AWS 2219
July 19, 2018

Doug Anderson
County of Mendocino
841 Low Gap Road, Ukiah, CA

RE: Hazardous Materials Inspection Report
Mendocino County Veterans Hall
293 Seminary Ave, Ukiah, CA

Dear Mr. Anderson,

Air & Water SCIENCES (AWS) is pleased to submit the following Hazardous Materials Inspection Report for the site referenced above. This report includes the procedures and methodologies followed and analytical laboratory data from our inspection performed on July 11, 2018.

AWS was requested to collect samples of suspected asbestos containing materials and samples from suspected lead containing painted surfaces from the Veteran's Hall. The analytical data is presented in this report.

AWS appreciates the opportunity to perform these services for you and we look forward to working with you in the future. Please know that if you have questions or comments regarding the information in this report at any time or if we can be of further assistance, we can be reached at (707) 769-2289.

Respectfully submitted,
Air & Water SCIENCES

Chip Prokop, PE, CIEC, CAC 08-4420
Principal

Scope of Work

- Collect samples of suspect asbestos containing materials from the interior and exterior of the building.
- Collect XRF analyses for lead in paint contents from painted interior and exterior surfaces of the building.
- Provide a written report summarizing the results of the inspection.

Background

The Mendocino County Veterans Hall located at 293 Seminary Avenue is a single-story building that has exterior stucco walls with some concrete masonry blocks near the entrance. The County of Mendocino is planning to renovate the HVAC system in the building sometime in the near future. Its original construction date is unknown. AWS was requested to do a building inspection prior to work being performed on the building.

ASBESTOS INSPECTION

Survey Results

The pre-renovation asbestos inspection was performed by Trent Williams, a California Site Surveillance Technician (CSST 18-6204). The ACM inspection was performed in areas that were accessible to the inspector at the time of the site visit. A total of twenty-one (21) bulk samples were collected from six (6) homogeneous building materials identified in the interior and exterior of the building. The laboratory provided a total of forty-two (42) analytical results based upon the number of samples that were analyzed.

The materials that were tested as suspected asbestos containing materials (ACM) are included in Table 1. AWS collected samples of suspect asbestos containing materials including:

- White plaster walls and ceilings throughout the building
- Brown vinyl flooring with backing and mastic in the storage room
- Drywall ceiling in the café and the café annex
- Peach marble pattern vinyl flooring with mastic and leveling compound
- White attic insulation
- White exterior stucco

The bulk samples were analyzed by EMSL Analytical Inc. in San Leandro, California using the methods prescribed in Method 40 CFR, Ch. 1, Part 763, Subpart F, Appendix A in the Code of Federal Register in analyzing bulk samples. This laboratory participates in the NVLAP and ELAP quality assurance programs for PLM and is accredited by the National Institute of Standards and Technology (NIST) and the California Department of Health Services Environmental Laboratory Accreditation Program for Bulk Asbestos Analyses (Title 22 of California Code of Regulations [CCR], Section 66261.24), number 101048-3. The suspect asbestos bulk samples were collected and submitted to the laboratory using established chain-of-custody procedures.

Sampling Results

AWS was requested to collect samples of suspected asbestos containing materials from the building prior to planned renovations of the structure. **Analytical results of the samples performed by polarized light microscopy (PLM) indicated that no asbestos containing materials (ACM) were identified during the inspection.**

Important Note:

Additional ACM may be present on site in inaccessible or concealed spaces. These spaces include, but are not limited to, crawlspaces, pipe chases, spaces between wall/ceiling/door/ floor cavities, beneath foundation pads, etc.

When future activities, including maintenance, renovation, or demolition activities, make these areas accessible, AWS recommends that a thorough assessment of these spaces be conducted to identify and confirm the presence or absence of additional ACM. Until this is done, all previously unidentified materials must be treated as Presumed Asbestos Containing Materials (PACM) in accordance with 29 CFR 1926.1101 and 1910.1001.

LEAD INSPECTION

Mr. Trent Williams, CDPH certified Lead Sampling Technician #29837, performed the inspection on July 11, 2018. A more detailed presentation of procedures and findings is presented in the body of this report. Also included is a discussion of recommendations and regulatory considerations.

Lead-In-Paint XRF Survey Procedures

The sampling strategy employed was performed as outlined in Title 17, California Code of Regulations, Division 1, Chapter 8 and in accordance with those survey procedures listed in the "Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing", June 1995, by the U.S. Department of Housing and Urban Development (HUD). Our investigation included the collection of readings on similar painted surfaces (not every component in every room as dictated by HUD guidelines).

Prior to data collection, painted/coated surfaces were categorized into distinct areas of homogeneity, substrate material, building material, and/or distinct paint type. After the items have been identified, a representative reading of the painted/coated surface is collected. Because painted/coated surfaces have compositional variability due to one or more paint layers, it is possible to obtain different readings for samples from the same homogeneous area. Therefore, a homogeneous area with at least one XRF reading of 1.0 mg/cm^2 or greater will result in the entire homogenous material, substrate, and/or distinct paint type being designated as lead-based paint.

Each XRF reading along with the location, component, substrate, color, and condition of the painted/coated surface is included in the XRF readings table located at the end of this report.

Sample Analysis

The XRF testing was performed in accordance with the aforementioned criteria, using a ThermoFisher Scientific, Niton Portable XRF Analyzer. Exposure times are internally determined by the instrument and are based on a number of factors including lead content, substrate and source strength. The instrument is calibrated to the manufacturer's specifications and was periodically verified against known lead standards produced by the National Institute of Standards and Testing.

HUD defines action level as the hazard level for which a corrective response action will be required. Currently, the most widely used action level for lead-based paint (LBP) is 1.0 mg/cm^2 (as measured by an XRF) established by HUD and adopted by the U.S. Environmental Protection Agency. The action level is 5000 parts per million (ppm) or 0.5% by weight when collected paint chip samples are analyzed using atomic absorption spectroscopy (AAS).

HUD guidelines consider XRF findings of 1.0 mg/cm^2 or greater as lead based paint which may be a potential hazard. It is extremely important to understand that XRF readings, which have a value of 0.0 mg/cm^2, do not necessarily mean there is "no lead present" however are below the minimum detection limit of the instrument.

Testing Results

During the inspection, a total of thirty-one (31) readings were collected from the interior and exterior surfaces of the building. Analytical results revealed the following:

- **Lead Based Paint was identified in the following painted surfaces:**
    - The white exterior concrete walls
    - The beige exterior entrance door
    - The tan exterior window frame
    - The tan plaster walls in the bathrooms
    - The beige walls in the kitchen
    - The beige walls and ceiling in the storage room

- **Lead Containing Paint was identified in the following painted surfaces:**
    - The brown window frames in the foyer
    - The white plaster walls in the foyer
    - The beige plaster walls throughout the building
    - The brown wooden floor in the storage room
    - The beige plaster walls in the storage room

Regulatory Considerations/Recommendations

Based on the XRF readings the disturbance materials identified with lead-based paint would be subject to the U.S. Environmental Protection Agency (EPA) Lead Renovation, Repair and Painting Program. Both lead based painted material and material with any lead in paint content (lead containing paint) are subject to the California Occupational Safety and Health Administration (Cal-OSHA) regulations for lead containing paint for workers who may chip or remove paint. The following section of the report is a summary of the Cal/OSHA lead regulation.

Construction Work Standards

At present, there are no state or federal laws dealing with mandatory abatement following the identification of lead containing or lead based paints prior to disturbance. However, in 1993 OSHA promulgated legislation (29 CFR 1926.62 and 8 CCR 1532.1) entitled "Lead Exposure in the Construction Industry" which deals with worker exposure to lead.

