

## **SECTION 01715 – EXISTING CONDITIONS – LEAD / HAZARDOUS MATERIAL SURVEY**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. This section includes the results of the State's survey for Lead and / or other Hazardous materials and is provided for the Contractor's information.
- B. Related Sections include the following:
  - 1. SECTION 13282 - LEAD BASED PAINT CONTROL MEASURES for requirements of all work which disturbs lead-based paint and lead-containing paint
  - 2. SECTION 13284 – REMOVAL AND DISPOSAL OF POLYCHLORINATED BIPHENYLS (PCB)-CONTAINING LIGHT BALLASTS AND MERCURY-CONTAINING LAMPS for requirements of all work that disturbs PCB-containing light ballasts and mercury-containing lamps.
  - 3. SECTION 13286 – REMOVAL AND DISPOSAL OF ARSENIC CONTAINING MATERIALS for requirements of all work that disturbs arsenic treated materials.
  - 4. SECTION 13288 – TESTING/AIR MONITORING for requirements for monitoring and compliance.

#### **1.02 ASBESTOS**

- A. The structure or structures to be renovated or modified under this contract have been surveyed for the presence of asbestos containing materials (ACM). A copy of the initial survey report, as well as any subsequent supplemental survey report(s) if performed, is included in this Section.
  - 1. The report(s) are included, even when no ACM was found, for the Contractor's information. Review the attached report(s) for the basis on which the negative ACM finding was made. Contractor may perform further surveys at its own expense if ACM not shown in the report(s) is suspected in the areas of the building(s) in which work will be performed. If ACM is found, notify the Contracting Officer immediately.
  - 2. If there is ACM outside of the areas in which work will be performed, this ACM shall not be disturbed in any way.
- B. If applicable, notify employees, Subcontractors and all other persons engaged on the project of the presence of asbestos in the existing buildings in accordance with the requirements of Chapter 110, Article 12-110-2 (f) (1) (B) of the Occupational Safety and Health Standards, State of Hawaii.
- C. In the event that work is required in any building or buildings on the site other than the one(s) designated within this project scope, request copies of the asbestos survey report(s) for such building(s) from the Contracting Officer. Based

on the information contained in the additional survey(s), notify affected personnel per paragraph 1.02 B.

**1.03 LEAD CONTAINING PAINT**

- A. Inform employees, Subcontractors and all other persons engaged in the project that lead-based paint (LBP) and lead-containing paint (LCP) is present at the existing building and at the job site. Follow the requirements of Title 12 (Department of Labor and Industrial Relations), Subtitle 8 (Division of Occupational Safety and Health), Chapter 148 (Lead Exposure in Construction), Hawaii Administrative Rules.
- B. Review the attached lead testing data which identifies locations LCP was found. Lead testing was for design purposes only and the results do not satisfy any of the requirements of Chapter 12-148.

**1.04 ARSENIC CONTAINING MATERIALS**

- A. The Contractor shall notify his employees, subcontractors and all other persons engaged in the renovation work of the presence of arsenic treated materials.

**1.05 POLYCHLORINATED BIPHENYLS (PCB's) AND MERCURY**

- A. Inform employees, Subcontractors and all other persons engaged in the project that PCB-containing ballasts and mercury-containing lamps may be present in the existing building and at the job site.

**PART 2 - PRODUCTS (not used)**

**PART 3 - EXECUTION**

**3.01 SURVEY**

- A. Attached, *Limited Hazardous Materials Survey Report, Building 19 Site Improvements, Kalaeloa, State of Hawaii, Department of Defense, Hawaii Army National Guard, Job No. CA-1514-D, Oahu, Hawaii*, 39 pages, dated March 27, 2017, prepared by EnviroServices & Training Center, LLC.

END OF SECTION

**UPDATED  
LIMITED HAZARDOUS MATERIALS  
SURVEY REPORT**

**BUILDING 19 SITE IMPROVEMENTS  
KALAELOA, STATE OF HAWAII, DEPARTMENT OF DEFENSE,  
HAWAII ARMY NATIONAL GUARD  
JOB No. CA-1514-D  
OAHU, HAWAII**

Prepared for:  
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ETC Project No. 16-4002

March 27, 2017

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## 1.0 CERTIFICATIONS AND LIMITATIONS

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EnviroServices & Training Center, LLC (ETC) has completed a Limited Hazardous Materials Survey (Survey) for Building 19 Site Improvements, located at Kalaeloa, State of Hawaii, Department of Defense, Hawaii Army National Guard, Oahu, Hawaii (Subject Site). ETC's findings and recommendations contained herein are based on site observations, government regulations and laboratory data, which were gathered at the time and location of the study. Opinions stated in this report do not apply to changes that may have occurred after the services were performed.

ETC 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 ETC and ETC's Client.

This report is intended for the sole use of In+form Design, Inc. exclusively for the Subject Site. In+form Design, Inc. 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 ETC's Client and/or said user, and ETC 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.

Surveyed & Prepared By:



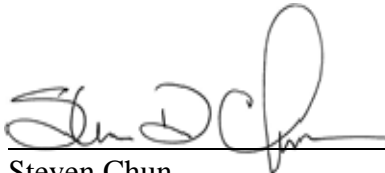
Ververdee Roberts

State of Hawaii Asbestos Building Inspector # HIASB-0315  
State of Hawaii Lead Risk Assessor # PB-0041

Date:

April 8, 2016

Surveyed By:



Steven Chun

State of Hawaii Asbestos Building Inspector # HIASB-0311  
State of Hawaii Lead Risk Assessor # PB-0317

Date:

April 8, 2016 & March 17, 2017

## **2.0 EXECUTIVE SUMMARY**

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EnviroServices & Training Center, LLC (ETC) conducted a Limited Hazardous Materials Survey and compiled this report for the Building 19 Interior and Exterior Site Improvements, located at Kalaeloa, State of Hawaii, Department of Defense, Hawaii Army National Guard, Oahu, Hawaii, (Subject Site). The following hazardous materials were identified during ETC's survey:

### **Summary of Asbestos Containing Materials Survey**

Laboratory analysis determined that none of the sampled materials contained asbestos above the regulatory limit of 1%.

### **Summary of Lead Paint Survey**

Based on the laboratory analysis, the beige paint, located on the exterior concrete and concrete masonry unit (CMU) walls, Metal Downspouts, Electrical Conduits, Handrail and Ladder, contained lead in excess of the Environmental Protection Agency (EPA)/United States Department of Housing and Urban Development (HUD) guideline of 0.5 % by weight defining Lead-Based Paint (LBP).

In addition to the confirmed LBP, small concentrations of lead were detected above the laboratory's reporting limit in six (6) of the painted surfaces sampled from the Subject Site. These paints are considered lead-containing paint (LCP). Although these paints do not meet the EPA/HUD definition of LBP, the general contractor and their subcontractors shall follow the OSHA Lead in Construction Standards when workers have a potential to be exposed to any amount of lead during work activities.

### **Summary of Arsenic Survey**

Laboratory results has determined that the 12" x 12" tiles, located on the Gymnasium and Locker Room ceilings reported an arsenic (AsCM) concentration in excess of the EPA action level of 100 milligrams per kilogram, and therefore is considered arsenic-containing.

### **Summary of Polychlorinated Biphenyl Ballasts and Mercury Containing Lamps**

The nineteen (19) light ballasts inspected were labeled "No PCB's". Sixty-six (66) fluorescent lamps inventoried at the Subject Site are classified as "low mercury" fluorescent lamps.

### 3.0 INTRODUCTION/PURPOSE

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The purpose of this Limited Hazardous Materials Survey was to inspect specified areas for the Building 19 Interior and Exterior Site Improvements, located at Kalaeloa, State of Hawaii, Department of Defense, Hawaii Army National Guard, Oahu, Hawaii for the presence of suspect hazardous materials that may be affected by the renovation project.

The Survey conducted on April 8, 2016 was limited to the areas as specified by In+Form Design, and the survey on March 17, 2017 was limited to specific areas as specified by Mr. Vic Caballes, Project Manager for the Department of Defense, Hawaii Army National Guard.

