Limited Asbestos Survey

George E. Wahlen Deprtment of Veterans Affairs Medical Center 500 Foothill Drive Rooms 1C02, 1C18, and 1C19, Building No. 14 Salt Lake City, Utah

> May 14, 2015 Terracon Project No. AL157322

Prepared for:

Mr. Russ McNear Vali Cooper International 880 West Commerce Drive, Suite 402 Harahan, Louisiana

Prepared by:

Terracon Consultants, Inc. Salt Lake City, Utah

Offices Nationwide Employee-Owned Established in 1965 terracon.com



Environmental

Facilities

Geotechnical

Materials



May 14, 2015

Vali Cooper International 880 West Commerce Drive, Suite 402 Harahan, Louisiana 70123

Attn: Mr. Russ McNear

P: (504) 684-4408 M: (315-759-9526

E: rmcnear@valiint.com

Re: Limited Asbestos Survey

George E. Wahlen Department of Veterans Affairs Medical Center

500 Foothill Drive Salt Lake City, Utah

Terracon Project No. AL157322

Dear Mr. NcNear:

The purpose of this report is to present the results of a limited asbestos survey performed on April 28, 2015, at the above-referenced facility. The inspection was conducted in Building No. 14, Rooms 1C02, 1C18, and 1C19. This survey was conducted in general accordance with our proposal, dated April 16, 2015. We understand that this survey was requested due to the planned limited renovation project.

Non-friable asbestos-containing materials were detected during the assessment of the three rooms in the building. Please refer to the attached report for details.

Terracon appreciates the opportunity to provide this service to Intermountain Healthcare. If you have any questions regarding this report, or if you need any further assistance, please contact me at (801) 746-5448.

Sincerely,

Terracon Consultants, Inc.

0660

Prepared By:

John C. Larson

Asbestos Project Manager

State of Utah Inspector Certification

No. ASB-0894

Reviewed By:

Jon H. Self

Asbestos Program Manager

State of Utah Company Certification No. 22

Terracon Consultants, Inc. 640 East Wilmington Avenue Salt Lake City, Utah 84106 P (801) 466-2223 F (801) 466-9616 terracon.com

Environmental Facilities Geotechnical Materials

TABLE OF CONTENTS

			Page
1.0	INTRO	DUCTION	1
	1.1	Project Objective	1
2.0	BUILD	ING DESCRIPTION	1
3.0	FIELD	ACTIVITIES	2
	3.1 3.2 3.3 3.4	Visual Assessment Physical Assessment Sample Collection Sample Analysis	2 2
4.0	REGU	LATORY OVERVIEW	3
5.0	FINDIN	IGS AND RECOMMENDATIONS	4
6.0	GENE	RAL COMMENTS	4
APPI	ENDICE	S	
Appe	endix A	Asbestos Survey Sample Location Summary	
Appe	endix B	Confirmed Asbestos-Containing Materials	
Appe	endix C	Asbestos Laboratory Analytical Data	
Appe	endix D	Certifications	
Appe	endix E	Sample Location Drawings	
Appe	ndix F	Abatement Cost Estimates	

George E. Wahlen Deprtment of Veterans Affairs Medical Center 500 Foothill Drive, Building No. 14 Rooms 1C02, 1C18, and 1C19 Salt Lake City, Utah

TERRACON PROJECT NO. AL157322 May 14, 2015

1.0 INTRODUCTION

Terracon conducted a limited asbestos survey in Building No. 14, in Rooms 1C02, 1C18, and 1C19 in the George E. Wahlen Department of Veterans Affairs facility located at 500 Foothill Drive, Salt Lake City, Utah. The survey was conducted on April 28, 2015, by an AHERA-accredited and State of Utah-certified asbestos inspector in general accordance with Terracon's Proposal No. PAL150181. All suspect material expected to be impacted by the planned renovation within the above-listed rooms were surveyed and homogeneous areas of suspect asbestos-containing materials (ACM) were visually identified and documented. Although reasonable effort was made to survey accessible suspect materials, additional suspect but unsampled materials could be located in walls, in voids or in other concealed areas. Suspect ACM samples were collected in accordance with the sampling protocols outlined in EPA regulation 40 CFR 763 (Asbestos Hazard Emergency Response Act, AHERA) and State of Utah, Division of Air Quality, Administrative Code R307-801 — Asbestos Rule. Samples were delivered to an accredited laboratory for analysis by polarized light microscopy.

