

#### **LIMITED ASBESTOS & LEAD INSPECTION REPORT**

**FOR** 

## **UNIVERSITY OF SOUTH CAROLINA- UNION**

**309 East Academy Street** Union, South Carolina 29379

#### **LOCATION**

USC- Union, Central Building- Roof Replacement/ Repair Project 309 East Academy Street Union, South Carolina 29379

INSPECTION DATE: November 9, 2017 REPORT DATE: November 17, 2017

## **INSPECTORS**

Evans Harris – SC-DHEC License #BI-01224

Dustin Henderson – SC-DHEC License #BI-01510

For

Crossroads Environmental, LLC 1258 Boiling Springs Road Spartanburg, South Carolina 29303 (864) 541-8736 CRE Project # 15584-IN

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November 17, 2017

Mr. Lee Miller
University of South Carolina- Union
309 E. Academy Street
Union, South Carolina 29379

Re: Limited Asbestos & Lead Inspection Report

USC-Union, Central Building- Roof Replacement/ Repair Project

309 E. Academy Street, Union, SC CRE Project Number: 15584-IN

Dear Mr. Miller:

Crossroads Environmental, LLC (CRE) completed a limited asbestos and lead inspection at the University of South Carolina-Union, located at 309 E. Academy Street in Union, South Carolina on November 9, 2017. The scope of work was limited to sampling all building materials to be impacted by a roof replacement and/or repair project that encompasses all roofing materials excluding the flat, EPDM membrane sections. The inspection was performed by SC-DHEC Licensed Asbestos Inspectors, and in accordance with South Carolina Department of Health and Environmental Control (SC-DHEC) and Environmental Protection Agency (EPA) Requirements. A detailed summary table of the sampling is included in Attachment I; however, this report should be read in its entirety.

#### **Building Description**

The Central Building at USC-Union is composed of three (3) building sections that have been connected through renovations over time. The roofing system is uniform throughout all sections, and features primarily asphalt/fiberglass shingles over plywood decking on the gabled sections, with EPDM membrane covering the low slope areas where the building sections were connected. The northwest and northeast entranceways are covered with pre-finished, standing seam metal panels. Non-suspect building materials identified were silicone caulking on the central section chimney and copula flashing.

## Inspection Strategy/Sampling Protocol

## <u>Asbestos</u>

The asbestos inspection consisted of grouping suspect asbestos containing materials into homogeneous areas based on the color and texture of the material, and then performing representative sampling of the materials included in those homogeneous areas. SC-DHEC has requirements for the minimum number of samples that can be collected from each homogeneous area (three samples of each miscellaneous material, three samples of each type of thermal system insulation, and the sample requirements for surfacing are based on square footage). Following completion of the on-site inspection/sampling, samples were submitted to an accredited laboratory for analysis.

As of June 27, 2008, SC-DHEC requires that any non-friable organically bound (NOB) material that is suspect to contain asbestos, such as floor tile, mastics, roofing material, and caulking must be analyzed by transmission electron microscopy (TEM) if polarized light microscopy (PLM) analyses of that material indicate that no asbestos was detected.

#### Lead

In addition to asbestos sampling, lead testing was performed by collecting paint chips from representative painted components and then submitting the samples to an accredited laboratory for analysis by flame atomic absorption spectroscopy.

Please Note: The north section painted fascia/soffit could not be accessed due to height, and for purposes of this report is assumed as homogeneous to the other sections.

## <u>Results</u>

#### <u>Asbestos</u>

EPA recognizes a material as Asbestos Containing Material (ACM) if an asbestos content of greater than one percent asbestos is detected in a representative sample analyzed by polarized light microscopy.

Results indicated that no asbestos was detected in any of the materials sampled.

#### Lead

According to the Environmental Protection Agency (EPA), paint containing ≥1 mg/cm2 of lead (by XRF) or 0.5% by weight (paint chip analysis) is considered lead-based paint (LBP).

Where worker protection is concerned, the Occupational Safety and Health Administration (OSHA) does not specify a lead level in paint. The OSHA standard (Lead

in Construction Interim Final Rule, 29 CFR 1926.62) indicates that if airborne lead levels exceed the Action Level (AL is  $30 \, \mu g/mm^3$ ) from a potential disturbance, then an employee exposure assessment would be required.

Lead-based paint was detected on the fascia/soffit of the south (original) section, central section and copula. Please Note: The north section fascia/soffit could not be accessed due to height, but is assumed as homogeneous to the other sections.

## Relevant Regulatory Requirements/Recommendations

#### Lead

Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1926.62 applies to new construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead. The Contractor performing work affecting the paint during roof replacement will be responsible for compliance with this Standard as well as OSHA Standard 29 CFR 1910.1025 (general industry).

In summary, Contractors disturbing components paint with LBP must:

- Be properly trained in accordance with OSHA 29 CFR 1926.62
- Use safe lead-work practices at all times
- Perform an initial exposure assessment for each task being performed
- Utilize proper respiratory protection and have documentation including Respiratory Protection and Medical Surveillance Plans

Additionally, all lead-based paint that has been scraped from its substrate must be properly disposed of following waste characterization by toxicity characteristic leaching procedure (TCLP).

#### **Closing Statements and Limitations**

Every effort was made to identify all materials in accessible areas. There is the possibility that suspect materials were not identified in inaccessible areas. If any suspect material is discovered that is not included within this report, it should be sampled before it is physically disturbed.

This document has been prepared by Crossroads Environmental, LLC at the request of and for the exclusive use of the University of South Carolina- Union. This report represents the findings from the date that it was inspected, and is limited in scope to that indicated above.

Crossroads Environmental, LLC appreciates the opportunity to provide the University of South Carolina- Union with our consultative services. Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,

Dustin Henderson Licensed Inspector

Dustil Herdrey

Evans Harris

Licensed Inspector

Kay H. Horton President

EΗ

Attachments – (4)

# ATTACHMENT I ASBESTOS SUMMARY TABLE

CROSSROADS ENVIRONMENTAL, LLC ASBESTOS INSPECTION REPORT CRE JOB #: 15584-IN				
Location:	cation: USC-Union Central Building Roof Replacement/ Repair Project			
Client:	lient: University of South Carolina- Union DATE: 11/9/2017			

Key: A=Amosite, C=Chrysotile, Cr=Crocidolite, Tr=Tremolite, Ac=Actinolite Asbestos, Misc.=Miscellaneous, HA#=Homogeneous Area #, PLM=Polarized Light Microscopy, TEM=Transmission Electron Microscopy, /=PLM and/or TEM Analysis Not Required

sq.ft.=Square Feet, cu.ft.=Cubic Feet, In.ft.=Linear Feet, HJI=Hard Joint Insulation, TSI=Thermal System Insulation, BUR=Built-up Roofing, Surf=Surfacing NAD=No Asbestos Detected, SP=Stop Positive

HA#	Type of Material TSI, Surf, Misc.	Material Type	Sample Number	Asbestos Content (PLM)	Asbestos Content (TEM)	Location of Sample	Approx. Quantity	Physical Condition	Location/ Comments
			263 Shingle 263 Felt	NAD NAD	/	South section copula roof			
01	Misc	Roof Shingles & Felt Paper	264 Shingle 264 Felt	NAD NAD	/	Central section at damage	N/A	Good; Non- Friable	Located over gabled roof sections.
			265 Shingle 265 Felt	/	NAD NAD	North section gable			
			266 Mastic 266 Felt	NAD NAD	/	Copula			
02	Misc	Mastic & Felt Coating Over Playwood	267 Mastic 267 Felt	NAD NAD	/	Copula	N/A	Good; Non- Friable	Located on flat section under copula.
			268 Mastic 268 Felt	/	NAD NAD	Copula			
			269	NAD	/	North section gable			
03	Misc	Nail & Flashing Caulk	270	NAD	/	North section attic vent	N/A	,	Located over "end nails", vent penetrations, etc.
			271	/	NAD	South section gable			