It should be noted that aside from the HUD definition of lead-based paint (1.0 mg/cm^2), OSHA regulates worker protection and work practices on building components containing any detectable amounts of lead. Therefore, components determined to contain less than 1.0 mg/cm^2 may still be subject to OSHA regulations, if these materials are to be disturbed. This standard essentially states that work, involving components containing any amount of lead must follow certain guidelines.

These guidelines include but are not limited to training, personal protective equipment, and specific work practices whenever workers disturb lead in any concentration because the disturbance may result in airborne exposures over action or permissible exposure limits. This legislation requires that any task that may potentially expose workers to any concentration of lead be monitored to determine workers' eight-hour time weighted average (TWA) exposure to lead. Prior to conduction of activities that may generate a lead exposure, such workers must be properly fitted with respiratory protection and protective clothing until personal eight-hour TWA results reveal exposures within acceptable levels.

Any proposed renovation, which may involve the removal of building materials with lead based or lead containing painted surfaces, should include provisions to minimize the potential for airborne release of lead contaminated dust. It is recommended, as a minimum, that demolition of building materials which have lead based and/or lead containing paints be conducted with the materials kept in a wetted state and removed in sections, as feasible, to reduce the potential for airborne lead emissions.

Limitations

The interpretation of the preliminary findings identified in this report is based upon our professional experience and qualifications. The field investigation and laboratory results are limited to only those areas, which were exposed and/or physically accessible to the inspector as outlined by the scope of work and/or as directed by the client. The study is also limited to the information provided by the client at the time of the inspection. Quantities listed within this report are estimations and

should be confirmed by an abatement contractor prior to renovation and/or demolition work is performed.

Although polarized light microscopy (PLM) is the prescribed analysis for bulk sample evaluation, PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bounded materials. Quantitative inspection using transmission electron microscopy (TEM) is currently the only method that can be used to determine if this material can be considered or treated as non-ACM. However, TEM is not considered cost effective in a limited asbestos survey and is done only upon client request. Please let AWS know if this additional analysis is desired.

AWS is not qualified to present medical advice. If any present or future health issues arise, it is recommended that the findings in this report be presented to a qualified medical professional for review. Additionally, AWS is not a law firm, and therefore, makes no representations regarding any potential liability of any person or entity for site conditions.

SECTION 2
BAAQMD/NESHAPS NOTIFICATION INFORMATION
293 Seminary Ave, Ukiah, CA

Inspection Date	7/11/2018
Laboratory	EMSL in San Leandro, CA
Number of Samples	21 PLM
Date Analyzed	7/15/2018
Inspector Certification	Trent Williams (CSST)
Training Provider	M&C Environmental
Certificate No.	18-6204
Expiration Date	May 16, 2019

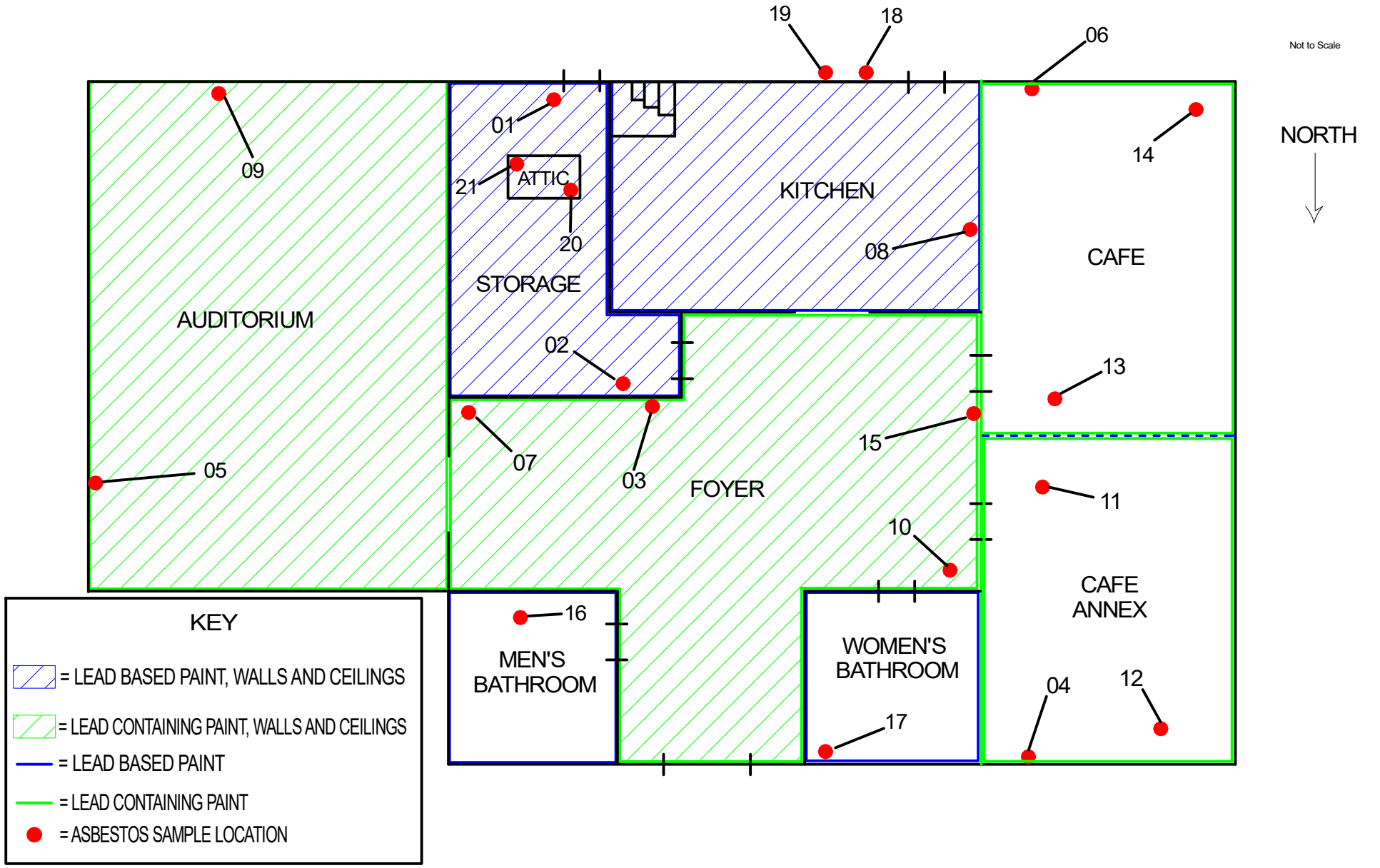
TESTED SUSPECTED ASBESTOS CONTAINING MATERIALS

(Bold type = Asbestos Containing Materials (> 0.1%))

Material (Classification)	Location of Material (Sample No.'s)	Condition	Friable Yes/No	Quantity, NESHAP Category, (OSHA Class)	Results Recommendations
Brown vinyl flooring with backing and mastic (M)	Storage Room (2219-01, 2219-02)	NA	NA	NA	Non-Detect
White wall and ceiling plaster with texture (S)	Throughout (2219-03, 2219-04, 2219-05, 2219-06, 2219-07, 2219-08, 2219-10)	NA	NA	NA	Non-Detect
White drywall ceiling with texture (M)	Café and Café annex (2219-11, 2219-12, 2219-13, 2219-14)	NA	NA	NA	Non-Detect
Peach marble pattern vinyl flooring with mastic and leveling compound (M)	Foyer and bathrooms (2219-15, 2219-16, 2219-17)	NA	NA	NA	Non-Detect

Material (Classification)	Location of Material (Sample No.'s)	Condition	Friable Yes/No	Quantity, NESHAP Category, (OSHA Class)	Results Recommendations
White exterior stucco (S)	Rear of building @ potential new HVAC unit (2219-18, 2219-19)	NA	NA	NA	Non-Detect
White attic insulation (M)	Attic (2219-20, 2219-21)	NA	NA	NA	Non-Detect

NA = Not Applicable, ND = Non-Detect, NYD = not yet determined, SF = Square Feet, S = Surfacing, M = Miscellaneous, PACM = Presumed Asbestos-Containing Material, RACM = Regulated Asbestos-Containing Material, ACCM = Asbestos-Containing Construction Material, Cat. I = Category I, Non-friable Asbestos-Containing Material, Cat. II= Category II, Non-friable Asbestos-Containing Material, ***** Inseparable, Positive By Association, Unclassified = disturbance of ACCM does not have an OSHA Class designation



Air & Water SCIENCES
Environmental Consultants

293 Seminary Ave
Ukiah, CA

AIR & WATER SCIENCES
625 2nd Street, Ste. 210 Petaluma, CA 94952
(707) 769-2289 / Fax (707) 658-2031

FIGURE 1

LEAD PAINT &
ASBESTOS SAMPLE LOCATIONS

DATE: JULY 11, 2018

PROJECT NO 2219

Lead Based Paint Sample Results

Site Location: 293 Seminary Ave, Ukiah, CA **Job #:** AWS 2219

Building: Veterans Hall

Inspector: Trent Williams **Date of Inspection:** 7/11/2018

Location	Component	Substrate	Wall	Paint Condition	Color	RESULTS	Analytical Result (mg/cm^2)
Calibration						Negative	NLD
Calibration						Positive	3.4
Calibration						Positive	1
Calibration						Positive	1
Calibration						Positive	1.6
Calibration						Positive	0.6
Calibration						Positive	0.28
OUTSIDE	WALL	CONCRETE	A	FAIR	WHITE	Positive	2.7
OUTSIDE	WALL	PLASTER	C	FAIR	BEIGE	Negative	NLD
OUTSIDE	WALL	PLASTER	C	FAIR	BEIGE	Negative	NLD
OUTSIDE	DOOR	WOOD	A	CRACKED	BEIGE	Positive	8.3
OUTSIDE	WINDOW	WOOD	A	CRACKED	TAN	Positive	10.8
FOYER	WINDOW	WOOD	A	CRACKED	BROWN	Positive	0.8
FOYER	WALL	PLASTER	A	CRACKED	WHITE	Positive	0.13
FOYER	WALL	WOOD	A	CRACKED	BROWN	Negative	NLD
BATHROOM	WALL	PLASTER	B	INTACT	TAN	Positive	3.6
CAFÉ ANNEX	WALL	PLASTER	D	CRACKED	BEIGE	Positive	0.08
CAFÉ ANNEX	CEILING	PLASTER	TOP	INTACT	WHITE	Negative	NLD
CAFÉ ANNEX	CEILING	PLASTER	TOP	INTACT	WHITE	Negative	NLD
CAFÉ ANNEX	DOOR	WOOD	B	INTACT	WHITE	Positive	1.2
CAFE	WALL	PLASTER	C	INTACT	WHITE	Negative	NLD
CAFE	WALL	PLASTER	A	INTACT	WHITE	Negative	NLD
CAFE	WALL	PLASTER	B	INTACT	WHITE	Negative	NLD
CAFE	CEILING	PLASTER	TOP	INTACT	WHITE	Negative	NLD
KITCHEN	WALL	DRYWALL	D	CRACKED	BEIGE	Positive	4.8
KITCHEN	WALL	WOOD	B	CRACKED	BEIGE	Positive	4.5
STORAGE	FLOOR	WOOD	FLOOR	POOR	BROWN	Positive	0.4
STORAGE	WALL	PLASTER	A	POOR	BEIGE	Positive	0.05
STORAGE	WALL	PLASTER	C	POOR	BEIGE	Positive	5.1
STORAGE	CEILING	DRYWALL	C	CRACKED	BEIGE	Positive	4.5
MENS BATHROOM	WALL	DRYWALL	A	INTACT	BEIGE	Negative	NLD
MENS BATHROOM	CEILING	DRYWALL	A	INTACT	BEIGE	Negative	NLD
MENS BATHROOM	FLOOR	VINYL	A	INTACT	TAN	Negative	NLD
AUDITORIUM	WALL	DRYWALL	B	INTACT	BROWN	Negative	NLD
AUDITORIUM	WALL	DRYWALL	B	INTACT	WHITE	Negative	NLD
AUDITORIUM	WALL	DRYWALL	C	INTACT	WHITE	Negative	NLD
AUDITORIUM	WALL	DRYWALL	D	INTACT	WHITE	Negative	NLD
AUDITORIUM	WALL	DRYWALL	A	INTACT	WHITE	Negative	NLD
Calibration						Negative	NLD
Calibration						Positive	3.4
Calibration						Positive	1
Calibration						Positive	1.3
Calibration						Positive	0.6
Calibration						Positive	0.29

	= Calibration
NLD	= No Lead Detected
LCP	= Lead Containing Paint Detected
LBP	= Lead Based Paint Detected

EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

http://www.EMSL.com / sanleandrolab@emsl.com

EMSL Order:	091815366
Customer ID:	IDAS26
Customer PO:	AWS-2219
Project ID:	

Attention:	Chip Prokop	**Phone:**	(707) 478-1383
	Air & Water Sciences	**Fax:**	(707) 658-2031
	625 2nd Street	**Received Date:**	07/13/2018 9:45 AM
	Suite 210	**Analysis Date:**	07/15/2018
	Petaluma, CA 94952	**Collected Date:**	07/11/2018
Project:	MC VETRANS A911 - AWS-2219		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
2219-01-Vinyl Flooring *091815366-0001*	BROWN VINYL FLOORING WITH BACKING & MASTIC	Brown Non-Fibrous Homogeneous	35% Cellulose	50% Matrix 15% Non-fibrous (Other)	None Detected
2219-01-Backing *091815366-0001A*	BROWN VINYL FLOORING WITH BACKING & MASTIC	Gray Fibrous Homogeneous	60% Cellulose 15% Synthetic	25% Non-fibrous (Other)	None Detected
2219-01-Mastic *091815366-0001B*	BROWN VINYL FLOORING WITH BACKING & MASTIC	Brown Non-Fibrous Homogeneous	10% Cellulose	70% Matrix 20% Non-fibrous (Other)	None Detected
2219-02-Vinyl Flooring *091815366-0002*	BROWN VINYL FLOORING WITH BACKING & MASTIC	Brown Fibrous Homogeneous	30% Cellulose	50% Matrix 20% Non-fibrous (Other)	None Detected
2219-02-Backing *091815366-0002A*	BROWN VINYL FLOORING WITH BACKING & MASTIC	Gray Fibrous Homogeneous	70% Cellulose 10% Synthetic	20% Non-fibrous (Other)	None Detected
2219-02-Mastic *091815366-0002B*	BROWN VINYL FLOORING WITH BACKING & MASTIC	White Non-Fibrous Homogeneous		25% Ca Carbonate 50% Matrix 25% Non-fibrous (Other)	None Detected
2219-03-Texture *091815366-0003*	WHITE PLASTER WALL WITH TEXTURE	Tan Non-Fibrous Homogeneous	3% Cellulose	20% Quartz 50% Ca Carbonate 27% Non-fibrous (Other)	None Detected
2219-03-Plaster *091815366-0003A*	WHITE PLASTER WALL WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-04-Texture *091815366-0004*	WHITE PLASTER WALL WITH TEXTURE	Tan Non-Fibrous Homogeneous	2% Cellulose	15% Quartz 60% Ca Carbonate 23% Non-fibrous (Other)	None Detected
2219-04-Plaster *091815366-0004A*	WHITE PLASTER WALL WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-05-Texture *091815366-0005*	WHITE PLASTER WALL WITH TEXTURE	Tan Non-Fibrous Homogeneous	2% Cellulose	20% Quartz 50% Ca Carbonate 28% Non-fibrous (Other)	None Detected
2219-05-Plaster *091815366-0005A*	WHITE PLASTER WALL WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-06-Texture *091815366-0006*	WHITE PLASTER WALL WITH TEXTURE	Tan Non-Fibrous Homogeneous	2% Cellulose	20% Quartz 50% Ca Carbonate 28% Non-fibrous (Other)	None Detected
2219-06-Plaster *091815366-0006A*	WHITE PLASTER WALL WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-07-Texture *091815366-0007*	WHITE CEILING PLASTER WITH TEXTURE	Tan Non-Fibrous Homogeneous	2% Cellulose	15% Quartz 50% Ca Carbonate 33% Non-fibrous (Other)	None Detected
2219-07-Plaster *091815366-0007A*	WHITE CEILING PLASTER WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected

Initial report from: 07/15/2018 14:11:26

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EMSL Order:	091815366
Customer ID:	IDAS26
Customer PO:	AWS-2219
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
2219-08-Texture *091815366-0008*	WHITE CEILING PLASTER WITH TEXTURE	White Non-Fibrous Homogeneous		15% Quartz 50% Ca Carbonate 35% Non-fibrous (Other)	None Detected
2219-08-Plaster *091815366-0008A*	WHITE CEILING PLASTER WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-09-Texture *091815366-0009*	WHITE CEILING PLASTER WITH TEXTURE	White Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-09-Plaster *091815366-0009A*	WHITE CEILING PLASTER WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-10-Texture *091815366-0010*	WHITE CEILING PLASTER WITH TEXTURE	Tan Non-Fibrous Homogeneous	2% Cellulose	20% Quartz 50% Ca Carbonate 28% Non-fibrous (Other)	None Detected
2219-10-Plaster *091815366-0010A*	WHITE CEILING PLASTER WITH TEXTURE	Gray Non-Fibrous Homogeneous		20% Quartz 50% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-11-Drywall *091815366-0011*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous	2% Cellulose	70% Gypsum 28% Non-fibrous (Other)	None Detected
2219-11-Texture *091815366-0011A*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous		70% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-12-Drywall *091815366-0012*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous	<1% Cellulose	70% Gypsum 30% Non-fibrous (Other)	None Detected
2219-12-Texture *091815366-0012A*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous		70% Ca Carbonate 30% Non-fibrous (Other)	None Detected
2219-13-Drywall *091815366-0013*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous	2% Cellulose	70% Gypsum 28% Non-fibrous (Other)	None Detected
2219-13-Texture *091815366-0013A*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous		50% Ca Carbonate 50% Non-fibrous (Other)	None Detected
2219-14-Drywall *091815366-0014*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous	<1% Cellulose	70% Gypsum 30% Non-fibrous (Other)	None Detected
2219-14-Texture *091815366-0014A*	DRYWALL CEILING & TEXTURE	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
2219-15-Vinyl Flooring *091815366-0015*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 40% Matrix 30% Non-fibrous (Other)	None Detected
2219-15-Mastic *091815366-0015A*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC	Yellow Non-Fibrous Homogeneous		80% Matrix 20% Non-fibrous (Other)	None Detected
2219-16-Vinyl Flooring *091815366-0016*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC & LEVELING COMP	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 30% Matrix 30% Non-fibrous (Other)	None Detected

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EMSL Order:	091815366
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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
2219-16-Mastic *091815366-0016A*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC & LEVELING COMP	Yellow Non-Fibrous Homogeneous		80% Matrix 20% Non-fibrous (Other)	None Detected
2219-16-Leveling Compound *091815366-0016B*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC & LEVELING COMP	Gray Non-Fibrous Homogeneous	15% Cellulose	50% Ca Carbonate 10% Matrix 25% Non-fibrous (Other)	None Detected
2219-17-Vinyl Flooring *091815366-0017*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC & LEVELING COMP	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 40% Matrix 30% Non-fibrous (Other)	None Detected
2219-17-Mastic *091815366-0017A*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC & LEVELING COMP	Yellow Non-Fibrous Homogeneous		80% Matrix 20% Non-fibrous (Other)	None Detected
2219-17-Leveling Compound *091815366-0017B*	PEACH MARBLE-PATTERN VINYL FLOORING WITH MASTIC & LEVELING COMP	Gray Non-Fibrous Homogeneous	15% Cellulose	50% Ca Carbonate 10% Matrix 25% Non-fibrous (Other)	None Detected
2219-18 *091815366-0018*	EXTERIOR STUCCO-WHITE	Tan Non-Fibrous Homogeneous		25% Quartz 50% Ca Carbonate 25% Non-fibrous (Other)	None Detected
2219-19 *091815366-0019*	EXTERIOR STUCCO-WHITE	Tan Non-Fibrous Homogeneous		30% Quartz 50% Ca Carbonate 20% Non-fibrous (Other)	None Detected
2219-20 *091815366-0020*	ATTIC INSULATION-WHITE	White Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
2219-21 *091815366-0021*	ATTIC INSULATION-WHITE	White Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected

Analyst(s)

Beheshta Ahadi (10)

Shane Heisser (32)

Matthew Batongbacal
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This 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. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from: 07/15/2018 14:11:26

OrderID: 091815366

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: **091815366**

EMSL ANALYTICAL, INC.
464 MCCORMICK STREET
SAN LEANDRO, CA 94577
PHONE: (510) 895-3675
FAX: (510) 230-3537

Company : AIR & WATER SCIENCES

EMSL-Bill to: ☑ Same ☐ Different
If Bill to is Different note instructions in Comments**

Street: 625 2ND STREET, SUITE 210

Third Party Billing requires written authorization from third party

City: PETALUMA | **State/Province:** CA | **Zip/Postal Code:** 94952 | **Country:** USA

Report To (Name): CHIP PROKOP | **Fax #:** 707-658-2031 cell #707-478-1383

Telephone #: 707-769-2289 | **Email Address:** cprokop@awsciences.com/lesley@awsci....

Project Name/Number: MC- ~~[illegible]~~ , AWS- ~~[illegible]~~ 2219

Please Provide Results: ☐ Fax ☒ Email | **Purchase Order:** | **U.S. State Samples Taken:**

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☑ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0 25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0 1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198 6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0 25% sensitivity)
- ☐ PLM CARB 435 - B (0 1% sensitivity)
- ☐ TEM CARB 435 - B (0 1% sensitivity)
- ☐ TEM CARB 435 - C (0 01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Trent Williams | **Samplers Signature:** Trent Williams

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
2219-01	Brown vinyl flooring with backing mastic	1	7/11/18
2219-02	" "	1	
2219-03	White plaster wall with texture	2	
2219-04	" "	2	
2219-05	" "	2	
2219-06	" "	2	
2219-07	White ceiling plaster with texture	2	
2219-08	" "	2	

Client Sample # (s): | **Total # of Samples:** 21

Relinquished (Client): Trent Williams | **Date:** 7/11/18 | **Time:** 11:15 AM

Received (Lab): | **Date:** 7/13/18 | **Time:** 9:45a EMAX(9)

Comments/Special Instructions:

OrderID: 091815366

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Asbestos Chain of Custody

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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
2219 - 09	White ceiling plaster with texture	2	7/11/18
2219 - 10	" "	2	
2219 - 11	Drywall ceiling + texture	3	
2219 - 12	" "	3	
2219 - 13	" "	3	
2219 - 14	" "	3	
2219 - 15	Peach marble-pattern vinyl flooring with mastic	4	
2219 - 16	" " + leveling comp.	4	
2219 - 17	" " + leveling comp.	4	
2219 - 18	Exterior stucco - White	5	
2219 - 19	" "	5	
2219 - 20	Attic insulation - White	6	
2219 - 21	" "	6	

*Comments/Special Instructions: