STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

June 15, 2016

ADDENDUM NO. 1
Diamond Head Crater, M-Tunnel Repairs,
State of Hawaii, Department of Defense, Job No. CA-1428-C

The items listed hereinafter are hereby made a part of the contract for the above mentioned project and shall govern the work taking precedence over previously issued contract documents governing the items mentioned. Receipt of this addendum is to be acknowledged on page OF-7 of the proposer's packet.

A. SUMMARY FOR VOLUNTARY PRE-BID CONFERENCE AND WALK-THROUGH

A voluntary pre-bid conference and walk-through was held at the M-Tunnels on June 1, 2016 at 9:00 a.m. A site visit and walk-through of the project area was also conducted following the meeting. A copy of the Sign-in Sheet of who attended the conference and walk-through is attached.

B. CHANGES TO SPECIFICATIONS

1. Offer Form, page OF-6, LICENSE: Revise portion reading "B-General Building Contractor" to read "A-General Engineering Contractor or B-General Building Contractor".

2. Specification Section 01715, paragraph 3.01: Insert the following item:

   "C. Final Letter Report, Asbestos and Lead Paint Survey, Repair Various Tunnels Shotcrete Finishes, Mule Tunnels 0.1, 1, 2, 3 and 5, Diamond Head Crater, Honolulu, Oahu, Hawaii, prepared by Element Environmental, Inc. dated June 2016."

3. Specification Section 01715: At the end of the section, insert the attached report (see title of report in item B.2. above – 22 pages).

The questions below is from the pre-bid meeting/site visit that was held on June 1, 2016.

A. Question: *Please advise us as to whether an addendum will be issued allowing an engineering contractor with a CLASS A license to bid on your tunnel repair project as a general contractor.*

Response: Refer to item B.1. above.

Arthur J. Logan
Major General
Adjutant General

Posted: June 15, 2016

PRE-BID CONFERENCE ATTENDANCE LIST

DATE: June 1, 2016 at 9:00 A.M.
PROJECT: Diamond Head Crater, M-Tunnel Repairs,
State of Hawaii, Department of Defense, Job No. CA-1428-C

NAME:	Lloyd Maki
TITLE:	Project Manager
COMPANY:	HIENG
PHONE:	733-8441
FAX:	
CELL:	
EMAIL:	lloyd.k.maki@hawaii.gov

NAME:	
TITLE:	
COMPANY:	
PHONE:	
FAX:	
CELL:	
EMAIL:	

NAME:	Marvin Krael
TITLE:	Project Manager
COMPANY:	Global Specialty Contractors
PHONE:	843-8881
FAX:	843-8883
CELL:	387-0052
EMAIL:	mKrael@globalspecialty.net

NAME:	
TITLE:	
COMPANY:	
PHONE:	
FAX:	
CELL:	
EMAIL:	

NAME:	David Lein
TITLE:	Project Manager
COMPANY:	Abher Svoboda, Inc.
PHONE:	682-4833
FAX:	682-0780
CELL:	(612) 366-1884
EMAIL:	David.Lein@gmail.com

NAME:	
TITLE:	
COMPANY:	
PHONE:	
FAX:	
CELL:	
EMAIL:	

NAME:	Danny GUIEB
TITLE:	Estimator
COMPANY:	Ohana Environmental
PHONE:	836 6955
FAX:	836 3833
CELL:	348 1920
EMAIL:	danny.oec@hawaii.rr.com

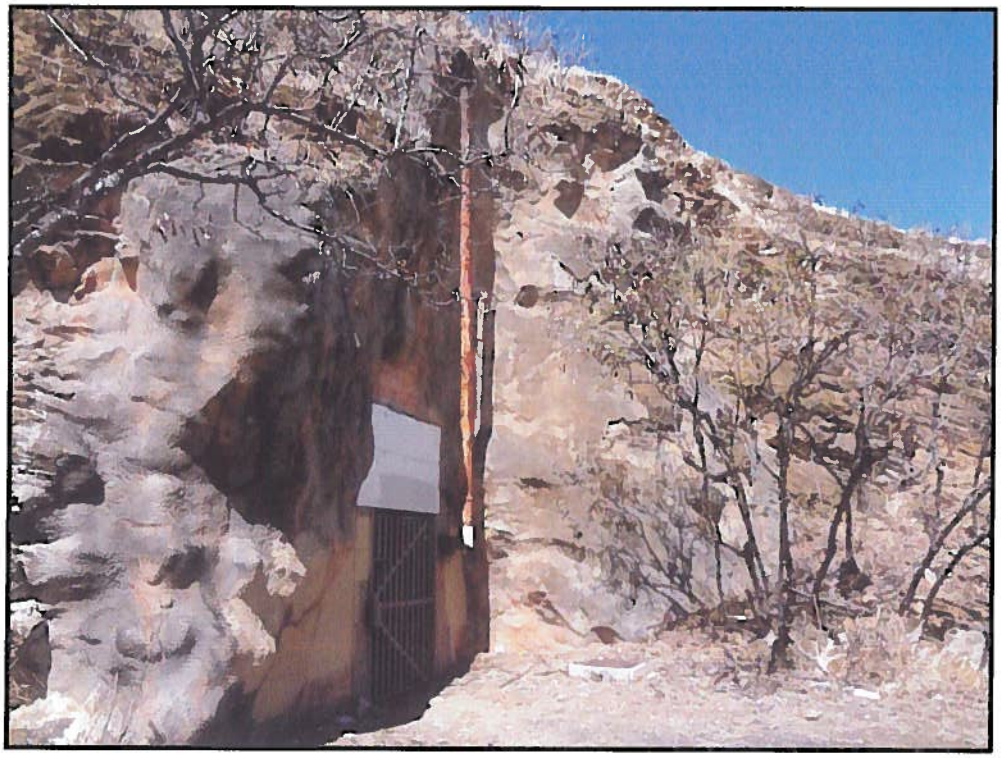
NAME:	
TITLE:	
COMPANY:	
PHONE:	
FAX:	
CELL:	
EMAIL:	

NAME:	Peter Gooding
TITLE:	Assistant Project Manager
COMPANY:	Prometheus Construction
PHONE:	954-2615
FAX:	
CELL:	
EMAIL:	peter@prometheusconstruction.com

NAME:	
TITLE:	
COMPANY:	
PHONE:	
FAX:	
CELL:	
EMAIL:	

Final Letter Report
Asbestos and Lead Paint Survey

Repair Various Tunnel Shotcrete Finishes, Mule Tunnels 0.1, 1, 2, 3, and 5, Diamond Head Crater, Honolulu, Oahu, Hawaii



Prepared for:

State of Hawaii, Department of Defense
Engineering Office
3949 Diamond Head Road
Honolulu, Hawaii 96816

Prepared by:

element environmental llc
environmental · engineering · water resources

98-030 Hekaha Street, Unit 9
Aiea, Hawaii 96701

June 2016

element environmental llc
environmental · engineering · water resources

June 14, 2016

Mr. Lloyd Maki, Assistant Chief Engineering Officer
State of Hawaii, Department of Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816

Subject: **State of Hawaii Purchase Order 16217334 (E2 Project 160031)**
Asbestos and Lead Paint Survey
Repair Various Tunnel Shotcrete Finishes
Diamond Head Crater Mule Tunnels
Honolulu, Oahu, Hawaii

Dear Mr. Maki:

Element Environmental, LLC (E2) is pleased to submit this Asbestos and Lead Paint Survey report for the State of Hawaii Department of Defense (DoD) Repair Various Tunnel Shotcrete Finishes Project at the Diamond Head Crater Mule Tunnels (0.1, 1, 2, 3, and 5), Honolulu, Oahu, Hawaii. The Scope of Work (SOW) is based on E2's accepted fee proposal dated April 26, 2016.

The field work was performed on May 20, 2016. The DoD provided E2 with access to the fronts of the Tunnels. Digital color photographs were taken to document the field investigation, and select photographs are included in Appendix A.

Previous Assessment of Building Materials

E2 was provided an electronic copy of one previous sampling event (provided in Appendix B), which is summarized below:

- *Assessment of Building Materials Prior to Renovations Process at Department of Defense Diamond Head Crater – Mule Tunnel #3 and Building #306,* dated October 23, 2013, prepared by Ohana Environmental Construction, Inc. for the DoD-Hawaii Army National Guard. The limited assessment of suspect asbestos-containing material (ACM) and lead-containing paint (LCP) was limited to Mule Tunnel #3 (Entry-exterior only) and Building 306 located at 3949 Diamond Head Road (which is not pertinent to this current project).
  - Hard plaster in good to fair condition at the Exterior-Entry to Mule Tunnel #3 was sampled, analyzed for asbestos, and determined to be non-ACM. The laboratory identified the material as a grey/white plaster material with aggregate, brown powdery material and brown paint-like material.

- One paint sample from the Mule Tunnel #3 Exterior-Entry metal door in fair condition was sampled, analyzed for total lead, and identified as lead-based paint (LBP, with a concentration of 48,000 milligrams per kilogram [mg/kg] lead).

Asbestos Survey

The current asbestos survey consisted of the collection of 25 samples from accessible components that may be affected by the project, i.e., five homogeneous sampling areas (HSAs) (one from each Tunnel front) consisting of the Tunnel entrance wall shotcrete (see Appendix A Photographs). Areas to be repaired were targeted for sampling if safely accessible. An HSA contains a material that appears uniform in color, texture, and function.

James Tsubone (#HIASB-4118) and Bernice Balete (#HIASB-0449), the asbestos inspectors who completed the sampling, are certified in accordance with the inspector training requirements of the Asbestos Hazard Emergency Response Act (AHERA) and the State of Hawaii Department of Health (HDOH) Asbestos Inspector Certification Program (Hawaii Administrative Rules [HAR] 11-503 and 11-504).

Forensic Analytical Laboratories, Inc. (Forensic) of Rancho Dominguez, California provided asbestos analytical services. Forensic is registered with the HDOH Indoor and Radiological Health Branch, Asbestos Section (L-06-002). Forensic is accredited by the California Environmental Laboratory Accreditation Program (ELAP) Branch, #1366; the American Industrial Hygiene Association (AIHA) under the Industrial Hygiene Laboratory Accreditation Program (IHLAP) for asbestos/fiber microscopy core, #101629; and the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber analysis, #101459-1. Samples were analyzed by polarized light microscopy (PLM) with dispersion staining (visual estimation), in accordance with United States Environmental Protection Agency (EPA) Interim Method of the Determination of Asbestos in Bulk Samples, Appendix E, Subpart E, 40 Code of Federal Regulations (CFR) 763, EPA Method 600/R-93-116, Visual Area Estimation.

Results were compared to standard presence/absence criteria for asbestos, i.e., materials containing over 1% asbestos are considered ACM. Asbestos was not found in any of the bulk samples collected from the project site. Table 1 provides suspect asbestos sample data results and locations; and Appendix B contains the complete suspect asbestos analytical laboratory report.

Lead Paint Survey

The current LBP survey consisted of the collection of 6 paint chip samples (one from each Tunnel front, and one additional from Tunnel M-0.1) from painted components that may be affected by the project, such as the shotcrete walls (see Appendix A Photographs).

Bernice Balete (#PB-0449), the paint inspector who completed the sampling, is certified by the HDOH Lead Activities Inspector Certification Program.

Forensic also provided the lead analytical services. Forensic is accredited by the AIHA under the Environmental Lead Laboratory Accreditation Program (ELLAP), #101629. Samples were analyzed by Atomic Absorption Spectrometry (AAS), in accordance with EPA Method 3050B/7420.

Results were compared to standard presence/absence criteria for lead, i.e., paint containing over 0.5% by weight or 5,000 mg/kg total lead were considered LBP. Paint with any detectable amount of lead is considered LCP. Both LBP and LCP are worker protection issues.

Table 2 provides paint sample results and locations; and Appendix C contains the complete paint chip sample analytical laboratory report. Four samples are considered LBP, with lead contents ranging from 0.9 to 10% by weight (9,000 to 100,000 mg/kg). Two samples are considered LCP with lead content of 0.15 to 0.19% by weight (1,500 to 1,900 mg/kg).

Conclusions

Asbestos was not found in the samples collected from the project site during this field effort. However, LBP and LCP were found in most of the samples collected from the project site during this field effort. These surfaces will be affected by the proposed construction work.

Future construction activities will need to address the presence of LCP and LBP. Appropriate worker protection measures for lead should be taken during the repair work. Representative Toxicity Characteristic Leaching Procedure (TCLP) samples of the waste stream may also need to be collected and analyzed prior to landfill acceptance. In addition, future construction documents should include appropriate plans and specifications to address abatement, handling, treatment, removal, recycling, storage, transportation, and/or disposal of any other suspect materials not sampled due to inaccessibility or hidden from view.

We appreciate the opportunity to have worked with you on this project. Should you have any questions or require additional information related to this project, please do not hesitate to call me at (808) 864-3952.

Sincerely,
Element Environmental, LLC

Ryan S. Yamauchi, P.E.
President

Attachments
Table 1: Suspect Asbestos Bulk Sample Results
Table 2: Suspect Lead Paint Chip Sample Results

Appendix A: Site Photographs
Appendix B: Suspect Asbestos Analytical Laboratory Report
Appendix C: Paint Chip Sample Analytical Laboratory Report

TABLE 1: SUSPECT ASBESTOS BULK SAMPLE RESULTS

Sample ID #	Material Location	Type of Suspect ACM	Friability	Physical Condition	Potential for Disturbance	Color	Asbestos Present?	Total % Asbestos	Other Materials
M-0.1-A1-1	Mule Tunnel 0.1 Entry	Shotcrete	non-friable	good to poor	low to high	gray	No	NAD	Cellulose (trace)
M-0.1-A1-2	"	"	"	"	"	"	"	"	"
M-0.1-A1-3	"	"	"	"	"	"	"	"	"
M-0.1-A1-4	"	"	"	"	"	"	"	"	"
M-0.1-A1-5	"	"	"	"	"	"	"	"	"
M-1-A2-1	Mule Tunnel 1 Entry	Shotcrete	non-friable	good to poor	low to high	gray	No	NAD	Cellulose (trace)
M-1-A2-2	"	"	"	"	"	"	"	"	"
M-1-A2-3	"	"	"	"	"	"	"	"	"
M-1-A2-4	"	"	"	"	"	"	"	"	"
M-1-A2-5	"	"	"	"	"	"	"	"	"
M-2-A3-1	Mule Tunnel 2 Entry	Shotcrete	non-friable	good to poor	low to high	gray	No	NAD	Cellulose (trace)
M-2-A3-2	"	"	"	"	"	"	"	"	"
M-2-A3-3	"	"	"	"	"	"	"	"	"
M-2-A3-4	"	"	"	"	"	"	"	"	"
M-2-A3-5	"	"	"	"	"	"	"	"	"
M-3-A4-1	Mule Tunnel 3 Entry	Shotcrete	non-friable	good to poor	low to high	gray	No	NAD	Cellulose (trace)
M-3-A4-2	"	"	"	"	"	"	"	"	"
M-3-A4-3	"	"	"	"	"	"	"	"	"
M-3-A4-4	"	"	"	"	"	"	"	"	"
M-3-A4-5	"	"	"	"	"	"	"	"	"
M-5-A5-1	Mule Tunnel 5 Entry	Shotcrete	non-friable	good to poor	low to high	gray	No	NAD	Cellulose (trace)
M-5-A5-2	"	"	"	"	"	"	"	"	"
M-5-A5-3	"	"	"	"	"	"	"	"	"
M-5-A5-4	"	"	"	"	"	"	"	"	"
M-5-A5-5	"	"	"	"	"	"	"	"	"

Notes
NAD = No Asbestos Detected
Asbestos-containing material (ACM) = contains greater than 1% asbestos

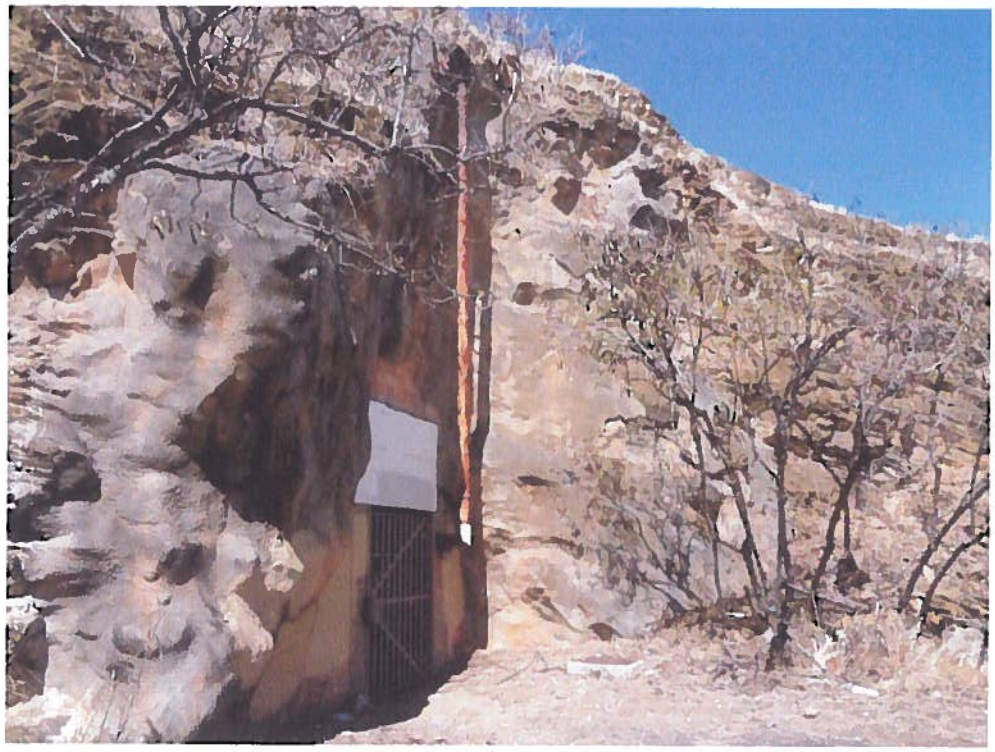
TABLE 2: SUSPECT LEAD PAINT CHIP SAMPLE RESULTS

Sample ID #	Material Location	Component	Substrate	Substrate Condition	Paint Color	Paint Condition	Lead Result (% by weight)	Lead Result (mg/kg)
M-0.1-L1	*Tunnel 0.1*	*Wall*	*Shotcrete*	*good-poor*	*red-brown*	*intact*	*0.19*	*1,900*
M-0.1-L6	*Tunnel 0.1*	*Wall*	*Shotcrete*	*good-poor*	*white*	*intact*	*0.15*	*1,500*
M-1-L2	**Tunnel 1**	**Wall**	**Shotcrete**	**good-poor**	**red-brown**	**intact**	**1.6**	**16,000**
M-2-L3	**Tunnel 2**	**Wall**	**Shotcrete**	**good-poor**	**red-brown**	**intact**	**2.0**	**20,000**
M-3-L4	**Tunnel 3**	**Wall**	**Shotcrete**	**good-poor**	**red-brown**	**intact**	**10**	**100,000**
M-5-L5	**Tunnel 5**	**Wall**	**Shotcrete**	**good-poor**	**red-brown**	**intact**	**0.9**	**9,000**

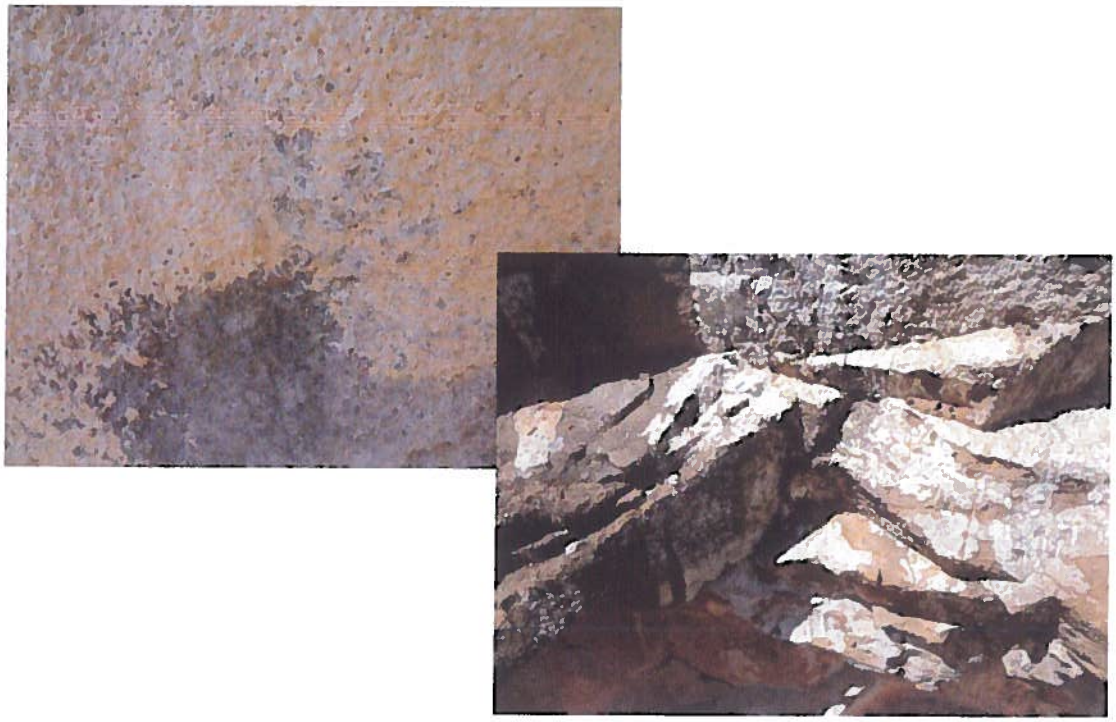
Notes:
mg/kg = milligram per kilogram
%w/w = percent lead weight over sample weight
ND (< RL) = Lead was not detected above (the laboratory reporting limit [RL])
Lead-Containing Paint (LCP) = lead content greater than RL, but less than 0.5% by weight or 5,000 mg/kg
Lead-Based Paint (LBP) = lead content equal to or greater than 0.5% by weight or 5,000 mg/kg

APPENDIX A

Site Photographs



Photograph 1 – Mule Tunnel 0.1 non-ACM shotcrete (HSA A1).



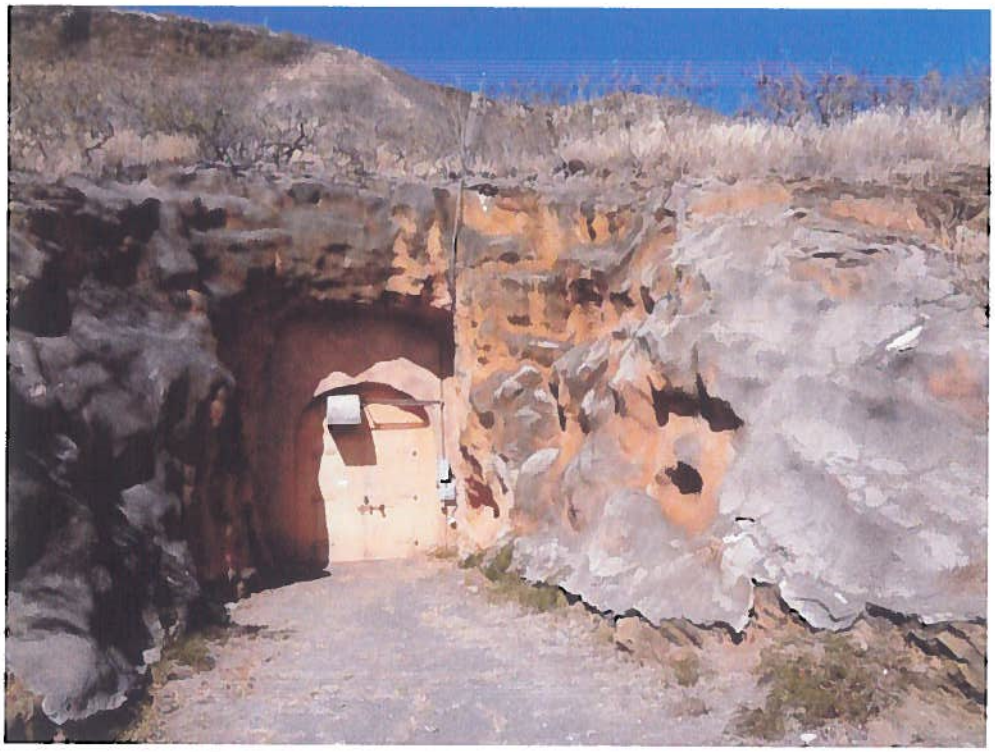
Photographs 2 and 3 – Close-up of Mule Tunnel 0.1 LCP samples L1 and L6, respectively.

Photographs 4 and 5 – Mule Tunnel 1 non-ACM shotcrete (HSA A2).

Photograph 6 – Close-up of Mule Tunnel 1 LBP sample L2.

Photograph 7 – Mule Tunnel 2 non-ACM shotcrete (HSA A3).

Photograph 8 – Close-up of Mule Tunnel 2 LBP sample L3.



Photograph 9 – Mule Tunnel 3 non-ACM shotcrete (HSA A4).

Photograph 10 – Close-up of Mule Tunnel 3 LBP sample L4.

Photograph 11 – Mule Tunnel 5 non-ACM shotcrete (HSA A5).

Photograph 12 – Close-up of Mule Tunnel 5 LBP sample L5.

APPENDIX B

Suspect Asbestos Analytical Laboratory Report

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Element Environmental, LLC
Bernice Balete
98-030 Hekaha Street
Unit 9
Aiea, HI 96701

Client ID: L1617
Report Number: B221785
Date Received: 05/23/16
Date Analyzed: 05/31/16
Date Printed: 05/31/16
First Reported: 05/31/16

Job ID/Site: 160031: Diamond Head Crater, Honolulu, Oahu, HI

Date(s) Collected: 05/20/2016

FALI Job ID: L1617
Total Samples Submitted: 25
Total Samples Analyzed: 25

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
M-0.1-A1-1	50992285						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-0.1-A1-2	50992286						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-0.1-A1-3	50992287						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-0.1-A1-4	50992288						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-0.1-A1-5	50992289						
Layer: Off-White Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-1-A2-1	50992290						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-1-A2-2	50992291						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-1-A2-3	50992292						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Client Name: Element Environmental, LLC

Report Number: B221785
Date Printed: 05/31/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
M-1-A2-4	50992293						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-1-A2-5	50992294						
Layer: Brown Cementitious Material			**ND**				
Layer: White Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-2-A3-1	50992295						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-2-A3-2	50992296						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-2-A3-3	50992297						
Layer: Brown Cementitious Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-2-A3-4	50992298						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-2-A3-5	50992299						
Layer: Brown Cementitious Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-3-A4-1	50992300						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-3-A4-2	50992301						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-3-A4-3	50992302						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

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Report Number: B221785

Client Name: Element Environmental, LLC **Date Printed:** 05/31/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
M-3-A4-4	50992303						
Layer: Brown Cementitious Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-3-A4-5	50992304						
Layer: White Cementitious Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-5-A5-1	50992305						
Layer: Brown Cementitious Material			**ND**				
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-5-A5-2	50992306						
Layer: Grey Cementitious Material			**ND**				
Layer: Orange Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-5-A5-3	50992307						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-5-A5-4	50992308						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
M-5-A5-5	50992309						
Layer: Grey Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical Laboratories, Inc.

Analysis Request Form (COC)

Client Name & Address: Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701	PO / Job#: 160031 Date: 5/20/2016 Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day ☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer ☒ PLM: ☐ Standard / ☐ Point Count 400 / 1000 / ☐ CARB 435
Contact: Bernice Balete Phone: (808) 389-4792 Fax: (808) 488-1300	☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual(+/-) / ☐ D5755(str/area) / ☐ D5756(str/mass)
E-mail: bbalete@e2hi.com	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site: Diamond Head Crater Site Location: Honolulu, Oahu, HI	☐ Metals Analysis: Method: EPA Method 600/R-93-116 Matrix: Bulk Analytes: Asbestos
Comments: **Page 1 of 3**	Report Via: ☐ Fax ☒ E-Mail ☐ Verbal

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
M-0.1-A1-1	5/20/16	Tunnel 0.1 exterior shotcrete	[A] P C				
M-0.1-A1-2	5/20/16	Tunnel 0.1 exterior shotcrete	[A] P C				
M-0.1-A1-3	5/20/16	Tunnel 0.1 exterior shotcrete	[A] P C				
M-0.1-A1-4	5/20/16	Tunnel 0.1 exterior shotcrete	[A] P C				
M-0.1-A1-5	5/20/16	Tunnel 0.1 exterior shotcrete	[A] P C				
M-1-A2-1	5/20/16	Tunnel 1 exterior shotcrete	[A] P C				
M-1-A2-2	5/20/16	Tunnel 1 exterior shotcrete	[A] P C				
M-1-A2-3	5/20/16	Tunnel 1 exterior shotcrete	[A] P C				
M-1-A2-4	5/20/16	Tunnel 1 exterior shotcrete	[A] P C				
M-1-A2-5	5/20/16	Tunnel 1 exterior shotcrete	[A] P C				

Sampled By: Bernice Balete, James Tsubone Date: 5/20/2016 Time: 9 am - 10 am

Shipped Via: ☒ Fed Ex ☐ DHL ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

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Received By: Carillo FIE Date / Time: 5/23/16 9:40 AM Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

San Francisco Office: 3777 Depot Road, Suite 409, Hayward, California 94545-2761 / Ph: (510)887-8828 * (800)827-3274 / Fax: (510)887-4218
Los Angeles Office: 2959 Pacific Commerce Drive, Rancho Dominguez, California 90221 / Ph: (310)763-2374 * (888)813-9417 / Fax: (310)763-4450
Las Vegas Office: 6765 S. Eastern Avenue, Suite 3, Las Vegas, Nevada 89119 / Ph: (702)784-0040 / Fax: (702)784-0030

Forensic Analytical Laboratories, Inc. — Analysis Request Form (COC)

Client Name & Address: Element Environmental, LLC, 98-030 Hekaha Street, Unit 9, Aiea, Hawaii 96701	PO / Job#: 160031 Date: 5/20/2016
	Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day
	☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer
	☒ PLM: ☐ Standard / ☐ Point Count 400 / 1000 / ☐ CARB 435
Contact: Bernice Balete	☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual(+/-) / ☐ D5755(str/area) / ☐ D5756(str/mass)
Phone: (808) 389-4792 Fax: (808) 488-1300	
E-mail: bbalete@e2hi.com	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site: Diamond Head Crater	☐ Metals Analysis: Method: EPA Method 600/R-93-116
Site Location: Honolulu, Oahu, HI	Matrix: Bulk Analytes: Asbestos
Comments: Page 2 of 3	Report Via: ☐ Fax ☒ E-Mail ☐ Verbal

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
M-2-A3-1	5/20/16	Tunnel 2 exterior shotcrete	A P C				
M-2-A3-2	5/20/16	Tunnel 2 exterior shotcrete	A P C				
M-2-A3-3	5/20/16	Tunnel 2 exterior shotcrete	A P C				
M-2-A3-4	5/20/16	Tunnel 2 exteriors hotcrete	A P C				
M-2-A3-5	5/20/16	Tunnel 2 exterior shotcrete	A P C				
M-3-A4-1	5/20/16	Tunnel 3 exteriors hotcrete	A P C				
M-3-A4-2	5/20/16	Tunnel 3 exterior shotcrete	A P C				
M-3-A4-3	5/20/16	Tunnel 3 exterior shotcrete	A P C				
M-3-A4-4	5/20/16	Tunnel 3 exterior shotcrete	A P C				
M-3-A4-5	5/20/16	Tunnel 3 exterior shotcrete	A P C				

Sampled By: Bernice Balete, James Tsubone Date: 5/20/2016 Time: 9 am - 10 am

Shipped Via: ☒ Fed Ex ☐ DHL ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By:	Relinquished By:	Relinquished By:
Bernice Balete		
Date / Time: 5/20/2016 / 1130 am	Date / Time:	Date / Time:
Received By: Carlo FE	Received By:	Received By:
Date / Time: 5/23/16 9:40 AM	Date / Time:	Date / Time:
Condition Acceptable? ☒ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No	Condition Acceptable? ☐ Yes ☐ No

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Los Angeles Office: 2959 Pacific Commerce Drive, Rancho Dominguez, California 90221 / Ph: (310)763-2374 * (888)813-9417 / Fax: (310)763-4450
Las Vegas Office: 6765 S. Eastern Avenue, Suite 3, Las Vegas, Nevada 89119 / Ph: (702)784-0040 / Fax: (702)784-0030

Forensic Analytical Laboratories, Inc.

Analysis Request Form (COC)

Client Name & Address: Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701	PO / Job#: 160031 Date: 5/20/2016 Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day (5Day checked) ☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Rotometer ☒ PLM: ☐ Standard / ☐ Point Count 400 / 1000 / ☐ CARB 435
Contact: Bernice Balete Phone: (808) 389-4792 Fax: (808) 488-1300	☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual(+/-) / ☐ D5755(str/area) / ☐ D5756(str/mass)
E-mail: bbalete@e2hi.com	☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site: Diamond Head Crater Site Location: Honolulu, Oahu, HI	☐ Metals Analysis: Method: EPA Method 600/R-93-116 Matrix: Bulk Analytes: Asbestos
Comments: Page 3 of 3	Report Via: ☐ Fax ☒ E-Mail ☐ Verbal

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
M-5-A5-1	5/20/16	Tunnel 5 exterior shotcrete	A P C				
M-5-A5-2	5/20/16	Tunnel 5 exterior shotcrete	A P C				
M-5-A5-3	5/20/16	Tunnel 5 exterior shotcrete	A P C				
M-5-A5-4	5/20/16	Tunnel 5 exterior shotcrete	A P C				
M-5-A5-5	5/20/16	Tunnel 5 exterior shotcrete	A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Bernice Balete, James Tsubone Date: 5/20/2016 Time: 9 am - 10 am

Shipped Via: ☒ Fed Ex ☐ DHL ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Bernice Balete Date / Time: 5/20/2016 / 1130 am	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: Camille Pe Date / Time: 5/23/16 9:40 am Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

San Francisco Office: 3777 Depot Road, Suite 409, Hayward, California 94545-2761 / Ph: (510)887-8828 * (800)827-3274 / Fax: (510)887-4218
Los Angeles Office: 2959 Pacific Commerce Drive, Rancho Dominguez, California 90221 / Ph: (310)763-2374 * (888)813-9417 / Fax: (310)763-4450
Las Vegas Office: 6765 S. Eastern Avenue, Suite 3, Las Vegas, Nevada 89119 / Ph: (702)784-0040 / Fax: (702)784-0030

APPENDIX C

Paint Chip Sample Analytical Laboratory Report

Forensic Analytical LABORATORIES

Final Report

Metals Analysis of Paints

Element Environmental, LLC
Bernice Balete
98-030 Hekaha Street
Unit 9
Aiea, HI 96701

Client ID: L1617
Report Number: M172352
Date Received: 05/23/16
Date Analyzed: 05/26/16
Date Printed: 05/31/16
First Reported: 05/31/16

Job ID / Site: 160031; Diamond Head Crater, Honolulu, Oahu, HI
Date(s) Collected: 05/20/16

FALI Job ID: L1617
Total Samples Submitted: 6
Total Samples Analyzed: 6

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
M-0.1-L1	LM124060	Pb	0.19	wt%	0.02	EPA 3050B/7420
M-1-L2	LM124061	Pb	1.6	wt%	0.2	EPA 3050B/7420
M-2-L3	LM124062	Pb	2.0	wt%	0.2	EPA 3050B/7420
M-3-L4	LM124063	Pb	10	wt%	0.6	EPA 3050B/7420
M-5-L5	LM124064	Pb	0.9	wt%	0.2	EPA 3050B/7420
M-0.1-L6	LM124065	Pb	0.15	wt%	0.006	EPA 3050B/7420

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 / Telephone: (310) 763-2374 (888) 813-9417 / Fax: (310) 763-8684

Forensic Analytical Laboratories, Inc.

Analysis Request Form (COC)

Client Name & Address: Element Environmental, LLC 98-030 Hekaha Street, Unit 9 Aiea, Hawaii 96701	PO / Job#: 160031 Date: 5/20/2016 Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day ☐ PCM: ☐ NIOSH 7400A / ☐ NIOSH 7400B ☐ Potometer ☐ PLM: ☐ Standard / ☐ Point Count 400 / 1000 / ☐ CARB 435
Contact: Bernice Balete Phone: (808) 389-4792 Fax: (808) 488-1300 E-mail: bbalete@e2hi.com	☐ TEM Air: ☐ AHERA / ☐ Yamate2 / ☐ NIOSH 7402 ☐ TEM Bulk: ☐ Quantitative / ☐ Qualitative / ☐ Chatfield ☐ TEM Water: ☐ Potable / ☐ Non-Potable / ☐ Weight % ☐ TEM Microvac: ☐ Qual(+/-) / ☐ D5755(str/area) / ☐ D5756(str/mass) ☐ IAQ Particle Identification (PLM LAB) ☐ PLM Opaques/Soot ☐ Particle Identification (TEM LAB) ☐ Special Project
Site: Diamond Head Crater Site Location: Honolulu, Oahu, HI	☒ Metals Analysis: Method: 3050B/7420 Matrix: Paint Chip Analytes: Total Lead
Comments: Page 1 of 1	Report Via: ☐ Fax ☒ E-Mail ☐ Verbal

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
M-0.1-L1	5/20/16	Red-brown paint on shotcrete	A P C				
M-1-L2	5/20/16	Red-brown paint on shotcrete	A P C				
M-2-L3	5/20/16	Red-brown paint on shotcrete	A P C				
M-3-L4	5/20/16	Red-brown/white powdery paint on rock	A P C				
M-5-L5	5/20/16	Yellow rubbery paint on shotcrete	A P C				
~~M-5-L6~~ M-0.1-L6	5/20/16	White paint on cementitious surfacing	A P C				
9/31/16			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: Bernice Balete, James Tsubone Date: 5/20/2016 Time: 9 am - 10 am

Shipped Via: ☒ Fed Ex ☐ DHL ☐ UPS ☐ US Mail ☐ Courier ☐ Drop Off ☐ Other:

Relinquished By: Bernice Balete Date / Time: 5/20/2016 / 1130 am	Relinquished By: Date / Time:	Relinquished By: Date / Time:
Received By: FIE Date / Time: 5/23/16 9:40 a Condition Acceptable? ☒ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No	Received By: Date / Time: Condition Acceptable? ☐ Yes ☐ No

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