from plaster wall	none		9313	
CA	0064	Scovell Hall	COR1	029		plaster wall material near room 122	none		9314	
CA	0064	Scovell Hall	219	030		plaster wall	1% chrysotile asbestos		9315	
CA	0064	Scovell Hall	232	031		plaster material	none		9316	
CA	0064	Scovell Hall	232	032		exterior plaster from wall	none		9317	
CA	0064	Scovell Hall	025	071		red floor covering over floor tile	none		9720	
CA	0064	Scovell Hall	105	203	7/17/14	black adhesive	5% chry		21807	
CA	0064	Scovell Hall	106	204	7/17/14	black adhesive	5% chry		21808	
CA	0064	Scovell Hall	106	205	7/17/14	black adhesive	5% chry		21809	
CA	0064	Scovell Hall	105	194	7/7/14	drywall	NAD		21810	
CA	0064	Scovell Hall	107	195	7/7/14	drywall	NAD		21811	
CA	0064	Scovell Hall	106	196	7/7/14	drywall	NAD		21812	
CA	0064	Scovell Hall	107	197	7/7/14	12"x12" ceiling tile w/ br. glue dot	both NAD		21813	
CA	0064	Scovell Hall	107	198	7/7/14	12"x12" ceiling tile w/ br. glue dot	both NAD		21814	
CA	0064	Scovell Hall	105	199	7/7/14	12"x12" ceiling tile w/ br. glue dot	both NAD		21815	
CA	0064	Scovell Hall	107	200	7/7/14	ceiling plaster	NAD TEM		21816	
CA	0064	Scovell Hall	106	201	7/7/14	ceiling plaster	NAD TEM		21817	
CA	0064	Scovell Hall	105	202	7/7/14	ceiling plaster	NAD TEM		21818	
CA	0064	Scovell Hall	200	206	10/9/14	12x12 lt. blue fl. tile w/ yellow mastic	both NAD		22004	
CA	0064	Scovell Hall	200	207	10/9/14	12x12 lt. blue fl. tile w/ yellow mastic	both NAD		22005	
CA	0064	Scovell Hall	200	208	10/9/14	black adhesive	2% chry		22006	
CA	0064	Scovell Hall	200	209	10/9/14	black adhesive	2% chry		22007	

CA	0064	Scovell Hall	VLT	089		plaster wall in vault	none	11158	
СА	0064	Scovell Hall	100	210	4/28/15	wall plaster	2.14% chry TEM	 22083	
CA	0064	Scovell Hall	REF	90		built up roof from East wing	NAD	12210	
CA	0064	Scovell Hall	SW	91		wall plaster from stairwell	NAD	12211	
CA	0064	Scovell Hall	SW	92		wall plaster from stairwell	NAD	12212	
CA	0064	Scovell Hall	SW	93		wall plaster from stairwell	NAD	12213	
СА	0064	Scovell Hall	41	94		insulation on vault door room 41	NAD	12502	
CA	0064	Scovell Hall	1	95		1'x1' ceiling tile w/ br. glue dots	NAD	12671	
CA	0064	Scovell Hall	144	122		wall ins. fireproofing behind plaster wall	NAD	12868	
CA	0064	Scovell Hall	144	123		wall ins. fireproofing behind wall plaster	NAD	12869	
CA	0064	Scovell Hall	144	124		wall ins. fireproofing behind wall plaster	NAD	12870	
CA	0064	Scovell Hall	111	116		wall plaster	NAD	12884	
СА	0064	Scovell Hall	111	117		wall plaster	NAD	12885	
CA	0064	Scovell Hall	13	118		ceiling plaster	NAD	12886	
CA	0064	Scovell Hall	13	119		ceiling plaster	NAD	12887	
CA	0064	Scovell Hall	13	120		ceiling plaster	NAD	12888	
CA	0064	Scovell Hall	113	96		ceiling plaster	NAD	12992	
CA	0064	Scovell Hall	113	97		wall plaster	NAD	12993	
CA	0064	Scovell Hall	113	98		brown glue dots	NAD	12994	
CA	0064	Scovell Hall	113	99		brown glue dots	NAD	12995	
CA	0064	Scovell Hall	113	100		1'x1' ceiling tile	NAD	12996	
CA	0064	Scovell Hall	113	101		black mastic	6% Chry	12997	
CA	0064	Scovell Hall	107A	102		wall plaster	NAD	12998	
CA	0064	Scovell Hall	113	103		12"x12" gray fl. tile w/ bk. mastic	tile 3% Chry mastic 6% Chry	12999	
CA	0064	Scovell	113	104		ceiling plaster	NAD	13002	

		Hall						
CA	0064	Scovell Hall	113	105		ceiling plaster	2% Chry	13003
CA	0064	Scovell Hall	113	106		ceiling plaster	3% Chry	13004
CA	0064	Scovell Hall	113	107		wall plaster	3% Chry	13005
CA	0064	Scovell Hall	113	108		wall plaster	2% Chry	13006
CA	0064	Scovell Hall	113	109		wall plaster	2% Chry	13007
CA	0064	Scovell Hall	107A	110		wall plaster	NAD	13008
CA	0064	Scovell Hall	107A	111		wall plaster	NAD	13009
CA	0064	Scovell Hall	107A	112		wall plaster	NAD	13010
CA	0064	Scovell Hall	112	113		wall plaster	3% Chry	13011
CA	0064	Scovell Hall	112	114	_	ceiling plaster	3% Chry	13012
CA	0064	Scovell Hall	111	115		black mastic	4% Chry	13013
CA	0064	Scovell Hall	111	106		black mastic	4% Chry	13066
CA	0064	Scovell Hall	211	125		12" x 12" tan fl. tile w/ bk. mastic	tile 5% chry mastic 6% chry	13237
CA	0064	Scovell Hall	211	126		12" x 12" tan fl. tile w/ bk. mastic	tile 5% chry mastic 6% chry	13238
CA	0064	Scovell Hall	211	127		wall plaster	2% chry	13239
CA	0064	Scovell Hall	211	128		wall plaster	2% chry	13240
CA	0064	Scovell Hall	211	129		1' x 1' ceiling tile w/ brown glue dots	NAD	13241
CA	0064	Scovell Hall	211	130	_	1' x 1' ceiling tile w/ brown glue dots	NAD	13242
CA	0064	Scovell Hall	211	131		1' x 1' ceiling tile w/ brown glue dots	NAD	13243
CA	0064	Scovell Hall	HAUD	665		12" x 12" tan floor tan w/mastic	trace (tile) 4% chrysotile asbestos (mastic)	14202
CA	0064	Scovell Hall	HAUD	665		12" x 12" tan floor tan w/mastic	trace (tile) 4% chrysotile asbestos (mastic)	15698
CA	0064	Scovell Hall	CORR	134	12/05/01	wall plaster outside rm. 123	3% Chry	16419
CA	0064	Scovell	123	133	12/05/01	debris from	2% Chry 1%	16420

		Hall				plastic bag/ window sill	Amo	
CA	0064	Scovell Hall	HL	138	8/14/03	ceiling plaster hallway by rm. 208	NAD	16681
CA	0064	Scovell Hall	HL	139	8/14/03	ceiling plaster hallway by rm. 207	NAD	16682
CA	0064	Scovell Hall	HL	140	8/14/03	ceiling plaster hallway by rm. 204	NAD	16683
CA	0064	Scovell Hall	12	135	1/23/03	wall plaster	NAD	16740
CA	0064	Scovell Hall	12	136	1/23/03	wall plaster	NAD	16741
CA	0064	Scovell Hall	12	137	1/23/03	wall plaster	NAD	16742
CA	0064	Scovell Hall	009	132		12"x12" olive green fl. tile w/ bk. mastic	tile 5% chry mastic 8% chry	16940
CA	0064	Scovell Hall	5	141	2/10/04	ceiling plaster	NAD / TEM	18394
CA	0064	Scovell Hall	5	142	2/10/04	ceiling plaster	NAD / TEM	18395
CA	0064	Scovell Hall	5	143	2/10/04	ceiling plaster	NAD / TEM	18396
CA	0064	Scovell Hall	122	144	11/9/04	wall plaster	NAD	18585
CA	0064	Scovell Hall	122A	145	11/9/04	wall plaster	NAD	18586
CA	0064	Scovell Hall	2nd fl Hall	176	4/29/08	12x12 lt. blue fl. tile w/ tan mastic	both NAD	19873
CA	0064	Scovell Hall	2nd fl. hallway	177	4/29/08	12x12 lt blue fl. tile w/ tan mastic	both NAD	19874
CA	0064	Scovell Hall	2nd fl. hallway	178	4/29/08	12x12 lt blue fl. tile w/ tan mastic	both NAD	19875
CA	0064	Scovell Hall	2nd fl. hallway	179	4/29/08	12x12 green fl. tile w/ tan mastic	both NAD	19876
CA	0064	Scovell Hall	2nd fl. hallway	180	4/29/08	12x12 green fl. tile w/ tan mastic	both NAD	19877
CA	0064	Scovell Hall	2nd fl. hallway	181	4/29/08	12x12 green fl. tile w/ tan mastic	both NAD	19878
CA	0064	Scovell Hall	18	147	10/25/06	ceiling plaster	NAD TEM	18858
CA	0064	Scovell Hall	18	148	10/25/06	wall plaster	NAD TEM	18859
CA	0064	Scovell Hall	18	149	10/25/06	wall plaster		18860
CA	0064	Scovell Hall	18	146	8/22/06	12x12 lt. blue fl. tile w/ yellow mastic	both NAD	19031
CA	0064	Scovell Hall	205A	150	4/10/07	12x12 ceiling tile & br. glue dot	both NAD	19460
CA	0064	Scovell Hall	205A	151	4/10/07	sheet rock	NAD	19461
CA	0064	Scovell	205	152	4/10/07	sheetrock	NAD	19462

		Hall								
CA	0064	Scovell Hall	205	153	4/10/07	12x12 ceiling tile w/ br. glue dot	both NAD		19463	
CA	0064	Scovell Hall	204	154	4/10/07	12x12 ceiling tile & br. glue dot	NAD		19464	
CA	0064	Scovell Hall	HL	155	4/10/07	ceiling plaster	NAD TEM		19465	
CA	0064	Scovell Hall	HL	156	4/10/07	wall plaster	NAD TEM		19466	
CA	0064	Scovell Hall	HL	157	4/10/07	ceiling plaster			19467	
CA	0064	Scovell Hall	HL	158	4/10/07	wall plaster	NAD TEM		19468	
CA	0064	Scovell Hall	HL	159	4/10/07	wall plaster	NAD TEM		19469	
CA	0064	Scovell Hall	HL	160	4/10/07	ceiling plaster			19470	
CA	0064	Scovell Hall	050	169	9/4/07	wall plaster	both skim & scratch NAD TEM		19522	
CA	0064	Scovell Hall	050	170	9/4/07	ceiling plaster	both skim & scratch NAD TEM		19523	
CA	0064	Scovell Hall	050	171	9/4/07	ceiling plaster	both skim & scratch NAD TEM		19524	
CA	0064	Scovell Hall	050	172	9/10/07	ceiling plaster	both skim & scratch NAD TEM		19525	
CA	0064	Scovell Hall	050	173	9/10/07	wall plaster	skim		19526	
CA	0064	Scovell Hall	050	174	9/10/07	ceiling plaster	both skim & scratch NAD TEM		19527	
CA	0064	Scovell Hall	WP	161	5/23/07	window putty			19610	 
CA	0064	Scovell Hall	WP	162	5/23/07	window putty			19611	
CA	0064	Scovell Hall	WP	163	5/23/07	window putty			19612	
СА	0064	Scovell Hall	WP	164	5/23/07	window putty			19613	
CA	0064	Scovell Hall	WP	165	5/23/07	window putty	NAD TEM		19614	 
CA	0064	Scovell Hall	WP	166	5/23/07	window putty	NAD TEM		19615	
CA	0064	Scovell Hall	WP	167	5/23/07	window putty			19616	
CA	0064	Scovell Hall	WP	168	5/23/07	window putty	1.58% chry TEM		19617	
CA	0064	Scovell Hall	100C	181	1/21/10	ceiling plaster	4.19 % chry TEM		20484	
CA	0064	Scovell Hall	100C	182	1/21/10	ceiling plaster	4.22% chry TEM		20485	
CA	0064	Scovell Hall	100C	181	1/21/10	ceiling plaster	4.19% chry TEM		20563	
									ĺ	

CA	0064	Scovell Hall	100C	182	1/21/10	ceiling plaster	4.22% chry TEM	20564	
CA	0064	Scovell Hall	100C	183	1/21/10	ceiling plaster	4.31% chry TEM	20565	
CA	0064	Scovell Hall	223D	184	2/9/10	wall plaster	NAD TEM	20616	
CA	0064	Scovell Hall	223D	185	2/9/10	wall plaster	NAD TEM	20617	
CA	0064	Scovell Hall	PC4	186	8/11/10	wall plaster		20832	
CA	0064	Scovell Hall	246	187	4/26/2011	ceiling plaster	NAD TEM	20915	
CA	0064	Scovell Hall	246	188	9/27/2011	12"x12" br. fl. tile w/ bk. mastic	tile 3% chry mastic 5% chry	21056	
CA	0064	Scovell Hall	245	189	9/27/2011	12"x12" br. fl. tile w/ bk. mastic	tile 3% chry mastic 5% chry	21057	
CA	0064	Scovell Hall	244	190	9/27/2011	12"x12" br. fl. tile w/ bk. mastic	tile 3% chry mastic 5% chry	21058	
CA	0064	Scovell Hall	19	191	3/1/12	ceiling plaster	NAD TEM	21313	
CA	0064	Scovell Hall	19	192	3/1/12	ceiling plaster	NAD TEM	21314	
CA	0064	Scovell Hall	19	193	3/1/12	ceiling plaster	NAD TEM	21315	
CA	0064	Scovell Hall	ST-C	211	5/19/15	ceiling plaster	4.39% chry TEM	22257	
CA	0064	Scovell Hall	211	212	11/5/15	12x12 beige fl. tile w/bk. mastic	tile 3% chry mastic 5% chry	22337	
CA	0064	Scovell Hall	50C	213	12/22/15	wall plaster	NAD TEM	22353	
CA	0064	Scovell Hall	35	214	1/18/17	wall plaster	NAD TEM	22725	
CA	0064	Scovell Hall	35	215	1/18/17	wall plaster	NAD TEM	22726	
CA	0064	Scovell Hall	attic	216	6/13/18	mortor on white block	NAD	22900	
CA	0064	Scovell Hall	AT	217	6/13/18	white block w/ wood fiber	NAD	22901	

From: Lucas, Roni

Sent: Friday, August 30, 2019 10:07 AM
To: Taylor, Tommy <twtayl0@email.uky.edu>
Cc: Redmon, Sandra <sredmon@uky.edu>; Lucas, Roni <roni.lucas@uky.edu>
Subject: RE: Scovell Hall TriEco Quote

Tommy,

That would be great, please go ahead and forward it and I'll get in touch with Suzanne from TriEco.

Thanks!

## **APPENDIX F**

# PCB IN CAULK FIELD SAMPLE LOGS


#### **FACILITY:** UNIVERSITY OF KENTUCKY - SCOVELL HALL **BUILDING # / AREA:** EXTERIOR (1903 - SECTION A - 1) **PROJECT #:** 19S1024

SAMPLE #	DESCRIPTION	LOCATION
PA-01A	WHITE/GRAY ENTRY DOOR FRAME CAULK	SIDE A
PA-02A	WHITE METAL WINDOW CAULK	SIDE A - METAL SILL WRAP @ CONCRETE SILL
PA-03A	GRAY CONCRETE EXPANSION JOINT	SIDE A - DOOR LANDING
PA-04B	GRAY/BROWN WOODEN WINDOW FRAME CAULK @ STONE	SIDE B
PA-05B	WHITE WOODEN WINDOW SILL CAULK @ CONCRETE SILL	SIDE B
PA-06B	WHITE/GRAY WOODEN WINDOW FRAME GLAZING	SIDE B
PA-07C	DARK GRAY DOOR FRAME CAULK	SIDE C - BASEMENT STAIRWELL B ENTRANCE
PA-08C	GRAY DOOR FRAME CAULK	SIDE C
PA-09C	LIGHT GRAY CONCRETE EXPANSION JOINT	SIDE C @ STAIRS & SIDEWALK
PA-10C	WHITE/GRAY WOODEN WINDOW FRAME CAULK @ STONE	SIDE C



#### **FACILITY:** UNIVERSITY OF KENTUCKY - SCOVELL HALL **BUILDING # / AREA:** EXTERIOR (1913 - SECTION B - 2) **PROJECT #:** 19S1024

SAMPLE #	DESCRIPTION	LOCATION
PB-01B	BLACK ENTRY DOOR FRAME CAULK	SIDE B
PB-02B	GRAY WOODEN WINDOW FRAME CAULK @ STONE	SIDE B
PB-03B	WHITE/GRAY WOODEN WINDOW SILL CAULK @ CONCRETE SILL	SIDE B
PB-04B	GRAY WOODEN WINDOW FRAME GLAZING	SIDE B
PB-05B	LIGHT GRAY CONCRETE EXPANSION JOINT CAULK	SIDE B @ STAIRS & SIDEWALK
PB-06B	TAN STONE WALL CAP EXPANSION JOINT CAULK	SIDE B
PB-07B	WHITE METAL VENT FRAME CAULK	SIDE B



#### **FACILITY:** \_UNIVERSITY OF KENTUCKY - SCOVELL HALL **BUILDING # / AREA:** <u>EXTERIOR (1936 - SECTION C - 3)</u> **PROJECT #:** 19S1024

SAMPLE #	DESCRIPTION	LOCATION
PC-01A	GRAY CONCRETE EXPANSION JOINT	SIDE A @ SIDEWALK & BUILDING
PC-02A	WHITE/GRAY WOODEN WINDOW SILL CAULK @ CONCRETE SILL	SIDE A
PC-03A	GRAY WOODEN WINDOW FRAME GLAZING	SIDE A
PC-04A	GRAY/WHITE WOODEN WINDOW FRAME CAULK @ CONCRETE	SIDE A
PC-05B	GRAY/WHITE WOODEN WINDOW FRAME CAULK @ STONE	SIDE B
PC-06C	LIGHT GRAY BRICK SEAM CAULK @ STAIRWELL	SIDE C
PC-07D	LIGHT GRAY DOOR FRAME CAULK	SIDE D



#### FACILITY: \_UNIVERSITY OF KENTUCKY COLLEGE OF LAW BUILDING # / AREA: EXTERIOR (1990s - SECTION D - 4) PROJECT #: 19S1024

SAMPLE #	DESCRIPTION	LOCATION
PD-01C	GRAY STAIR WALL EXPANSION JOINT CAULK	SIDE C
PD-02D	BEIGE DOOR FRAME CAULK	SIDE D
PD-03D	GRAY METAL WINDOW FRAME CAULK	SIDE D

## **APPENDIX G**

## PCB IN CAULK LABORATORY ANALYTICAL RESULTS



# ANALYTICAL REPORT

December 13, 2019

### TriEco, LLC. - Louisville, KY

Sample Delivery Group: Samples Received:

Project Number:

Description:

L1167566 12/05/2019 1951024 U of K-Scovell Hall

Report To:

Chris Stovall 7710 Springvale Dr. Suite 201 Louisville, KY 40241

Тс Ss Cn Sr ʹQc Gl AI Sc

### Entire Report Reviewed By:

Chu, toph June

Chris McCord Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

ACCOUNT: TriEco, LLC. - Louisville, KY PROJECT: 1951024

SDG: L1167566

DATE/TIME: 12/13/19 20:10

PAGE: 1 of 48

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	<sup>3</sup> Ss
	<sup>4</sup> Cn
	<sup>5</sup> Sr
	<sup>6</sup> Qc
	<sup>7</sup> Gl
	<sup>8</sup> AI
	<sup>9</sup> Sc

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1903 SECTION A PA-01A L1167566-01 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	37900 7580	12/06/19 20:39 12/06/19 20:39	12/08/19 21:43 12/07/19 22:19	RP MTJ	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-02A L1167566-02 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	30.6 306	12/06/19 20:39 12/06/19 20:39	12/07/19 17:56 12/08/19 19:26	MTJ RP	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-03A L1167566-03 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392433	14.3	12/06/19 20:39	12/07/19 18:09	MTJ	Mt. Juliet, TN
1903 SECTION A PA-04B L1167566-04 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	2890 57800	12/06/19 20:39 12/06/19 20:39	12/07/19 22:33 12/08/19 22:08	MTJ RP	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-05B L1167566-05 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	1160 5800	12/06/19 20:39 12/06/19 20:39	12/07/19 22:47 12/08/19 21:55	MTJ RP	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-06B L1167566-06 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	3.05 61	12/06/19 20:39 12/06/19 20:39	12/07/19 18:23 12/08/19 19:38	MTJ RP	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-07C L1167566-07 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	10.8 2.16	12/06/19 20:39 12/06/19 20:39	12/08/19 19:51 12/07/19 18:37	RP MTJ	Mt. Juliet, TN Mt. Juliet, TN

PROJECT: 19S1024 SDG: L1167566 DATE/TIME: 12/13/19 20:10

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1903 SECTION A PA-08C L1167566-08 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392433 WG1392433	2.72 54.4	12/06/19 20:39 12/06/19 20:39	12/07/19 18:51 12/08/19 20:03	MTJ RP	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-09C L1167566-09 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	2.31 23.1	12/09/19 06:42 12/09/19 06:42	12/09/19 11:43 12/10/19 16:05	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN
1903 SECTION A PA-10C L1167566-10 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	1270 63500	12/09/19 06:42 12/09/19 06:42	12/09/19 19:25 12/10/19 15:52	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN
1913 SECTION (B) PB-01B L1167566-11 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	53	12/09/19 06:42	12/10/19 16:19	MTJ	Mt. Juliet, TN
1913 SECTION (B) PB-02B L1167566-12 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	107000 5340	12/09/19 06:42 12/09/19 06:42	12/10/19 16:33 12/09/19 20:06	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN
1913 SECTION (B) PB-03B L1167566-13 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	1690 8450	12/09/19 06:42 12/09/19 06:42	12/09/19 20:20 12/10/19 16:47	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN
1913 SECTION (B) PB-04B L1167566-14 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	4.12 41.2	12/09/19 06:42 12/09/19 06:42	12/09/19 18:39 12/10/19 15:24	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN

PROJECT: 19S1024 SDG: L1167566 DATE/TIME: 12/13/19 20:10

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1913 SECTION (B) PB-05B L1167566-15 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	2.79	12/09/19 06:42	12/09/19 13:06	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	2.79	12/09/19 06:42	12/10/19 19:47	MTJ	Mt. Juliet, TN
1913 SECTION (B) PB-06B L1167566-16 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	2.79	12/09/19 06:42	12/09/19 13:20	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	2.79	12/09/19 06:42	12/10/19 20:01	MTJ	Mt. Juliet, TN
1913 SECTION (B) PB-07B L1167566-17 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	5.38	12/09/19 06:42	12/09/19 13:34	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	53.8	12/09/19 06:42	12/10/19 17:01	MTJ	Mt. Juliet, TN
1936 SECTION (C) PC-01A L1167566-18 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	12.6	12/09/19 06:42	12/10/19 17:15	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	2.53	12/09/19 06:42	12/09/19 13:48	MTJ	Mt. Juliet, TN
1936 SECTION (C) PC-02A L1167566-19 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	1000	12/09/19 06:42	12/09/19 21:16	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	20000	12/09/19 06:42	12/10/19 17:29	MTJ	Mt. Juliet, TN
1936 SECTION (C) PC-03A L1167566-20 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:4	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	1.11	12/09/19 06:42	12/09/19 19:11	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	1110	12/09/19 06:42	12/10/19 15:38	MTJ	Mt. Juliet, TN
1936 SECTION (C) PC-04A L1167566-21 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:-	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	500	12/09/19 06:42	12/09/19 21:44	MTJ	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	50000	12/09/19 06:42	12/10/19 17:42	MTJ	Mt. Juliet, TN

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1936 SECTION (C) PC-05B L1167566-22 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	4170 83400	12/09/19 06:42 12/09/19 06:42	12/09/19 21:57 12/10/19 20:14	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN
1936 SECTION (C) PC-05C L1167566-23 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082 Polychlorinated Biphenyls (GC) by Method 8082	WG1392441 WG1392441	3.81 38.1	12/09/19 06:42 12/09/19 06:42	12/09/19 17:53 12/10/19 14:56	MTJ MTJ	Mt. Juliet, TN Mt. Juliet, TN
1936 SECTION (C) PC-07D L1167566-24 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	8.11	12/09/19 06:42	12/10/19 18:51	MTJ	Mt. Juliet, TN
1990S SECTION (D) PD-01C L1167566-25 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	5.21	12/09/19 06:42	12/09/19 15:28	MTJ	Mt. Juliet, TN
1990S SECTION (D) PD-02D L1167566-26 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	9.68	12/09/19 06:42	12/09/19 15:42	MTJ	Mt. Juliet, TN
1990S SECTION (D) PD-03D L1167566-27 Solid			Collected by	Collected date/time 11/18/19 12:00	Received da 12/05/19 08:	te/time 45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Polychlorinated Biphenyls (GC) by Method 8082	WG1392441	8.67	12/09/19 06:42	12/09/19 15:56	MTJ	Mt. Juliet, TN

PROJECT: 19S1024

SDG: L1167566 DATE/TIME: 12/13/19 20:10

#### CASE NARRATIVE

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord Project Manager



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#### Polychlorinated Biphenyls (GC) by Method 8082

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		129	7580	12/07/2019 22:19	WG1392433	Tc
PCB 1221	ND		129	7580	12/07/2019 22:19	WG1392433	
PCB 1232	ND		129	7580	12/07/2019 22:19	WG1392433	<sup>3</sup> S c
PCB 1242	ND		129	7580	12/07/2019 22:19	WG1392433	55
PCB 1248	ND		129	7580	12/07/2019 22:19	WG1392433	4
PCB 1254	27100		644	37900	12/08/2019 21:43	WG1392433	Cn
PCB 1260	ND		129	7580	12/07/2019 22:19	WG1392433	
(S) Decachlorobiphenyl	0.000	<u>J7</u>	10.0-135		12/08/2019 21:43	WG1392433	<sup>5</sup> Cr
(S) Decachlorobiphenyl	1890	<u>J7</u>	10.0-135		12/07/2019 22:19	WG1392433	5
(S) Tetrachloro-m-xylene	1070	<u>J7</u>	10.0-139		12/07/2019 22:19	WG1392433	6
(S) Tetrachloro-m-xylene	0.000	<u>J7</u>	10.0-139		12/08/2019 21:43	WG1392433	<sup>°</sup> Qc

#### Sample Narrative:

L1167566-01 WG1392433: Dilution due to matrix.

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.520	30.6	12/07/2019 17:56	WG1392433	Tc
PCB 1221	ND		0.520	30.6	12/07/2019 17:56	WG1392433	
PCB 1232	ND		0.520	30.6	12/07/2019 17:56	WG1392433	<sup>3</sup> S c
PCB 1242	ND		0.520	30.6	12/07/2019 17:56	<u>WG1392433</u>	
PCB 1248	ND		0.520	30.6	12/07/2019 17:56	WG1392433	4
PCB 1254	156		5.20	306	12/08/2019 19:26	<u>WG1392433</u>	Cn
PCB 1260	ND		0.520	30.6	12/07/2019 17:56	WG1392433	
(S) Decachlorobiphenyl	72.5		10.0-135		12/07/2019 17:56	<u>WG1392433</u>	<sup>5</sup> <b>C</b> r
(S) Decachlorobiphenyl	88.2		10.0-135		12/08/2019 19:26	WG1392433	
(S) Tetrachloro-m-xylene	57.4		10.0-139		12/07/2019 17:56	<u>WG1392433</u>	6
(S) Tetrachloro-m-xylene	71.6		10.0-139		12/08/2019 19:26	WG1392433	ČQc

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#### Polychlorinated Biphenyls (GC) by Method 8082

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		
PCB 1016	ND		0.243	14.3	12/07/2019 18:09	<u>WG1392433</u>	
PCB 1221	ND		0.243	14.3	12/07/2019 18:09	WG1392433	
PCB 1232	ND		0.243	14.3	12/07/2019 18:09	WG1392433	
PCB 1242	ND		0.243	14.3	12/07/2019 18:09	WG1392433	
PCB 1248	ND		0.243	14.3	12/07/2019 18:09	WG1392433	
PCB 1254	ND		0.243	14.3	12/07/2019 18:09	WG1392433	
PCB 1260	ND		0.243	14.3	12/07/2019 18:09	WG1392433	
(S) Decachlorobiphenyl	69.5		10.0-135		12/07/2019 18:09	<u>WG1392433</u>	
(S) Tetrachloro-m-xylene	65.1		10.0-139		12/07/2019 18:09	WG1392433	

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#### Polychlorinated Biphenyls (GC) by Method 8082

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		49.1	2890	12/07/2019 22:33	WG1392433	Tc
PCB 1221	ND		49.1	2890	12/07/2019 22:33	WG1392433	
PCB 1232	ND		49.1	2890	12/07/2019 22:33	WG1392433	<sup>3</sup> Cc
PCB 1242	ND		49.1	2890	12/07/2019 22:33	WG1392433	55
PCB 1248	ND		49.1	2890	12/07/2019 22:33	WG1392433	4
PCB 1254	37400		983	57800	12/08/2019 22:08	WG1392433	Cn
PCB 1260	ND		49.1	2890	12/07/2019 22:33	WG1392433	
(S) Decachlorobiphenyl	0.000	<u>J7</u>	10.0-135		12/08/2019 22:08	WG1392433	<sup>5</sup> Cr
(S) Decachlorobiphenyl	318	<u>J7</u>	10.0-135		12/07/2019 22:33	WG1392433	5
(S) Tetrachloro-m-xylene	1520	<u>J7</u>	10.0-139		12/08/2019 22:08	WG1392433	6
(S) Tetrachloro-m-xylene	85.9	<u>J7</u>	10.0-139		12/07/2019 22:33	WG1392433	ČQc

#### Sample Narrative:

L1167566-04 WG1392433: Dilution due to matrix.

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		19.7	1160	12/07/2019 22:47	WG1392433	<sup>2</sup> Tc
PCB 1221	ND		19.7	1160	12/07/2019 22:47	WG1392433	
PCB 1232	ND		19.7	1160	12/07/2019 22:47	WG1392433	<sup>3</sup> Sc
PCB 1242	ND		19.7	1160	12/07/2019 22:47	WG1392433	55
PCB 1248	ND		19.7	1160	12/07/2019 22:47	WG1392433	4
PCB 1254	1480		98.6	5800	12/08/2019 21:55	WG1392433	Cn
PCB 1260	ND		19.7	1160	12/07/2019 22:47	WG1392433	
(S) Decachlorobiphenyl	118	<u>J7</u>	10.0-135		12/07/2019 22:47	WG1392433	<sup>5</sup> Cr
(S) Decachlorobiphenyl	1460	<u>J7</u>	10.0-135		12/08/2019 21:55	WG1392433	
(S) Tetrachloro-m-xylene	242	<u>J7</u>	10.0-139		12/08/2019 21:55	WG1392433	6
(S) Tetrachloro-m-xylene	64.4	J7	10.0-139		12/07/2019 22:47	WG1392433	ČQC

#### Sample Narrative:

L1167566-05 WG1392433: Dilution due to matrix.

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0519	3.05	12/07/2019 18:23	WG1392433	<sup>2</sup> Tc
PCB 1221	ND		0.0519	3.05	12/07/2019 18:23	WG1392433	
PCB 1232	ND		0.0519	3.05	12/07/2019 18:23	WG1392433	<sup>3</sup> Sc
PCB 1242	ND		0.0519	3.05	12/07/2019 18:23	WG1392433	55
PCB 1248	ND		0.0519	3.05	12/07/2019 18:23	WG1392433	4
PCB 1254	13.8	P	1.04	61	12/08/2019 19:38	WG1392433	Cn
PCB 1260	ND		0.0519	3.05	12/07/2019 18:23	WG1392433	
(S) Decachlorobiphenyl	80.3		10.0-135		12/07/2019 18:23	WG1392433	<sup>5</sup> Sr
(S) Decachlorobiphenyl	105	<u>J7</u>	10.0-135		12/08/2019 19:38	WG1392433	
(S) Tetrachloro-m-xylene	75.4		10.0-139		12/07/2019 18:23	WG1392433	6
(S) Tetrachloro-m-xylene	92.1	J7	10.0-139		12/08/2019 19:38	WG1392433	ଁ Qc

ACCOUNT: TriEco, LLC. - Louisville, KY PROJECT: 19S1024 SDG: L1167566 DATE/TIME: 12/13/19 20:10

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	Decult	Qualifier		Dilution	Analysis	Datch	———— ГСр
	Result	Quaimer	RUL	Dilution	Alidiysis	Balch	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0367	2.16	12/07/2019 18:37	WG1392433	Tc
PCB 1221	ND		0.0367	2.16	12/07/2019 18:37	WG1392433	
PCB 1232	ND		0.0367	2.16	12/07/2019 18:37	WG1392433	<sup>3</sup> S c
PCB 1242	ND		0.0367	2.16	12/07/2019 18:37	WG1392433	53
PCB 1248	ND		0.0367	2.16	12/07/2019 18:37	WG1392433	4
PCB 1254	7.62		0.184	10.8	12/08/2019 19:51	WG1392433	Cn
PCB 1260	ND		0.0367	2.16	12/07/2019 18:37	WG1392433	
(S) Decachlorobiphenyl	103		10.0-135		12/08/2019 19:51	WG1392433	<sup>5</sup> Sr
(S) Decachlorobiphenyl	140	<u>J1</u>	10.0-135		12/07/2019 18:37	WG1392433	
(S) Tetrachloro-m-xylene	85.4		10.0-139		12/08/2019 19:51	WG1392433	6
(S) Tetrachloro-m-xylene	79.2		10.0-139		12/07/2019 18:37	WG1392433	<sup>°</sup> Qc

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		
PCB 1016	ND		0.0462	2.72	12/07/2019 18:51	WG1392433	
PCB 1221	ND		0.0462	2.72	12/07/2019 18:51	WG1392433	
PCB 1232	ND		0.0462	2.72	12/07/2019 18:51	WG1392433	
PCB 1242	ND		0.0462	2.72	12/07/2019 18:51	WG1392433	
PCB 1248	ND		0.0462	2.72	12/07/2019 18:51	WG1392433	
PCB 1254	41.0		0.925	54.4	12/08/2019 20:03	WG1392433	
PCB 1260	ND		0.0462	2.72	12/07/2019 18:51	WG1392433	
(S) Decachlorobiphenyl	50.3	<u>J7</u>	10.0-135		12/08/2019 20:03	WG1392433	
(S) Decachlorobiphenyl	23.0		10.0-135		12/07/2019 18:51	WG1392433	
(S) Tetrachloro-m-xylene	66.3		10.0-139		12/07/2019 18:51	WG1392433	
(S) Tetrachloro-m-xylene	74.6	<u>J7</u>	10.0-139		12/08/2019 20:03	WG1392433	

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0393	2.31	12/09/2019 11:43	WG1392441	Tc
PCB 1221	ND		0.0393	2.31	12/09/2019 11:43	WG1392441	
PCB 1232	ND		0.0393	2.31	12/09/2019 11:43	WG1392441	<sup>3</sup> C c
PCB 1242	ND		0.0393	2.31	12/09/2019 11:43	WG1392441	55
PCB 1248	ND		0.0393	2.31	12/09/2019 11:43	<u>WG1392441</u>	4
PCB 1254	5.30		0.393	23.1	12/10/2019 16:05	<u>WG1392441</u>	Cn
PCB 1260	ND		0.0393	2.31	12/09/2019 11:43	<u>WG1392441</u>	
(S) Decachlorobiphenyl	173	<u>J1</u>	10.0-135		12/10/2019 16:05	<u>WG1392441</u>	<sup>5</sup> Cr
(S) Decachlorobiphenyl	338	<u>J1</u>	10.0-135		12/09/2019 11:43	<u>WG1392441</u>	
(S) Tetrachloro-m-xylene	70.1		10.0-139		12/09/2019 11:43	<u>WG1392441</u>	6
(S) Tetrachloro-m-xylene	79.9		10.0-139		12/10/2019 16:05	WG1392441	ČQC

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		21.6	1270	12/09/2019 19:25	<u>WG1392441</u>	
PCB 1221	ND		21.6	1270	12/09/2019 19:25	WG1392441	
PCB 1232	ND		21.6	1270	12/09/2019 19:25	WG1392441	3
PCB 1242	ND		21.6	1270	12/09/2019 19:25	WG1392441	<b>`</b>
PCB 1248	ND		21.6	1270	12/09/2019 19:25	WG1392441	4
PCB 1254	39000		1080	63500	12/10/2019 15:52	WG1392441	ີ (
PCB 1260	ND		21.6	1270	12/09/2019 19:25	WG1392441	
(S) Decachlorobiphenyl	6640	<u>J7</u>	10.0-135		12/10/2019 15:52	WG1392441	<sup>5</sup>
(S) Decachlorobiphenyl	232	<u>J7</u>	10.0-135		12/09/2019 19:25	WG1392441	
(S) Tetrachloro-m-xylene	87.3	<u>J7</u>	10.0-139		12/09/2019 19:25	<u>WG1392441</u>	6
(S) Tetrachloro-m-xylene	2890	J7	10.0-139		12/10/2019 15:52	WG1392441	Ĭ

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3	3 ( )	<u> </u>					
	Result	Qualifier	RDL	Dilution	Analysis	Batch	Cp
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.901	53	12/10/2019 16:19	WG1392441	Tc
PCB 1221	ND		0.901	53	12/10/2019 16:19	WG1392441	
PCB 1232	ND		0.901	53	12/10/2019 16:19	WG1392441	<sup>3</sup> S c
PCB 1242	ND		0.901	53	12/10/2019 16:19	WG1392441	55
PCB 1248	ND		0.901	53	12/10/2019 16:19	WG1392441	4
PCB 1254	46.8		0.901	53	12/10/2019 16:19	WG1392441	Cn
PCB 1260	ND		0.901	53	12/10/2019 16:19	WG1392441	
(S) Decachlorobiphenyl	99.0		10.0-135		12/10/2019 16:19	WG1392441	<sup>5</sup> Cr
(S) Tetrachloro-m-xylene	91.3		10.0-139		12/10/2019 16:19	WG1392441	-51

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		90.8	5340	12/09/2019 20:06	WG1392441	Tc
PCB 1221	ND		90.8	5340	12/09/2019 20:06	WG1392441	
PCB 1232	ND		90.8	5340	12/09/2019 20:06	WG1392441	<sup>3</sup> S c
PCB 1242	ND		90.8	5340	12/09/2019 20:06	WG1392441	55
PCB 1248	ND		90.8	5340	12/09/2019 20:06	WG1392441	4
PCB 1254	82600		1820	107000	12/10/2019 16:33	WG1392441	Cn
PCB 1260	ND		90.8	5340	12/09/2019 20:06	WG1392441	
(S) Decachlorobiphenyl	5170	<u>J7</u>	10.0-135		12/10/2019 16:33	WG1392441	<sup>5</sup> Cr
(S) Decachlorobiphenyl	598	<u>J7</u>	10.0-135		12/09/2019 20:06	WG1392441	
(S) Tetrachloro-m-xylene	1300	<u>J7</u>	10.0-139		12/10/2019 16:33	WG1392441	6
(S) Tetrachloro-m-xylene	103	J7	10.0-139		12/09/2019 20:06	WG1392441	ČQc

#### Sample Narrative:

L1167566-12 WG1392441: Dilution due to matrix.

SDG: L1167566



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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	<u>Batch</u>	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		28.7	1690	12/09/2019 20:20	WG1392441	Tc
PCB 1221	ND		28.7	1690	12/09/2019 20:20	WG1392441	
PCB 1232	ND		28.7	1690	12/09/2019 20:20	WG1392441	<sup>3</sup> Sc
PCB 1242	ND		28.7	1690	12/09/2019 20:20	WG1392441	55
PCB 1248	ND		28.7	1690	12/09/2019 20:20	WG1392441	4
PCB 1254	3660		144	8450	12/10/2019 16:47	<u>WG1392441</u>	Cn
PCB 1260	ND		28.7	1690	12/09/2019 20:20	WG1392441	
(S) Decachlorobiphenyl	143	<u>J7</u>	10.0-135		12/09/2019 20:20	<u>WG1392441</u>	<sup>5</sup> Sr
(S) Decachlorobiphenyl	220	<u>J7</u>	10.0-135		12/10/2019 16:47	WG1392441	51
(S) Tetrachloro-m-xylene	74.2	<u>J7</u>	10.0-139		12/09/2019 20:20	WG1392441	6
(S) Tetrachloro-m-xylene	33.2	J7	10.0-139		12/10/2019 16:47	WG1392441	ČQC

#### Sample Narrative:

L1167566-13 WG1392441: Dilution due to matrix.

SDG: L1167566 DATE/TIME: 12/13/19 20:10

## SAMPLE RESULTS - 14 $_{L1167566}$

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch			
Analyte	mg/kg		mg/kg		date / time		2		
PCB 1016	ND		0.0700	4.12	12/09/2019 18:39	<u>WG1392441</u>	Тс		
PCB 1221	ND		0.0700	4.12	12/09/2019 18:39	<u>WG1392441</u>			
PCB 1232	ND		0.0700	4.12	12/09/2019 18:39	<u>WG1392441</u>	<sup>3</sup> S c		
PCB 1242	ND		0.0700	4.12	12/09/2019 18:39	<u>WG1392441</u>	55		
PCB 1248	ND		0.0700	4.12	12/09/2019 18:39	<u>WG1392441</u>	4		
PCB 1254	14.2		0.700	41.2	12/10/2019 15:24	<u>WG1392441</u>	Cn		
PCB 1260	ND		0.0700	4.12	12/09/2019 18:39	<u>WG1392441</u>			
(S) Decachlorobiphenyl	111		10.0-135		12/10/2019 15:24	<u>WG1392441</u>	<sup>5</sup> Sr		
(S) Decachlorobiphenyl	90.1		10.0-135		12/09/2019 18:39	<u>WG1392441</u>			
(S) Tetrachloro-m-xylene	82.8		10.0-139		12/09/2019 18:39	<u>WG1392441</u>	6		
(S) Tetrachloro-m-xylene	89.8		10.0-139		12/10/2019 15:24	WG1392441	ି Qc		

SDG: L1167566 DATE/TIME: 12/13/19 20:10

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#### Polychlorinated Biphenyls (GC) by Method 8082

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0474	2.79	12/09/2019 13:06	WG1392441	́Тс
PCB 1221	ND		0.0474	2.79	12/09/2019 13:06	WG1392441	
PCB 1232	ND		0.0474	2.79	12/09/2019 13:06	WG1392441	<sup>3</sup> C c
PCB 1242	ND		0.0474	2.79	12/09/2019 13:06	WG1392441	55
PCB 1248	ND		0.0474	2.79	12/09/2019 13:06	WG1392441	4
PCB 1254	0.689		0.0474	2.79	12/10/2019 19:47	WG1392441	Cn
PCB 1260	ND		0.0474	2.79	12/09/2019 13:06	WG1392441	<u> </u>
(S) Decachlorobiphenyl	94.6		10.0-135		12/10/2019 19:47	WG1392441	<sup>5</sup> Cr
(S) Decachlorobiphenyl	100		10.0-135		12/09/2019 13:06	WG1392441	51
(S) Tetrachloro-m-xylene	84.9		10.0-139		12/10/2019 19:47	<u>WG1392441</u>	6
(S) Tetrachloro-m-xylene	87.1		10.0-139		12/09/2019 13:06	WG1392441	ĨQc

SDG: L1167566

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0474	2.79	12/09/2019 13:20	WG1392441	Tc
PCB 1221	ND		0.0474	2.79	12/09/2019 13:20	WG1392441	
PCB 1232	ND		0.0474	2.79	12/09/2019 13:20	WG1392441	<sup>3</sup> Sc
PCB 1242	ND		0.0474	2.79	12/09/2019 13:20	WG1392441	55
PCB 1248	ND		0.0474	2.79	12/09/2019 13:20	WG1392441	4
PCB 1254	2.12		0.0474	2.79	12/10/2019 20:01	WG1392441	Cn
PCB 1260	ND		0.0474	2.79	12/09/2019 13:20	WG1392441	
(S) Decachlorobiphenyl	97.3		10.0-135		12/10/2019 20:01	<u>WG1392441</u>	<sup>5</sup> Cr
(S) Decachlorobiphenyl	97.3		10.0-135		12/09/2019 13:20	WG1392441	
(S) Tetrachloro-m-xylene	84.9		10.0-139		12/10/2019 20:01	WG1392441	6
(S) Tetrachloro-m-xylene	83.3		10.0-139		12/09/2019 13:20	WG1392441	ČQC

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0915	5.38	12/09/2019 13:34	WG1392441	Tc
PCB 1221	ND		0.0915	5.38	12/09/2019 13:34	WG1392441	
PCB 1232	ND		0.0915	5.38	12/09/2019 13:34	WG1392441	<sup>3</sup> Sc
PCB 1242	ND		0.0915	5.38	12/09/2019 13:34	WG1392441	55
PCB 1248	ND		0.0915	5.38	12/09/2019 13:34	WG1392441	4
PCB 1254	28.6		0.915	53.8	12/10/2019 17:01	WG1392441	Cn
PCB 1260	ND		0.0915	5.38	12/09/2019 13:34	WG1392441	
(S) Decachlorobiphenyl	98.6		10.0-135		12/09/2019 13:34	WG1392441	<sup>5</sup> Cr
(S) Decachlorobiphenyl	128		10.0-135		12/10/2019 17:01	WG1392441	51
(S) Tetrachloro-m-xylene	92.5		10.0-139		12/09/2019 13:34	WG1392441	6
(S) Tetrachloro-m-xylene	100		10.0-139		12/10/2019 17:01	WG1392441	ଁ Q c