1.1 Project Objective

We understand this asbestos survey was requested due to the planned renovation project in Rooms 1C02, 1C18, and 1C19 of Building No. 14. EPA regulation 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), prohibits the release of asbestos fibers to the atmosphere during renovation or demolition activities. The asbestos NESHAP requires that potentially regulated ACM (RACM) be identified, classified and quantified prior to planned disturbances or demolition activities.

2.0 BUILDING DESCRIPTION

Building No. 14 is part of a multi-building medical campus. The renovation impact area is approximately 826 square feet. Suspect materials identified included floor tile and adhesive, cove base adhesive, gypsum board wall system, suspended ceiling panels, fume hood components, laboratory countertops and sinks, metal cooler insulation, and ceramic tile thin-set and grout.

3.0 FIELD ACTIVITIES

The survey was conducted by John C. Larson, an AHERA-accredited and State of Utah-certified asbestos inspector. A copy of Mr. Larson's asbestos inspector training certificate and state certificate is provided in Appendix D. The survey was conducted in accordance with the sample collection protocols established in the EPA AHERA regulation 40 CFR 763. A summary of survey activities is provided below.

3.1 Visual Assessment

Our survey activities began with visual observation of the proposed renovation areas of the building to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials that appear similar throughout in terms of color, texture and date of application. Interior assessment was conducted throughout visually accessible areas of the areas.

Materials identified as concrete, glass, wood, masonry, metal, or rubber are not considered suspect ACM, and were not sampled.

3.2 Physical Assessment

A physical assessment of each homogeneous area of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

3.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in accordance with AHERA sampling protocols. Random samples of suspect materials were collected in each homogeneous area. The inspector collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

Seventeen (17) bulk samples were collected from fourteen (14) homogeneous areas of suspect ACM.

3.4 Sample Analysis

Bulk samples were submitted under chain-of-custody protocols to EMLab P&K in Phoenix, Arizona, for analysis by polarized light microscopy (PLM) with dispersion staining techniques per USEPA Method 600/R-93/116. The percentage of asbestos, where applicable, was determined by microscopic visual estimation. EMLab P&K is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) Accreditation No. 1281354.

4.0 REGULATORY OVERVIEW

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as either friable, Category I non-friable or Category II non-friable ACM. Friable materials are those that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACM includes packings, gaskets, resilient floor coverings and asphalt roofing products containing more than 1% asbestos. Category II non-friable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Friable ACM, Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered regulated ACM (RACM). In the State of Utah, asbestos activities are regulated by the Utah Department of Environmental Quality (UDEQ), Utah Division of Air Quality (UDAQ) under Administrative Code R307-801 - Asbestos Rule. R307-801 requires that any asbestos-related activities conducted in the State of Utah, where more than three square feet or three linear feet of RACM will be disturbed, be conducted by personnel certified by the UDAQ. RACM must be removed prior to renovation or demolition activities which will disturb the materials. If the amount of RACM exceeds 260 linear feet (If) of pipe insulation, more than 160 square feet (ft²) on other building components, or will generate more than one 55-gallon drum of waste, the owner or operator must provide the UDAQ with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by a State of Utah-certified asbestos abatement contractor. Management Plans developed for the in-place management of asbestos-containing materials in AHERAregulated facilities must be developed by a UDAQ-certified Management Planner.

The Occupational Safety and Health Administration (OSHA) Asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance

activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. The standard also establishes requirements for handling materials containing less than or equal to 1%. States which administer their own federally-approved state OSHA programs may require additional precautions.