# ATTACHMENT II LABORATORY REPORT(S)



November 10, 2017

Crossroads Environmental 1258 Boiling Springs Road Spartanburg, SC 29303

CLIENT PROJECT: USC- Union Roof; 15584-IN

**CEI LAB CODE**: A17-15917

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on November 9, 2017. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

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

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

Kind Regards,

Tianbao Bai, Ph.D., CIH Laboratory Director





## ASBESTOS ANALYTICAL REPORT By: Polarized Light Microscopy

## **Prepared for**

## **Crossroads Environmental**

CLIENT PROJECT: USC- Union Roof; 15584-IN

CEI LAB CODE: A17-15917

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

REPORT DATE: 11/10/17

TOTAL SAMPLES ANALYZED: 6

# SAMPLES >1% ASBESTOS:

TEL: 866-481-1412

www.ceilabs.com



## **Asbestos Report Summary**

By: POLARIZING LIGHT MICROSCOPY

**PROJECT:** USC- Union Roof; 15584-IN **CEI LAB CODE:** A17-15917

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

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
263	Layer 1	A2541250	Black	Roof Shingle	None Detected
	Layer 2	A2541250	Black	Felt Paper	None Detected
264	Layer 1	A2541251	Black	Roof Shingle	None Detected
	Layer 2	A2541251	Black	Felt Paper	None Detected
265	Layer 1	A2541252		Sample Submitted for TEM Analysis	
	Layer 2	A2541252		Sample Submitted for TEM Analysis	
266	Layer 1	A2541253	Black	Mastic	None Detected
	Layer 2	A2541253	Black	Felt Coating	None Detected
267	Layer 1	A2541254	Black	Mastic	None Detected
	Layer 2	A2541254	Black	Felt Coating	None Detected
268	Layer 1	A2541255		Sample Submitted for TEM Analysis	
	Layer 2	A2541255		Sample Submitted for TEM Analysis	
269		A2541256	Black	Caulking	None Detected
270		A2541257	Black	Caulking	None Detected
271		A2541258		Sample Submitted for TEM Analysis	



## **ASBESTOS BULK ANALYSIS**

By: POLARIZING LIGHT MICROSCOPY

**Client:** Crossroads Environmental

1258 Boiling Springs Road Spartanburg, SC 29303 CEI Lab Code: A17-15917

Date Received: 11-09-17

Date Analyzed: 11-10-17

Date Reported: 11-10-17

Project: USC- Union Roof; 15584-IN

## **ASBESTOS BULK PLM, EPA 600 METHOD**

Client ID	Lab	Lab	NO	N-ASBESTOS	ASBESTOS		
Lab ID	Description	Attributes	Fibr	ous	Non-F	ibrous	%
<b>263</b> Layer 1 A2541250	Roof Shingle	Heterogeneous Black Fibrous Bound	60%	Fiberglass	35% 5%	Tar Gravel	None Detected
Layer 2 A2541250	Felt Paper	Homogeneous Black Fibrous Bound	70%	Cellulose	30%	Tar	None Detected
<b>264</b> Layer 1 A2541251	Roof Shingle	Heterogeneous Black Fibrous Bound	60%	Fiberglass	35% 5%	Tar Gravel	None Detected
Layer 2 A2541251	Felt Paper	Homogeneous Black Fibrous Bound	70%	Cellulose	30%	Tar	None Detected
<b>265</b> Layer 1 A2541252	Sample Submitted for TEM Analysis						
Layer 2 A2541252	Sample Submitted for TEM Analysis						
<b>266</b> Layer 1 A2541253	Mastic	Homogeneous Black Fibrous Bound	40%	Cellulose	60%	Tar	None Detected
Layer 2 A2541253	Felt Coating	Homogeneous Black Fibrous Bound	60%	Fiberglass	40%	Tar	None Detected