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	C
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0430	2.53	12/09/2019 13:48	WG1392441	<sup>2</sup> T
PCB 1221	ND		0.0430	2.53	12/09/2019 13:48	WG1392441	
PCB 1232	ND		0.0430	2.53	12/09/2019 13:48	WG1392441	<sup>3</sup> C
PCB 1242	ND		0.0430	2.53	12/09/2019 13:48	WG1392441	
PCB 1248	ND		0.0430	2.53	12/09/2019 13:48	WG1392441	4
PCB 1254	5.29		0.214	12.6	12/10/2019 17:15	WG1392441	ŤC
PCB 1260	ND		0.0430	2.53	12/09/2019 13:48	WG1392441	
(S) Decachlorobiphenyl	86.3		10.0-135		12/09/2019 13:48	WG1392441	<sup>5</sup> c
(S) Decachlorobiphenyl	94.0		10.0-135		12/10/2019 17:15	WG1392441	
(S) Tetrachloro-m-xylene	77.4		10.0-139		12/09/2019 13:48	WG1392441	6
(S) Tetrachloro-m-xylene	82.7		10.0-139		12/10/2019 17:15	WG1392441	Č

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	[C
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		17.0	1000	12/09/2019 21:16	WG1392441	T
PCB 1221	ND		17.0	1000	12/09/2019 21:16	WG1392441	
PCB 1232	ND		17.0	1000	12/09/2019 21:16	WG1392441	<sup>3</sup> C
PCB 1242	ND		17.0	1000	12/09/2019 21:16	WG1392441	3
PCB 1248	ND		17.0	1000	12/09/2019 21:16	WG1392441	4
PCB 1254	15500		340	20000	12/10/2019 17:29	WG1392441	Ċ
PCB 1260	ND		17.0	1000	12/09/2019 21:16	WG1392441	
(S) Decachlorobiphenyl	150	J7	10.0-135		12/09/2019 21:16	WG1392441	<sup>5</sup> C
(S) Decachlorobiphenyl	804	J7	10.0-135		12/10/2019 17:29	WG1392441	5
(S) Tetrachloro-m-xylene	187	J7	10.0-139		12/10/2019 17:29	WG1392441	6
(S) Tetrachloro-m-xylene	76.0	J7	10.0-139		12/09/2019 21:16	WG1392441	ລັ

#### Sample Narrative:

L1167566-19 WG1392441: Dilution due to matrix.

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#### Polychlorinated Biphenyls (GC) by Method 8082

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	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	mg/kg		mg/kg		date / time		2	
PCB 1016	ND		0.0189	1.11	12/09/2019 19:11	WG1392441	ŤC	
PCB 1221	ND		0.0189	1.11	12/09/2019 19:11	WG1392441		
PCB 1232	ND		0.0189	1.11	12/09/2019 19:11	WG1392441	<sup>3</sup> Sc	
PCB 1242	ND		0.0189	1.11	12/09/2019 19:11	WG1392441	35	
PCB 1248	ND		0.0189	1.11	12/09/2019 19:11	WG1392441	4	
PCB 1254	26.3		18.9	1110	12/10/2019 15:38	WG1392441	Cn	
PCB 1260	ND		0.0189	1.11	12/09/2019 19:11	WG1392441		
(S) Decachlorobiphenyl	111	<u>J7</u>	10.0-135		12/10/2019 15:38	WG1392441	<sup>5</sup> Sr	
(S) Decachlorobiphenyl	58.7		10.0-135		12/09/2019 19:11	WG1392441		
(S) Tetrachloro-m-xylene	57.6		10.0-139		12/09/2019 19:11	WG1392441	6	
(S) Tetrachloro-m-xylene	22.3	<u>J7</u>	10.0-139		12/10/2019 15:38	WG1392441	ČQc	

SDG: L1167566 DATE/TIME: 12/13/19 20:10

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	Cb
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		8.50	500	12/09/2019 21:44	WG1392441	Tc
PCB 1221	ND		8.50	500	12/09/2019 21:44	WG1392441	
PCB 1232	ND		8.50	500	12/09/2019 21:44	WG1392441	<sup>3</sup> Sc
PCB 1242	ND		8.50	500	12/09/2019 21:44	WG1392441	55
PCB 1248	ND		8.50	500	12/09/2019 21:44	WG1392441	4
PCB 1254	42800		850	50000	12/10/2019 17:42	WG1392441	Cn
PCB 1260	ND		8.50	500	12/09/2019 21:44	WG1392441	
(S) Decachlorobiphenyl	11900	<u>J7</u>	10.0-135		12/10/2019 17:42	WG1392441	<sup>5</sup> Cr
(S) Decachlorobiphenyl	127	<u>J7</u>	10.0-135		12/09/2019 21:44	WG1392441	
(S) Tetrachloro-m-xylene	116	<u>J7</u>	10.0-139		12/09/2019 21:44	WG1392441	6
(S) Tetrachloro-m-xylene	3420	J7	10.0-139		12/10/2019 17:42	WG1392441	ຶ Qc

#### Sample Narrative:

L1167566-21 WG1392441: Dilution due to matrix.

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	(
Analyte	mg/kg		mg/kg		date / time		
PCB 1016	ND		70.9	4170	12/09/2019 21:57	WG1392441	2-
PCB 1221	ND		70.9	4170	12/09/2019 21:57	WG1392441	
PCB 1232	ND		70.9	4170	12/09/2019 21:57	WG1392441	3
PCB 1242	ND		70.9	4170	12/09/2019 21:57	WG1392441	
PCB 1248	ND		70.9	4170	12/09/2019 21:57	WG1392441	4
PCB 1254	63100		1420	83400	12/10/2019 20:14	WG1392441	
PCB 1260	ND		70.9	4170	12/09/2019 21:57	WG1392441	
(S) Decachlorobiphenyl	711	<u>J7</u>	10.0-135		12/10/2019 20:14	WG1392441	5
(S) Decachlorobiphenyl	185	<u>J7</u>	10.0-135		12/09/2019 21:57	WG1392441	
(S) Tetrachloro-m-xylene	97.1	J7	10.0-139		12/09/2019 21:57	WG1392441	6
(S) Tetrachloro-m-xylene	188	J7	10.0-139		12/10/2019 20:14	WG1392441	0

#### Sample Narrative:

L1167566-22 WG1392441: Dilution due to matrix.

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#### Polychlorinated Biphenyls (GC) by Method 8082

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.0648	3.81	12/09/2019 17:53	WG1392441	Tc
PCB 1221	ND		0.0648	3.81	12/09/2019 17:53	WG1392441	
PCB 1232	ND		0.0648	3.81	12/09/2019 17:53	WG1392441	<sup>3</sup> S c
PCB 1242	ND		0.0648	3.81	12/09/2019 17:53	WG1392441	55
PCB 1248	ND		0.0648	3.81	12/09/2019 17:53	WG1392441	4
PCB 1254	12.7		0.648	38.1	12/10/2019 14:56	WG1392441	Cn
PCB 1260	ND		0.0648	3.81	12/09/2019 17:53	WG1392441	
(S) Decachlorobiphenyl	78.7		10.0-135		12/10/2019 14:56	WG1392441	<sup>5</sup> Cr
(S) Decachlorobiphenyl	78.3		10.0-135		12/09/2019 17:53	WG1392441	5
(S) Tetrachloro-m-xylene	75.1		10.0-139		12/10/2019 14:56	WG1392441	6
(S) Tetrachloro-m-xylene	60.1		10.0-139		12/09/2019 17:53	WG1392441	ČQc

ACCOUNT: TriEco, LLC. - Louisville, KY

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	C
Analyte	mg/kg		mg/kg		date / time	—	2
PCB 1016	ND		0.138	8.11	12/10/2019 18:51	WG1392441	T
PCB 1221	ND		0.138	8.11	12/10/2019 18:51	WG1392441	
PCB 1232	ND		0.138	8.11	12/10/2019 18:51	WG1392441	<sup>3</sup> <b>C</b>
PCB 1242	ND		0.138	8.11	12/10/2019 18:51	WG1392441	5
PCB 1248	ND		0.138	8.11	12/10/2019 18:51	WG1392441	4
PCB 1254	4.78		0.138	8.11	12/10/2019 18:51	WG1392441	Ċ
PCB 1260	ND		0.138	8.11	12/10/2019 18:51	WG1392441	
(S) Decachlorobiphenyl	87.2		10.0-135		12/10/2019 18:51	WG1392441	<sup>5</sup> C
(S) Tetrachloro-m-xylene	86.5		10.0-139		12/10/2019 18:51	WG1392441	
## SAMPLE RESULTS - 25

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time	—	
PCB 1016	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	
PCB 1221	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	L
PCB 1232	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	
PCB 1242	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	
PCB 1248	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	
PCB 1254	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	
PCB 1260	ND		0.0886	5.21	12/09/2019 15:28	WG1392441	l
(S) Decachlorobiphenyl	82.4		10.0-135		12/09/2019 15:28	WG1392441	
(S) Tetrachloro-m-xylene	68.8		10.0-139		12/09/2019 15:28	WG1392441	

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#### Polychlorinated Biphenyls (GC) by Method 8082

	3 ( )						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		
PCB 1016	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
PCB 1221	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
PCB 1232	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
PCB 1242	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
PCB 1248	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
PCB 1254	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
PCB 1260	ND		0.165	9.68	12/09/2019 15:42	WG1392441	
(S) Decachlorobiphenyl	68.4		10.0-135		12/09/2019 15:42	WG1392441	
(S) Tetrachloro-m-xylene	73.7		10.0-139		12/09/2019 15:42	WG1392441	

## SAMPLE RESULTS - 27

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#### Polychlorinated Biphenyls (GC) by Method 8082

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		2
PCB 1016	ND		0.147	8.67	12/09/2019 15:56	WG1392441	Tc
PCB 1221	ND		0.147	8.67	12/09/2019 15:56	<u>WG1392441</u>	
PCB 1232	ND		0.147	8.67	12/09/2019 15:56	WG1392441	<sup>3</sup> <b>S</b> c
PCB 1242	ND		0.147	8.67	12/09/2019 15:56	WG1392441	55
PCB 1248	ND		0.147	8.67	12/09/2019 15:56	WG1392441	4
PCB 1254	ND		0.147	8.67	12/09/2019 15:56	WG1392441	Cn
PCB 1260	ND		0.147	8.67	12/09/2019 15:56	WG1392441	
(S) Decachlorobiphenyl	63.4		10.0-135		12/09/2019 15:56	WG1392441	<sup>5</sup> Cr
(S) Tetrachloro-m-xylene	84.4		10.0-139		12/09/2019 15:56	WG1392441	

Polychlorinated Biphenyls (GC) by Method 8082

## QUALITY CONTROL SUMMARY

(MB) R3480110-5 12/07/19	9 17:28			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	97.0			10.0-135
(S) Tetrachloro-m-xylene	84.2			10.0-139

#### Laboratory Control Sample (LCS)

(LCS) R3480110-6 12/07/1	CS) R3480110-6 12/07/19 17:42							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/kg	mg/kg	%	%				
PCB 1260	0.167	0.158	94.6	37.0-145				
PCB 1016	0.167	0.161	96.4	36.0-141				
(S) Decachlorobiphenyl			78.8	10.0-135				
(S) Tetrachloro-m-xylene			66.2	10.0-139				

#### L1167698-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L116/698-01 12/0//19 19:05 • (MS) R3480110-1 12/0//19 19:19 • (MSD) R3480110-2 12/0//19 19:33												
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
PCB 1260	0.173	U	0.0764	0.104	44.1	59.9	1	10.0-160			30.3	38
PCB 1016	0.173	U	0.0719	0.110	41.6	63.5	1	10.0-160		<u>J3</u>	41.7	37
(S) Decachlorobiphenyl					57.7	68.2		10.0-135				
(S) Tetrachloro-m-xylene					53.5	62.9		10.0-139				

SDG: L1167566 DATE/TIME: 12/13/19 20:10

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Polychlorinated Biphenyls (GC) by Method 8082

#### QUALITY CONTROL SUMMARY L1167566-09.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27

(MB) R3480620-1 12/09/	19 11:16			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	79.3			10.0-135
(S) Tetrachloro-m-xvlene	68.2			10.0-139

#### Laboratory Control Sample (LCS)

(LCS) R3480620-2 12/09	CS) R3480620-2 12/09/19 11:29								
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier				
Analyte	mg/kg	mg/kg	%	%					
PCB 1260	0.167	0.138	82.6	37.0-145					
PCB 1016	0.167	0.138	82.6	36.0-141					
(S) Decachlorobiphenyl			116	10.0-135					
(S) Tetrachloro-m-xylene			102	10.0-139					

#### L1167592-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

,OS) L1167592-02 12/10/19 19:05 • (MS) R3481015-1 12/10/19 19:19 • (MSD) R3481015-2 12/10/19 19:33											
Spike Amount	<b>Original Result</b>	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
0.525	ND	0.509	0.437	97.0	83.9	3.15	10.0-160	<u>P</u>	<u>P</u>	15.2	38
0.525	ND	4.50	3.14	857	603	3.15	10.0-160	<u>J5</u>	<u>J5 P</u>	35.6	37
				98.6	79.3		10.0-135				
				63.8	51.9		10.0-139				
	19:05 • (MS) R3 Spike Amount mg/kg 0.525 0.525	19:05 • (MS) R3481015-1 12/10           Spike Amount         Original Result           mg/kg         mg/kg           0.525         ND           0.525         ND	I9:05 • (MS) R3481015-1         12/10/19         19:19 • (MSE           Spike Amount         Original Result         MS Result           mg/kg         mg/kg         mg/kg           0.525         ND         0.509           0.525         ND         4.50	I9:05 • (MS)         R3481015-1         12/10/19         19:19 • (MSD)         R3481015-2           Spike Amount         Original Result         MS Result         MSD Result           mg/kg         mg/kg         mg/kg         mg/kg           0.525         ND         0.509         0.437           0.525         ND         4.50         3.14	MSD         R3481015-1         12/10/19         19:19 • (MSD)         R3481015-2         12/10/19         19:33           Spike Amount         Original Result         MS Result         MSD Result         MS Rec.           mg/kg         mg/kg         mg/kg         mg/kg         %           0.525         ND         0.509         0.437         97.0           0.525         ND         4.50         3.14         857           98.6         63.8         63.8         63.8	MSD         Rs481015-1         12/10/19         19:19 • (MSD)         Rs481015-2         12/10/19         19:33           Spike Amount         Original Result         MS Result         MSD Result         MS Rec.         MSD Rec.           mg/kg         mg/kg         mg/kg         mg/kg         mg/kg         %         %           0.525         ND         0.509         0.437         97.0         83.9           0.525         ND         4.50         3.14         857         603           6.525         ND         5.55         63.8         51.9	MSD R3481015-1         12/10/19         19:19 • (MSD)         R3481015-2         12/10/19         19:33           Spike Amount         Original Result         MS Result         MSD Result         MS Rec.         MSD Rec.         Dilution           mg/kg         mg/kg         mg/kg         mg/kg         %         %         12/10/19           0.525         ND         0.509         0.437         97.0         83.9         3.15           0.525         ND         4.50         3.14         857         603         3.15           0.525         ND         5.9         63.8         51.9         12	MSD R5481015-1         M2/10/19         M519.0(MSD)         R3481015-2         12/10/19         19:33           Spike Amount         Original Result         MS Result         MSD Result         MS Rec.         MSD Rec.         Dilution         Rec. Limits           mg/kg         mg/kg         mg/kg         mg/kg         %         %         %         %           0.525         ND         0.509         0.437         97.0         83.9         3.15         10.0-160           0.525         ND         4.50         3.14         857         603         3.15         10.0-130           0.525         V         V         4.50         3.14         857         63.8         51.9         10.0-139	MS Pask481015-1       MS Result       MSD Resul	MSD R3481015-1 12/10/19 19:19 • (MSD) R3481015-2 12/10/19 19:33       MSD Result       MsD Result </td <td>MSD R3481015-1 12/10/19 19:19 • (MSD) R3481015-2 12/10/19 19:33       MSD Result       MSD Result<!--</td--></td>	MSD R3481015-1 12/10/19 19:19 • (MSD) R3481015-2 12/10/19 19:33       MSD Result       MSD Result </td

SDG: L1167566 DATE/TIME: 12/13/19 20:10



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#### GLOSSARY OF TERMS

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#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
Р	RPD between the primary and confirmatory analysis exceeded 40%.

### **ACCREDITATIONS & LOCATIONS**

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

#### State Accreditations

Alabama	40660	Net
Alaska	17-026	Nev
Arizona	AZ0612	Nev
Arkansas	88-0469	Nev
California	2932	Nev
Colorado	TN00003	Nev
Connecticut	PH-0197	Nor
Florida	E87487	Nor
Georgia	NELAP	Nor
Georgia <sup>1</sup>	923	Nor
ldaho	TN00003	Ohi
Illinois	200008	Okl
Indiana	C-TN-01	Ore
lowa	364	Per
Kansas	E-10277	Rhc
Kentucky <sup>16</sup>	90010	Sou
Kentucky <sup>2</sup>	16	Sou
Louisiana	AI30792	Ten
Louisiana <sup>1</sup>	LA180010	Tex
Maine	TN0002	Tex
Maryland	324	Uta
Massachusetts	M-TN003	Ver
Michigan	9958	Virg
Minnesota	047-999-395	Wa
Mississippi	TN00003	We
Missouri	340	Wis
Montana	CERT0086	Wv

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico <sup>1</sup>	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>14</sup>	2006
Texas	T104704245-18-15
Texas⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

#### Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

#### **Our Locations**

TriEco, LLC. - Louisville, KY

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



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## CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A	Section I	в							Secti	on C										Pag	e:	1	of L	1
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(A-Z, 0-9 /) Air Sample IDs MUST BE UNIQUE Tissue Other	AR TS OT	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP	# OF CONTAIN	Unpreserved H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCI NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol Other	Analysis To	PCB - 80					Residual Chlo	114 Pac	e Project	No./ Lab I.D.
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#### PCB BUILDING SURVEY SAMPLE LOG – EXTERIOR

#### FACILITY: UNIVERSITY OF KENTUCKY - SCOVELL HALL BUILDING # / AREA: EXTERIOR (1903 - A) PROJECT #: 19S1024

SAMPLE #	DESCRIPTION	LOCATION	
PA-01A	WHITE/GRAY ENTRY DOOR FRAME CAULK	SIDE A	-
PA-02A	WHITE METAL WINDOW CAULK	SIDE A - METAL SILL WRAP @ CONCRETE SILL	0
PA-03A	GRAY CONCRETE EXPANSION JOINT	SIDE A - DOOR LANDING	0
PA-04B	GRAY/BROWN WOODEN WINDOW FRAME CAULK @ STONE	SIDE B	0
PA-05B	WHITE WOODEN WINDOW SILL CAULK @ CONCRETE SILL	SIDE B	0
PA-06B	WHITE/GRAY WOODEN WINDOW FRAME GLAZING	SIDE B	0
PA-07C	DARK GRAY DOOR FRAME CAULK	SIDE C - BASEMENT STAIRWELL B ENTRANCE	0
PA-08C	GRAY DOOR FRAME CAULK	SIDE C	0
PA-09C	LIGHT GRAY CONCRETE EXPANSION JOINT	SIDE C @ STAIRS & SIDEWALK	00
PA-10C	WHITE/GRAY WOODEN WINDOW FRAME CAULK @ STONE	SIDE C	K

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### CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

ection A tequired Client Information:	Section B Required Proj	ject Infor	mation:				Secti Invoic	on C e Infor	mation:									Page	e:	2	of 4	
Company: TRIECO LLC.	Report To:	-	1.			4	Attent	ion: (	hois	5	+04	a1)			7							
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Section D Matrix Co Required Client Information MATRIX /	odes CODE	MP)	·	COLL	ECTED				Prese	ervati	ves		NIX S	2								
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(A-Z, 0-9 / ,-) Air Sample IDs MUST BE UNIQUE Tissue Other	AR TS OT	SAMPLE TYPE	DATE	TIME	DATE	SAMPLE TEMP A	# OF CONTAINE	Unpreserved	HNO <sub>3</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol	Other	Analysis Te	PCB - 808					Residual Chlori	Pace	e Project I	No./ Lab 1.[
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#### PCB BUILDING SURVEY SAMPLE LOG - EXTERIOR

1167566

#### FACILITY: UNIVERSITY OF KENTUCKY - SCOVELL HALL BUILDING # / AREA: EXTERIOR (1913 - B) PROJECT #: 19S1024

SAMPLE # DESCRIPTION LOCATION PB-01B BLACK ENTRY DOOR FRAME CAULK SIDE B 11 SIDE B **PB-02B** GRAY WOODEN WINDOW FRAME CAULK @ STONE 12 13 WHITE/GRAY WOODEN WINDOW SILL CAULK @ CONCRETE SILL SIDE B **PB-03B** SIDE B 14 GRAY WOODEN WINDOW FRAME GLAZING **PB-04B** is SIDE B @ STAIRS & SIDEWALK LIGHT GRAY CONCRETE EXPANSION JOINT CAULK **PB-05B** 16 SIDE B TAN STONE WALL CAP EXPANSION JOINT CAULK **PB-06B** 17 SIDE B **PB-07B** WHITE METAL VENT FRAME CAULK

Pace Analytical"

## CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section I	B	et Infor	mation:					Sectio	on C											Pa	ge:	3	of	4
Company: TRIECO LLC	Report To:	c		1.				4	Attenti		hauon	- <			1		<u></u>	7							
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Email To:	Purchase	Order	No.:						Pace Q	luole	134	cing	va.		Sr.	100			UST	Г	RCRA		×	OTHER	
Phone: Fax:	Project Na	ame: (	10	FK-	Scou	IELL H	ALL	2	Pace Pi	roject (	Ch	-1-	NA	C	1			Site	Locatio	n					
Requested Due Date/TAT:	Project Nu	umber	10	5107	u				Pace P	rofile #:	To	100	10	L or	4	168		-	STATE		KY	1			
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### PCB BUILDING SURVEY SAMPLE LOG – EXTERIOR

#### FACILITY: UNIVERSITY OF KENTUCKY - SCOVELL HALL BUILDING # / AREA: EXTERIOR (1936 - C) PROJECT #: 19S1024

SAMPLE #	DESCRIPTION	LOCATION	
PC-01A	GRAY CONCRETE EXPANSION JOINT	SIDE A @ SIDEWALK & BUILDING	19
PC-02A	WHITE/GRAY WOODEN WINDOW SILL CAULK @ CONCRETE SILL	SIDE A	19
PC-03A	GRAY WOODEN WINDOW FRAME GLAZING	SIDE A	20
PC-04A	GRAY/WHITE WOODEN WINDOW FRAME CAULK @ CONCRETE	SIDE A	21
PC-05B	GRAY/WHITE WOODEN WINDOW FRAME CAULK @ STONE	SIDE B	23
PC-06C	LIGHT GRAY BRICK SEAM CAULK @ STAIRWELL	SIDE C	23
PC-07D	LIGHT GRAY DOOR FRAME CAULK	SIDE D	25





## CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B	3 Projec	t Infor	mation:					Secti	on C											Page	- 4	ι	of y	
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Cstovell@triccoinet	Purchase	Jraer I	NO.:						Refere	nce:	-16							F	JST	FR	RCRA		X	OTHER	
Phone: 502.353 9336 Fax:-	Project Nar	me:	) 0	ŁK-	Scon	VELL F	ALL		Pace P Manag	roject er:	Ch	ris	M	Cor	d			Site	Location		YU				
Requested Due Date/TAT:	Project Nur	mber:	19:	5102	4				Pace P	Profile #	TR	IEC	OL	KYG	002	216B			STATE	-	nj				
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Section D Matrix C Required Client Information MATRIX /	odes CODE	left)	(dP)	1.45	COLL	ECTED					Pre	serva	tives		TN IA	2									
Drinking Wate Water Waste Water Product Soll/Solid SAMPLE ID Vi Wipe	er DW WT WW P SL OL WP	(see valid codes to	(G=GRAB C=CO	COMPC	OSITE RT	COMPC END/G	DSITE RAB	AT COLLECTION	IERS						est 🌡	824						rine (Y/N)			
(A-Z, 0-9 / - ) Air Sample IDs MUST BE UNIQUE Tissue Other	AR TS OT	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP /	# OF CONTAIN	Unpreserved	HNO <sub>3</sub>	HCI NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol Other	↓ Analysis Te	PCB - 801						Residual Chlor	Pace	Project N	ło./ Lab I.D.
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#### PCB BUILDING SURVEY SAMPLE LOG – EXTERIOR

1167566

#### FACILITY: \_UNIVERSITY OF KENTUCKY COLLEGE OF LAW BUILDING # / AREA: EXTERIOR (1990s - D) PROJECT #: 19S1024

GAMPLE //	DECODIDITION		
SAMPLE #	DESCRIPTION	LOCATION	
PD-01C	GRAY STAIR WALL EXPANSION JOINT CAULK	SIDE C	25
PD-02D	BEIGE DOOR FRAME CAULK	SIDE D	24
PD-03D	GRAY METAL WINDOW FRAME CAULK	SIDE D	27



Pace Analytical National Center for Testing & Innov	vation	
Cooler Receipt Form		
Client: TRIECOLKY	11675	564
Cooler Received/Opened On: 1/15 /19 Temperature:	Amb	
Received By: Carol Kemp		
Signature: and hem		
Receipt Check List NP	Yes	No
Receipt Check List         NP           COC Seal Present / Intact?         Intact?	Yes	No
Receipt Check List     NP       COC Seal Present / Intact?     COC Signed / Accurate?	Yes	No
Receipt Check List     NP       COC Seal Present / Intact?     COC Signed / Accurate?       Bottles arrive intact?     COC Signed / Accurate?	Yes	No
Receipt Check List     NP       COC Seal Present / Intact?	Yes	No
Receipt Check ListNPCOC Seal Present / Intact?COC Signed / Accurate?Bottles arrive intact?Correct bottles used?Sufficient volume sent?	Yes	No
Receipt Check ListNPCOC Seal Present / Intact?COC Signed / Accurate?Bottles arrive intact?Correct bottles used?Sufficient volume sent?If Applicable	Yes	No
Receipt Check ListNPCOC Seal Present / Intact?COC Signed / Accurate?Bottles arrive intact?Correct bottles used?Sufficient volume sent?If ApplicableVOA Zero headspace?	Yes	No

#### Matt Shacklock



Login #: L1167566	Client:TRIECOLKY	Date:12/05	Evaluated by:Kelsey S	
		paterizz, 05	L'aluateu Dy.Reisey 5	

#### Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification	
	Parameter(s) past holding time		Login Clarification Needed	If Broken Container:
	Temperature not in range		Chain of custody is incomplete	Insufficient packing material around container
	Improper container type		Please specify Metals requested.	Insufficient packing material inside
L	pH not in range.		Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Cour
	Insufficient sample volume.	x	Received additional samples not listed on coc.	Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc	Container lid not intact
	Vials received with headspace.		Trip Blank not received.	If no Chain of Custody:
	Broken container		Client did not "X" analysis.	Received by:
	Broken container:		Chain of Custody is missing	Date/Time:
	Sufficient sample remains			Temp./Cont. Rec./pH:
				Carrier:
				Tracking#

#### <u>Login Comments: Received an additional sample for section 1903-D Concrete (Where A Window Used To</u> <u>Be)</u> numbered 11

Client informed by:	Call	x	Email	Voice Mail	Date: 12/6/19	Time: 13:19
TSR Initials: CM	Client Co	ntact:	Chris Stova	all		1111C. 15.17
Login Instructions:						

Please dispose of this sample.

### **APPENDIX H**

### LEAD LICENSE AND CERTIFICATION



#### CABINET FOR HEALTH AND FAMILY SERVICES Department for Public Health

Matthew G. Bevin Governor

Division of Public Health Protection and Safety 275 East Main Street HS1EB Frankfort, Kentucky 40621 Phone (502) 564-4537 Fax (502) 564-0885 Webbage: http://chfs.kv.gov/dph/lead.htm Adam M. Meier Secretary

Jeffrey D. Howard, Jr., MD Commissioner

7/17/2019

Gregory Bailey 41-231 TriEco 7710 Springvale Drive, Ste. 201 Louisville, KY 40241

To Whom It May Concern

Enclosed is your identification card. It is being issued pursuant to 902 KAR 48:040. This card is subject to revocation, and/or suspension, and is non-transferable and will become invalid if loaned or given to another person for identification while performing lead-hazard detection and/or abatement activities for the Commonwealth of Kentucky.

This identification card must be carried at all times while performing lead-hazard activities in the State of Kentucky. If there are any corrections needed please call (502) 564-4537.

**Note:** In revised certification regulation 902 KAR 48:020, if you fail to pass a refresher course and submit your application for recertification at least 30 days prior to the expiration date on your identification card and certificate, you must reapply for certification and retake the third party examination. An applicant who fails to reapply for certification after six (6) months from the date the certification has lapsed shall pass an initial course and reapply through the initial certification process. This will also modify your certification date.

Kentucky E	275 East Main Street Frankfort, KY 40621	ad Program	Sincerely,	roplea	
	Gregory Bailey Risk Assessor D.O.B.:	41-231 8/23/1975	Jennifer Bi	An Equal Opportunity Employer M/F/D	
	EAF.	June 14, 2021			
Cabinet for-lealth and Family Service	• <b>(1)</b>	Kentucky			

Certificate of Iraining

Has completed the Heuresis Corp. training materials presented on the topic of Instrument Operator Training, Pb200i, with regards to the materials licensed by the Commonwealth of Massachusetts and the Nuclear Regulatory Commission.



## Instrument Operator Training Heuresis Corporation, Pb200i

I confirm that the above named individual has received the training listed on this certificate.

AR

Adam Robison Name December 17<sup>th</sup>, 2018 Date

Sales and Product Specialist Title



I certify that I have received the stated training and understand the content presented. I understand that I can follow up this training with questions from Heuresis Corporation.

<u>Gregory Bailey</u> Name December 17<sup>th</sup>, 2018 Date

# APPENDIX I

## **XRF RESULTS**



Component	Substrate	Side	Condition	Color	Room	LBP Result	LPB Concentration (mg/cm <sup>2</sup> )
		Calibration1				NEG	0.7
		Calibration2				NEG	0.8
		Calibration3				NEG	0.8
		Calibration4				NEG	0.9
		Calibration5				NEG	-0.1
		Calibration6				NEG	-0.1
		Calibration7				NEG	-0.1
		Calibration8				NEG	-0.1
Handrail	Metal	С	Intact	Black	Outside Section 1	NEG	0
Window Jamb	Wood	С	Intact	White	Outside Section 1	POS	1.7
Window Sash	Wood	С	Intact	White	Outside Section 1	POS	3.7
Window Sill	Metal	С	Intact	White	Outside Section 1	NEG	0
Window Sill	Metal	С	Intact	White	Outside Section 1	NEG	0.2
Window Jamb	Metal	С	Intact	White	Outside Section 1	NEG	0.7
Window Jamb	Metal	С	Intact	White	Outside Section 1	NEG	0.2
Door	Wood	С	Intact	Brown	Outside Section 1	NEG	-0.1
Door Jamb	Wood	С	Intact	Brown	Outside Section 1	NEG	-0.2
Door Jamb	Wood	С	Intact	Brown	Outside Section 1	NEG	0
Window Jamb	Wood	D	Intact	White	Outside Section 1	POS	39
Window Sill	Wood	D	Intact	White	Outside Section 1	POS	5.1
Window Sash	Wood	D	Intact	White	Outside Section 1	POS	23
Handrail	Metal	А	Intact	Black	Outside Section 1	NEG	-0.1
Door Casing	Wood	А	Intact	White	Outside Section 1	NEG	0
Door Casing	Wood	А	Intact	White	Outside Section 1	NEG	0.8
Door Casing	Wood	А	Intact	White	Outside Section 1	POS	3.3
Door Casing	Wood	А	Intact	White	Outside Section 1	POS	1.5
Door Casing	Wood	А	Intact	White	Outside Section 1	POS	1.5
Window Sill	Metal	А	Intact	White	Outside Section 1	NEG	0
Window Jamb	Metal	А	Intact	White	Outside Section 1	POS	1.5
Window Jamb	Metal	А	Intact	White	Outside Section 1	POS	0.8
Window Jamb	Metal	А	Intact	White	Outside Section 1	POS	1.7
Window Jamb	Metal	Α	Intact	White	Outside Section 1	POS	1.1
Handrail	Metal	В	Intact	Black	Outside Section 2	NEG	0



Component	Substrate	Side	Condition	Color	Room	LBP Result	LPB Concentration (mg/cm <sup>2</sup> )
Door Jamb	Wood	В	Intact	White	Outside Section 2	NEG	0.1
Door Jamb	Wood	В	Intact	White	Outside Section 2	NEG	-0.1
Door Jamb	Wood	В	Intact	White	Outside Section 2	NEG	0.1
Door Jamb	Wood	В	Intact	White	Outside Section 2	NEG	0
Door Jamb	Wood	В	Intact	White	Outside Section 2	NEG	0.1
Door Jamb	Wood	В	Intact	White	Outside Section 2	NEG	0.1
Door	Wood	В	Intact	Brown	Outside Section 2	NEG	-0.2
Window Sill	Wood	В	Intact	White	Outside Section 2	POS	37
Window Jamb	Wood	В	Intact	White	Outside Section 2	POS	39
Window Sash	Wood	В	Intact	White	Outside Section 2	POS	19.5
Window Sash	Wood	В	Intact	White	Outside Section 3	POS	15.8
Window Sill	Wood	В	Intact	White	Outside Section 3	POS	23.5
Window Jamb	Wood	В	Intact	White	Outside Section 3	POS	28.8
Window Jamb	Wood	С	Intact	White	Outside Section 3	POS	20.5
Window Sill	Wood	С	Intact	White	Outside Section 3	POS	21.7
Window Sash	Wood	С	Intact	White	Outside Section 3	POS	15.1
Window Sash	Wood	D	Intact	White	Outside Section 3	POS	1.3
Window Jamb	Wood	D	Intact	White	Outside Section 3	POS	26
Window Sill	Wood	D	Intact	White	Outside Section 3	NEG	0.7
Window Sill	Wood	D	Intact	White	Outside Section 3	POS	13.4
Wall	Concrete	D	Intact	Brown	Outside Section 3	NEG	0
Wall	Concrete	D	Intact	Brown	Outside Section 3	NEG	-0.2
Door	Metal	D	Intact	Gray	Outside Section 3	NEG	0
Door Jamb	Metal	D	Intact	Gray	Outside Section 3	NEG	0.4
Door	Metal	D	Intact	White	Outside Section 3	NEG	-0.1
Door Jamb	Metal	D	Intact	White	Outside Section 3	NEG	0.6
Handrail	Metal	D	Intact	Black	Outside Section 3	NEG	-0.1
Wall	Drywall	С	Intact	White	Basement Section 1 - Hall	NEG	0
Wall	Concrete	А	Intact	White	Basement Section 1 - Hall	NEG	-0.2
Wall	Concrete	В	Intact	White	Basement Section 1 - Hall	NEG	-0.4
Wall	Concrete	D	Intact	White	Basement Section 1 - Hall	NEG	0
Wall	Drywall	D	Intact	White	Basement Section 1 - Hall	NEG	0
Door Jamb	Wood	Α	Intact	Black	Basement Section 1 - Hall	POS	13.5



