



Lehua Environmental Inc.

P.O. Box 1018 • Kamuela, Hawaii 96743 • Tel: (808) 494-0365 • Website: www.lehuaenvironmental.com

October 26, 2022

California Institute of Technology (Caltech)
1200 E. California Blvd.
Pasadena, California 91125

**Subject: 3RD PARTY LEAD ENVIRONMENTAL AIR MONITORING REPORT
CALTECH SUBMILLIMETER OBSERVATORY DECOMMISSIONING PROJECT
MAUNA KEA, BIG ISLAND, HAWAII**

The purpose of this letter report is to document the activities and findings from Lehua Environmental Inc.'s (LEI's) 3rd party lead environmental air monitoring activities completed during the lead paint disturbance activities at the Caltech Submillimeter Observatory (CSO) located on Mauna Kea Access Road in Mauna Kea, Big Island, Hawaii (Subject Site). The air monitoring activities occurred from September 26- 30, 2022 at the Subject Site.

Background

Lead-Containing Paint (LCP) and Lead-Based Paint (LBP) were identified throughout the Subject Site at various concentrations and conditions. Unitek Contracting Group (Contractor) was contracted to furnish labor, equipment and materials to remove all identified poor condition (loose and flaking) LCP and LBP from the Subject Site.

Abatement Activities

The Contractor prepared the work area at the Subject Site prior to lead paint removal. Perimeter barriers and posted applicable lead signage were used during all lead paint disturbance activities. The Contractor placed 6-mil polyethylene sheeting on the ground of the work area. The Contractor utilized half-face air purifying respirators, full body disposable Tyvek suits, rubber gloves and boots during abatement activities that disturbed LBP and LCP.

The Contractor performed lead paint disturbance activities that involved scraping and removing poor condition (loose and flaky) paint throughout the interior and exterior of the CSO. Daily field activities are documented in the daily field reports included in Attachment II.

Methodology

Visual Clearances

LEI's State of Hawaii certified lead paint inspector conducted visual observations during and at the completion of each day's lead paint disturbance work. LEI observed the work area and work area perimeters during all lead paint disturbance work by the Contractor. All observed field conditions were documented in the daily field reports included in Attachment II.

Air Monitoring

LEI conducted lead environmental air monitoring which included outside work area samples during the lead paint disturbance work at the Subject Site. Four (4) outside work area samples were placed upwind and downwind of the work area perimeters during each day's lead paint disturbance work. Air samples were collected using low volume pumps set at 2.0 liters per minute (L/min).

All samples were properly logged and recorded following strict chain of custody procedure and submitted to Hawaii Analytical located in Honolulu, Hawaii for total lead analysis in accordance with NIOSH Method 7082.



Findings

Visual Clearances

LEI personnel confirmed that lead work areas were free of lead paint chips and/or debris.

Air Monitoring

Laboratory results indicated that all analyzed environmental area air samples collected during lead disturbance activities were below the Occupational Safety and Health Administration (OSHA) action level of 30 micrograms of lead per cubic meter of air. A copy of the laboratory results is provided in Attachment I.

Limitations

LEI's findings and conclusions contained herein are professional opinions based solely upon visual observations, laboratory data, and information provided to LEI at the time this study. Opinions stated in this report do not apply to changes that may have occurred after the services were performed.

LEI has performed specified services for this project with the degree of care, skill and diligence ordinarily exercised by professional consultants performing the same or similar services. No other warranty, guarantee, or representation, expressed or implied, is included or intended; unless otherwise specifically agreed to in writing by both LEI and LEI's Client.

This report is intended for the sole use of LEI's Client, exclusively for the project site indicated. LEI's Client may use and release this report, including making and retaining copies, provided such use is limited to the particular site and project for which this report is provided. However, the services performed may not be appropriate for satisfying the needs of other users. Release of this report to third-parties will be at the sole risk of Client and/or said user, and LEI shall not be liable for any claims or damages resulting from or connected with such release or any third party's use or reuse of this report.

Thank you for allowing us to serve you. Please contact us at (808)494-0365 with any questions.

Respectfully,

LEHUA ENVIRONMENTAL INC.