5.0 FINDINGS AND RECOMMENDATIONS

Based on the results of laboratory analysis, the following asbestos-containing materials were identified:

- Floor tile and mastic (~600 square feet)
- Floor tile only (~121 square feet)
- Fume hood panels, asbestos cement (~48 square feet)
- Fume hood countertop (~10 square feet)

All of these materials are considered either Category I or Category II non-friable ACM in accordance with State of Utah and EPA regulations. The OSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work, and should be removed by a qualified asbestos abatement contractor prior to renovation activities that would impact the material.

Certified asbestos abatement contractors should be contacted to obtain competitive bids for removal of these materials.

6.0 GENERAL COMMENTS

This limited asbestos survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the building. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by Vali Cooper International and the Department of Veterans Affairs for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A

Asbestos Survey Sample Location Summary

Asbestos Survey Sample Location Summary

GEWVAMC 500 Foothill Drive, Building No. 14 Salt Lake City, Utah

Homogeneous Area	Sample No.	Description	Sample Location	Quantity	Lab Results
1	57322-01	Fume hood interior panels	Room 1C19, west wall, north panel	~48 SF	10% Chrysotile
2	57322-02	Fume hood counter-top	Room 1C19, west wall	~10 SF	10% Chrysotile
3	57322-03	Suspended ceiling panel, 2' x 4', flush, with dents and pin holes	Room 1C19, west side	~600 SF	None detected
4	57322-04	12" off-white floor tile, with black mastic	Room 1C19, north side, west end	~600 SF	2% Chrysotile (tile) 5% Chrysotile (mastic)
	57322-05		Room 1C19, west side, south of fume hood		None detected
5	57322-06	Laboratory counter-top, black	Room 1C19, west center bench, west side	~235 SF	None detected
	57322-07		Room 1C19, east center bench, west side		None detected
6	57322-08	Laboratory sink, black	Room 1C19, center east bench, north end	2 Units	None detected
7	57322-09	Gypsum board wall system	Room 1C19, southeast corner	~900 SF	None detected
8	57322-10	12" off-white floor tile, with yellow mastic	Room 1C02, northwest corner	~121 SF	2% Chrysotile (tile) None detected (mastic)
9	57322-11	Suspended ceiling panel, 2' x 4', flush, with fissures and pin holes	Room 1C02, west side	~121 SF	None detected
10	57322-12	Gypsum board wall system	Room 1C02, northeast corner	~395 SF	None detected
11	57322-13	Cove base adhesive, dark brown	Room 1C02, west of door	~138 LF (includes Room 1C19	None detected
12	57322-14	Cooler insulation, yellow	Room 1C18, south wall, center	~290 SF	None detected
	57322-15	foam	Room 1C18, door		None detected
13	57322-16	Room 1C18 floor at		None detected	
14	57322-17	Ceramic tile grout	Room 1C18, floor at door threshold	~105 SF	None detected

SF=Square Feet LF=Linear Feet

APPENDIX B

Confirmed Asbestos-Containing Materials

Confirmed Asbestos-Containing Materials

GEWVAMC 500 Foothill Drive, Building No. 14 Salt Lake City, Utah

Sample No.	Description	Material Location	Percent/Type Asbestos	NESHAP Classification	Condition	Estimated Quantity
57322- 01	Fume hood interior panels	Room 1C19, west side	10% Chrysotile	Cat. II Non- friable	Good	~48 SF
57322- 02	Fume hood counter-top	Room 1C19, West side fume hood	10% Chrysotile	Cat. II Non- friable	Good	~10 SF
57322- 04	Floor tile and mastic	Room 1C19	2% Chrysotile (tile) 5% Chrysotile (mastic)	Cat. I Non- friable	Slight damage	~600 SF
57322- 10	Floor tile	Room 1C02	2% Chrysotile (tile) None detected (mastic)	Cat. I Non- friable	Good	~121 SF

SF = square feet LF = linear feet

APPENDIX C ASBESTOS LABORATORY ANALYTICAL REPORTS



Report for:

Mr. John Larson IHI Environmental, Salt Lake City 640 E. Wilmington Avenue Salt Lake City, UT 84106