Component	Substrate	Side	Condition	Color	Room	LBP Result	LPB Concentration (mg/cm <sup>2</sup> )
Window Jamb	Wood	D	Intact	Black	Basement Section 1 - Hall	NEG	0.2
Window Jamb	Wood	D	Intact	Black	Basement Section 1 - Hall	NEG	0.1
Window Jamb	Wood	D	Intact	Black	Basement Section 1 - Hall	NEG	0.4
Window Sash	Wood	D	Intact	Black	Basement Section 1 - Hall	NEG	0.2
Window Sash	Wood	D	Intact	Black	Basement Section 1 - Hall	NEG	0.9
Door Casing	Wood	А	Intact	Black	Basement Section 1 - Hall	NEG	0
Door Casing	Wood	В	Intact	Black	Basement Section 1 - Hall	NEG	0.2
Door Jamb	Wood	В	Intact	Black	Basement Section 1 - Hall	NEG	0.1
Door Jamb	Wood	D	Intact	White	Section 1 Room 111	NEG	0
Door Casing	Wood	D	Intact	White	Section 1 Room 111	NEG	0.1
Window Jamb	Wood	В	Intact	White	Section 1 Room 111	NEG	0
Window Jamb	Wood	В	Intact	White	Section 1 Room 111	NEG	0
Window Sash	Wood	В	Intact	White	Section 1 Room 111	NEG	0.3
Door	Metal	D	Intact	White	Section 1 Room 111	NEG	0.2
Door Jamb	Metal	D	Intact	White	Section 1 Room 111	NEG	0.2
Wall	Concrete	А	Intact	White	Section 1 Room 111	NEG	0.1
Wall	Concrete	В	Intact	White	Section 1 Room 111	NEG	0.1
Wall	Concrete	С	Intact	White	Section 1 Room 111	NEG	-0.3
Wall	Concrete	D	Intact	White	Section 1 Room 111	NEG	0.3
Door Jamb	Metal	С	Intact	Black	Basement Section 1 - Hall	NEG	0.6
Door Jamb	Metal	С	Intact	Black	Basement Section 1 - Hall	NEG	0.5
Door	Metal	С	Intact	Black	Basement Section 1 - Hall	NEG	0
Wall	Concrete	В	Intact	White	Basement Section 2 - Hall	NEG	-0.3
Wall	Concrete	D	Intact	White	Basement Section 2 - Hall	NEG	-0.2
Wall	Concrete	С	Intact	White	Basement Section 2 - Hall	NEG	-0.1
Door Jamb	Metal	В	Intact	Black	Basement Section 2 - Hall	NEG	0.6
Door Jamb	Metal	В	Intact	Black	Basement Section 2 - Hall	NEG	0.3
Door Casing	Metal	В	Intact	Black	Basement Section 2 - Hall	NEG	0.6
Handrail	Metal	А	Intact	Black	Basement Section 2 - Hall	NEG	-0.1
Stringer	Wood	А	Intact	Black	Basement Section 2 - Hall	NEG	0
Door Jamb	Wood	С	Intact	Black	Basement Section 2 - Hall	NEG	-0.1
Door Jamb	Wood	С	Intact	Black	Basement Section 2 - Hall	NEG	0.1
Wall	Concrete	В	Intact	White	Basement Section 3 - Hall	NEG	-0.3



Component	Substrate	Side	Condition	Color	Room	LBP Result	LPB Concentration (mg/cm <sup>2</sup> )
Wall	Concrete	С	Intact	White	Basement Section 3 - Hall	NEG	-0.3
Wall	Concrete	D	Intact	White	Basement Section 3 - Hall	NEG	0
Door	Metal	D	Intact	Black	Basement Section 3 - Hall	NEG	-0.2
Door Jamb	Metal	D	Intact	Black	Basement Section 3 - Hall	NEG	0
Window Jamb	Wood	D	Intact	White	Basement Section 3 - Hall	NEG	0.6
Window Jamb	Wood	D	Intact	White	Basement Section 3 - Hall	NEG	0.4
Window Sash	Wood	D	Intact	White	Basement Section 3 - Hall	NEG	0
Window Sash	Wood	D	Intact	White	Basement Section 3 - Hall	NEG	0
Window Sash	Wood	С	Intact	White	Basement Section 2 - Entry - 1st Floor	NEG	0.1
Wall	Concrete	А	Intact	White	Basement Section 2 - Entry - 1st Floor	NEG	0.3
Wall	Concrete	С	Intact	White	Basement Section 2 - Entry - 1st Floor	NEG	0.4
Door Jamb	Wood	В	Intact	White	Basement Section 2 - Entry - 1st Floor	NEG	-0.1
Door Jamb	Wood	В	Intact	White	Basement Section 2 - Entry - 1st Floor	NEG	-0.1
Door Jamb	Wood	В	Intact	White	Basement Section 2 - Entry - 1st Floor	NEG	-0.2
Wall	Concrete	D	Intact	White	1st Floor Section 1	NEG	0.6
Wall	Concrete	А	Intact	White	1st Floor Section 1	NEG	0
Wall	Concrete	В	Intact	White	1st Floor Section 1	NEG	0.1
Wall	Concrete	С	Intact	White	1st Floor Section 1	NEG	0.1
Radiator	Metal	В	Intact	White	1st Floor Section 1	NEG	-0.1
Radiator	Metal	D	Intact	White	1st Floor Section 1	NEG	0.3
Door Jamb	Wood	А	Intact	White	1st Floor Section 1	NEG	0
Door Jamb	Wood	А	Intact	White	1st Floor Section 1	NEG	-0.1
Door Jamb	Wood	А	Intact	White	1st Floor Section 1	NEG	-0.2
Door Casing	Wood	А	Intact	White	1st Floor Section 1	NEG	-0.1
Door Casing	Wood	С	Intact	Black	1st Floor Section 1	NEG	0.1
Door Casing	Metal	С	Intact	Black	1st Floor Section 1	NEG	0
Door	Metal	С	Intact	Black	1st Floor Section 1	NEG	-0.1
Balustrade	Wood	С	Intact	Black	1st Floor Section 1	NEG	0.2
Balustrade	Wood	В	Intact	Black	1st Floor Section 1	NEG	0.2
Stringer	Wood	D	Intact	Black	1st Floor Section 1	NEG	0.2
Stringer	Wood	D	Intact	Black	1st Floor Section 1	NEG	0.1
Raiser	Wood	Lower	Intact	Black	1st Floor Section 1	NEG	0
Wall	Wood	С	Intact	Black	1st Floor Section 1	NEG	0.1



Component	Substrate	Side	Condition	Color	Room	LBP Result	LPB Concentration (mg/cm <sup>2</sup> )
Wall	Wood	С	Intact	Black	1st Floor Section 1	NEG	0.1
Wall	Concrete	В	Intact	White	1st Floor Section 2	NEG	0.4
Wall	Concrete	D	Intact	White	1st Floor Section 2	NEG	0.1
Vault Door Casing	Metal	D	Intact	Black	1st Floor Section 2	POS	5.5
Vault Door	Metal	D	Intact	Black	1st Floor Section 2	POS	11.4
Door Casing	Metal	С	Intact	Black	1st Floor Section 2	NEG	-0.1
Door	Metal	С	Intact	Black	1st Floor Section 2	NEG	-0.1
Door Jamb	Wood	В	Intact	Black	1st Floor Section 2	NEG	0.4
Door	Metal	В	Intact	Black	1st Floor Section 2	NEG	-0.2
Wall	Drywall	А	Intact	White	1st Floor Section 3	NEG	0
Wall	Concrete	В	Intact	White	1st Floor Section 3	POS	8.3
Wall	Concrete	В	Intact	White	1st Floor Section 3	POS	7.4
Wall	Concrete	D	Intact	White	1st Floor Section 3	POS	9.7
Wall	Concrete	С	Intact	White	1st Floor Section 3	POS	8.2
Vault Door	Metal	D	Intact	Black	1st Floor Section 3	POS	1.7
Wall	Drywall	D	Intact	Black	1st Floor Section 3	NEG	0
Wall	Drywall	А	Intact	Black	1st Floor Section 3	NEG	0.1
Wall	Drywall	С	Intact	Black	1st Floor Section 3	NEG	0
Wall	Drywall	D	Intact	Black	1st Floor Section 3	NEG	-0.1
Wall	Drywall	D	Intact	Black	1st Floor Section 3	NEG	-0.1
Door Casing	Metal	D	Intact	Black	1st Floor Section 3	NEG	0
Wall	Metal	D	Intact	White	1st Floor Section 3	NEG	0
Wall	Metal	В	Intact	White	Basement Section 3 - Hall	NEG	-0.2
Wall	Metal	D	Intact	White	Basement Section 3 - Hall	NEG	0
Wall	Concrete	В	Intact	White	2nd Floor Section 3	POS	16
Wall	Concrete	D	Intact	White	2nd Floor Section 3	POS	10.3
Door Casing	Wood	D	Intact	Black	2nd Floor Section 3	NEG	0
Door Casing	Wood	D	Intact	Black	2nd Floor Section 3	NEG	0.1
Vault Door	Metal	D	Intact	Black	2nd Floor Section 3	POS	2.4
Wall	Drywall	А	Intact	White	2nd Floor Section 3	NEG	-0.1
Wall	Drywall	В	Intact	White	2nd Floor Section 3	NEG	0
Wall	Drywall	С	Intact	White	2nd Floor Section 3	NEG	0
Wall	Drywall	D	Intact	White	2nd Floor Section 3	NEG	0



Component	Substrate	Side	Condition	Color	Room	LBP Result	LPB Concentration (mg/cm <sup>2</sup> )
Wall	Concrete	D	Intact	White	2nd Floor Section 2	NEG	0.1
Wall	Concrete	В	Intact	White	2nd Floor Section 2	NEG	0.1
Wall	Concrete	А	Intact	White	2nd Floor Section 1	NEG	-0.1
Wall	Concrete	В	Intact	White	2nd Floor Section 1	NEG	0.3
Wall	Concrete	С	Intact	White	2nd Floor Section 1	NEG	0.3
Wall	Concrete	D	Intact	White	2nd Floor Section 1	NEG	-0.3
Door Jamb	Wood	А	Intact	Black	2nd Floor Section 1	NEG	0.1
Door Jamb	Wood	А	Intact	Black	2nd Floor Section 1	NEG	-0.1
Door Casing	Wood	А	Intact	Black	2nd Floor Section 1	NEG	0.2
Door Casing	Wood	А	Intact	Black	2nd Floor Section 1	NEG	0.1
Door Casing	Wood	В	Intact	Black	2nd Floor Section 1	NEG	0.2
Door Jamb	Wood	В	Intact	Black	2nd Floor Section 1	NEG	0.1
Door Jamb	Wood	В	Intact	Black	2nd Floor Section 1	NEG	0.1
		Calibration1				NEG	0.9
		Calibration2				NEG	0.9
		Calibration3				NEG	0.9
		Calibration4				NEG	0
		Calibration5				NEG	-0.1
		Calibration6				NEG	0

### **APPENDIX J**

### LEAD SAMPLE LOCATION DIAGRAMS