## **ASBESTOS BULK ANALYSIS**

By: POLARIZING LIGHT MICROSCOPY

**Client:** Crossroads Environmental

1258 Boiling Springs Road Spartanburg, SC 29303 CEI Lab Code: A17-15917

Date Received: 11-09-17

Date Analyzed: 11-10-17

Date Reported: 11-10-17

Project: USC- Union Roof; 15584-IN

## ASBESTOS BULK PLM, EPA 600 METHOD

Olielit ID Lab Lab			NO	N-ASBESTOS	СОМРО	ASBESTOS	
Lab ID	Description	Attributes	Fibr	ous	Non-F	ibrous	%
<b>267</b> Layer 1 A2541254	Mastic	Homogeneous Black Fibrous Bound	40%	Cellulose	60%	Tar	None Detected
Layer 2 A2541254	Felt Coating	Homogeneous Black Fibrous Bound	60%	Fiberglass	40%	Tar	None Detected
<b>268</b> Layer 1 A2541255	Sample Submitted for TEM Analysis						
Layer 2 A2541255	Sample Submitted for TEM Analysis						
<b>269</b> A2541256	Caulking	Homogeneous Black Fibrous Bound	40%	Cellulose	60%	Tar	None Detected
<b>270</b> A2541257	Caulking	Homogeneous Black Fibrous Bound	40%	Cellulose	60%	Tar	None Detected
<b>271</b> A2541258	Sample Submitted for TEM Analysis						



**LEGEND:** Non-Anth = Non-Asbestiform Anthophyllite

Non-Trem = Non-Asbestiform Tremolite

Calc Carb = Calcium Carbonate

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

**REPORTING LIMIT:** <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

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

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

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

**ANALYST** 

Magan Fisher

APPROVED BY:

Tianbao Bai, Ph.D., CIH Laboratory Director

**NVLAP LAB CODE 101768-0** 



730 S.E. Maynard Rd., Cary, NC 27511 Tel: 919-481-1413; Fax: 919-481-1442

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LAB USE ONLY:	
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COMPANY CONTACT INFORMATION	
Company: CROSSROADS ENVIRONMENTAL, LLC	Client #:
Address: 1258 BOILING SPRINGS RD.	Job Contact: Kay H. Horton
SPARTANBURG, SC 29303	Email: RESULTS@CROSSROADSENV.NET
	Tel: 864-541-8736
Project Name: USC-Union Roof	Fax: 864-541-8776
Project ID #: 15584-IN	P.O. #:

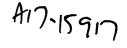
CEI Lab I.D. Range:

ASBESTOS	METHOD	4 HR*	8 HR*	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600			X			
TEM BULK	CHATFIELD			Х	-		
PLM POINT COUNT (400)	EPA 600						
PLM POINT COUNT (1000)	EPA 600			en Bistonia in			
PLM GRAVIMETRIC	EPA 600						
PLM GRAV w POINT COUNT	EPA 600						
OTHER:							-

POSITIVE STOP ANALYSIS	Х
SOUTH CAROLINA SAMPLES	Х
NORTH CAROINA SAMPLES	

TEM INSTRUCTIONS	
BEGIN TEM ANALYSIS AFTER NEGATIVE PLM	Х
ANALYZE TEM SAMPLES SIMULTANEOUSLY WITH PLM	

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## **SAMPLING FORM**

COMPANY CONTACT INFORMATION TO THE REPORT OF THE PROPERTY OF T				
Crossroads Environmental, LLC	Job Contact: Dustin Henderson			
Project Name: USC-Union Roof				
Project ID #: 15584-IN	Tel: 864-541-8736			

SAMPLE ID#	HA	DESCRIPTION//LOCATION			TEST	
263	01	Roof Shingles & Felt	PLM	x	TEM	
264	01	Roof Shingles & Felt	PLM	х	TEM	
265	01	Roof Shingles & Felt	PLM		TEM	х
266	02	Heavy Mastic, Felt Coating	PLM	×	TEM	
267	02	Heavy Mastic, Felt Coating	PLM	x	TEM	
268	02	Heavy Mastic, Felt Coating	PLM		TEM	х
269	03	Nail & Seam Caulk	PLM	х	TEM	
270	03	Nail & Seam Caulk	PLM	×	TEM	
271	03	Nail & Seam Caulk	PLM		TEM	×
			PLM		TEM	
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		Page 2 of 4	PLM		TEM	



November 13, 2017

Crossroads Environmental 1258 Boiling Springs Road Spartanburg, SC 29303

CLIENT PROJECT: USC-Union Roof; 15584-IN

CEI LAB CODE: T17-2354

Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on November 10, 2017. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield Method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield method is <1% depending on the processed weight and constituents of the sample.

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

Kind Regards,

Tianbao Bai, Ph.D., CIH Laboratory Director

Mansao Di



## ASBESTOS ANALYTICAL REPORT By: Transmission Electron Microscopy

## **Prepared for**

## **Crossroads Environmental**

CLIENT PROJECT: USC-Union Roof; 15584-IN

CEI LAB CODE: T17-2354

TEST METHOD: Bulk Chatfield

EPA 600 / R93 / 116

REPORT DATE: 11/13/17

TEL: 866-481-1412

www.ceilabs.com



## **ASBESTOS BULK ANALYSIS**

By: TRANSMISSION ELECTRON MICROSCOPY

**CEI Lab Code:** 

Client: Crossroads Environmental

1258 Boiling Springs Road Spartanburg, SC 29303 Date Received: 11-10-17 Date Analyzed: 11-13-17 Date Reported: 11-13-17

T17-2354

Project: USC-Union Roof; 15584-IN

## TEM BULK CHATFIELD / EPA 600 / R93 / 116

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
265 T70289	Black Roof Shingle	0.276	22.8	40.2	37	None Detected
265 T70290	Black Felt Paper	0.461	97.4	2.4	.2	None Detected
268 T70291	Black Mastic	0.492	70.9	22	7.1	None Detected
268 T70292	Black Felt Coating	0.411	66.9	8.5	24.6	None Detected
271 T70293	Black Caulking	0.569	45.7	36.7	17.6	None Detected



**LEGEND**: None

METHOD: CHATFIELD & EPA/600/R-93/116

**LIMIT OF DETECTION:** Varies with the weight and constituents of the sample (<1%)

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

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by CEI Labs, Inc. CEI Labs makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Estimated measurement of uncertainty is available on request. Samples were received in acceptable condition unless otherwise noted.

ANALYST: \_\_\_\_\_\_ APPROVED BY: \_\_\_\_\_\_\_ Jennifer Turner

Tianbao Bai, Ph.D., CIH **Laboratory Director** 

T17-2354
(9) 117-15.917
A 254 1250
(5) T70 289-293 CHAIN OF CUSTODY A)541258

	, , , , , ,
LAB USE ONLY:	
CEI Lab Code:	
CEI Lab I.D. Range:	

730 S.E. Maynard Rd., Cary, NC 27511 Tel: 919-481-1413; Fax: 919-481-1442

COMPANY CONTACT INFORMATION			
Company: CROSSROADS ENVIRONMENTAL, LLC	Client #:		
Address: 1258 BOILING SPRINGS RD.	Job Contact: Kay H. Horton		
SPARTANBURG, SC 29303	Email: RESULTS@CROSSROADSENV.NET		
	Tel: 864-541-8736		
Project Name: USC-Union Roof	Fax: 864-541-8776		
Project ID #: 15584-IN	P.O. #:		

ASBESTOS	METHOD	4 HR*	8 HR*	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600			T x			
TEM BULK	CHATFIELD			X			
PLM POINT COUNT (400)	EPA 600						
PLM POINT COUNT (1000)	EPA 600						
PLM GRAVIMETRIC	EPA 600						
PLM GRAV w POINT COUNT	EPA 600						
OTHER:							

POSITIVE STOP ANALYSIS	X
SOUTH CAROLINA SAMPLES	X
NORTH CAROINA SAMPLES	

TEM INSTRUCTIONS	
BEGIN TEM ANALYSIS AFTER NEGATIVE PLM	X
ANALYZE TEM SAMPLES SIMULTANEOUSLY WITH PLM	

				Accept Samples
				Reject Samples
Relinquished By:	Date/Time	Received By:		Date/Time
Dustin Henderson	11/8/2017 0:00		A)	11917
- V	11/10/17 11:00			9:10



## SAMPLING FORM

COMPANY CONTACT INFORMATION					
Crossroads Environmental, LLC	Job Contact: Dustin Henderson				
Project Name: USC-Union Roof					
Project ID #: 15584-IN	Tel: 864-541-8736				

SAMPLE ID#	НА	DESCRIPTION / LOCATION				
263	01	Roof Shingles & Felt	DIM		TEST	
264	01	Roof Shingles & Felt	PLM	X	TEM	_
265	01	Roof Shingles & Felt	PLM	×	TEM	
266	02	Heavy Mastic, Felt Coating	PLM	· ·	TEM	X
267	02	Heavy Mastic, Felt Coating	PLM	X	TEM	
268	02	Heavy Mastic, Felt Coating	PLM		TEM	
269	03	Nail & Seam Caulk	PLM	V	TEM	X
270	03	Nail & Seam Caulk	PLM	X	TEM	
271	03	Nail & Seam Caulk	PLM	X	TEM	
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		I Page 2 of 4	PLM		TEM	



## LABORATORY REPORT LEAD IN PAINT

**Client: Crossroads Environmental** 

1258 Boiling Springs Road Spartanburg, SC 29303 CEI Lab Code: C17-0840

**Received:** 11-09-17 **Analyzed:** 11-13-17 **Reported:** 11-13-17

Project: 15584-IN

**ANALYSIS METHOD: EPA SW846 7000B** 

CLIENT ID	CEI LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
LBP001	CA62528	51	0.0051
LBP002	CA62529	30000	3.0
Sample contains substr	ate, potentially affecting results		
LBP003	CA62530	55000	5.5
Sample contains substr	ate, potentially affecting results		
LBP004	CA62531	17000	1.7

Project: 15584-IN

Lab Code: C17-0840

#### **ANALYSIS METHOD: EPA SW846 7000B**

CLIENT ID

CEI
PPM (μg/g)
% BY WEIGHT

LAB ID

Reviewed By:

Tianbao Bai, Ph.D. Laboratory Director

This method has been validated for sample weights of 0.020g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations.

\* The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.

Minimum reporting limit is 10  $\mu$ g total lead. Sample results denoted with a "less than" (<) sign contain less than 10.0  $\mu$ g total lead, based on a 40ml sample volume.

Lead samples are not analyzed by CEI Labs Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.

Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, CEI Labs discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of CEI Labs.

