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Ph. 626-962-4436 ♦ Fx. 626-962-4437 ♦ [www.globalenvirotraining.com](http://www.globalenvirotraining.com)

## **Combustion By-Product / Testing / Analysis**

Jobsite:

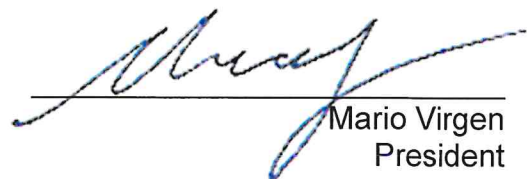
**CALIFORNIA STATE UNIVERSITY LOS ANGELES (CSULA)  
STUDENT UNION  
5151 STATE UNIVERSITY DR.  
LOS ANGELES, CA 90032**

Prepared For:

MS. BARBARA L. QUEEN  
**CALIFORNIA STATE UNIVERSITY LOS ANGELES (CSULA)**  
5151 STATE UNIVERSITY DR.  
LOS ANGELES, CA 90032

January 16, 2025

PROJECT No. **E225-004**



Mario Virgen  
President

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Barbara L. Queen  
Planning, Design & Construction  
California State University, Los Angeles (CSULA)  
5151 University Dr.  
Los Angeles, CA 90032

Re: Combustion By-Product Testing  
**California State University, Los Angeles (CSULA)**  
**Student Union**  
5151 University Dr.  
Los Angeles, CA 90032

**GETC Project No. E225-004**

Dear Ms. Queen,

Global Environmental Training & Consulting (GETC) performed Ambient Air Testing for Combustion By-Product (Char, Soot, & Ash) at the above referenced property. GETC has reviewed the results from the accredited laboratory and based on the samples taken on January 14, 2025, throughout the Student Union, results have concluded that all areas identified are below the outside background sample for Combustion By-Products.

Thank you for choosing GETC as the consultant for this project. If you have any questions, or if we can be of service again in the future, please do not hesitate to contact our office at (626) 962-4436.

Respectfully submitted,

**Global Environmental Training & Consulting, Inc.**  
**Mario Virgen, I.H.**  
**President**

Enclosures

### 1.0 EXECUTIVE SUMMARY

#### 1.1 GENERAL INFORMATION

Global Environmental Training and Consulting, Inc. (GETC) was retained by the California State University, Los Angeles (CSULA) to conduct Ambient Air Quality Testing for Combustion By-Products at the Student Union located at 5151 University Dr., in Los Angeles, California.

Carbon Black is a fine-grained solid residue that results from incomplete combustion of hydrocarbons. This testing is designed for analysis of fire residues for presence of analytes of interest (Char, Black Carbon/Soot, & Ash). The results of this test offer the client valuable information related to the extent of contamination produced by a fire from a residence or wildfire. These results can be used for cleaning assessment.

The sample collection was performed by GETC Industrial Hygienist Mr. Chris Virgen.

#### 1.2 TASKS

GETC Performed Ambient Air Quality Testing for Combustion By-Product that included the following tasks:

- ◆ Collect Air Samples using Allergenco Cassettes within the Student Union (10 Total) – For Combustion By-Product Analysis.
  - ◆ Air Samples were collected following the ASTM D6602-13 Standards, “Standard Practices for sampling and testing of possible Carbon Black Fugitive Emissions or Environmental Particulates.”
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# SAMPLING TABLE COMBUSTION BY-PRODUCT (CHAR, SOOT, & ASH)

STUDENT UNION					
SAMPLE NO.	LOCATION	CHAR PARTICULATES	SOOT PARTICULATES	ASH	TOTAL
01	OUTSIDE (CONTROL)	26,313	167	253	26,733
02	1 <sup>ST</sup> FLOOR DINING ROOM	73	0	53	126
03	1 <sup>ST</sup> FLOOR INFORMATION SERVICES	47	0	7	54
04	2 <sup>ND</sup> FLOOR 206 CROSS CULTURAL	33	0	0	33
05	2 <sup>ND</sup> FLOOR OUTSIDE OF 2002	33	0	0	33
06	3 <sup>RD</sup> FLOOR OUTSIDE OF 303A	47	0	27	74
07	3 <sup>RD</sup> FLOOR OUTSIDE OF 308F	127	13	53	193
08	3 <sup>RD</sup> FLOOR SU ADMIN OFFICE	113	20	47	180
09	3 <sup>RD</sup> FLOOR OUTSIDE 306F	1,420	27	47	1,494
10	BASEMENT (GYM)	47	0	13	60

### 2.0 METHODOLOGY

This section includes the description of the methodologies used to perform the Combustion By-Product Sampling and Analysis. These methodologies include air sampling analysis.

#### 2.1 AIR SAMPLING

- Collect and submit for analysis samples for Combustion By-Product from within the Student Union.

#### 2.2 SAMPLING PROCEDURES AND ANALYSIS

##### Sampling Procedure

The inspector collected Ten (10) air samples from the Student Union. Methods & Equipment:

- ♦ Polarized Light Microscopy (PLM)
- ♦ epi-Reflected Light Microscopy (RLM)

The samples were numbered and shipped to a laboratory accredited under the American Industrial Hygiene Association (AIHA) and Environmental Proficiency Analytical Testing Program (EPAT).

##### Chain-of-Custody Procedures

Chain-of-Custody documents possession of the samples from the time they are collected until they have been analyzed and are stored. Custody documentation must be followed whenever materials are received, collected, transferred, stored, analyzed, or destroyed.

The original Chain-of-Custody is to accompany the materials at all times. Custody documentation will begin at the time a sample is collected. Each transferor should retain a copy of the Chain-of-Custody record.

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## Laboratory Quality Control Program

Pasteur Laboratory maintains an in-house quality control program. This program involves precision and accuracy controls, use of standard bulk reference materials, maintenance of national and state accreditation, participation in external and internal proficiency testing programs, and confirmation of analyst experience and qualification in compliance with specific internal training and competency requirements.

### **2.3 REPORT FORMAT**

This report has been organized in a manner that presents the data in several forms to best suit the needs of the property. The "Executive Summary" provides a description of the facility and analytical results for each area tested. The Air Sampling Log, Appendix A, contains detailed information on the locations of areas sampled. The "Analytical Reports", Appendix B, is a listing of samples taken and their Combustion By-Product Content.

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## **3.0 FINDINGS AND RECOMMENDATIONS**

### **3.1 GENERAL SUMMARY**

- ◆ Sampling Logs & COC in Appendix A.
- ◆ Complete lab analyses for Combustion By-Products are given in Appendix B.
- ◆ Sampling Scheme is given in Appendix C.

### **3.2 RECOMMENDATIONS**

Since all indoor air samples are below the Outside (Control) sample, Global Environmental Training & Consulting, Inc. (GETC) has no recommendations at this time.



### 4.0 WARRANTY

The field and laboratory results reported herein are considered sufficient in detail and scope to determine the presence of airborne Combustion By-Product Compounds in the Student Union. Global Environmental Training & Consulting, Inc. warrants that the findings contained herein have been prepared in general accordance with accepted professional practices at the time of its preparation as applied by similar professionals in the community. Changes in the state of the art or in applicable regulations cannot be anticipated and have not been addressed in the report.

The air sampling and analytical methods have been used to provide the client with information regarding the presence of Combustion By-Product Compounds existing in the Student Union at the time of sampling. Test results are valid only for the areas tested. There is a distinct possibility that conditions may exist which could not be identified within the scope of the study of which were not apparent during the site visit.

No other warranties are implied or expressed.

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## **APPENDIX A**

### **AIR SAMPLING LOG**

158 N. Glendora Ave., Suite S (2nd floor)  
Glendora, CA 91741  
Tel: (626) 963-8686  
E-mail: [microbiology99@aol.com](mailto:microbiology99@aol.com)

0409

Company: Global Environmental Training & Consulting	
Contact: Mario Virgen / Miguel Virgen	
Phone: 626-962-4436	
Address: 1520 W. Cameron Ave., Suite 103, West Covina, CA	Fax & Invoice to: 626-962-4437
Fax results Y / N	Email results Y / N
staff@globalenvirotraining.com	

Project Name:	CAL STATE UNIVERSITY LA
Project Number:	E225-004 - Student Union
Sampling Date:	JAN 14, 2075
TURN AROUND TIME - (TAT)	
93	Rushes received after 2pm or on weekends, will be considered received the next business day.
SD - Same Day (+75%)	
WH - Weekend/Holiday (+100%)	

Sample ID	Sample Location	Sample Type	TAT (Above)	Flow Rate	Time	Total Volume
01	outside					
02	1st floor dining room					
03	1st floor information services					
04	2nd floor 200 cross cultural					
05	2nd floor outside of 200					
06	outside of 303A					
07	outside of 308F					
08	306 SU Admin offices					
09	outside 306F					
10	basement gym					

SAMPLE TYPE CODES		RELINQUISHED BY	DATE	RECD
AP - Andersen Plate	CP - Contact Plate	<i>[Signature]</i>	<i>4/14/72</i>	
Z - Zefon Air-O-Cell	All - AllergencoD			
- Tape	S - Swab			
M2 - Allegro M2	BL - Bulk			
Multimold Cassette				

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NOTES:

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## **APPENDIX B**

### **ANALYTICAL REPORTS**

1/14/2025



158 N. Glendora Ave., Suite S

Glendora, CA 91741

Tel: (626) 963-8686

E-mail: microbiology99@aol.com

Lab Reference No.:	00028-25-0050
Date Collected:	January 14, 2025
Date Received:	January 14, 2025
Date Analyzed:	January 14, 2025
Sample(s) analyzed:	10

\*Background debris is an indication of amounts of biological and non-biological particulate matters present on the sample and is characterized as *very light, light, moderate, heavy* or *very heavy*. *Very heavy* background debris may obscure particulate matters, reducing visibility during analysis. Consequently, counts from very heavy background debris should be considered minimal. *The laboratory and its personnel shall not be held liable for any misinformation provided to us by the client regarding these samples or for any misuse or interpretation of information supplied by us. This report relates only to samples submitted and analyzed*

*Sample(s) were analyzed by:* P. Chakravarty, Ph.D., Sr. Environmental Microbiologist

P. Chakravarty

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# Char / Soot / Ash Particulate Report (Aerosol Samples)

1/14/2025



## Pasteur Laboratory

158 N. Glendora Ave., Suite S

Glendora, CA 91741

Tel: (626) 963-8686

E-mail: microbiology99@aol.com

Mario Virgen/Miguel Virgen Global Environmental Training & Consulting 1520 W. Cameron Ave., Suite 103, West Covina, CA 91790 Tel: 626-962-4436 Fax: 626-962-4437 E-mail: staff@globalenvirotraining.com Client's Project: Cal State University LA - Student Union- E224-004				Lab Reference No.: 00028-25-0050 Date Collected: January 14, 2025 Date Received: January 14, 2025 Date Analyzed: January 14, 2025 Sample(s) analyzed: 10								
Laboratory Sample ID	12443			12444			12445			12446		
Client Sample ID	05			06			07			08		
Location	2nd Fl Outside of 2002			Outside of 303A			Outside of 308F			306 Su Admin office		
Volume (L)	150			150			150			150		
Background Debris*	Light			Light			Light			Light		
Sample Description	AllergencoD			AllergencoD			AllergencoD			AllergencoD		
	Raw cts	No. /m <sup>3</sup>	%	Raw ct	No. /m <sup>3</sup>	%	Raw cts	No. /m <sup>3</sup>	%	Raw cts	No. /m <sup>3</sup>	%
Char particulate:	5	33	100.00	7	47	63.51	19	127	65.80	17	113	62.78
Soot particulate	0	0	0.00	0	0	0.00	2	13	6.74	3	20	11.11
Ash:	0	0	0.00	4	27	36.49	8	53	27.46	7	47	26.11
Total numbers / m <sup>3</sup>	33			74			193			180		
Comments												
Limit of Detection	7			7			7			7		

\*Background debris is an indication of amounts of biological and non-biological particulate matters present on the sample and is characterized as *very light*, *light*, *moderate*, *heavy* or *very heavy*. *Very heavy* background debris may obscure particulate matters, reducing visibility during analysis. Consequently, counts from very heavy background debris should be considered minimal. *The laboratory and its personnel shall not be held liable for any misinformation provided to us by the client regarding these samples or for any misuse or interpretation of information supplied by us. This report relates only to samples & P. Chakravarty*



1/14/2025



158 N. Glendora Ave., Suite S

Glendora, CA 91741

Tel: (626) 963-8686

E-mail: microbiology99@aol.com

Lab Reference No.:	00028-25-0050
Date Collected:	January 14, 2025
Date Received:	January 14, 2025
Date Analyzed:	January 14, 2025
Sample(s) analyzed:	10

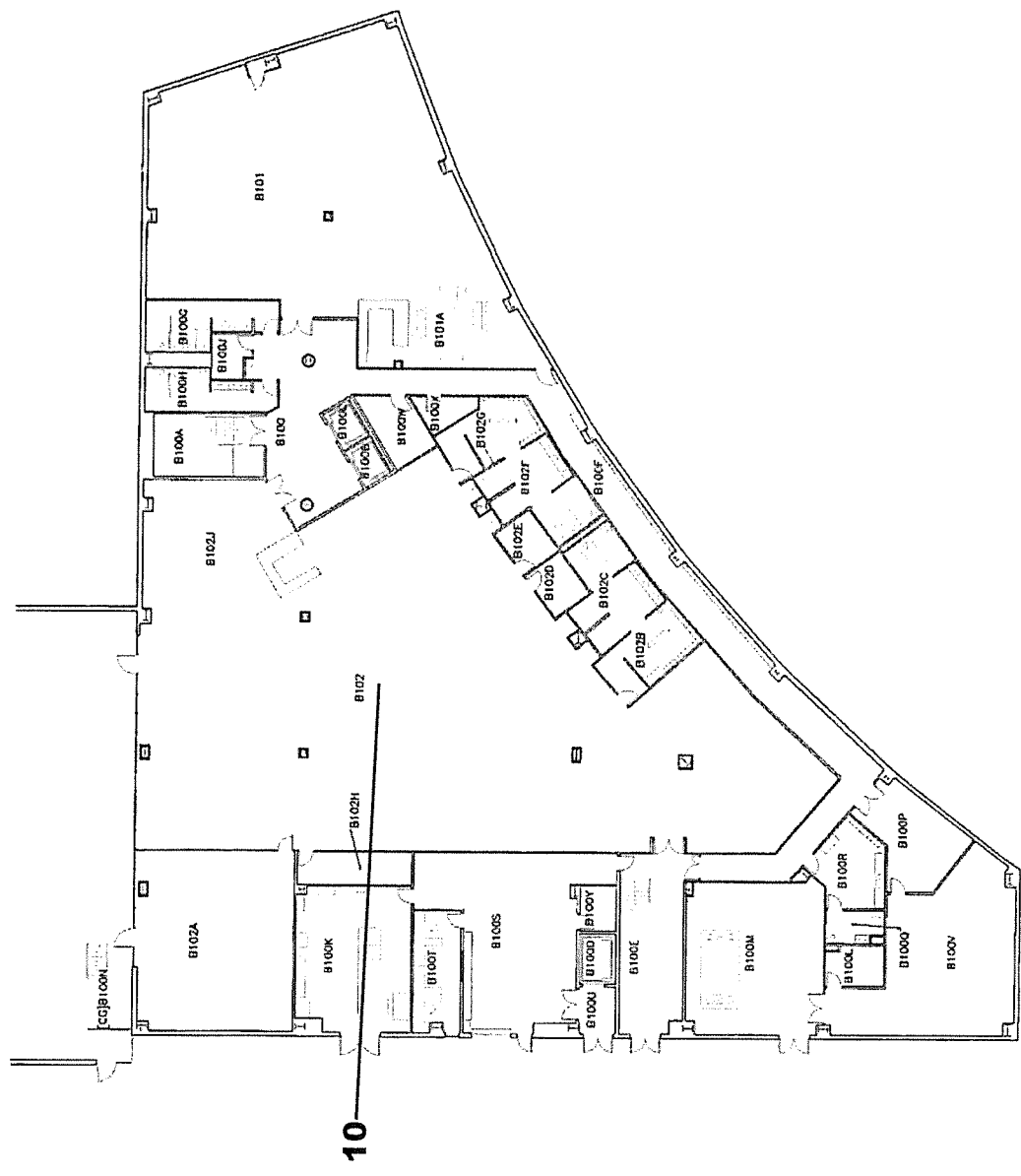
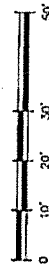
[illegible]

\*Background debris is an indication of amounts of biological and non-biological particulate matters present on the sample and is characterized as *very light, light, moderate, heavy* or *very heavy*. *Very heavy* background debris may obscure particulate matters, reducing visibility during analysis. Consequently, counts from *very heavy* background debris should be considered minimal. *The laboratory and its personnel shall not be held liable for any misinformation provided to us by the client regarding these samples or for any misuse or interpretation of information supplied by us. This report relates only to samples s/p Chakraverty*

## **APPENDIX C**

### **SAMPLING SCHEME**





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