Specifically, ETC completed the following tasks:

- Performed a limited site reconnaissance at the Subject Site, as specified by In+Form Design and Mr. Vic Caballes;
- Collected twenty-four (24) samples of suspected Asbestos Containing Material (ACM) from the Subject Site;
- Submitted the twenty-four (24) samples of suspected ACM to NVL Laboratories Inc. (NVL) and EMC Labs, Inc. (EMC) for analysis of asbestos via Polarized Light Microscopy (PLM) in accordance with the Environmental Protection Agency (EPA) Method 600/R-93/116;
- Collected eleven (11) paint chip samples from the Subject Site;
- Submitted the eleven (11) paint chip samples to NVL for analysis by flame atomic absorption spectroscopy (FAAS) via EPA Method 7000 for total lead content;
- Collected one (1) sample of suspected AsCM from the Subject Site;
- Submitted the one (1) sample to NVL for analysis by Inductively coupled plasma-atomic emission spectrometry (ICP-AES) via EPA Method 3051/6010C for total arsenic content;
- Visually inspected interior fluorescent light fixtures, in area 100, the Gymnasium for required documentation indicating the presence or lack of PCB-containing ballasts oil and mercury-containing lamps; and
- Prepared this report documenting the field activities and the results of the investigation including analytical results, conclusions, and recommendations.

## **4.0 METHODOLOGY**

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### **4.1 Asbestos**

ETC personnel collected twelve (12) samples of suspected ACM on April 8, 2016 and 12 more samples on March 17, 2017, for asbestos analysis. Samples were collected from various areas of the Subject Site in accordance with EPA guidelines and recommendations.

The suspected ACM were wetted with amended water before sample collection. A small piece was then carefully cut out and placed into a labeled, re-sealable plastic bag. The sampling equipment was cleaned between each sample collection to avoid cross-contamination between samples. The approximate quantity of each suspected ACM was noted. Sample locations were randomly selected in accordance with EPA protocols and recommendations.

Samples were properly logged and recorded following strict chain-of-custody procedures. Samples collected on April 8, 2016 were submitted to NVL Laboratories, Inc. (NVL) located in Seattle, WA, and the samples collected on March 17, 2017 were sent to EMC Labs, Inc.(EMC) located in Phoenix, AZ, for analysis by PLM in accordance with EPA Method 600/R-93/116. NVL and EMC are both accredited for bulk asbestos analysis through successful participation in the National Voluntary Lab Accreditation Program (NVLAP).

### **4.2 Lead Paint**

ETC personnel collected and analyzed eleven (11) paint chip samples from the Subject Site in accordance with the EPA guidelines and recommendations.

The suspected lead-containing paints were wetted with amended water before sample collection. Paint was carefully scraped and placed into a labeled re-sealable plastic bag. The sampling equipment was cleaned between each sample collection to avoid cross-contamination between samples. Samples were properly logged and recorded following strict chain of custody procedure and submitted to NVL located in Seattle, WA for analysis by FAAS, in accordance with EPA Method 7000.

### **4.3 Arsenic**

ETC personnel collected one (1) sample of suspected AsCM from the Subject Site. The suspected arsenic containing sample was collected in accordance with EPA guidelines and recommendations.

The suspected arsenic containing materials were wetted with amended water before sample collection. A small piece was then carefully cut out and placed into a labeled re-sealable plastic bag. The samples were logged and recorded following strict chain of custody procedure and were also submitted to NVL in Seattle, Washington for analysis by AES-ICP, using the EPA Method 6010.



#### **4.4 Polychlorinated Biphenyl Ballasts and Mercury Containing Lamps**

ETC inspected interior fluorescent light fixtures, in area 100, gymnasium for required documentation indicating the presence or lack of PCB-containing ballasts oil and mercury-containing lamps. Fluorescent light ballasts were inspected for the presence of labeling stating “No PCBs”. If labeling was not observed on the light ballast and/or if the ballast was not accessible, the ballast was assumed to be PCB-containing.

Fluorescent light lamps were inspected for the presence of green end caps or labeling indicating low-mercury levels, or silver end caps, indicating high levels of mercury. Silver end capped lamps were considered to be hazardous/universal waste.

## **5.0 RESULTS**

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### **5.1 Asbestos**

None of the sampled materials contained levels of asbestos above the regulatory limit of 1%. The results of this analysis are recorded in Table 1 found in Appendix 1.

Four (4) samples were found to contain glass fibers. Although materials containing these fibers are not specifically regulated, it is ETC's recommendation to handle materials containing glass fibers with appropriate protective equipment.

### **5.2 Lead Paint Inspection**

The beige paint, located on the exterior concrete and CMU walls, and the metal downspouts, electrical conduits, handrail and ladder contained lead in excess of the EPA/ HUD guidelines of 0.5 % by weight defining LBP. Six (6) sampled surfaces contained levels less than the EPA/ HUD guideline defining Lead-Containing Paint (LCP). The remaining four (4) samples did not contain detectable levels of lead and are considered non lead containing. The lead paint survey results are recorded in Table 2 found in Appendix I.

### **5.3 Arsenic Inspection**

The 12" x 12" tiles, located on the Gymnasium and Locker Room ceilings, contained arsenic above the EPA action level of 100 milligrams per kilogram. The arsenic survey results are recorded in Table 3, found in Appendix I.

### **5.4 Polychlorinated Biphenyl Ballasts and Mercury Containing Lamps**

ETC inspected 19 out of the 34 fluorescent light fixtures in area 100. ETC did not inspect all 34 light fixtures due to the following:

- 1) Two (2) light fixtures contained obstructions in the screens, blocking access,
- 2) Five (5) light fixtures had rusted bolts on the screens, and
- 3) The wing nuts to access the light ballast were inaccessible in eight (8) light fixtures

The nineteen (19) fluorescent light ballasts inspected were labeled "No PCB's". All sixty-six (66) fluorescent lamps inventoried at the Subject Site are classified as "low mercury" fluorescent lamps. If any of the remaining 15 light ballast is without the "No PCBs" indication on the label, or if any of the ballasts are unlabeled; they should be removed from the light fixtures, sealed in properly labeled drums, and disposed of as PCB waste. The inventory list is provided in Table 4 found in Appendix I.

## 6.0 DISCUSSION AND RECOMMENDATIONS

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The findings and recommendations of ETC's limited hazardous material survey extended only to those areas that were accessible at the time of the site reconnaissance. ETC collected samples from inconspicuous areas when possible. Any areas that were inaccessible either due to physical restraints (i.e. areas within walls, behind locked doors, beneath flooring materials, hidden materials, etc.) or occupancy are not covered under the scope of this survey and should be evaluated for hazardous materials separately prior to any disturbance.

In summary, LBP, LCP, and AsCM were found. Based on ETC's visual inspection of the facility and laboratory data, ETC recommends the following:

- Manage and/or remove and dispose of hazardous and regulated materials in accordance with applicable local, state, and federal regulations, prior to renovation and/or demolition activities that may disturb these materials.
- Any material that is suspected to contain a hazardous contaminant but was not tested as part of this survey should be tested prior to disturbance.
- Handle materials containing glass fibers with appropriate protective equipment to prevent inhalation or ingestion of fibers and contact with skin and mucous membranes.
- Remove and dispose of all lead-containing, including lead-based, paint that may be disturbed during renovation/demolition activities in accordance with applicable local, state, and federal regulations. Note that conditions of paint may have changed since the time of this survey.
- All LBP waste and debris generated from the removal of LBP on building materials must either be recycled in accordance with applicable regulatory requirements, where available (e.g. metal components), or undergo Toxicity Characteristic Leaching Procedure (TCLP)-Lead analysis prior to disposal.
- If the confirmed AsCM will be disturbed during the planned renovation activities, the work should be performed by a qualified abatement contractor who is experienced with AsCM, under the supervision of a qualified industrial hygiene professional.
- If any PCB containing ballasts are found, remove and dispose of ballasts by a qualified contractor.
- Services of a qualified consultant should be obtained to monitor and inspect the removal activities to ensure compliance with applicable EPA, OSHA, and HIOSH regulations pertaining to the handling of lead-containing paint, AsCM, and PCB containing ballasts.
- Have air monitoring conducted for lead dust and arsenic by qualified personnel during abatement and general renovation/demolition activities of areas that were determined to contain these contaminants.

# *Appendix* **I**

## **TABLES OF RESULTS**

**Table 1**  
**Asbestos Survey Results**  
**Building 19**

<i>Sample ID</i>	<i>Homogeneous Area</i>	<i>Material</i>	<i>Condition</i>	<i>Category</i>	<i>Friability</i>	<i>Analysis Layer</i>	<i>Asbestos Content</i>
1602-AB-01	Throughout Room 100 (Gym)	Yellow Ceramic Wall Tile with Grout	Fair	Misc.	Not Applicable	All	None Detected
1602-AB-02							None Detected
1602-AB-03							None Detected
1602-AB-04	Throughout Room 100 (Gym) and Room 105 Locker Room	1'x2' Pinhole Ceiling Tile	Fair	Friable	Not Applicable	All	None Detected
1602-AB-05							None Detected
1602-AB-06							None Detected
1602-AB-07	Throughout Room 100 (Gym) and Room 105 Locker Room	Mastic under 1'x2' Pinhole Ceiling Tile	Fair	Misc.	Not Applicable	All	None Detected
1602-AB-08							None Detected
1602-AB-09							None Detected
1602-AB-10	Throughout	Drywall with Joint Compound	Good	Friable	Not Applicable	All	*None Detected
1602-AB-11							None Detected
1602-AB-12							*None Detected
1602-AB-13	Along Perimeter of Window Frames	Gray Window Caulking	Fair	Misc.	Not Applicable	All	None Detected
1602-AB-14							None Detected
1602-AB-15							None Detected
1602-AB-16	Throughout Window Muntins on Windows by North Side Door	White Window Glazing	Fair	Misc.	Not Applicable	All	None Detected
1602-AB-17							None Detected
1602-AB-18							None Detected
1602-AB-19	Along Exterior Perimeter of West Side Door	White Plaster	Fair	Friable	Not Applicable	All	None Detected
1602-AB-20							None Detected
1602-AB-21							None Detected
1602-AB-22	Along Interior Perimeter of West Side Door	White Door Caulking	Good	Misc.	Not Applicable	All	*None Detected
1602-AB-23							None Detected
1602-AB-24							*None Detected

*\* = Glass Fibers Detected*

**Table 2**  
**Lead Paint Survey Results**  
**Building 19**

<i>Sample ID</i>	<i>Location</i>	<i>Interior/ Exterior</i>	<i>Color</i>	<i>Description</i>	<i>Condition</i>	<i>Reporting Limit (mg/kg)</i>	<i>Results (mg/kg)</i>	<i>Estimated Quantity</i>
1602-Pb-01	Room 100 (Gym)	Interior	Cream	Concrete Walls & Columns	Intact	51.0	< 51.0	Not Applicable
				CMU Walls				
				Metal Electrical Box, Electrical Conduits, Scoreboard Ladder and Handrail				
1602-Pb-02	Room 100	Interior	Yellow	Concrete Columns and Walls	Intact	51.0	2000.00	Not Applicable
1602-Pb-03	Room 100	Interior	White	Concrete Floor (Lines)	Intact	50.0	<50.0	Not Applicable
1602-Pb-04	Room 100	Interior	Blue	Lower Concrete Columns	Intact	47.0	260.0	Not Applicable
1602-Pb-05	Room 100	Interior	Green	Lower Concrete Columns	Intact	50.0	3500.0	Not Applicable
1602-Pb-06	Room 105 (Locker Room)	Interior	Black	Concrete Walls	Poor	51.0	<51.0	Not Applicable
				CMU Walls				
				Wood Trim				
				Gypsum Board Wall				
1602-Pb-07	Room 105	Interior	White over	CMU Walls	Intact	50.0	2200.0	Not Applicable
				Concrete Columns				
1602-Pb-08	Room 105	Interior	Beige	Concrete Walls	Intact	51.0	2500.0	Not Applicable
				Gypsum Board Wall				
1602-Pb-09	Exterior	Exterior	Brown	Concrete Walls, Columns, Steps	Poor	48.0	2800.0	Not Applicable
				Metal Downspouts, Electrical Conduits, Handrail and Ladder				

**Table 2**  
**Lead Paint Survey Results**  
**Building 19**

<i>Sample ID</i>	<i>Location</i>	<i>Interior/ Exterior</i>	<i>Color</i>	<i>Description</i>	<i>Condition</i>	<i>Reporting Limit (mg/kg)</i>	<i>Results (mg/kg)</i>	<i>Estimated Quantity</i>
<b>1602-Pb-10</b>	<b>Exterior</b>	<b>Exterior</b>	<b>Beige</b>	<b>Concrete Walls, Ceilings (overhang)</b>	<b>Intact</b>	<b>51.0</b>	<b>9400.0</b>	<b>40,000 square feet</b>
				<b>CMU Walls</b>				
				<b>Metal Downspouts, Electrical Conduits, Handrail and Ladder</b>				
1602-Pb-11	Exterior	Exterior	Gray	Metal Handrail-Back Entrance	Intact	48.0	<48.0	Not Applicable

**Table3**  
**Arsenic Survey Results**  
**Building 19**

<i>Sample ID</i>	<i>Location</i>	<i>Description</i>	<i>Condition</i>	<i>Reporting Limit (mg/kg)</i>	<i>Results (mg/kg)</i>
1602-Ars-01	Gym and Locker Room	12" x 12" Ceiling Tile	Good	18.0	4400.0



**Table 4**  
**PCB Ballasts and Mercury Lamps Inventory**  
**Building 19**

<i>Total No. of Fixtures</i>	<i>No. of Ballasts Inspected</i>	<i>Ballasts</i>		<i>Fixtures Not Inspected</i>	<i>Total No. of Lamps</i>	<i>No. of Lamps Inspected</i>	<i>Lamps</i>		<i>Lamps Not Inspected</i>
		<i>PCB- Containing</i>	<i>Non-PCB Containing</i>				<i>Mercury Containing Universal Waste</i>	<i>Low Mercury Containing</i>	
34	19	0	19	15	66	66	0	66	0

\* Two (2) light fixtures contained obstructions in the screens, blocking access

\* Five (5) light fixtures had rusted bolts on the screens.

\* The wing nuts to access the light ballast were inaccessible in eight (8) light fixtures

## *Appendix* **II**

### **LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS**

April 15, 2016

Steven Chun  
EnviroServices & Training Center, LLC  
505 Ward Avenue, Suite 202  
Honolulu, HI 96814



Laboratory | Management | Training

**RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1607795.00**

Client Project: 16-4002  
Location: Building 19

Dear Mr. Chun,

Enclosed please find test results for the 12 sample(s) submitted to our laboratory for analysis on 4/12/2016.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

A handwritten signature in black ink, appearing to read "Nick Ly".

Nick Ly, Technical Director



Lab Code: 102063-0

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: EnviroServices & Training Center, LLC

Address: 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

**Attention: Mr. Steven Chun**

Project Location: Building 19

**Batch #: 1607795.00**

Client Project #: 16-4002

Date Received: 4/12/2016

Samples Received: 12

Samples Analyzed: 12

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

## Lab ID: 16203881 Client Sample #: 1602-AB-01

Location: Building 19

Comments: Unsure of correct layer sequence.

### Layer 1 of 3 Description: Yellow glazed brittle material

Non-Fibrous Materials:

Ceramic/Binder, Fine grains

Other Fibrous Materials:%

None Detected ND

**Asbestos Type: %**

**None Detected ND**

### Layer 2 of 3 Description: Grey brittle cementitious material

Non-Fibrous Materials:

Cement/Binder, Mineral grains, Fine grains

Calcareous particles

Other Fibrous Materials:%

None Detected ND

**Asbestos Type: %**

**None Detected ND**

### Layer 3 of 3 Description: White brittle material

Non-Fibrous Materials:

Calcareous binder, Fine grains

Other Fibrous Materials:%

Cellulose <1%

**Asbestos Type: %**

**None Detected ND**

## Lab ID: 16203882 Client Sample #: 1602-AB-02

Location: Building 19

Comments: Unsure of correct layer sequence.

### Layer 1 of 3 Description: Yellow glazed brittle material

Non-Fibrous Materials:

Ceramic/Binder, Fine grains

Other Fibrous Materials:%

None Detected ND

**Asbestos Type: %**

**None Detected ND**

### Layer 2 of 3 Description: Grey brittle cementitious material

Non-Fibrous Materials:

Cement/Binder, Mineral grains, Calcareous particles

Other Fibrous Materials:%

Cellulose <1%

**Asbestos Type: %**

**None Detected ND**

### Layer 3 of 3 Description: White brittle material

Non-Fibrous Materials:

Calcareous binder, Fine grains

Other Fibrous Materials:%

None Detected ND

**Asbestos Type: %**

**None Detected ND**

**Sampled by:** Client

**Analyzed by:** Matt Macfarlane

**Reviewed by:** Nick Ly

**Date:** 04/14/2016

**Date:** 04/15/2016



Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: EnviroServices & Training Center, LLC

Address: 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

**Attention: Mr. Steven Chun**

Project Location: Building 19

**Batch #: 1607795.00**

Client Project #: 16-4002

Date Received: 4/12/2016

Samples Received: 12

Samples Analyzed: 12

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Lab ID: 16203883 Client Sample #: 1602-AB-03**

Location: Building 19

Layer 1 of 3	<b>Description:</b> Yellow glazed brittle material	Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
		Ceramic/Binder, Fine grains	None Detected ND	
Layer 2 of 3	<b>Description:</b> Grey brittle cementitious material	Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
		Cement/Binder, Mineral grains, Fine grains	None Detected ND	
		Calcareous particles		
Layer 3 of 3	<b>Description:</b> White brittle material	Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
		Calcareous binder, Fine grains	None Detected ND	

**Lab ID: 16203884 Client Sample #: 1602-AB-04**

Location: Building 19

Layer 1 of 1	<b>Description:</b> Brown crumbly fibrous material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
		Binder/Filler, Paint, Calcareous particles	Cellulose 87%	

**Lab ID: 16203885 Client Sample #: 1602-AB-05**

Location: Building 19

Layer 1 of 1	<b>Description:</b> Brown crumbly fibrous material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
		Binder/Filler, Paint, Calcareous particles	Cellulose 85%	

**Lab ID: 16203886 Client Sample #: 1602-AB-06**

Location: Building 19

**Sampled by:** Client

**Analyzed by:** Matt Macfarlane

**Reviewed by:** Nick Ly

**Date:** 04/14/2016

**Date:** 04/15/2016



Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: EnviroServices & Training Center, LLC

Address: 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

**Attention: Mr. Steven Chun**

Project Location: Building 19

**Batch #: 1607795.00**

Client Project #: 16-4002

Date Received: 4/12/2016

Samples Received: 12

Samples Analyzed: 12

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

<b>Layer 1 of 1</b>	<b>Description:</b> Brown crumbly fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials: %		<b>Asbestos Type: %</b>
	Binder/Filler, Paint, Calcareous particles	Cellulose 89%		<b>None Detected ND</b>

**Lab ID: 16203887**      **Client Sample #: 1602-AB-07**

Location: Building 19

<b>Layer 1 of 2</b>	<b>Description:</b> Brown fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials: %		<b>Asbestos Type: %</b>
	Binder/Filler	Cellulose 95%		<b>None Detected ND</b>

<b>Layer 2 of 2</b>	<b>Description:</b> Brittle brown mastic			
	Non-Fibrous Materials:	Other Fibrous Materials: %		<b>Asbestos Type: %</b>
	Mastic/Binder	Cellulose <1%		<b>None Detected ND</b>

**Lab ID: 16203888**      **Client Sample #: 1602-AB-08**

Location: Building 19

<b>Layer 1 of 1</b>	<b>Description:</b> Brittle brown mastic			
	Non-Fibrous Materials:	Other Fibrous Materials: %		<b>Asbestos Type: %</b>
	Mastic/Binder	Cellulose 4%		<b>None Detected ND</b>

**Lab ID: 16203889**      **Client Sample #: 1602-AB-09**

Location: Building 19

<b>Layer 1 of 1</b>	<b>Description:</b> Brittle brown mastic with trace brown paper			
	Non-Fibrous Materials:	Other Fibrous Materials: %		<b>Asbestos Type: %</b>
	Mastic/Binder, Fine particles	Cellulose 9%		<b>None Detected ND</b>

**Lab ID: 16203890**      **Client Sample #: 1602-AB-10**

Location: Building 19

**Sampled by:** Client

**Analyzed by:** Matt Macfarlane

**Reviewed by:** Nick Ly

**Date:** 04/14/2016

**Date:** 04/15/2016



Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: EnviroServices & Training Center, LLC

Address: 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

**Attention: Mr. Steven Chun**

Project Location: Building 19

**Batch #: 1607795.00**

Client Project #: 16-4002

Date Received: 4/12/2016

Samples Received: 12

Samples Analyzed: 12

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Layer 1 of 1**      **Description:** White chalky material with paper & paint

Non-Fibrous Materials:	Other Fibrous Materials: %
Gypsum/Binder, Paint, Calcareous particles	Cellulose 15%
	Glass fibers 2%

**Asbestos Type: %**  
**None Detected ND**

**Lab ID: 16203891**      **Client Sample #: 1602-AB-11**

Location: Building 19

**Layer 1 of 1**      **Description:** White chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials: %
Gypsum/Binder, Calcareous particles	Cellulose 12%

**Asbestos Type: %**  
**None Detected ND**

**Lab ID: 16203892**      **Client Sample #: 1602-AB-12**

Location: Building 19

**Layer 1 of 1**      **Description:** Chalky white material with paper & paint

Non-Fibrous Materials:	Other Fibrous Materials: %
Gypsum/Binder, Paint, Calcareous particles	Cellulose 14%
	Glass fibers 2%

**Asbestos Type: %**  
**None Detected ND**

**Sampled by:** Client

**Analyzed by:** Matt Macfarlane

**Reviewed by:** Nick Ly

**Date:** 04/14/2016

**Date:** 04/15/2016



Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

**Company** EnviroServices & Training Center, LLC  
**Address** 505 Ward Avenue, Suite 202  
 Honolulu, HI 96814  
**Project Manager** Mr. Steven Chun  
**Phone** (808) 839-7222  
 (808) 225-0674  
**NVL Batch Number** 1607795.00  
**TAT** 5 Days **AH** No  
**Rush TAT**  
**Due Date** 4/19/2016 **Time** 10:30 AM  
**Email** schun@gotoetc.com  
**Fax** (808) 839-4455

**Project Name/Number:** 16-4002 **Project Location:** Building 19

**Subcategory** PLM Bulk

**Item Code** ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

**Total Number of Samples** 12

**Rush Samples**

	Lab ID	Sample ID	Description	A/R
1	16203881	1602-AB-01		A
2	16203882	1602-AB-02		A
3	16203883	1602-AB-03		A
4	16203884	1602-AB-04		A
5	16203885	1602-AB-05		A
6	16203886	1602-AB-06		A
7	16203887	1602-AB-07		A
8	16203888	1602-AB-08		A
9	16203889	1602-AB-09		A
10	16203890	1602-AB-10		A
11	16203891	1602-AB-11		A
12	16203892	1602-AB-12		A

	Print Name	Signature	Company	Date	Time
<b>Sampled by</b>	Client				
<b>Relinquished by</b>	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
<b>Received by</b>	Maxwell Raymond		NVL	4/12/16	1030
<b>Analyzed by</b>	Matt Macfarlane		NVL	4/14/16	8:09 AM
<b>Results Called by</b>					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

**Special Instructions:** Stop at first positive

Date: 4/12/2016  
 Time: 12:38 PM  
 Entered By: Fatima Khan





Laboratory | Management | Training

# ASBESTOS CHAIN OF CUSTODY

Turn Around Time

☐ 1 Hour

☐ 24 Hours

☐ 2 Hours

☐ 2 Days

☐ 4 Hours

☐ 4 Days

☒ 5 Days

Please call for

**1607795**

Company Enviroservices and Training Center, LLC

Project Manager S. Chun

Address 505 Ward Avenue, Suite 202

Cell ( 808 ) 216 - 7030

Honolulu, HI 96814

Email schun@gotoetc.com

Phone 808-839-7222

Fax ( 808 ) 839 - 4455

Project Name/Number 16-4002

Project Location Building 19

- ☐ PCM Air (NIOSH 7400) ☐ TEM (NIOSH 7402) ☐ TEM (AHERA) ☐ TEM (EPA Level II Modified)  
☒ PLM (EPA 600/R-93-116) ☐ EPA 400 Points (600/R-93-116) ☐ EPA 1000 Points (600/R-93-116)  
☐ PLM Gravimetry (600/R-93-116) ☐ Asbestos in Vermiculite (EPA 600/R-04/004) ☐ Asbestos in Sediment (EPA 1900 Points)  
☐ Asbestos Friable/Non-Friable (EPA 600/R-93/116) ☐ Other \_\_\_\_\_

Reporting Instructions Please email results to Steven and Vel / Please Stop at First Positive

☐ Call ( 808 ) 839 - 7222

☐ Fax ( 808 ) 839 - 4455

☒ Email vel@gotoetc.com

Total Number of Samples 12

Sample ID	Description	A/R
1 1602-AB-01	Yellow ceramic wall tile w/ grout	
2 ↓ -02	↓	
3 ↓ -03	↓	
4 1602-AB-04	1'x2' Pinhole Ceiling Tile	
5 ↓ -05	↓	
6 ↓ -06	↓	
7 1602-AB-07	Mastic under 1'x2' CT Pinhole	
8 ↓ -08	↓	
9 ↓ -09	↓	
10 1602-AB-10	Gypsumboard w/ Joint Compound	
11 ↓ -11	↓	
12 ↓ -12	↓	
13		
14		
15		

Print Name	Signature	Company	Date	Time
S. Chun/V. Roberts		ETC	4/8/16	14:00
S.Chun/V. Roberts		ETC	4/11/16	14:00

## Office Use Only

Print Name	Signature	Company	Date	Time
Received by <u>Max R</u>		<u>NVL</u>	4/12/16	15:30
Analyzed by <u>WATSON</u>		<u>ML</u>	4/14/16	12:45
Called by				
Faxed/Email by				

# EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044  
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report

**0183712**

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENVIROSERVICES & TRAINING CENTER Job# / P.O. #:  
Address: 505 WARD AVE, STE 202 Date Received: 03/20/2017  
HONOLULU HI 96814 Date Analyzed: 03/23/2017  
Collected: 03/17/2017 Date Reported: 03/23/2017  
Project Name: LTD HAZARDOUS MATERIALS SURVEY EPA Method: EPA 600/R-93/116  
FOR BLDG 19 SITES Submitted By: STEVE CHUN  
Address: @ HAWAII ARMY NATIONAL GUARD  
KALAELOA Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0183712-001 1602-AB-13	ALONG PERIMETER OF WINDOW FRAMES	Window Caulking, Gray	No	None Detected	Cellulose Fiber	<1%
					Carbonates Quartz Binder/Filler	99%
0183712-002 1602-AB-14	ALONG PERIMETER OF WINDOW FRAMES	Window Caulking, Gray	No	None Detected	Carbonates Quartz Binder/Filler	100%
0183712-003 1602-AB-15	ALONG PERIMETER OF WINDOW FRAMES	Window Caulking, Gray	No	None Detected	Cellulose Fiber	<1%
					Carbonates Quartz Binder/Filler	99%
0183712-004 1602-AB-16	THROUGHOUT WINDOW MUNTINS ON WINDOWS BY NORTH SIDE DOOR	Window Glazing, White	No	None Detected	Cellulose Fiber	1%
					Carbonates Quartz Binder/Filler	99%
0183712-005 1602-AB-17	THROUGHOUT WINDOW MUNTINS ON WINDOWS BY NORTH SIDE DOOR	Window Glazing, White	No	None Detected	Cellulose Fiber	<1%
					Carbonates Quartz Binder/Filler	99%

# EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044  
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report

**0183712**

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENVIROSERVICES & TRAINING CENTER Job# / P.O. #:  
Address: 505 WARD AVE, STE 202 Date Received: 03/20/2017  
HONOLULU HI 96814 Date Analyzed: 03/23/2017  
Collected: 03/17/2017 Date Reported: 03/23/2017  
Project Name: LTD HAZARDOUS MATERIALS SURVEY EPA Method: EPA 600/R-93/116  
FOR BLDG 19 SITES Submitted By: STEVE CHUN  
Address: @ HAWAII ARMY NATIONAL GUARD  
KALAELOA Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0183712-006 1602-AB-18	THROUGHOUT WINDOW MUNTINS ON WINDOWS BY NORTH SIDE DOOR	Window Glazing, White	No	None Detected	Cellulose Fiber	<1%
					Carbonates Quartz Binder/Filler	99%
0183712-007 1602-AB-19	ALONG EXTERIOR PERIMETER OF WEST SIDE DOOR	Plaster, White	No	None Detected	Cellulose Fiber Synthetic Fiber	1% <1%
					Quartz Gypsum Mica Carbonates Binder/Filler	98%
0183712-008 1602-AB-20	ALONG EXTERIOR PERIMETER OF WEST SIDE DOOR	Plaster, White	No	None Detected	Cellulose Fiber	<1%
					Quartz Gypsum Mica Carbonates Binder/Filler	99%
0183712-009 1602-AB-21	ALONG EXTERIOR PERIMETER OF WEST SIDE DOOR	Plaster, White	No	None Detected	Cellulose Fiber	<1%
					Quartz Gypsum Mica Carbonates Binder/Filler	99%

# EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044  
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report  
**0183712**

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENVIROSERVICES & TRAINING CENTER Job# / P.O. #:  
Address: 505 WARD AVE, STE 202 Date Received: 03/20/2017  
HONOLULU HI 96814 Date Analyzed: 03/23/2017  
Collected: 03/17/2017 Date Reported: 03/23/2017  
Project Name: LTD HAZARDOUS MATERIALS SURVEY EPA Method: EPA 600/R-93/116  
FOR BLDG 19 SITES Submitted By: STEVE CHUN  
Address: @ HAWAII ARMY NATIONAL GUARD  
KALAELOA Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0183712-010 1602-AB-22	ALONG INTERIOR PERIMETER OF WEST SIDE DOOR	Door Caulking, White	No	None Detected	Cellulose Fiber	1%
					Carbonates Quartz Binder/Filler	99%
0183712-011 1602-AB-23	ALONG INTERIOR PERIMETER OF WEST SIDE DOOR	Door Caulking, White	No	None Detected	Cellulose Fiber	<1%
					Carbonates Quartz Binder/Filler	99%
0183712-012 1602-AB-24	ALONG INTERIOR PERIMETER OF WEST SIDE DOOR	Door Caulking, White	No	None Detected	Cellulose Fiber	<1%
					Carbonates Quartz Binder/Filler	99%



Analyst - Dustin White



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernible layer. All analyses are derived from calibrated visual estimate and measured in area percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately less than 1 by area percent. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

**CHAIN OF CUSTODY**  
 EMC Labs, Inc.  
 9830 S. 51<sup>st</sup> St., Ste B-109  
 Phoenix, AZ 85044  
 (800) 362-3373 Fax (480) 893-1726

LAB#: 183712  
 TAT: 3 day  
 Rec'd: MAR 20 PM

COMPANY NAME: **ENVIROSERVICES & TRAINING CENTER, LLC**  
 505 Ward Ave. Suite #202  
 Honolulu, HI 96814  
 CONTACT: Steven Chun / Celena Freitas  
 Phone/Fax: (808) 839-7222 ext 232/(808) 839-4455  
 Email: schun@gotoetc.com / cfreitas@gotoetc.com

BILL TO: (If Different Location)

Now Accepting: **VISA - MASTERCARD**

Price Quoted: \$ \_\_\_\_ / Sample \$ \_\_\_\_ / Layers

**COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)**

1. **TURNAROUND TIME:** [Same Day RUSH] [1-Day] [2-Day] [3-5 Day] [6-10 Day]

\*\*\*\*Prior confirmation of turnaround time is required

\*\*\*\*Additional charges for rush analysis (please call marketing department for pricing details)

\*\*\*\*Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] [Return samples to me at my expense]

(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. **Project Name:** Limited Hazardous Materials Survey (Survey) for Building 19 Site Improvements, located at Hawaii Army National Guard, Kalaeloa

P.O. Number:

Project Number: 16-4002

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS	FLOW ON OFF RATE
1	1602-AB-13	3/17/17 12:00	*See Attached Sheet	Y N		
5	To			Y N		
12	1602-AB-24			Y N		
				Y N		
				Y N		
				Y N		
				Y N		
				Y N		
				Y N		
				Y N		
				Y N		
				Y N		

SPECIAL INSTRUCTIONS: Stop at First Positive in Set

Sample Collector: (Print) Steven K. Chun

(Signature) [Signature]

Relinquished by S. Chun Date/Time 03/17/17 12:00

Received by: [Signature] Date/Time: 3/20/17

Relinquished by: [Signature] Date/Time: 3/20/17

Received by: [Signature] Date/Time: 3/20/17

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

\*\* In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

**Table 1**  
**Asbestos Survey Results**  
**Building 19**

183712

	<i>Sample ID</i>	<i>Homogeneous Area</i>	<i>Material</i>	<i>Condition</i>	<i>Category</i>
1	1602-AB-13	Along Perimeter of Window Frames	Gray Window Caulking	Fair	Misc.
2	1602-AB-14				
3	1602-AB-15				
4	1602-AB-16	Throughout Window Muntins on Windows by North Side Door	White Window Glazing	Fair	Misc.
5	1602-AB-17				
6	1602-AB-18				
7	1602-AB-19	Along Exterior Perimeter of West Side Door	White Plaster	Fair	Friable
8	1602-AB-20				
9	1602-AB-21				
10	1602-AB-22	Along Interior Perimeter of West Side Door	White Door Caulking	Good	Misc.
11	1602-AB-23				
12	1602-AB-24				

*\* = Glass Fibers Detected*

April 15, 2016

Steven Chun

**EnviroServices & Training Center, LLC**

505 Ward Avenue, Suite 202

Honolulu, HI 96814



Laboratory | Management | Training

**RE: Metals Analysis; NVL Batch # 1607797.00**

Dear Mr. Chun,

Enclosed please find the test results for samples submitted to our laboratory for analysis. Preparation of these samples was conducted following protocol outlined in EPA Method SW 846 -3051 unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with U.S. EPA, NIOSH, OSHA and other ASTM methods.

For matrix materials submitted as paint, dust wipe, soil or TCLP samples, analysis for the presence of total metals is conducted using published U.S. EPA Methods. Paint and soil results are usually expressed in mg/Kg which is equivalent to parts per million (ppm). Lead (Pb) in paint is usually expressed in mg/Kg (ppm), Percent (%) or mg/cm<sup>2</sup> by area. Dust wipe sample results are usually expressed in ug/wipe and ug/ft<sup>2</sup>. TCLP samples are reported in mg/L (ppm). For air filter samples, analyses are conducted using NIOSH and OSHA Methods. Results are expressed in ug/filter and ug/m<sup>3</sup>. Other matrix materials are analyzed accordingly using published methods or specified by client. The reported test results pertain only to items tested and are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more details.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. If you need further assistance please feel free to call us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,

A handwritten signature in black ink, appearing to read "Nick Ly".

Nick Ly, Technical Director

**1.888.NVL.LABS**  
**1.888.(685.5227)**  
[www.nvllabs.com](http://www.nvllabs.com)



NVL Laboratories, Inc.  
4708 Aurora Ave N, Seattle, WA 98103  
p 206.547.0100 | f 206.634.1936

# Analysis Report

## Total Lead (Pb)

Client: EnviroServices & Training Center, LLC  
Address: 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

**Batch #: 1607797.00**

Matrix: Paint  
Method: EPA 3051/7000B  
Client Project #: 16-4002  
Date Received: 4/12/2016  
Samples Received: 11  
Samples Analyzed: 11

**Attention: Mr. Steven Chun**

Project Location: Building 19

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
16203893	1602-Pb-01	0.1935	51.0	< 51.0	<0.0051
16203894	1602-Pb-02	0.1950	51.0	2000.0	0.2000
16203895	1602-Pb-03	0.1970	50.0	< 50.0	<0.0050
16203896	1602-Pb-04	0.2091	47.0	260.0	0.0260
16203897	1602-Pb-05	0.1958	50.0	3500.0	0.3500
16203898	1602-Pb-06	0.1939	51.0	< 51.0	<0.0051
16203899	1602-Pb-07	0.1959	50.0	2200.0	0.2200
16203900	1602-Pb-08	0.1933	51.0	2500.0	0.2500
16203901	1602-Pb-09	0.2075	48.0	2800.0	0.2800
16203902	1602-Pb-10	0.1947	51.0	9400.0	0.9400
16203903	1602-Pb-11	0.2035	48.0	< 48.0	<0.0048

Sampled by: Client

Analyzed by: Yasuyuki Hida

Reviewed by: Nick Ly

Date Analyzed: 04/14/2016

Date Issued: 04/15/2016



Nick Ly, Technical Director

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

Note : Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

RL = Reporting Limit

'<' = Below the reporting Limit

Bench Run No: 2016-0413-10



**Company** EnviroServices & Training Center, LLC **NVL Batch Number** **1607797.00**  
**Address** 505 Ward Avenue, Suite 202 **TAT** 5 Days **AH** No  
Honolulu, HI 96814 **Rush TAT**  
**Project Manager** Mr. Steven Chun **Due Date** 4/19/2016 **Time** 10:30 AM  
**Phone** (808) 839-7222 **Email** schun@gotoetc.com  
(808) 225-0674 **Fax** (808) 839-4455

**Project Name/Number:** 16-4002 **Project Location:** Building 19

**Subcategory** Flame AA (FAA)

**Item Code** FAA-02 EPA 7000B Lead by FAA <paint>

**Total Number of Samples** 11

**Rush Samples**

	Lab ID	Sample ID	Description	A/R
1	16203893	1602-Pb-01		A
2	16203894	1602-Pb-02		A
3	16203895	1602-Pb-03		A
4	16203896	1602-Pb-04		A
5	16203897	1602-Pb-05		A
6	16203898	1602-Pb-06		A
7	16203899	1602-Pb-07		A
8	16203900	1602-Pb-08		A
9	16203901	1602-Pb-09		A
10	16203902	1602-Pb-10		A
11	16203903	1602-Pb-11		A

	Print Name	Signature	Company	Date	Time
<b>Sampled by</b>	Client				
<b>Relinquished by</b>	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
<b>Received by</b>	Maxwell Raymond		NVL	4/12/16	1030
<b>Analyzed by</b>	Yasuyuki Hida		NVL	4/14/16	
<b>Results Called by</b>					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

**Special Instructions:**

Date: 4/12/2016

Time: 12:46 PM

Entered By: Fatima Khan



# 1607797

## METALS CHAIN OF CUSTODY

Turn Around

☐ 2 Hours☐ 2 Days☒ 5 Days☐ 3 Days☐ 6-10 Days☐ 4 Days

Please call for TAT less than 24 Hours

Laboratory | Management | Training

Company Enviroservices and Training Center, LLC  
Address 505 Ward Avenue, Suite 202  
Honolulu, HI 96814  
Phone 808-839-7222

Project Manager S. Chun  
Cell ( 808 ) 216 - 7030  
Email schun@gotoetc.com  
Fax ( 808 ) 839 - 4455

Project Name/Number <u>16-4002</u>		Project Location <u>Building 19</u>	
<input checked="" type="checkbox"/> Total Metals	<input checked="" type="checkbox"/> FAA (ppm)	<input type="checkbox"/> Air Filter	<input checked="" type="checkbox"/> Paint Chips (%)
<input type="checkbox"/> TCLP	<input type="checkbox"/> ICP (PPM)	<input type="checkbox"/> Paint Chips (cm)	<input type="checkbox"/> Dust Wipes
	<input type="checkbox"/> GFAA (ppb)	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Waste Water
	<input type="checkbox"/> CVAA (ppb)	<input type="checkbox"/> Other _____	
RCRA 8		RCRA 11	
<input type="checkbox"/> Barium		<input type="checkbox"/> Chromium	<input type="checkbox"/> Silver
<input type="checkbox"/> Arsenic		<input type="checkbox"/> Mercury	<input checked="" type="checkbox"/> Lead
<input type="checkbox"/> Selenium		<input type="checkbox"/> Cadmium	<input type="checkbox"/> Copper
			<input type="checkbox"/> Zinc
			<input type="checkbox"/> Other _____

Reporting Instructions Please email results to Steven and Vel☐ Call ( 808 ) 839 - 7222☐ Fax ( 808 ) 839 - 4455☒ Email vel@gotoetc.comTotal Number of Samples 11

Sample ID	Description	A/R
1 <u>1602-Pb-01</u>	<u>Int - Cream paint on CMU, Concrete + Metal</u>	
2 <u>-02</u>	<u>Int - Yellow paint on concrete</u>	
3 <u>-03</u>	<u>Int - White paint on Concrete Floor (lines)</u>	
4 <u>-04</u>	<u>Int - Blue paint on Concrete columns</u>	
5 <u>-05</u>	<u>Int - Green paint on Concrete columns</u>	
6 <u>-06</u>	<u>Int - Black paint on Concrete, CMU, Wood + Gyp</u>	
7 <u>-07</u>	<u>Int - White paint over yellow + Tan Paint on CMU, Concrete</u>	
8 <u>-08</u>	<u>Int - Beige paint on Concrete + Gyp</u>	
9 <u>-09</u>	<u>Ext - Brown Paint on Concrete, Metal</u>	
10 <u>-10</u>	<u>Ext - Beige Paint on Concrete, CMU + Metal</u>	
11 <u>-11</u>	<u>Ext - Gray Paint on Metal</u>	
12		
13		
14		
15		

Print Name	Signature	Company	Date	Time
S. Chun/V. Roberts	<i>[Signature]</i>	ETC	<u>4-8-16</u>	09:00
Relinquish by	<i>[Signature]</i>	ETC	<u>4-11-16</u>	14:00

**Office Use Only**

Print Name	Signature	Company	Date	Time
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<u>4/12/16</u>	<u>1030 Fedup</u>
Received by				
Analyzed by				
Called by				
Faxed/Email by				

April 14, 2016

Steven Chun

**EnviroServices & Training Center, LLC**

505 Ward Avenue, Suite 202

Honolulu, HI 96814



Laboratory | Management | Training

**RE: Metals Analysis; NVL Batch # 1607799.00**

Dear Mr. Chun,

Enclosed please find the test results for samples submitted to our laboratory for analysis. Preparation of these samples was conducted following protocol outlined in EPA Method SW 846 -3051 unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with U.S. EPA, NIOSH, OSHA and other ASTM methods.

For matrix materials submitted as paint, dust wipe, soil or TCLP samples, analysis for the presence of total metals is conducted using published U.S. EPA Methods. Paint and soil results are usually expressed in mg/Kg which is equivalent to parts per million (ppm). Lead (Pb) in paint is usually expressed in mg/Kg (ppm), Percent (%) or mg/cm<sup>2</sup> by area. Dust wipe sample results are usually expressed in ug/wipe and ug/ft<sup>2</sup>. TCLP samples are reported in mg/L (ppm). For air filter samples, analyses are conducted using NIOSH and OSHA Methods. Results are expressed in ug/filter and ug/m<sup>3</sup>. Other matrix materials are analyzed accordingly using published methods or specified by client. The reported test results pertain only to items tested and are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more details.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. if you need further assistance please feel free to call us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,

A handwritten signature in black ink, appearing to read "Nick Ly".

Nick Ly, Technical Director



**1.888.NVL.LABS**  
1.888.(685.5227)  
www.nvllabs.com

NVL Laboratories, Inc.  
4708 Aurora Ave N, Seattle, WA 98103  
p 206.547.0100 | f 206.634.1936

# Analysis Report

## Total Metals

Client: EnviroServices & Training Center, LLC

Address: 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

Attention: Mr. Steven Chun

Project Location: Building 19

Batch #: 1607799.00

Matrix: Bulk

Method: EPA 3051/6010C

Client Project #: 16-4002

Date Received: 4/12/2016

Samples Received: 1

Samples Analyzed: 1

Lab ID	Client Sample #	Elements	Sample wt (g)	RL mg / kg	Results in mg / kg	Results in ppm
16203904	1602-Ars-01	Arsenic (As)	0.2195	18.0	4400.0	4400.0

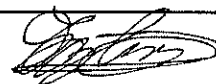
Sampled by: Client

Analyzed by: Shalini Patel

Reviewed by: Nick Ly

Date Analyzed: 04/13/2016

Date Issued: 04/14/2016



Nick Ly, Technical Director

mg/ kg = Milligrams per kilogram

ppm = Parts per million

Note : Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

RL = Reporting Limit

'<' = Below the reporting Limit

Company EnviroServices &amp; Training Center, LLC

Address 505 Ward Avenue, Suite 202  
Honolulu, HI 96814

Project Manager Mr. Steven Chun

Phone (808) 839-7222  
(808) 225-0674

NVL Batch Number 1607799.00

TAT 5 Days AH No

Rush TAT

Due Date 4/19/2016 Time 10:30 AM

Email schun@gotoetc.com

Fax (808) 839-4455

Project Name/Number: 16-4002

Project Location: Building 19

Subcategory Inductively Coupled Plasma (ICP) - Group Tests

Item Code ICP-M2 EPA 6010B (price per analyte) &lt;paint&gt;

Metals Arsenic (As)

Total Number of Samples 1

Rush Samples

Lab ID	Sample ID	Description	A/R
1	16203904	1602-Ars-01	A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Maxwell Raymond		NVL	4/12/16	1030
Analyzed by	Shalini Patel		NVL	4/13/16	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

**Special  
Instructions:**

Date: 4/12/2016

Time: 12:49 PM

Entered By: Fatima Khan



# METALS CHAIN OF CUSTODY

# 1607799

## Turn Around Time

- ☐ 2 Hour ☐ 4 Hours ☐ 24 Hours  
☐ 2 Days ☐ 3 Days ☐ 4 Days  
☒ 5 Days ☐ 6-10 Days  
Please call for TAT less than 24 Hours

Laboratory | Management | Training

Company Enviroservices and Training Center, LLC  
Address 505 Ward Avenue, Suite 202  
Honolulu, HI 96814  
Phone 808-839-7222

Project Manager S. Chun  
Cell ( 808 ) 216 - 7030  
Email schun@gotoetc.com  
Fax ( 808 ) 839 - 4455

Project Name/Number 16-4002 Project Location Building 19

<input checked="" type="checkbox"/> Total Metals	<input checked="" type="checkbox"/> FAA (ppm)	<input type="checkbox"/> Air Filter	<input type="checkbox"/> Paint Chips (%)	<input type="checkbox"/> Soil	RCRA 8	RCRA 11
<input type="checkbox"/> TCLP	<input type="checkbox"/> ICP (PPM)	<input type="checkbox"/> Paint Chips (um)	<input type="checkbox"/> Dust Wipes		<input type="checkbox"/> Barium	<input type="checkbox"/> Chromium
	<input type="checkbox"/> GFAA (ppb)	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Waste Water		<input type="checkbox"/> Arsenic	<input type="checkbox"/> Mercury
	<input type="checkbox"/> CVAA (ppb)	<input type="checkbox"/> Other <u>Bulk</u>			<input type="checkbox"/> Selenium	<input type="checkbox"/> Cadmium
					<input type="checkbox"/> Silver	<input type="checkbox"/> Copper
					<input type="checkbox"/> Lead	<input type="checkbox"/> Zinc
						<input type="checkbox"/> Other

Reporting Instructions Please email results to Steven and Vel

☐ Call ( 808 ) 839 - 7222 ☐ Fax ( 808 ) 839 - 4455 ☒ Email vel@gotoetc.com

Total Number of Samples 1

	Sample ID	Description	A/R
1	1602-Arg-01	1'x2' Pinhole Ceiling Tile	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

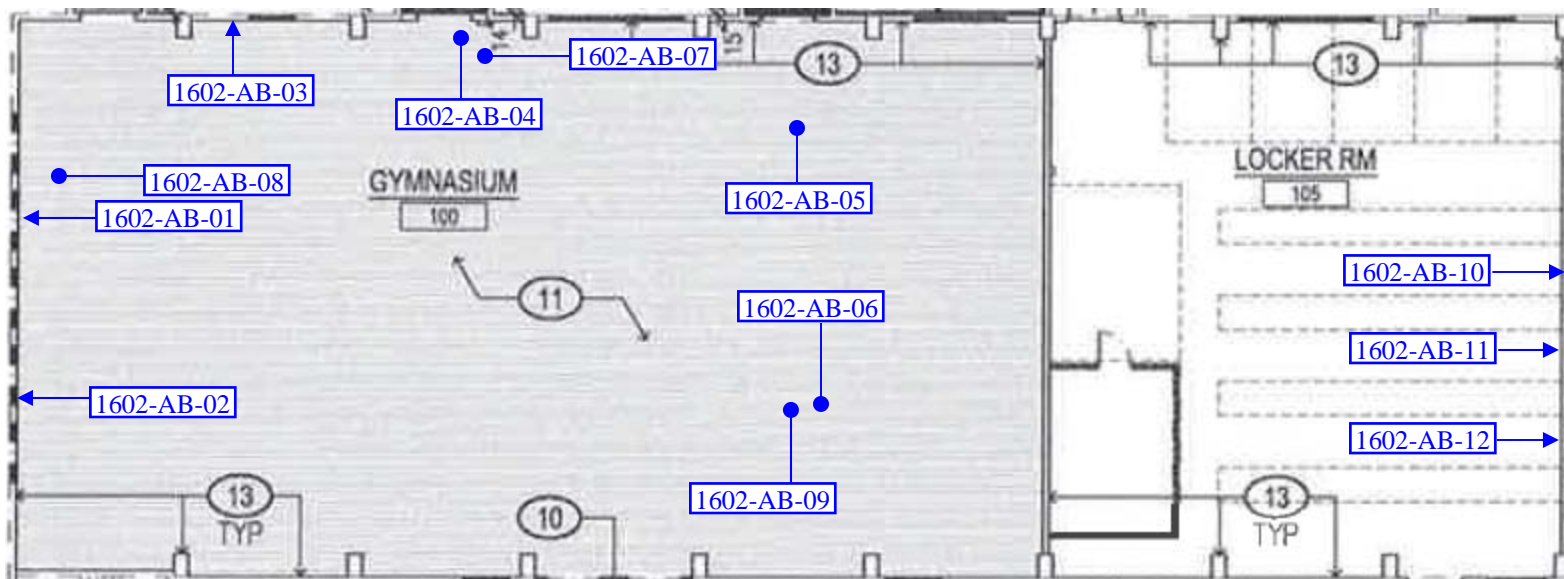
	Print Name	Signature	Company	Date	Time
Sampled by	S. Chun/V. Roberts		ETC	4-8-16	09:00
Relinquish by	S. Chun/V. Roberts		ETC	4-11-16	14:00

## Office Use Only

	Print Name	Signature	Company	Date	Time
Received by	Max P		N	4/12/16	1030 Fred K
Analyzed by					
Called by					
Faxed/Email by					

## *Appendix* **III**

### **SAMPLE LOCATION MAP**



**Legend**

1602-AB-XX	Asbestos Containing
1602-AB-XX	Non-Asbestos Containing
1602-AB-XX	Not Analyzed



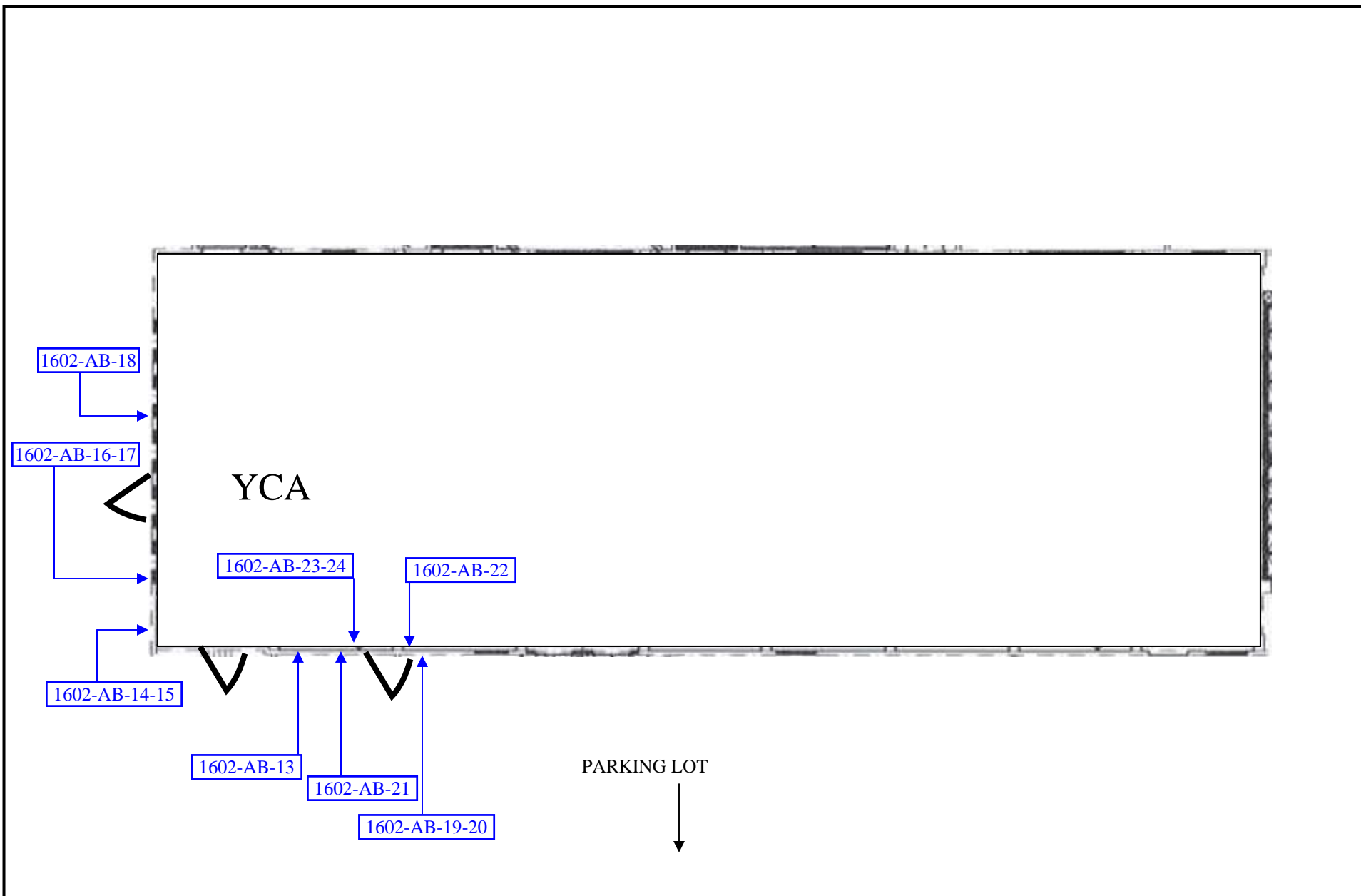
ETC Project No. 16-4002

April 2016

**ASBESTOS SAMPLE LOCATION MAP**

Limited Hazardous Materials Survey  
 Building 19, Site Improvements  
 Hawaii Army National Guard, Oahu, Hawaii  
 Job No. CA-1514-D





<p><b>Legend</b></p> <p>1602-AB-XX Asbestos Containing</p> <p>1602-AB-XX Non-Asbestos Containing</p> <p>1602-AB-XX Not Analyzed</p>		<p>ETC Project No. 16-4002</p> <p>March 2017</p>	<p><b>ASBESTOS SAMPLE LOCATION MAP</b></p> <p>Limited Hazardous Materials Survey</p> <p>Building 19, Site Improvements</p> <p>Hawaii Army National Guard, Oahu, Hawaii</p> <p>Job No. CA-1514-D</p>
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