Regarding: Project: AL157322; VAMC-Bldg 14

EMĹ ID: 1358744

Approved by:

Approved Signatory Renee Luna

Service SOPs: Asbestos PLM (EPA Methods 600/R-93/116 & 600/M4-82-020, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Dates of Analysis:

Asbestos PLM: 05-04-2015

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Lab ID-Version 1: 6230192-1

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: IHI Environmental, Salt Lake City

C/O: Mr. John Larson

Re: AL157322; VAMC-Bldg 14

Date of Sampling: 04-28-2015 Date of Receipt: 04-29-2015 Date of Report: 05-04-2015

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted: 17

Total Samples Analyzed: 17

Total Samples with Layer Asbestos Content > 1%: 4

Location: 57322-01, Fume Hood Panel

20000000 0 0 0 2 0 0 1 0 0 0 0 0 0 0 0 0	•
Sample Layers	Asbestos Content
Dark Gray Semi-Fibrous Material	10% Chrysotile
Sample Composite Homogeneity:	Good

Location: 57322-02, Fume Hood Counter-Top

Location: 57322-02, Fume Hood Counter-Top	Lab ID-Version‡: 6230193-1
Sample Layers	Asbestos Content
Dark Gray Countertop	10% Chrysotile
Sample Composite Homogeneity:	Good

Location: 57322-03, Ceiling Panel

Location: 57322-03, Ceiling Panel	Lab ID-Version‡: 6230194-1
Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	40% Cellulose
-	40% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 57322-04. Floor Tile & Mastic

Location: 57322-04, Floor Tile & Mastic	Lab ID-Version‡: 6230195-1	
Sample Layers	Asbestos Content	
Black Mastic	5% Chrysotile	
Tan Floor Tile	2% Chrysotile	
Sample Composite Homogeneity:	Moderate	

The test report shall not be reproduced except in full, without written approval of the laboratory. 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. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

 \ddagger A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Aerotech Laboratories, Inc EMLab ID: 1358744, Page 2 of 6

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: IHI Environmental, Salt Lake City
C/O: Mr. John Larson

Date of Sampling: 04-28-2015
Date of Receipt: 04-29-2015

Re: AL157322; VAMC-Bldg 14 Date of Report: 05-04-2015

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 57322-05, Lab Counter-Top

Lab ID-Version‡: 6230196-1

Sample Layers	Asbestos Content
Black Countertop	ND
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. 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. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Aerotech Laboratories, Inc EMLab ID: 1358744, Page 3 of 6

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: IHI Environmental, Salt Lake City

C/O: Mr. John Larson

Re: AL157322; VAMC-Bldg 14

Date of Sampling: 04-28-2015 Date of Receipt: 04-29-2015 Date of Report: 05-04-2015

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 57322-06, Lab Counter-Top

Lab ID-Version‡: 6230197-1

Sample Layers	Asbestos Content	
Gray Rock	ND	
Black Countertop	ND	
Sample Composite Homogeneity: Moderate		

Location: 57322-07, Lab Counter-Top

Lab ID-Version 1: 6230198-1

Sample Layers	Asbestos Content
Black Countertop	ND
Sample Composite Homogeneity:	Good

Location: 57322-08, Lab Sink

Lab ID-Version‡: 6230199-1

Sample Layers	Asbestos Content
Dark Gray Powdery Material	ND
Sample Composite Homogeneity:	Good

Location: 57322-09, Wall System

Lab ID-Version‡: 6230200-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
White Joint Compound	ND
Cream Tape	ND
White Texture with White Paint	ND
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Poor

The test report shall not be reproduced except in full, without written approval of the laboratory. 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. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Aerotech Laboratories, Inc EMLab ID: 1358744, Page 4 of 6

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: IHI Environmental, Salt Lake City

C/O: Mr. John Larson

Re: AL157322; VAMC-Bldg 14

Date of Sampling: 04-28-2015 Date of Receipt: 04-29-2015 Date of Report: 05-04-2015

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 57322-10, Mastic Floor Tile

Lab ID-Version‡: 6230201-1

Sample Layers	Asbestos Content						
Tan Mastic	ND						
Light Gray Floor Tile	2% Chrysotile						
Composite Non-Asbestos Content:	< 1% Cellulose						
Sample Composite Homogeneity:	Moderate						

Location: 57322-11, Ceiling Panel

Lab ID-Version‡: 6230202-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	40% Cellulose
	40% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 57322-12, Wall System

Lab ID-Version‡: 6230203-1

Sample Layers	Asbestos Content							
White Drywall with Brown Paper	ND							
White Joint Compound	ND							
Cream Tape	ND							
White Texture with Off-White Paint	ND							
Composite Non-Asbestos Content:	15% Cellulose < 1% Glass Fibers							
Sample Composite Homogeneity:	Poor							

Location: 57322-13, Cove Base Adhesive

Lab ID-Version‡: 6230204-1

Sample Layers	Asbestos Content							
Brown Mastic with White Paint	ND							
Composite Non-Asbestos Content:	4% Wollastonite							
Sample Composite Homogeneity:	Good							

The test report shall not be reproduced except in full, without written approval of the laboratory. 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. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

 \ddagger A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Aerotech Laboratories, Inc EMLab ID: 1358744, Page 5 of 6

Lab ID-Version :: 6230207-1

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: IHI Environmental, Salt Lake City

C/O: Mr. John Larson

Re: AL157322; VAMC-Bldg 14

Date of Sampling: 04-28-2015 Date of Receipt: 04-29-2015 Date of Report: 05-04-2015

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 57322-14, Insulation Lab ID-Version‡: 6230205-1

Sample Layers	Asbestos Content
Yellow Foam Insulation	ND
Sample Composite Homogeneity:	Good

Location: 57322-15, Insulation

ocation: 57322-15, Insulation	Lab ID-Version‡: 6230206-1
Sample Layers	Asbestos Content
Yellow Foam Insulation	ND
Sample Composite Homogeneity:	Good

Location: 57322-16, Thin-Set

Sample Layers	Asbestos Content
Gray/White Thinset	ND
Sample Composite Homogeneity:	Good

Lab ID-Version‡: 6230208-1 **Location: 57322-17, Grout**

Sample Layers	Asbestos Content					
Brown Grout	ND					
Sample Composite Homogeneity:	Good					

The test report shall not be reproduced except in full, without written approval of the laboratory. 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. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

 \ddagger A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Aerotech Laboratories, Inc EMLab ID: 1358744, Page 6 of 6

CHAIN OF CUSTODY A EMLab P&K

				001358744	
		Non-Culturat	-	The Swa	∄ng
Gran			-		
Snow Wind				_	
Snow					
Rain	<u>"</u>			i	
Fog					
丙麻珀	None	Light	Moderace	Heavy	
霧		ilV	(Str		l

for Requests					(14	est Viliase	ds əsu	PCR (ple		-		T					<u> </u>					1	7
le R								sotsadaA	\mathbf{x}		\Box										L	I	
) 232230 21	(00t.	د (HSOIN ب	nuoD 19	di7 pnn						-	+	+	 	┿	\vdash	_	Ī	Н			P	וע	
			ťω	sineSio			_	Seg KqM TTDoauQ			-+	+	╫╌	+	╟┤		┢	┝┤			1	4.	
4		($\overline{}$	nsadmaM		\dashv	7	\top	#	十		+	T				-	7	
2 2								loù leioT			\neg						Ι			Ц		\perp	╛
58744								sil a noiga3			_	_	4	\bot			 _ .			ļ			-
00133	eins:	מיונמכפ Bact								_		-		┿	\vdash	-	┞	⊢⊦				1	
_ === 8 ,	ļ -							3-Media 5		Н	-		╁	十	╁┯	+	┪	\vdash				Я	
						-	-	ς-Media					1									Ή	
			(rdds rgs) 	չուրյ (Մար	ខ្លែពមទី ១:	PELINS	aibsM-1				\perp	П				_					*	ႛ
First Park							_	istitnsuQ			_		╬	-		+	<u> </u>	╢			1		
「「「「」」	. <u>-</u>						_	AYT ahogê iM absyl©			\dashv	+	╬	+	╌┼	┿	╀	┝┈┤			V	1	1
Spare Trap				بمغدامد				12 - ignu7			\dashv	\dashv	╁╉╼	+		十	1	┼╌┃					
				 *-=-		1720° a					-	寸	Ť	Ť	Ħ		T			p	1.	7	Ŧ
		પુ					;;						$\ \ $	1		1	1			3	إ	/	
Wind	100	64166					3	<u></u>					H	-		-				ŭ		ח	1
 		(1 ₂			3	3										-	1			K	- [7	4	
Snow	5.5	벟											! 							-31	<u> </u>	7	4
튪		3				6 - 164 6 - 165 6 - 165																	
30		ч	å II	ក្នុងស្រ និងទាស									 			1							
		<u> </u>	দ			57 25 - 25 6v										-				W	'		
Mone Light Moderate Heavy		₹	<i>yclar</i> son			2.7		- #F		\dashv	\dashv	十	Ħ	\top	Ħ	_		П		``		Ш	1
None Light Mode Heavy		3	"	F	Ţ			តន្										Į ļ	2	Q		7	
		§}	٤ ا								-									J	Į,	Ħ.	
		N. MINGSTON				-			L.			4	<u> </u>	┷		<u> </u>	╄	Ш		1.0	١	Ц	
\mathbf{Y}		3	5md , (300340301	EFAULT Day	2	취	写 8	হ			- [1 1					<u>\)</u>			
2		6				SD - Same Business Day Rush	iolida		জ		\perp		<u>! </u>	1.	Ц	_	<u> </u>		*				٦
a s	TOTAL DISSULATE				ND - Next Business	iş.	-WH-Weekend/Ho														_		
D 4.20.20	屬	Address: 640 Special Instruction			puel to	a B	劃		120]		D - Dust	SO - Soil		
9 5 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8		185.(A Z	뤗	∄l		Г		7	寸	$\dagger \dagger$	 	\Box		\top			۵	လ္တ		-
871		Spec.			5) B	등	割				ļ					ĺ]			윧	7.	<u>ا</u> ا
Sec. (300 (300)	劚					T .	〒													T - Tape	SW · Swab	B-Buk	5
□ • 5 5 8						27.5	Ш													1	ફે ∤	و ارد	اذ
2 8 8 5 €						1	Ш								1					п,		۱,	퉦
N Z Sub	1				ĺ	🙀	Ш	100 April 100 Ap	3	700		ŀ	$\ \ $							ST - Spore Trap: Zefan,	Allengenco, Burkard	ير ا	NP - Non-Potable water
Hill;		3		Ē	1 3	त्र		1	1	7	`		 							ğ	Pur.	Mac Saca Saca Saca	olac l
emy Physical		휳 .			`	🖎	H	2	1	J			$\ \ $							PreT	, co	를 °	Ę
Q 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Ferrecon Son	ار	48	. 🤻		Ш		AHOCKON	3	-									Š	100	P - Porable Water	<u> </u>
Sen I		1 3	3		<u>م</u> ادر	Sampling Date & Time: #/24/15			Ì	Sanste									为AEEOODECUSTEMASAN	ध	₹	اے	Ž
E & Sollie		1.75	퉭		M.				3		1						-		1.72			.	
O O SER		Š	145-341	September School September 1985	42157322				Ч	Bulk									20 g			Ĕ	
₩ ¥ 888	; :	7 7	Ň	$\mathbb{R}_{\mathbb{R}}$	77					3	$\lfloor \rfloor$								100	2 94		ri Sa	<u>a</u>
7 4 5 8		THI ENV. TEN	801-		₹ .		. 	100			П		\prod							SSEC	25	ice A	<u> </u>
EM EM			I TIR		غٌاٰٰٰٰ≘	ن ا	擅	(Q)							1		1		3	<u>g</u>	And	Į.	Onc
CHAIN OF CUSTODY EMELAB PR www.EMLabPK.com Cherry Hill, NJ: 1936 Olney Avenue, Cherry Hill, NJ 08003 * (866) 871-1984 Phoeritx, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * (800) 651-4802 San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * (866) 888-6653		Company: H EWK.	Phone:	Town of	Project ID:	Project Zip Code: 6414 8 Dace & Time: #/2	AQ-Number												The Assessment of the Section	BC - BioCasserre	A15 - Andersen	SAS - Surface Air Sampler	CP - Concact Plans
O ≥ 9 4 %		<u> </u>	튙	<u> </u>	전 6	돈 심	<u>_</u> £]	li de la Li desa					\perp				<u></u>			20	∢	ω [·	_

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/service.erms.html
Copyright © 2002-2009 EMLab P&K





INDUSTRIAL HEALTH INCORPORATED

BULK SAMPLE LOG

roject #: <u>A-L6573</u> 22	Inspector:	Date : 4/28/15	
-----------------------------	------------	----------------	--

Installation: _____ Building #: _ノゲ_____

			<u> </u>			,	_ .
SAMPLE #	H. AREA #	O.C. SPLIT	IMATERIAL		SAN	APLE LOCATION	DESIGN TO
51322	ł		Fune Hood	0			I RESULTS
02	2		Fune Hood	"	<u>t , &U</u> ,	wall N. panal	
50	3	-	Caba Anna	Room Icja			<u> </u>
04	4		Place tile of mastic	10, 5,4		<u> </u>	<u> </u>
05	5-	, ,	CAC.	l		·	
106	1]		S. Le S. of Fanaldes.	<u> </u>
67			١ ١			Center Beach wirele	<u> </u>
05	6					unter dench werede	<u> </u>
99	7	I	· .			er E. Bauch, N. Gu)	<u> </u>
10	8	- 1	: masha				<u> </u>
11	9		Play to be	12m 12 02.		_	<u> </u>
12	10	1	valleyshin	14		side	
13	11		Cove Base	, t .		Corner .	·
14	12	<u> </u>	. [1 1 - 10		of Doil	
15	1		insulation	<u> </u>		į	
15	13		thrw-set	n n	<u>مەلد</u> د		
1,7	14		Grout	1		r way	
				- 			_
		j		- .	_		·
			;				 -
					_		

640 E. Willyington Avenue Salt Lake City, UT 84106 Telephone: 801-456-2223 Fax. 801-466-9616

APPENDIX D

CERTIFICATIONS



State of Utah

GARY R. HERBERT

SPENCER J. COX Lieutenant Governor

Department of Environmental Quality

Amanda Smith Executive Director

DIVISION OF AIR QUALITY Bryce C. Bird Director

Utah Asbestos Certification John C. Larson ASB-0894

3

Inspector (Exp. 10/31/15)

Director, Utah Division of Air Quality

DAQA-001-14

November 5, 2014

John Larson Terracon Consultants, Inc. 640 East Wilmington Avenue Salt Lake City, UT 84106

Dear Mr. Larson:

Re: Utah Asbestos Program Individual Certification Card

The Utah Division of Air Quality (DAQ) has reviewed your Utah Asbestos Program Certification Application for Individuals and we are pleased to inform you that your application has been approved. Your new asbestos program individual certification card is enclosed with this letter and this card is the sole method of individual certification documentation that you will receive from the DAQ.

Please check the information on your asbestos program certification card carefully. Please confirm that the photograph, name, and certification discipline(s) are correct. Also, please remember to keep your current asbestos program certification card with you at all times when you are performing regulated asbestos work activities.

If you have any questions regarding this letter or the enclosed asbestos program certification card, please contact Lisa Gelino-Titcomb at (801) 536-4007 or at lgelino@utah.gov.

Sincerely,

Robert W. Ford, Manager

Air Toxics, Lead-Based Paint, and Asbestos Section

RWF:bt LW



Rocky Mountain Center for Occupational & Environmental Health

Department of Family & Preventive Medicine 391 Chipeta Way, Suite C Salt Lake City UT 84108 Phone: (801) 581-4055 (801) 585-5275

THIS CERTIFIES THAT

John C. Larson

HAS COMPLETED THE REQUISITE TRAINING FOR ASBESTOS ACCREDITATION UNDER TSCA TITLE II

ATTENDED AN ANNUAL REFRESHER COURSE IN

PRACTICES AND PROCEDURES IN ASBESTOS ABATEMENT

Asbestos Inspector Refresher

California Course Approval Number #CA-004-06

DATE:

October 31, 2014

NUMBER: 140840

EXPIRES:

October 31, 2015

CREDITS:

0.40 CEUs / 0.67 ABIH CM Points

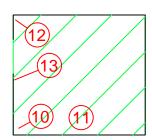
Connie Crandall, MBA, MA Continuing Education Director Salt Lake Valley Health Department

Name Larson	, John C			Reg#: PBI012
Social Se	x-XXXX			1
Height 5' 7"	Weight 165	Sex DOB M 07/05/40	Eyes GRY	Acres 1
Signatur	а			de la

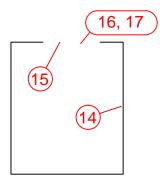
The Director may revoke or suspend this registration based upon violations of any requirements in HealthRegulation #1



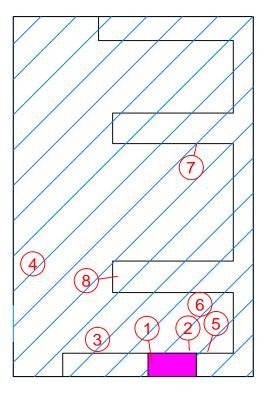
APPENDIX E SAMPLE AND ASBESTOS LOCATION DRAWINGS



ROOM 1C02



ROOM 1C18



ROOM 1C19

LEGEND



SAMPLE LOCATIONS

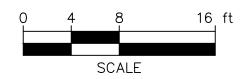


ACM FUME HOOD PANELS AND COUNTER-TOP

ACM FLOOR TILE AND MASTIC

ACM FLOOR TILE ONLY





Project Mngr:	JHS	Project No. AL157322
Drawn By:	SJB	Scale: AS SHOWN
Checked By:	JCL	File No. AL157322
Approved By:	JRB	Date: May 2015

Terra Consulting Engine	CON eers & Scientists
640 East Wilmington Avenue	Salt Lake City, Utah
PH. (801) 466-2223	FAX. (801) 466-9616

Rooms 1C02, 1C18, and 1C19	FIG. No.
Vali Cooper International - VAMC - Building No. 14	
Vali Cooper International	
500 Foothill Drive	1 1 1
Salt Lake City, Utah	

APPENDIX F

Abatement Cost Estimates

Estimated Abatement Costs – Asbestos

GEWVAMC 500 Foothill Drive, Building No. 14 Salt Lake City, Utah

HA Number	Material & Quantity	Location	Recommended Response Actions	Approximate Abatement Cost
1	Fume hood interior ~48 Square Feet	Room 1C19	3	\$300
2	Fume hood counter-top ~10 Square Feet	Room 1C19	3	\$150
4	Floor tile and mastic ~600 Square Feet	Room 1C19	3	\$2,020
8	Floor tile only ~121 Square Feet	Room 1C02	3	\$290
			Total	\$2,760

- 1 = Category I Non-friable asbestos containing material that may be left in place during demolition activities provided that the NESHAP regulation is followed; however, OSHA worker exposure considerations apply during the work activities that will impact the material.
- 2 = Regulated asbestos-containing material (RACM) that must be abated and removed from the building by a licensed asbestos abatement contractor prior to demolition, and during the work activities that will impact the material.

3 = Less than one percent (<1%), and Category II Non-friable asbestos containing material. Does not require removal by EPA or State of Utah Division of Air Quality; however, OSHA worker exposure considerations apply during the work activities that will impact the material.

Note: Should the client request Terracon to write a specifications document for the asbestos and hazardous materials removal, conduct a bid-walk, and management of the onsite abatement, these services can be provided at an additional cost.