TERRA Environmental

TO: ROBERT SALERNO
FACILITIES PROJECT SUPERVISOR
CALIFORNIA STATE UNIVERSITY
5151 STATE UNIVERSITY DRIVE
LOS ANGELES, CA 90032

LIMITED ASBESTOS SURVEY REPORT
King Hall Rm. C129

Date Prepared: November 14, 2018

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I. Executive Summary and Purpose

At the request of Mr. Robert Salerno of California State University Los Angeles facilities Department, Terra Environmental Services conducted a limited asbestos survey at King Hall Room C129. The Survey was authorized by the Mr. Salerno in acceptance of Terra Proposal for Asbestos Consulting Services.

II. Scope of services

The scope of this investigation included a visual inspection of King Hall Room C129, digital photography of key observations, sample collection of suspect asbestos containing building materials with laboratory analysis of samples, and production of this written report of findings, conclusions, and recommendations.

The building materials included in this assessment are those expected to be impacted during the King Hall Room C129 renovation project. In general, the renovation project will involve the disturbance of the ceiling, walls and flooring.

III. Visual Survey, Sampling Methodology, and Analytical Procedures

a. Visual Survey

The Visual Survey consisted of a walk-through and visual inspection of the affected building. It included the identification of all suspect asbestos containing materials and the physical touching of suspect ACBM in an effort to determine the friability and condition of said materials.

In surveying the building, we used our training in identifying asbestos-containing materials, our familiarity with building construction and our general experience to locate potential sources of ACM and ACCM.

This evaluation was performed in accordance with the Asbestos-Containing Materials in Buildings rule prepared by the U.S. EPA. Destructive sampling collection methods were used by Terra Environmental on site representative. The asbestos building survey was performed by Mr. Israel Monsalvo a DOSH CAC #04-3551 and Ms. Elnara Tagieva, an AHERA Certified Asbestos Building Inspector #ABIR0405180013N15367 (DOSH CSST Trainee) on November 09, 2018.

b. Sampling Methodology

The next phase of the survey was the selection of sampling areas and collection of bulk samples. Material sampling areas were grouped based on material homogeneity. A homogeneous material is one, which contains the same texture, color, and uniform, applied during the same general time period. Terra employed destructive sampling

methods for the collection of bulk samples. All sampled materials were in good condition at the time of the inspection and sample collection.

c. Analytical Procedures

The PLM Method is the most commonly used method to analyze building materials for the presence of asbestos. This method utilizes the optical properties of minerals to identify the selected constituent. The use of this method enables identification of the type and the percentage of asbestos in a given sample. The detection limit of the PLM method for asbestos identification is about one percent (1%) asbestos.

Because the State of California recognizes asbestos-containing construction material (ACCM) as any material, which contains greater than or equal to one tenth of one percent (0.1%) asbestos, materials containing "trace" amounts of asbestos are reported by Terra Environmental as ACCM in the State of California.

Terra Environmental collected a total of fifteen (15) bulk samples of suspect ACM that were analyzed twenty (20) times on a layer by layer basis. The samples were transferred following proper chain of custody protocol to AIH Laboratory, located at 2556 W. Woodland Dr. Anaheim California, for analysis.

AIH Laboratory is an accredited laboratory for bulk asbestos analysis under the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (Certification Number 500079-0). The samples were analyzed by Polarized Light Microscopy (PLM) with optical dispersion staining in accordance with the United States Environmental Protection Agency (EPA) Method (EPA 600/M4-82-020 per 40 CFR 763, subpart F, Appendix A).

IV. Discussion of Survey Findings and Recommendations

ASBESTOS

Asbestos-containing material (ACM) means any material containing more than 1% asbestos. Asbestos Standard for Construction 29 CFR 1926.1101.

Asbestos-Containing Construction Material (ACCM) is defined by California DOSH Title 8, Section 1529 (341.6 Registration Requirements) to mean any manufactured construction material which contains more than 1/10th of 1 percent asbestos by weight.

The visual inspection and bulk sample analysis results revealed the following Asbestos-Containing Materials:

Homogeneous Material	Location	Lab Sample Numbers	Asbestos detected	Quantity
Plaster	Ceiling Hallway in Front of Room C129	181359301 181359302 181359303	None Detected	30 Sq. Ft.
Brown Hockey Puck	Ceiling above the Tile Hallway in Front of Room C129	181359304 181359305 181359306	None Detected	30 Sq. Ft.
Ceiling Tile	Ceiling Hallway in Front of Room C129	181359307 181359308 181359309	None Detected	30 Sq. Ft.
VFT 12"x12" Grey w/Black Mastic	**Floor Hallway in Front of Room C129**	**181359310 181359311 181359312**	**Chrysotile 3%**	**20 Sq. Ft.**
Concrete	Floor Curb Wall Room C129	181359313 181359314 181359315	None Detected	8 Sq. Ft.

Recommendations for handling ACM:

Asbestos containing materials will be impacted by the King Hall Room C129 renovation project activities.

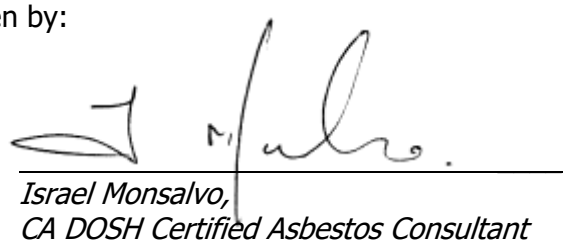
Removal and disposal of Asbestos containing **VFT 12"x12" Grey w/Black Mastic** must be performed by a California Licensed Asbestos Abatement Contractor, in accordance with all applicable regulations, including but not limited to, 29 CFR 1926.1101 (OSHA), 40 CFR 763 (AHERA), 40 CFR Part 61 (NESHAPS) and 8 CAC 1529 (Cal/OSHA Asbestos), including mandatory and non-mandatory appendices as applicable, and Local Air Quality Management District regulations (SCAQMD 1403).

Should materials different to those identified in this report or, other forms of suspect hazardous materials be discovered during the renovation process, the contractor should be instructed to cease all work activities which may initiate an exposure episode and notify the appropriate management personnel.

V. General Recommendations and Notes

Terra has endeavored to observe the exiting conditions within the subject property using generally accepted procedures. Regardless of the thoroughness of a survey, there is always a possibility some areas containing asbestos were overlooked or were inaccessible, or are different from those at specific sample locations. Therefore, conditions at every location may not be as anticipated by our field representative. In addition, demolition may uncover altered or differing conditions.

Written by:



Israel Monsalvo,
CA DOSH Certified Asbestos Consultant
CAC #04-3551
Terra Environmental Services

VI. Confidentiality and Limitations

This report has been prepared for the sole use of California State University. Material quantities are, in some cases, listed within this document. Those quantities are not intended to be used for removal bidding purposes. This document also is not intended as a contract manual; work methods and sequence, coordination of participants, applicable codes, engineering controls, required submittals and notifications should in all cases be addressed in a separate and independent bidding and contract document.

PHOTOGRAPHS

King Hall C129	
Photo #1 Hallway outside Room C129 Non-ACM: Plaster 1x1 Ceiling tiles Brown adhesive	
Photo #2 Hallway outside room C129 ACM black mastic on 12x12 VFT (multi-layer)	