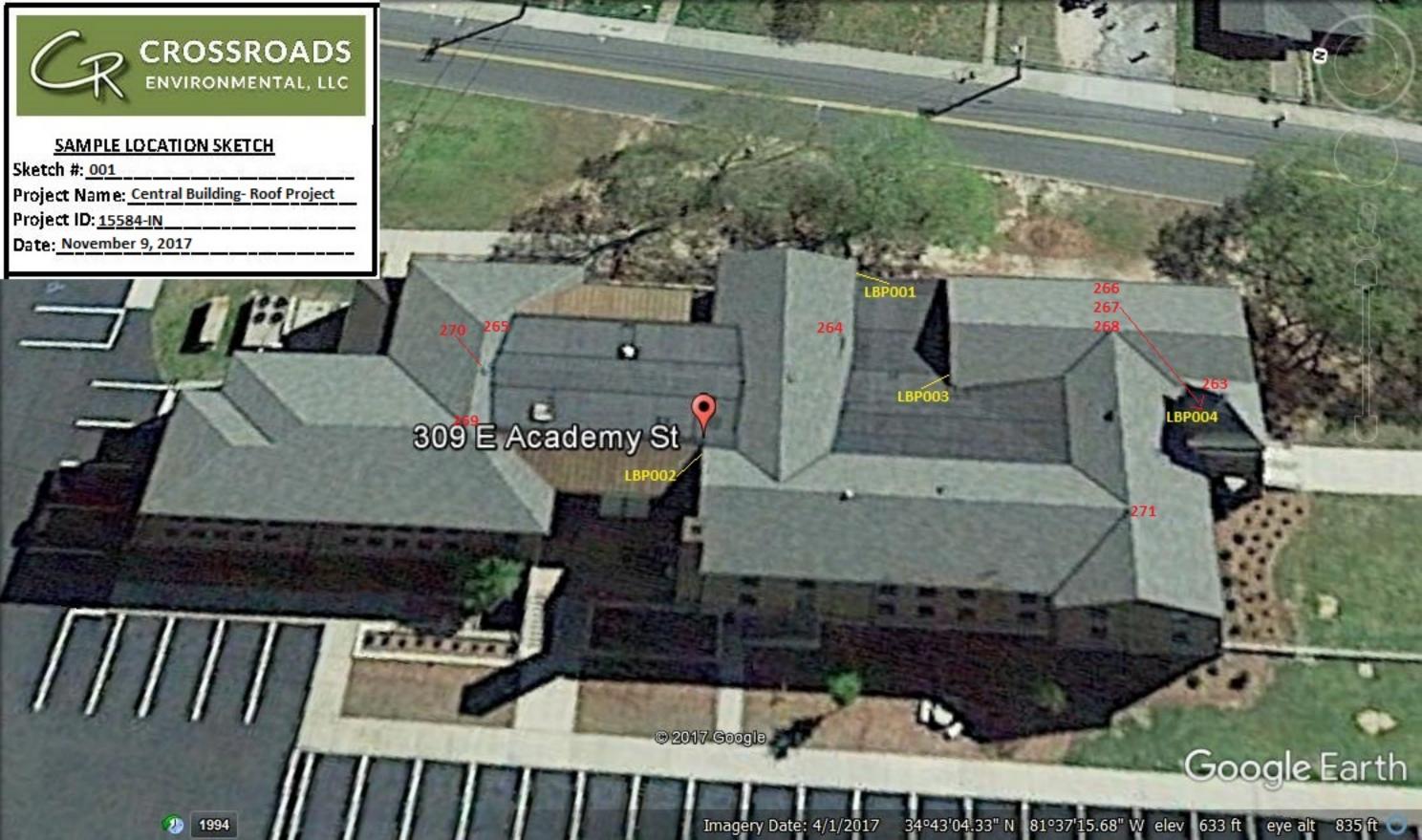
REGULATORY LIMITS	% lead by weight.			
LEGEND	μg = microgram ml = milliliter	ppm = parts per million Pb = lead	g = grams wt = weight	

**End of Report** 

(AU2528- (A62531

CROSSROADS ENVIRONMENTAL, LLC Sample Chain of Custody 1258 Boiling Springs Road Spartanburg, SC 29303 Phone (864) 541-8736 Fax (864) 541-8776 results@crossroadsenv.net	PageL of _L  Date Sent:
Type of Analysis:  PCM PLM TEM AAS Other Air Bulk Air Chips/ Bulk Wipes Water Water	Turn Around:  24 HR 48 HR 72 HR 5 Day Other:  Special Instructions:  Stop Positive PLM any layers not TEM'd
Sample ID# DESCRIPTION	ON OF SAMPLE COMMENTS
LBPOOD Point chips (foria) LBPOOD Point chips (foria) LBPOOD Point chips (foria) LBPOOD Point chips (foria)	) 2-00y T/A
* Analyze for lead con	Tenl, thouss.
Signature & Date of Handlers: Relinquished By: Relinquished By: Relinquished By:	eceived By: A 1\ 9 17 9:16
Relinquished By: Relinquished By: Re	eceived By:

# ATTACHMENT III SAMPLE LOCATION SKETCH AND/OR PHOTOS



# ATTACHMENT IV ACCREDITATION(S)

## SCDHEC ISSUED

Asbestos ID Card

#### **Dustin Henderson**





**AIRSAMPLER** AS-00479 01/30/18 CONSULTBI BI-01510 02/14/18



**Asbestos ID Card** 

## **Evans Harris**



CONSULTBI CONSULTPD AIRSAMPLER BI-01224 PD-00149

**AS-00383** 

**Expiration Date:** 

10/02/18

12/19/17

10/03/18