



August 22, 2019

Mr. Adam Dutter, Bond Project Manager
Ojai Unified School District
414 East Ojai Avenue
Ojai, CA 93023

Subject: Asbestos & Lead Roofing Survey
Summit Elementary School – Rooms 4, 5 & 6
12525 North Ojai Road
Ojai, CA 93023
FCG Project Code: Ojai USD-54

Dear Mr. Dutter:

FCG Environmental (FCG) conducted a hazardous materials survey of roofing materials of Rooms 4, 5 & 6, located on the Summit Elementary School Campus. Our survey included asbestos bulk sampling of roofing materials and testing of painted surfaces for lead. The investigation was performed on August 20, 2019 by Blake Forbess, Certified Site Surveillance Technician (CSST No.18-6328) and Certified Lead Sampling Technician (No. 28474); under the supervision of Alan Forbess, a CA Lead Inspector/Assessor and Project Monitor (No. 17425) and CA Certified Asbestos Consultant (No. 94-1549). This report documents the results of our survey, which was conducted to identify proper handling of hazardous building materials prior to roofing replacement activities.

1.0 Background Information / Scope of Project

Background/Site Description: According to information provided to FCG, the roofs of Rooms 4, 5 & 6 are scheduled to be removed and replaced. Lead testing was also requested in relevant areas that might be disturbed as part of roofing replacement activities.

Scope of Project: FCG was asked to perform a survey of relevant building materials in order to identify hazardous materials concerns in accordance with federal, state and local regulations. The following services were conducted in order to define asbestos and lead concerns within the scope of roofing replacement work:

- A visual inspection of representative building materials was conducted to identify suspect asbestos and lead paint materials.
- Bulk samples were collected from representative suspect materials for submittal to a qualified laboratory for asbestos analysis. All bulk samples were analyzed by Forensic Analytical, a state-certified laboratory located in Rancho Dominguez, CA. All samples were analyzed by polarized light microscopy (PLM), to determine asbestos fiber concentrations in bulk building material samples. PLM is applicable for the analysis of building survey submissions and other bulk materials.
- Screening for lead-based paint was conducted using an X-Ray Fluorescence (XRF) paint analyzer to screen representative surfaces and materials suspected of being coated with lead-based paint.

- All field observations, laboratory analytical data, XRF readings and other findings have been evaluated, with this written report summarizing our findings and providing recommendations as necessary.

2.0 Asbestos Survey Findings

Suspect Materials: After a visual inspection was completed, the following suspect asbestos containing materials were noted:

- Roofing layers (felts, tars, composite roofing layers)
- Roofing mastics (used to seal around vents, penetrations, etc.)

Bulk Sampling: FCG collected a total of 12 bulk samples from suspect asbestos containing materials. Samples were forwarded to Forensic Analytical, a certified asbestos laboratory located in Rancho Dominguez, CA. All samples were analyzed by Polarized Light Microscopy (PLM) using EPA Method 600/R-93-116, Visual Area Estimation.

Summary of Results: All of the suspect roofing materials tested as part of our survey were found to be “Non-detect” for asbestos, based on the laboratory analytical results. Therefore, no asbestos containing materials (ACM) were identified as part of our survey. This includes the main roofing layers (composite sheeting, underlying felts, tars, etc.) and roofing mastics used to seal around penetrations, vents, etc. Please refer to the Attachments for a complete copy of the laboratory analytical report.

3.0 Lead-Based Paint Survey

FCG was contracted to perform field testing to determine the presence of lead-based paint or lead components. A visual inspection was conducted to identify areas of suspect lead-based paint or coatings. Screening for lead was conducted in the field using XRF methodology in accordance with current state and federal regulations. All field work was conducted by a Certified Lead Sampling Technician. Results of this survey will be used by contracting personnel to determine appropriate lead safe work practices prior to roofing replacement.

Background Information on Lead Paint Requirements: Several regulations apply to the disturbance and possible exposure to lead from paints and other coatings. Title 17 of the California Code of Regulations (CCR) applies to residences and buildings accessible to the public that were constructed prior to 1979, and schools constructed before 1993 where lead paint may exist. Cal-OSHA regulations found within Title 8 of the CCR apply to worker exposure as stated in the Lead-in-Construction Standard (8-CCR-1532.1). The EPA recently issued a final rule to address lead-based paint hazards created by renovation, repair and painting activities that disturb lead-based paint in target housing and child-occupied facilities.

The EPA's Lead Renovation, Repair and Painting (RRP) Program was passed into regulation requiring compliance with training and certification requirements per Title 40 of the Code of Federal Regulations (40 CFR Part 745). The RRP rule states that firms and individuals conducting renovations of target housing constructed before 1978 must assume that lead is present in all painted surfaces or coatings unless a written determination has been made by a Certified Inspector that the components affected by the renovation are free of paint or other

surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm²) or 0.5% by weight.

Scope of Lead Testing Services: FCG's scope of services involved field testing through use of X-ray fluorescence (XRF) instrumentation, which provides instantaneous readings in the field. The XRF instrument is used because of its demonstrated abilities to accurately determine the amount of lead that is present without disturbing the painted surfaces, as well as their high speed and relatively low cost per sample. The XRF device is capable of measuring lead in both deteriorated and intact paint. See the Attachments to this report for more information on XRF sampling methodology.

Inspection Results: Per EPA and California regulations, paint or coatings are considered to be lead-based at concentrations at or above 1.0 milligram per square centimeter (mg/cm²) using XRF technology. FCG tested representative remaining surfaces. Calibration tests were performed at the beginning of the survey and again at the end of the survey to document that the equipment was working properly. The following is a summary of our field results:

- None of the painted surfaces tested positive for lead at or above the regulatory threshold of 1.0 mg/cm² by XRF testing methodology. Therefore, none of the painted surfaces tested as part of this project scope meet the definition of lead-based paint (LBP).

Please refer to the attached data table for a summary of XRF readings collected from each building. The A side noted in the table is the front or street side and the B, C and D sides continue clockwise around the site.

4.0 Conclusions & Recommendations

An asbestos and lead survey of roofing materials at the subject site has been completed per the terms of our agreement to define hazardous materials issues. Based on our visual observations and our evaluation of analytical data, we conclude the following:

- No asbestos was detected in any of the suspect roofing materials sampled as part of our survey, including the rolled composite sheet roofing or the underlying insulation and felt materials. None of the roofing mastics or sealants were found to contain asbestos based on laboratory analytical results.
- No lead-based paint was detected in any of the painted surfaces found on the roofing sections, including flashings, equipment, etc. No detectable lead was found in any of the painted materials.
- Based on the absence of ACM and LBP materials, no special handling is required as part of roofing replacement activities. Work may be conducted by regular construction personnel and the materials tested may be disposed of as regular construction waste.

General: As our survey was limited to readily accessible areas within the project scope only, there is potential that suspect materials previously not included or identified by our survey could be discovered during future renovation/demolition work within these buildings. This may include suspect materials located inside walls, under floors, above ceilings, etc. If suspect materials are found during site work, the area should be isolated, and any suspect materials tested to confirm or deny the presence of asbestos, lead or other hazards.

Limitations Statement

The data compiled and evaluated as part of this assessment was limited and may not represent all conditions at the subject site. Asbestos was widely used until the late 1970's in thousands of building materials (i.e. joint compound, wallboard, thermal system insulation (TSI), acoustical ceiling, roofing material, etc.), making it difficult to locate all areas of ACM usage. This assessment reflects the data collected from the specific locations tested to identify Asbestos Containing Materials (ACM) in those locations and may not be all encompassing. There is always potential for asbestos containing materials to be missed due to problems with accessibility, and the broad variety of uses. The presence or absence of lead-based paint or lead-based paint hazards applies only to the tested or assessed surfaces on the date of the field visit. It should be understood that conditions noted within this report were accurate at the time of the inspection and in no way reflect the conditions at the property after the date of the inspection. All data collection, findings, conclusions and recommendations presented by FCG within this report are based upon limited data using current standard practices accepted within the industry. The conclusions and recommendations presented within this report are based on current regulations and the professional experience of the certified professionals involved in this project.

The data collected during this assessment and any resulting recommendations shall be used only by the client for the site described in this report. Any use or reliance of this report by a third party, including any of its information or recommendations, without the explicit authorization of the client shall be strictly at the risk of the third party.

It should not be misconstrued that this assessment has identified any or all environmental conditions at the subject site. FCG makes no representations regarding the accuracy of the enclosed data and will not be held responsible for any incidental or consequential loss or punitive damages including but not limited to, loss of profits or revenues, loss of use of a facility or land, delay in construction or action of regulatory agencies.

If you have any questions or concerns regarding the information provided, please do not hesitate to call us at 805.646.1995.

FCG Environmental



Alan Forbes, Principal Consultant
Certified Lead Inspector/Assessor #17425
CA Certified Asbestos Consultant #94-1549

Attachments: 1 - Forensic Analytical Results & Bulk Sampling Log (Asbestos)
2 - XRF Field Readings and XRF Sampling Methodology (Lead Paint)
3 - FCG Inspector Certifications

Attachment 1

Laboratory Analytical Results for Asbestos Bulk Samples

Bulk Sample Log Sheets/Chain-of-Custody



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

NVLAP Lab Code: 101459-1

Forbess Consulting Group (FCG)
Alan Forbess
1009 Mercer Avenue
Ojai, CA 93023

Client ID: 7238
Report Number: B291905
Date Received: 08/21/19
Date Analyzed: 08/21/19
Date Printed: 08/21/19
First Reported: 08/21/19

Job ID/Site: Ojai USD-54; Summit ES/12525 N. Ojai Rd., Roof of Rm's 4, 5 & 6

FALI Job ID: 7238
Total Samples Submitted: 12
Total Samples Analyzed: 12

Date(s) Collected: 08/20/2019

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
1	51261080						
Layer: 3 Grey Roof Shingles			ND				
Layer: 2 Black Tars			ND				
Layer: 2 Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (40 %)						
2	51261081						
Layer: 3 Grey Roof Shingles			ND				
Layer: 2 Black Tars			ND				
Layer: 2 Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (40 %)						
3	51261082						
Layer: 3 Grey Roof Shingles			ND				
Layer: 3 Black Tars			ND				
Layer: 3 Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (10 %)	Fibrous Glass (30 %)						
4	51261083						
Layer: 2 Grey Roof Shingles			ND				
Layer: 3 Black Tars			ND				
Layer: 3 Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (40 %)						
5	51261084						
Layer: 2 Grey Roof Shingles			ND				
Layer: 3 Black Tars			ND				
Layer: 3 Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (40 %)						

Client Name: Forbess Consulting Group (FCG)

Report Number: B291905

Date Printed: 08/21/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
6	51261085						
Layer: 2 Grey Roof Shingles			ND				
Layer: Multi-Layer Black Tars			ND				
Layer: Multi-Layer Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (40 %)							
7	51261086						
Layer: Black Semi-Fibrous Tar with Stones			ND				
Layer: Black Tar			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (3 %)							
8	51261087						
Layer: Black Semi-Fibrous Tar with Stones			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)							
9	51261088						
Layer: Black Semi-Fibrous Tar			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)							
10	51261089						
Layer: Black Semi-Fibrous Tar			ND				
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (3 %)							
11	51261090						
Layer: Black Semi-Fibrous Tar			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)							
12	51261091						
Layer: Grey Non-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							



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'.

Analytical results and reports are generated by SGS Forensic Laboratories (SGS FL) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by SGS FL to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by SGS FL. The client is solely responsible for the use and interpretation of test results and reports requested from SGS FL. SGS Forensic Laboratories is not able to assess the degree of hazard resulting from materials analyzed. SGS FL 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. All samples were received in acceptable condition unless otherwise noted.



Forensic Analytical Laboratories, Inc.

Analysis Request Form (COC)

Client No.: 7238 FCG Environmental (Forbess Consulting Group, Inc.) 1009 Mercer Avenue Ojai, CA 93023		PO / Job#: Ojai USD-54 Date: 8-20-19 Turn Around Time: <input checked="" type="checkbox"/> Same Day / <input type="checkbox"/> 1Day / <input type="checkbox"/> 2Day / <input type="checkbox"/> 3Day / <input type="checkbox"/> 4Day / <input type="checkbox"/> 5Day <input type="checkbox"/> PCM: <input type="checkbox"/> NIOSH 7400A / <input type="checkbox"/> NIOSH 7400B <input type="checkbox"/> Rotometer <input checked="" type="checkbox"/> PLM: <input checked="" type="checkbox"/> Standard / <input type="checkbox"/> Point Count <input type="checkbox"/> 400 / <input type="checkbox"/> 1000 / <input type="checkbox"/> CARB 435 <input type="checkbox"/> TEM Air: <input type="checkbox"/> AHERA / <input type="checkbox"/> Yamate2 / <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> TEM Bulk: <input type="checkbox"/> Quantitative / <input type="checkbox"/> Qualitative / <input type="checkbox"/> Chatfield <input type="checkbox"/> TEM Water: <input type="checkbox"/> Potable / <input type="checkbox"/> Non-Potable / <input type="checkbox"/> Weight % <input type="checkbox"/> TEM Microvac: <input type="checkbox"/> Qual(+/-) / <input type="checkbox"/> D5755(str/area) / <input type="checkbox"/> D5756(str/mass)	
Contact: Alan Forbess, Bill Miller Phone: (805) 646-1995 Fax: (805) 669-3538 E-mail: aforbess@fcgenviro.com, bmiller@fcgenviro.com		<input type="checkbox"/> IAQ Particle Identification (PLM LAB) <input type="checkbox"/> PLM Opaques/Soot <input type="checkbox"/> Particle Identification (TEM LAB) <input type="checkbox"/> Special Project Metals Analysis: Method: _____ Matrix: _____ Analytes: _____	
Site: Summit ES / 12525 N. Ojai Rd. Site Location: Roof of Rm's 4, 5 & 6		Comments: Roofing Survey Report Via: <input type="checkbox"/> Fax <input type="checkbox"/> E-Mail <input type="checkbox"/> Verbal	

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
Samples 1-12 See Attached log			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: BRF Date: 8-20-19 Time: 9:00 am	
Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> DHL <input type="checkbox"/> UPS <input type="checkbox"/> US Mail <input type="checkbox"/> Courier <input type="checkbox"/> Drop Off <input type="checkbox"/> Other:	
Relinquished By: [Signature] Date / Time: 8-20-19 4:00 pm	Relinquished By: _____ Date / Time: _____
Received By: [Signature] FIE Date / Time: 8-21-19 9:31 am	Received By: _____ Date / Time: _____
Condition Acceptable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No

FCG Environmental

Asbestos Bulk Sampling Field Log

Date:	8-20-19
Client:	Ojai USD
Site:	Summit ES
Project:	Ojai USD - 54
Inspector(s):	BRF
Area/Unit:	Roof of Rm's 4, 5 & 6

Friable: Friability Codes: N=Non-friable; F=Friable
 Cond: Condition Codes: G=Good; F=Fair; P=Poor

NA=Not Analyzed
 ND=Detected
 N=Negative

Sample #	Material Sampled	Sample Location	Quantity	Analytical Results	Friability	Condition
1	Roofing layers Comp. Sheet	Roof of Rm's 4 & 5 / SE Corner	T/O		N	F to P
2		North side / Middle				
3		SW Corner				
4		Roof of Rm 6 / SE Corner				
5		NE Corner				
6		SW Corner				
7	Roof Mastics	1/2" Vent pipe pen. / NW Corner 3 sf			N	F to P
8		Curb corner	4 sf			
9		Elec. pitch pocket	1 sf			
10		Roof of Rm's 4 & 5 / 1" vent pipe pen.	2 sf			
11		Pathing Mastic / SW Corner	10 sf			
12		HVAC Duct Seam	10 sf			

Attachment 2

XRF Field Readings from Lead Based Paint Survey

XRF Sampling Methodology

XRF Sampling Methodology: All inspections include a visual inspection of site surfaces to identify painted components and general site conditions. Field testing is performed by a CA Certified Lead Inspector/Assessor using a Niton X-Ray fluorescence (XRF) lead paint analyzer. The XRF sampling method uses a field instrument (X-Ray Fluorescence or XRF gun) to characterize suspect painted surfaces and components. XRF equipment is used to sample materials suspected of being coated with lead-based paint and lead-containing materials by “reading” the suspect materials through direct contact. The advantage of this method is that it provides instantaneous results and is a non-destructive method which allows for the collection of as many samples as time allows for the daily cost of the instrument. This survey method can also identify lead in ceramic tiles, porcelain or other suspect building materials. The survey attempts to define the extent of LBP and estimate quantities where possible. Paint is determined positive using the CA Dept. of Health Services criteria of 1.0 milligrams per square centimeter (mg/cm²). During the survey, the front or main side of the building is typically designated as the “A” side, with the remaining sides designated as “B”, “C” and “D” continuing in a clockwise manner. Where appropriate, a field sketch or plot plan is provided.

Instrument Calibration: The calibration of the Niton XLP 300A X-Ray fluorescence (XRF) instrument is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These XRF instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each property is tested to ensure manufacturer’s standards are met. If the inspection is longer than 4 hours, a set of 3 calibration readings must be taken before the 4 hours expires, and then an additional 3 calibration readings taken at the end of the inspection. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer’s standards for performance on the calibration block supplied by the manufacturer, manufacturer’s recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

Inspector Training and Qualifications: All inspectors utilized by FCG are Certified Lead Inspectors/Assessors, having obtained certification through the *California Department of Public Health (CDPH)*. All inspectors have taken a State-certified 40-hour Inspector/Assessor course and passed the State Inspector/Assessor Exam. All FCG field personnel have also been trained in the use, calibration and maintenance of the X-Ray Fluorescence (XRF) equipment they currently use, along with necessary principles of radiation safety through a training program provided by the manufacturer.

Equipment Information: The field instrument used on this project was a Niton Model XLP 300A X-Ray fluorescence (XRF) lead paint analyzer (Serial No. 10106). The Niton instrument uses a high performance, electrically-cooled, solid-state detector optimized for lead (Pb) analysis using L-shell and K-shell x-ray detection. This instrument allows for XRF spectrum analysis in the field with automatic Positive/Negative decision and automatic corrections for substrate bias and age of source. All negative classifications in all paint-test modes are verified by negative K-shell x-ray readings. Please see Attachment 2 for a copy of the Performance Characteristic Sheet provided by Niton for the XLP 300A instrument. This document contains detailed information regarding the XRF instrument calibration, inconclusive range or thresholds for various substrates, operating parameters and other information. For more information on the Niton Model XLP 300A instrument, please visit the following website: www.thermo.com/niton

Attachment 3

FCG Inspector Certifications

Blake Forbess Certifications 2019

State of California
Division of Occupational Safety and Health
Certified Site Surveillance Technician



Blake R Forbess

Name

Certification No. 18-6328

Expires on 11/15/19

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California Department of Public Health

Lead-Related Construction Certificate	Certificate Type	Expiration Date
	Sampling Technician	10/31/2019

Blake R. Forbess ID #: **28474**

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