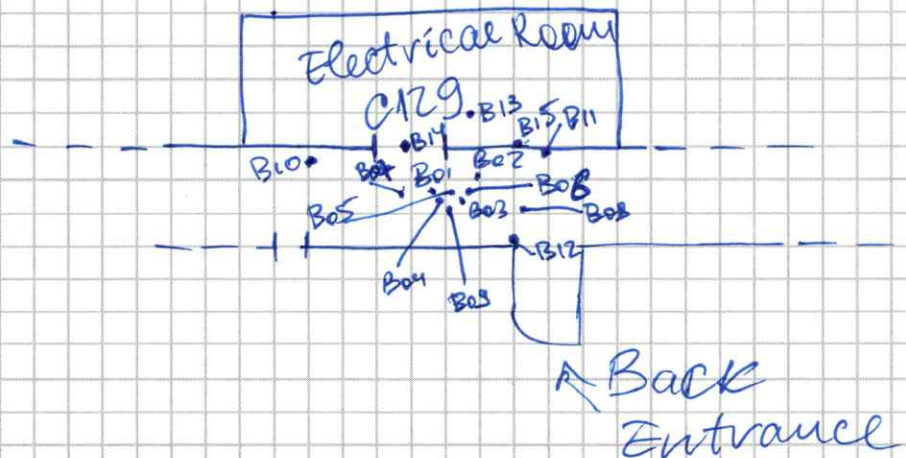
Terra
Environmental

Poject # 71598
Date: 11/9/18
Type of Work: AS

Customer

Project Name: Asbestos Survey.

Project Adress: CalState- LA, King Hall Building.



Back Entrance

12631 Imperial Hwy Suite A225 Santa Fe Springs, CA 90670
Tel 562/868-3777 - Fax 562/868-3778 www.terraeng.com

LABORATORY RESULTS
AND COC

2556 W Woodland Dr Anaheim, CA 92801

BULK ASBESTOS FIBER ANALYSIS

BY POLARIZED LIGHT MICROSCOPY

NVLAP TESTING
NVLAP LAB CODE 500079-0
Phone:(562) 860-2201
www.aihlab.com

Client Name: Terra Environmental
Project Manager: Israel Monsalvo
Client Address: 12631 Imperial Hwy Ste A225 Santa Fe Springs, CA 90670
Project Number: 71598
Project Location: Cal State - LA King Hall Building

Lab Batch Number: 1813593
Samples Submitted: 15
Samples Analyzed: 15
Analysis Method: EPA 600/R-93/116 & EPA 600/M4-82-020

Lab ID: 181359301 **Client ID:** B01

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey sandy material	**None Detected**	Cellulose <1%	Binder/Filler, Mineral Grains

Lab ID: 181359302 **Client ID:** B02

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey sandy material	**None Detected**	Cellulose <1%	Binder/Filler, Mineral Grains

Lab ID: 181359303 **Client ID:** B03

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey sandy material	**None Detected**	Cellulose <1%	Binder/Filler, Mineral Grains

Lab ID: 181359304 **Client ID:** B04

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Brown brittle mastic	**None Detected**	Cellulose <1%	Mastic/Binder, Fine Particles

Lab ID: 181359305 **Client ID:** B05

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Brown brittle mastic	**None Detected**	Cellulose <1%	Mastic/Binder, Fine Particles

Lab ID: 181359306 **Client ID:** B06

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Brown brittle mastic	**None Detected**	Cellulose <1%	Mastic/Binder, Fine Particles

2556 W Woodland Dr Anaheim, CA 92801

BULK ASBESTOS FIBER ANALYSIS

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Client Name: Terra Environmental
Project Manager: Israel Monsalvo
Client Address: 12631 Imperial Hwy Ste A225 Santa Fe Springs, CA 90670
Project Number: 71598
Project Location: Cal State - LA King Hall Building

Lab Batch Number: 1813593
Samples Submitted: 15
Samples Analyzed: 15
Analysis Method: EPA 600/R-93/116 & EPA 600/M4-82-020

Lab ID: 181359307 **Client ID:** B07

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Brown compressed fibrous material with paint	**None Detected**	Cellulose 80%	Binder/Filler, Fine Particles

Lab ID: 181359308 **Client ID:** B08

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Brown compressed fibrous material with paint	**None Detected**	Cellulose 80%	Binder/Filler, Fine Particles

Lab ID: 181359309 **Client ID:** B09

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Brown compressed fibrous material with paint	**None Detected**	Cellulose 80%	Binder/Filler, Fine Particles

Lab ID: 181359310 **Client ID:** B10

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey floor tile	**None Detected**	None Detected	Vinyl/Binder, Fine Particles
2.	Black mastic	**Chrysotile 3%**	Cellulose 2%	Mastic/Binder, Fine Particles

Lab ID: 181359311 **Client ID:** B11

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey floor tile	**None Detected**	None Detected	Vinyl/Binder, Fine Particles
2.	Yellow mastiic	**None Detected**	Cellulose <1%	Mastic/Binder, Fine Particles
3.	Black mastic	**Chrysotile 3%**	Cellulose 2%	Mastic/Binder, Fine Particles

2556 W Woodland Dr Anaheim, CA 92801

BULK ASBESTOS FIBER ANALYSIS

BY POLARIZED LIGHT MICROSCOPY

NVLAP TESTING
NVLAP LAB CODE 500079-0
Phone:(562) 860-2201
www.aihlab.com

Client Name: Terra Environmental
Project Manager: Israel Monsalvo
Client Address: 12631 Imperial Hwy Ste A225 Santa Fe Springs, CA 90670
Project Number: 71598
Project Location: Cal State - LA King Hall Building

Lab Batch Number: 1813593
Samples Submitted: 15
Samples Analyzed: 15
Analysis Method: EPA 600/R-93/116 & EPA 600/M4-82-020

Lab ID: 181359312 **Client ID:** B12

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey floor tile	**None Detected**	None Detected	Vinyl/Binder, Fine Particles
2.	Yellow mastiic	**None Detected**	Cellulose <1%	Mastic/Binder, Fine Particles
3.	Black mastic	**Chrysotile 3%**	Cellulose 2%	Mastic/Binder, Fine Particles

Lab ID: 181359313 **Client ID:** B13

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey sandy material with paint	**None Detected**	Cellulose <1%	Binder/Filler, Mineral Grains

Lab ID: 181359314 **Client ID:** B14

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey sandy material with paint	**None Detected**	Cellulose <1%	Binder/Filler, Mineral Grains

Lab ID: 181359315 **Client ID:** B15

Layer	Layer Description	Asbestos Type %	Other Fibrous Material %	Other Non Fibrous Material
1.	Grey sandy material with paint	**None Detected**	Cellulose <1%	Binder/Filler, Mineral Grains

AIH LABORATORY
2556 W Woodland Dr Anaheim, CA 92801

BULK ASBESTOS FIBER ANALYSIS

BY POLARIZED LIGHT MICROSCOPY

NVLAP TESTING
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Phone:(562) 860-2201
www.aihlab.com

Client Name: Terra Environmental
Project Manager: Israel Monsalvo
Client Address: 12631 Imperial Hwy Ste A225 Santa Fe Springs, CA 90670
Project Number: 71598
Project Location: Cal State - LA King Hall Building

Lab Batch Number: 1813593
Samples Submitted: 15
Samples Analyzed: 15
Analysis Method: EPA 600/R-93/116 & EPA 600/M4-82-020

Analyzed by: Jesus Cambero **Signature:** **Date:** 11-09-2018

Reviewed by: Brian Fullaway **Signature:** **Date:** 11-09-2018

Reporting limit is 1%. If the sample was not collected by AIH Laboratory then the accuracy of the results is limited by the methodology and experience of the sample collector. Clients can verify specific reporting limit requirement from local regulatory agencies. Liability limited to cost of samples analysis. This report shall not be reproduced except in full, without written approval of AIH Laboratory. It shall not be used to claim product endorsement by NVLAP or any other agency of the government. Reported results relate only to the samples tested and may not be the representative of the sample area. AIH Laboratory shall dispose of the Customer's samples 30 days after receiving the samples unless instructed to store them for an alternate period of time in writing.

TERRA ENVIRONMENTAL

1813593

Job Name - Location - Job Number	Billing Info:
#71598	Terra Environmental Services Inc.
CalState - LA	Technician: Israel Monsalvo/Eluara Tagieva
King Hall Building.	12631 Imperial Hwy Suite A225, Santa Fe Springs CA 90760
	Email: israel@terraeng.com/ulises@terraeng.com

Sample Analysis: PLM – Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

TAT: 24 Hrs

ID #	Material Description	HM	Location of Sample	Condition	Friable	Quantity
B01	Plaster	01	Ceiling, Hallway infront room C129	Good	NO	≈ 30 SF
B02	↓	↓	↓	↓	↓	↓
B03	↓	↓	↓	↓	↓	↓
B04	Brown hockey puck	02	Ceiling, Hallway, Infront above the tile / of room C129	Good	NO	≈ 30 SF
B05	↓	↓	↓	↓	↓	44 ↓
B06	↓	↓	↓	↓	↓	↓
B07	Ceiling tile	03	Ceiling Hallway infront C129.	Good	NO	≈ 30 SF
B08	↓	↓	↓	↓	↓	↓
B09	↓	↓	↓	↓	↓	↓
B10	VFT 12"x12", Grey w/ black mastic	04	Floor Hallway Infront C129.	Good	NO	≈ 20 SF
B11	↓	↓	↓	↓	↓	↓
B12	↓	↓	↓	↓	↓	↓
B13	Concrete	05	Floor Room C129	Good	NO	≈ 8 SF
B14	↓	↓	Curb	↓	↓	↓
B15	↓	↓	Wall	↓	↓	↓

Notes

Relinquished By:	Date & Time
Eluara Tagieva	11/9/18 @ 1345
Received By:	**Date & Time**
Phil Newton	11/9/18 1:45

CERTIFICATIONS

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 500079-0

AIH Laboratory

Cerritos, CA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2017-10-01 through 2018-09-30

Effective Dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Voluntary Laboratory Accreditation Program

NVLAP® National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AIH Laboratory
12611 Hiddencreek Way, Suite B
Cerritos, CA 90703
Mr. Zubair M. Ahmed
Phone: 206-979-1415
Email: bestoflive@live.com
http://www.aihlabs.com

ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 500079-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- Appendix E to Subpart E of Part 763 -- Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

Certificate Of Completion

Asbestos Building Inspector Refresher Course

DOSH #:CA-015-06

Elnara Tagieva

ABIR0405180013N15367

Paul Semper

Principal Instructor

Michael W. Horner

Michael W. Horner
Training Director

4/5/2018	4/5/2018	4/5/2018	4/5/2019
Course Start Date	Course End Date	Exam Date	Expiration Date

This course satisfies the education requirements for Asbestos accreditation under the Toxic Substances Control Act, Title II. This course has been approved by the Department of Industrial Relations, Division of Occupational Safety and Health of the State of California

NATEC International, Inc.
National Association of Training and Environmental Consulting
1100 Technology Circle- Suite A, Anaheim, CA 92805 • www.natecintl.com • 800-969-3228

Important Industry Contacts

CAL-OSHA: Ph# (916) 574-2993
(916) 483-0572 Fax Notification
Web: www.dir.ca.gov or calosha.com

CDPH/CLPPB: Ph# (510) 620-5600
Web: www.cdph.ca.gov/programs/CLPPB

SCAQMD: Ph# (909) 396-3739
Fax#(909) 396-3342

BAAQMD: Ph# (415) 749-4762

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www.natecintl.com

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This Card Acknowledges That
Elnara Tagieva

Holds Training Certification For
Asbestos Building Inspector Refresher Course

(Valid for 12 months)

Training Date 4/5/2018
Certificate No. ABIR0405180013N15367

Michael W. Horner
Training Director