Jason Kline

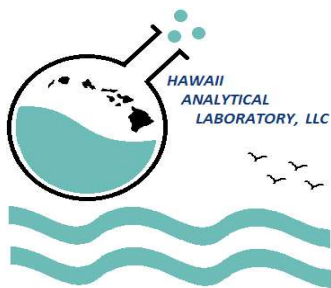
State of Hawaii Lead Risk Assessor Certification # PB-09604295, Expires 8/23/2023

Attachment I: Laboratory Reports

Attachment II: Daily Field Reports

Attachment I:

Laboratory Results



Hawaii Analytical Laboratory ANALYTICAL REPORT

Tuesday, October 4, 2022

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202209396
Date Submitted: 10/3/2022
Project Name: CSO Decommissioning, 9/26/22-9/30/22

Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202277248	092622 L1	< 14	ug/m3	10/4/2022
Comments				
202277249	092622 L2	< 14	ug/m3	10/4/2022
Comments				
202277250	092622 L3	< 14	ug/m3	10/4/2022
Comments				
202277251	092622 L4	< 14	ug/m3	10/4/2022
Comments				
202277253	092722 L1	< 5.6	ug/m3	10/4/2022
Comments				
202277254	092722 L2	< 5.6	ug/m3	10/4/2022
Comments				
202277255	092722 L3	< 5.6	ug/m3	10/4/2022
Comments				
202277256	092722 L4	< 5.6	ug/m3	10/4/2022
Comments				
202277258	092822 L1	< 7.9	ug/m3	10/4/2022
Comments				

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on www.aihaaccreditedlabs.org, in accordance with the recognized ISO/ IEC 17025:2005. AIHA LAP, LLC is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 - 20181015

3615 Harding Avenue, Ste. 308, Honolulu, HI 96816 - Telephone: (808) 735-0422 - Fax: (808) 735-0047

Page 1 of 3

Mr. Kama Kobayashi
Lehua Environmental Inc.
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Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202209396
Date Submitted: 10/3/2022
Project Name: CSO Decommissioning, 9/26/22-9/30/22

Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202277259	092822 L2	< 7.9	ug/m3	10/4/2022
Comments				
202277260	092822 L3	< 7.9	ug/m3	10/4/2022
Comments				
202277261	092822 L4	< 7.9	ug/m3	10/4/2022
Comments				
202277263	092922 L1	< 7.9	ug/m3	10/4/2022
Comments				
202277264	092922 L2	< 7.9	ug/m3	10/4/2022
Comments				
202277265	092922 L3	< 7.9	ug/m3	10/4/2022
Comments				
202277266	092922 L4	< 7.9	ug/m3	10/4/2022
Comments				
202277268	093022 L1	< 28	ug/m3	10/4/2022
Comments				
202277269	093022 L2	< 28	ug/m3	10/4/2022
Comments				
202277270	093022 L3	< 28	ug/m3	10/4/2022
Comments				
202277271	093022 L4	< 28	ug/m3	10/4/2022
Comments				

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Kamuela HI 96743

Phone Number: (808)494-0365
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All Quality Control data are acceptable unless otherwise noted.

MRL for lead air is 5ug.

MRL for lead wipe is 10ug.

MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.

General Comments

The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document proficiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions

> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

= Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.

MRL = Method Reporting Limit.

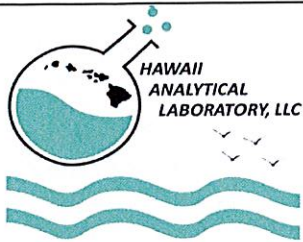


Anne Antin
Quality Control Manager

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3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To* : Kama Kobayashi
Company : Lehua Environmental Inc.
Address* : PO BOX 1018
Kamuela, Hawaii 96743
Phone / Cell No.* : 808-494-0365
Report results to : K. Kobayashi
via email or fax : Jkline.geo@gmail.com,
lehuaenvironmental@gmail.com

Invoice To* : Kamalana Kobayashi
Company : Lehua Environmental Inc.
Address* : PO BOX 1018
Kamuela, Hawaii 96743
Phone / Cell No.* :
Purchase Order No. :
Email Invoice To : lehuaenvironmental@gmail.com

Need Results By*:

- ☐ 5 Working Days (WD)
☐ 4 WD
☒ 3 WD
☐ 2 WD
☐ 24 hours
☐ 6 hours or less
☐ 4 hours or less
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning ☐

Sampled By & Certif. # :
Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP? ☐

Verbal results? ☐

Lab Report No.:

202209396

Do Not Analyze Blank Until Further Notice

☐ + stop / SAMPLE

☐ + stop / LAYER

Lab Sample(s) No.:

202277248

202277249

202277250

202277251

202277252

202277253

202277254

202277255

202277256

202277257

202277258

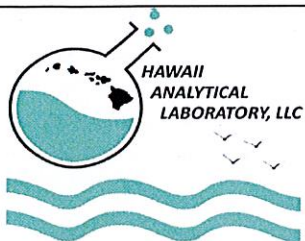
202277259

202277260

202277261

202277262

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
1	092622 L1	9/26/2022	Cassette	360 L	Lead air		202277248
2	092622 L2	9/26/2022	Cassette	360 L	Lead air		202277249
3	092622 L3	9/26/2022	Cassette	360 L	Lead air		202277250
4	092622 L4	9/26/2022	Cassette	360 L	Lead air		202277251
5	092622 BLANK	9/26/2022	Cassette	BLANK	BLANK		202277252
6	092722 L1	9/27/2022	Cassette	900 L	Lead air		202277253
7	092722 L2	9/27/2022	Cassette	900 L	Lead air		202277254
8	092722 L3	9/27/2022	Cassette	900 L	Lead air		202277255
9	092722 L4	9/27/2022	Cassette	900 L	Lead air		202277256
10	092722 BLANK	9/27/2022	Cassette	BLANK	BLANK		202277257
11	092822 L1	9/28/2022	Cassette	630 L	Lead air		202277258
12	092822 L2	9/28/2022	Cassette	630 L	Lead air		202277259
13	092822 L3	9/28/2022	Cassette	630 L	Lead air		202277260
14	092822 L4	9/28/2022	Cassette	630 L	Lead air		202277261
15	092822 BLANK	9/28/2022	Cassette	BLANK	BLANK		202277262



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Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
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☐ New Client?

Report To* : Kama Kobayashi
Company : Lehua Environmental Inc.
Address* : PO BOX 1018
Kamuela, Hawaii 96743
Phone / Cell No.* : 808-494-0365
Report results to : K. Kobayashi
via email or fax : jkline.geo@gmail.com,
lehuaenvironmental@gmail.com

Invoice To* : Kamalana Kobayashi
Company : Lehua Environmental Inc.
Address* : PO BOX 1018
Kamuela, Hawaii 96743
Phone / Cell No.* :
Purchase Order No. :
Email Invoice To : lehuaenvironmental@gmail.com

Need Results By*:

- ☐ 5 Working Days (WD)
☐ 4 WD
☒ 3 WD
☐ 2 WD
☐ 24 hours
☐ 6 hours or less
☐ 4 hours or less
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning ☐

Sampled By & Certif. # :
Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP? ☐

Verbal results? ☐

Lab Report No.:

Do Not Analyze Blank Until Further Notice

- ☐ + stop / SAMPLE
☐ + stop / LAYER

202209396

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
16	092922 L1	9/29/2022	Cassette	630 L	Lead air		202277263
17	092922 L2	9/29/2022	Cassette	630 L	Lead air		202277264
18	092922 L3	9/29/2022	Cassette	630 L	Lead air		202277265
19	092922 L4	9/29/2022	Cassette	630 L	Lead air		202277266
20	092922 BLANK	9/29/2022	Cassette	BLANK	BLANK		202277267
21	093022 L1	9/30/2022	Cassette	180 L	Lead air		202277268
22	093022 L2	9/30/2022	Cassette	180 L	Lead air		202277269
23	093022 L3	9/30/2022	Cassette	180 L	Lead air		202277270
24	093022 L4	9/30/2022	Cassette	180 L	Lead air		202277271
25	093022 BLANK	9/30/2022	Cassette	BLANK	BLANK		202277272

Relinquished By (Print and Sign)

Date/Time

Received By (Print and Sign)

Date/Time

Nicole Garaganza-Tengan

9/30/2022 12:00

Breanna Perez

10-03-22A10:16 RCVD

*Sample description can be paint chips, concrete, specific sample collection location, etc...

If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.

*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☐ via HAC

☐ via USPS

☐ via drop box

☒ via FedEx

☐ via pick up

awb#: 173-.....

8175 0704 3708
Page: _____ of _____

Attachment II:

Daily Field Reports

Project: CSO DecommissioningPage: 1 of 1Date: 09/26/22

Scheduled Activity

Building(s):	CSO	Floor(s):	4
Room(s):	N/A		
Material to be disturbed:	N/A		

Time	Description
11:00 am	Arrived on site. Met with Pedro from AECOM, as well as a few others working for Caltech. We first went through a safety briefing of the observatory and surrounding areas. After the briefing we all walked inside throughout the observatory to discuss the work plan.
1:45 pm	I calibrated 4 pumps for lead background monitoring and set up pumps throughout the observatory. Unitek began to set up containment inside room 204, to prep for mold removal. They also removed an unnecessary tools or equipment left inside the rooms.
3:15 pm	Unitek only set up for work areas for most of the day and will begin loose and flaky paint removal starting tomorrow. I collected and calibrated pumps.
3:30 pm	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 09/26/22	

Lehua Environmental Inc.

Air Monitoring Log

Project No.:		Date:	09/26/22
Client:		Sampled By:	Nicole Garaganza-Tengan
Project Site:	CSO		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092622 L1	B	1:45 pm	3:15 pm	4	4	4	90	360 L
Sample Location: 1st floor pedestal platform								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092622 L2	B	1:45 pm	3:15 pm	4	4	4	90	360 L
Sample Location: Bottom of stair case								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092622 L3	B	1:45 pm	3:15 pm	4	4	4	90	360 L
Sample Location: Second floor, in front room 204								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092622 L4	B	1:45 pm	3:15 pm	4	4	4	90	360 L
Sample Location: Third floor stair case								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: CSO DecommissioningPage: 1 of 1Date: 09/27/22

Scheduled Activity

Building(s):	CSO	Floor(s):	4
Room(s):	N/A		
Material to be disturbed:	Loose and flaky lead paint		

Time	Description
7:30 am	Arrived on site. I calibrated 4 pumps for lead air monitoring and set up around the work area. Today Unitek will be removal loose and flaky paint from the interior walls of the observatory. They'll being on the third floor and work their way down. Poly plastic is laid on the ground and over the railings to contain all paint chips within the work area. Workers also will be fulling suited in tyvek and half face respirators.
9:30 am	Unitek finished with scrapping loose and flaky paint from the fourth and third floor sheetrock walls of the observatory. Work areas has been cleaned and visual clearance has been done. They'll began removing loose and flaky paint in the stairwell.
11:30 am	Unitek finished scrapping loose and flaky paint of the sheetrock walls in the stairwell. All paint chips were cleaned. Visual clearance completed and passed.
2:00 pm	Unitek continued on and finished removing loose and flaky paint from the second and first floor platform sheetrock walls.
3:00 pm	Unitek finished for the day. All work areas have been cleaned up. I collected and calibrated the pumps.
3:30 pm	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 09/27/22	

Lehua Environmental Inc.

Air Monitoring Log

Project No.:		Date:	09/27/22
Client:		Sampled By:	Nicole Garaganza-Tengan
Project Site:	CSO		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092722 L1	OWA	7:30 am	3:00 pm	2	2	2	450	900 L
Sample Location: 1st floor pedestal platform								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092722 L2	OWA	7:30 am	3:00 pm	2	2	2	450	900 L
Sample Location: Stair case second floor								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092722 L3	IWA	7:30 am	3:00 pm	2	2	2	450	900 L
Sample Location: 3rd floor platform, work area								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092722 L4	OWA	7:30 am	3:00 pm	2	2	2	450	900 L
Sample Location: Third floor staircase								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: CSO DecommissioningPage: 1 of 1Date: 09/28/22

Scheduled Activity

Building(s):	CSO	Floor(s):	4
Room(s):	N/A		
Material to be disturbed:	Mold canes ceiling tiles, loose and flaky paint.		

Time	Description
7:00 am	Arrived on site. I calibrated 4 pumps for lead air monitoring and set up around the observatory. Unitek will start the day off with removing any mold material in room 204. Room 204 had previously been set up with containment and workers are suited with tyvek suits and respirators.
9:00 am	Unitek finished removing mold from room 204. All loose and flaky paint has been scrapped off from walls as well. I did a visual clearance for the mold, then Unitek did a final cleaning of the entire room before breaking down the containment. After the containment was taken down, I did one last visual clearance. Everything looked good. Unitek now is starting to remove mold from room 105. Containment has already been set up.
11:00 am	Unitek removed mold and cancer ceiling tiles from room 105. I did a visual clearance and everything looked good. Unitek vacuuming throughout observatory.
12:30 pm	Unitek finished for the day. All work areas have been cleaned up of existing paint chips and debris. I collected and calibrated pumps. They'll be headed down to their storage unit.
12:45 pm	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 10/28/22	

Lehua Environmental Inc.

Air Monitoring Log

Project No.:		Date:	09/28/22
Client:		Sampled By:	Nicole Garaganza-Tengan
Project Site:	CSO		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092822 L1	OWA	7:15 am	12:30 pm	2	2	2	315	630 L

Sample Location:
1st floor pedestal platform area

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092822 L2	IWA	7:15 am	12:30 pm	2	2	2	315	630 L

Sample Location:
Room 105

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092822 L3	IWA	7:15 am	12:30 pm	2	2	2	315	630 L

Sample Location:
Room 204

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
---------------------------------	---

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092822 L4	OWA	7:15 am	12:30 pm	2	2	2	315	630 L

Sample Location:
In stairwell

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
---------------------------------	---

*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: CSO DecommissioningPage: 1 of 1Date: 09/29/22

Scheduled Activity

Building(s):	CSO	Floor(s):	4
Room(s):	N/A		
Material to be disturbed:	Loose and flaky paint		

Time	Description
7:15 am	Arrived on site. At 7:45am I calibrated 4 pumps for lead air monitoring and set up around the work area. Unitek to continue with removing loose and flaky paint throughout observatory as well as the sheds located outside. One worker removing loose and flaky paint from walls at both entrances into the observatory. All debris will be vacuumed as they are removed. Workers will be wearing tyveks and half face respirators.
10:00 am	Unitek had scrubbed the red poles located outside the observatory. Plastic was laid on the ground surrounding the poles. A containment was also used when working on each pole to keep the wind out and to contain any paint chips from spreading around the outside environment. All debris had been cleaned up and a visual inspection was done.
11:30 am	Unitek walking through observatory spot checking for any other areas that need more loose and flaky removal. Also going around and cleaning up preexisting debris throughout observatory.
1:00 pm	Unitek finished for the day. They'll be heading back down to their storage unit in Hilo for the rest of the day. All work areas from today have been cleaned up. Containment from room 105 has also been taken down. I collected and calibrated pumps.
1:15 pm	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 09/29/22	

Lehua Environmental Inc.

Air Monitoring Log

Project No.:		Date:	09/29/22
Client:		Sampled By:	Nicole Garaganza-Tengan
Project Site:	CSO		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092922 L1	OWA	7:45 pm	1:00 pm	2	2	2	315	630 L
Sample Location: 1st floor pedestal platform								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092922 L2	OWA	7:45 am	1:00 pm	2	2	2	315	630 L
Sample Location: 2nd floor platform								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092922 L3	OWA	7:45 am	1:00 pm	2	2	2	315	630 L
Sample Location: outside observatory								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
092922 L4	OWA	7:45 am	1:00 pm	2	2	2	315	630 L
Sample Location: outside observatory								
Analyte: (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: CSO DecommissioningPage: 1 of 1Date: 09/30/22

Scheduled Activity			
Building(s):	CSO		Floor(s): 4
Room(s):	N/A		
Material to be disturbed:	Loose and flaky		

Time	Description
7:00 am	Arrived on site. I calibrated 4 pumps for lead air monitoring and set up around the work area. Today Unitek will be doing a walk through of the observatory to do a final cleaning.
8:00 am	Unitek finished with walk through. I did a final visual clearance of all work areas throughout the observatory. All work areas pass. I collected and calibrated pumps.
10:00 am	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 09/30/22	

Lehua Environmental Inc.

Air Monitoring Log

Project No.:		Date:	09/30/22
Client:		Sampled By:	Nicole Garaganza-Tengan
Project Site:	CSO		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
093022 L1	OWA	7:15 am	8:00 am	4	4	4	45	180 L

Sample Location:

1st floor pedestal platform

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
093022 L2	OWA	7:15 am	8:00 am	4	4	4	45	180 L

Sample Location:

1st floor pedestal platform

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
093022 L3	OWA	7:15 am	8:00 am	4	4	4	45	180 L

Sample Location:

2nd floor platform

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
093022 L4	OWA	7:15 am	8:00 am	4	4	4	45	180 L

Sample Location:

Outside of observatory

Analyte: (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank