



May 15, 2019

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

Subject: Exterior Painting Project – Asbestos & Lead Survey
Topa Topa Elementary School – Buildings A – E & K
916 Mountain View Avenue
Ojai, CA 93023
FCG Project Code: Ojai USD-50

Dear Mr. Dutter:

FCG Environmental (FCG) performed a hazardous materials survey at the above-referenced property, which included asbestos bulk sampling and lead-based paint testing. The investigation was performed on March 19, 2019 by Blake Forbess, CA Certified Lead Sampling Technician (No. 28474) and CA Certified Site Surveillance Technician (No. 18-6328) under the supervision of Alan Forbess, a CA Certified Asbestos Consultant (No. 94-1549) and CA Certified Lead Inspector/Assessor Project Monitor (No. 17425). This report documents the results of our survey, which was conducted to identify proper handling of hazardous materials prior to renovation/painting activities.

1.0 Background Information / Scope of Project

Background/Site Description: The subject site includes a total of seven structures that are all scheduled for exterior painting/repairs. Buildings A, B and C are part of the original school construction. Buildings D, E and K are modular structures, with wood siding, metal windows and wood doors. Building A contains seven classrooms, the administration office, MPR and kitchen. Building A has stucco exterior walls, metal windows and wood and metal doors. Buildings B & C have metal exterior walls, metal windows and metal doors.

Scope of Project: FCG was asked to perform a survey of exterior building materials that may be disturbed as part of the exterior painting project, to identify hazardous materials concerns in accordance with federal, state and local regulations. The following services were conducted to define asbestos and lead concerns at the subject site:

- A visual inspection of representative exterior 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 of the subject site structures was completed, the following suspect asbestos containing materials were noted:

- Exterior plaster/stucco – Building A (All other buildings are wood or metal siding)
- Window putty/glazing – Buildings B & C (No putty was noted on the other buildings)

Bulk Sampling Results: FCG collected 9 bulk samples from suspect asbestos containing materials at the subject site. 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. Table 1 below provides a summary of those materials which tested positive for asbestos based on laboratory analytical data. Please refer to the Attachments for a complete copy of the laboratory analytical results.

Table 1: List of Identified Asbestos Containing Materials

Sample ID	Asbestos Containing Material	Location (Est. quantity)	% Asbestos (Chrysotile)	Category & Friability
1-3	Exterior Wall Plaster/Stucco	Building A	Grey Plaster = ND Green Plaster = Trace (<1%) Paint = ND Off-White Plaster = ND	Category II, Non-Friable Material
5 & 6	Window Putty	Building B (North side windows)	Grey Putty = Trace (<1%) Paint = ND	Category II, Non-friable Material
8 & 9	Window Putty	Building C (North side windows)	Grey Putty = Trace (<1%) Paint = ND	Category II, Non-friable Material

Materials Showing a “Trace” of Asbestos: The exterior stucco on Building A and window putty materials on Buildings B & C showed a “trace” or less than 1% asbestos by standard PLM methodology. Further analysis by more quantitative methods such as “Point Count” or transmission electron microscopy (TEM) would be required to quantify the actual concentration of asbestos in “trace” PLM sample results. Otherwise, these materials must be managed as ACM.

Note: All Buildings other than Building A (B, C, D, E, F, G & H) are metal or wood sided and no window putty was noted on Buildings (A, D, E, F, G & H).

Notes on Tables and Assessment Terms

- 1) Asbestos containing material (ACM): Federal and County APCD regulations define ACM as any material or product that contains more than 1% asbestos.
- 2) Asbestos containing construction material (ACCM): State regulations define ACCM as any material with greater than 0.1% asbestos by weight.
- 3) Asbestos renovation: Defined by NESHAPS as the removal of more than 160 square feet or 260 linear feet of ACM. OSHA requires registration of all contractors removing more than 100 sq. ft. on any project.
- 4) Friable ACM: any ACM that when dry can be crumbled, pulverized, or reduced to powder by normal hand pressure.
- 5) Non-friable ACM: any ACM that **cannot** be reduced to powder by normal hand pressure.
- 6) Category I non-friable ACM: asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products (typically pliable materials, including sealants and mastics).
- 7) Category II non-friable ACM: any other ACM that when dry **cannot** be reduced to powder by hand pressure (typically non-pliable/cementitious materials).
- 8) Regulated Asbestos Containing Material (RACM): any *friable* ACM that will be removed during a renovation of a regulated structure. ACM that will become friable due to the removal technique is also regulated. Note: while linoleum flooring is considered Category II ACM while managed in place, removal *always* renders it friable.
- 9) Presumed Asbestos Containing Materials (PACM): This designation is for those materials which are normally asbestos containing but were not sampled due to access issues or potential for irreparable damage. This typically includes transite (asbestos cement) piping or sheeting, or HVAC insulation materials in walls, under floors, etc. where destructive testing is not recommended. Regulations allow asbestos inspectors to “presume” that these materials contain asbestos without laboratory data based on the inspector’s experience and knowledge of building materials.
- 10) Trace (<1%) Asbestos: Federal and local APCD regulations define an asbestos containing material (ACM) as any compound with greater than 1% asbestos. The State of California through Cal-OSHA regulation further defines an asbestos containing material as any compound which meets or exceeds a concentration of 0.1% asbestos by weight. This definition is primarily for worker and occupant protection during disturbance work. The polarized light microscopy (PLM) method does not quantify the concentration asbestos in bulk samples at levels of less than 1%. Furthermore, PLM methodology will include all fibers with a similar aspect ratio (3:1) to asbestos fibers, and therefore may count non-asbestos fibers as part of the overall total. PLM analytical methods must report a “trace” amount where fibers are noted in concentrations of less than 1% of the total. Further analysis by more quantitative methods such as “Point Count” or transmission electron microscopy (TEM) are required to quantify the actual concentration of asbestos in “trace” PLM sample results.

Summary: Our survey has identified Asbestos Containing Materials (ACM) at the site which may require abatement or special handling as part of future renovation/painting activities. It should be noted that no suspect ACMs were noted at Buildings D, E or K. Please see the Conclusions & Recommendations (Section 4.0) below for further discussion regarding the abatement and proper handling of asbestos containing materials.

3.0 Lead-Based Paint Survey Findings

FCG was contracted to perform field testing to determine the presence of lead-based paint or lead components throughout the exterior of the structures scheduled for painting. A visual inspection of the site 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. The findings of this survey will be used by contracting personnel to determine appropriate lead safe work practices prior to renovation work.

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, paints or coatings are considered to be lead-based with lead concentrations at or above 1.0 milligram per square centimeter (mg/cm²) using XRF technology. FCG tested representative surfaces throughout the subject site. 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.

Summary of LBP: We have listed below those surfaces with lead concentrations greater than 1.0 milligrams per square centimeter (mg/cm²) using XRF equipment and are therefore considered positive for lead-based paint (LBP) per current state and federal regulations. Please refer to the Attachments section for a complete copy of the XRF Table and materials sampled.

Table 2: XRF Lead Table – Positive Readings

Component	Substrate	Side	Condition	Color	Room	Building/Area	Results	Lead mg/cm2
DOOR FR	WOOD	A	INTACT	GREEN	OUTSIDE	BLDG A	Positive	1.9
VENT	METAL	A	INTACT	WHITE	OUTSIDE	BLDG A	Positive	7.4
EAVE	WOOD	A	POOR	WHITE	OUTSIDE	BLDG A	Positive	9.2
EAVE	WOOD	B	POOR	WHITE	OUTSIDE	BLDG A	Positive	8.4
EAVE	WOOD	C	POOR	WHITE	OUTSIDE	BLDG A	Positive	7.2
EAVE	WOOD	D	POOR	WHITE	OUTSIDE	BLDG A	Positive	7.3
FASCIA	WOOD	A	CHALKING	GREEN	OUTSIDE	BLDG A	Positive	9.8
FASCIA	WOOD	B	CHALKING	GREEN	OUTSIDE	BLDG A	Positive	8.2
FASCIA	WOOD	C	CHALKING	GREEN	OUTSIDE	BLDG A	Positive	7.2
FASCIA	WOOD	D	CHALKING	GREEN	OUTSIDE	BLDG A	Positive	8.9
DOOR FR	WOOD	B	INTACT	GREEN	OUTSIDE	BLDG A	Positive	1.6
POST	METAL	B	FAIR	GREEN	OUTSIDE	BLDG A	Positive	4.7
BEAM	WOOD	B	INTACT	WHITE	OUTSIDE	BLDG A	Positive	11.8
DOOR FR	WOOD	C	INTACT	GREEN	OUTSIDE	BLDG A	Positive	2
VENT	METAL	C	POOR	WHITE	OUTSIDE	BLDG A	Positive	4.7
POST	METAL	D	FAIR	GREEN	OUTSIDE	BLDG A	Positive	6.1
BEAM	WOOD	D	INTACT	WHITE	OUTSIDE	BLDG A	Positive	5.8
FASCIA	WOOD	D	POOR	GREEN	OUTSIDE	BLDG A	Positive	4.8
DOOR FR	WOOD	D	POOR	GREEN	OUTSIDE	BLDG A	Positive	1.3
DOOR TR	WOOD	D	POOR	GREEN	OUTSIDE	BLDG A	Positive	1.3
DOOR JM	WOOD	D	POOR	GREEN	OUTSIDE	BLDG A	Positive	1.2
VENT	METAL	D	POOR	WHITE	OUTSIDE	BLDG A	Positive	8.5
DOOR FR	METAL	A	FAIR	WHITE	OUTSIDE	BLDG B	Positive	1.3
DOOR JM	METAL	A	FAIR	WHITE	OUTSIDE	BLDG B	Positive	1.1
WINDOW	METAL	C	POOR	WHITE	OUTSIDE	BLDG B	Positive	1
WINDOW FR	METAL	C	FAIR	WHITE	OUTSIDE	BLDG B	Positive	1.1
DOOR FR	METAL	C	FAIR	WHITE	OUTSIDE	BLDG B	Positive	1.1
WINDOW FR	METAL	A	POOR	WHITE	OUTSIDE	BLDG C	Positive	1.1
WINDOW FR	METAL	A	POOR	WHITE	OUTSIDE	BLDG C	Positive	1
WINDOW FR	METAL	A	POOR	WHITE	OUTSIDE	BLDG C	Positive	1.4
WINDOW	METAL	A	POOR	WHITE	OUTSIDE	BLDG C	Positive	1.3
WINDOW	METAL	A	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.3
WINDOW FR	METAL	A	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.2
WINDOW FR	METAL	C	POOR	WHITE	OUTSIDE	BLDG C	Positive	1.5
WINDOW FR	METAL	C	POOR	WHITE	OUTSIDE	BLDG C	Positive	1.3
WINDOW	METAL	C	POOR	WHITE	OUTSIDE	BLDG C	Positive	1.4
WINDOW	METAL	C	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.3
WINDOW FR	METAL	C	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.7
DOOR FR	METAL	A	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.4

Component	Substrate	Side	Condition	Color	Room	Building/Area	Results	Lead mg/cm2
DOOR JM	METAL	A	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.4
DOOR JM	METAL	C	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.5
DOOR FR	METAL	C	FAIR	WHITE	OUTSIDE	BLDG C	Positive	1.5

Please refer to the attached data tables for complete listings of all XRF readings collected from the site and positive readings. The A side noted in the tables is the front (street side) of the subject site and the B, C and D sides continue clockwise around the structures. Please refer to the recommendations in Section 4 below for additional details regarding LBP.

4.0 Conclusions & Recommendations

An asbestos and lead-based paint survey of the subject site buildings has been completed per the terms of our agreement to define hazardous materials issues prior to painting/renovation activities. Based on our visual observations and our evaluation of analytical data, we conclude the following:

Asbestos Results:

- 1) Trace Asbestos Containing Materials (<1%): The following materials were tested and found to contain less than 1% chrysotile using PLM methods. These materials must be treated as asbestos containing materials (ACM) unless further analysis by more quantitative methods such as “Point Count” or transmission electron microscopy (TEM) are utilized to quantify the actual concentration of asbestos:
 - o Exterior Plaster/Stucco: Located on Building A. This is a Category II, non-friable material in good to fair condition. All other buildings have wood or metal siding with no stucco or plaster.
 - o Exterior Window Putty: Located on Buildings B & C, north sides This is a Category II, non-friable material in fair to damaged condition.

Asbestos Recommendations:

- 1) There are limited areas where asbestos may be disturbed as part of the proposed exterior painting project. This may include window putty which is loose or damaged and in need of repair and exterior plaster which may be disturbed during paint preparation work. Identified asbestos containing materials (ACM) that will be disturbed as part of site renovations must be handled in accordance with applicable federal, state and local regulations, unless further testing is conducted to quantify the concentration of asbestos
- 2) Disturbance activities should be performed only by properly trained and licensed abatement contractors using appropriate controls to prevent fiber emissions during the removal process. This may include the use of wet methods (water mist), negative pressure containment, HEPA filtration and other engineering controls to keep fibers from being dispersed in accordance with current federal, state and local regulations.

- 3) Workers performing removal should be properly protected to prevent exposure, including the use of respiratory protection with HEPA filtration, protective suits, etc. Engineering controls must be in place. Disturbance of greater than 100 sq. ft. of any ACM or ACCM must be performed by trained and licensed asbestos contractors that are currently registered with the Dept. of Occupational Safety & Health (DOSH or Cal/OSHA).
- 4) The local enforcement agency for asbestos removal projects in this area is the Ventura County Air Pollution Control District (APCD). They require notification for removal of friable, regulated asbestos containing materials in quantities which exceed 100 square feet. Regardless of the quantities found, the survey report should be submitted for their review along with any required documentation or notifications for their review and approval. They also require notification for all demolition projects, including projects where a load-bearing wall is removed. Additional permit requirements may apply from the local Building Department. We recommend that you contact the local APCD and appropriate agencies directly for further information regarding permitting and regulatory requirements.
- 5) The contractor conducting abatement work is responsible for complying with local, state and federal standards for worker protection and NESHAPS regulations regarding asbestos fiber emissions. Proper removal techniques must be followed to prevent the dissemination of asbestos fibers. Notification and permitting is typically the responsibility of the abatement contractor and/or property owner. If you would like assistance regarding these matters or would like the names of qualified contractors in your area, please feel free to contact FCG at (805) 646-1995.

Lead Survey Results:

- 1) The painted surfaces listed in Section 3.0 above were found to contain lead at or above the threshold level of 1.0 mg/cm² per XRF testing methodology, and therefore meet the definition of Lead Based Paint (LBP). Lead safe work practices are required under the terms of the current regulatory requirements for disturbance in the following areas:
 - **Building A:** White painted wood eaves, white painted metal vents, green painted wood fascia, green painted wood door frames / door jambs, white painted wood beams (east and west sides), green painted round metal posts (east and west sides).
 - **Building B:** White painted metal windows / window frames and white painted metal door frames / door jambs.
 - **Building C:** White painted metal windows / window frames and white painted metal door frames / door jambs.
- 2) Please refer to the listing of LBP materials in Section 3 above and in the XRF field readings data tables provided in the Attachments to this report for more details. The A side is Mountain View Avenue.

Lead Recommendations:

1. All work which will disturb lead-based paint must be conducted by trained workers using Lead Safe Work Practices. Areas of loose and flaking paint shall be scraped to an intact

condition and sealed with an approved primer or encapsulating compound. All disturbance work must include appropriate containment, wet methods and use of hand tools or similar methods that will minimize the generation of airborne dust emissions and potential lead hazards.

2. It is the responsibility of the contractor conducting LBP disturbance work to protect employees, the general public and prevent contamination of the site when disturbing lead paint. The contractor must comply with current OSHA regulations and the EPA's Renovation Repair and Painting (RRP) Rule, which requires the use of "lead safe work practices" when disturbing lead. The use of mechanical means (i.e., sanding, grinding, cutting, etc.) to remove or disturb lead paint is not recommended unless the equipment is properly equipped with HEPA exhaust and filtration or the work is conducted within full containment.
3. Lead waste materials should be properly contained and transported for off-site disposal at a properly permitted facility. Lead paint chips and similar lead waste is typically hazardous waste and must be properly manifested and disposed at a permitted landfill. If necessary, waste characterization testing should be conducted to ensure proper handling and disposal.
4. Although some of the painted surfaces do not meet the definition of LBP, any material containing detectable amounts of lead is subject to OSHA's Lead Exposure in Construction Rule (29 CFR Part 1926). Cal/OSHA's Construction Lead Standard (Title 8, CCR, Section 1532.1) states that employers can assume that disturbance of coatings or materials shown to contain less than 0.06% lead by weight, or 600 ppm will not result in exposures above the Action Level (30 ug/m³ lead in air). It is the responsibility of the employer to ensure that employees are not exposed above the Action Level or Permissible Exposure Limit per OSHA. Please see the attached summary of Cal-OSHA's Lead-in-Construction Standard per Title 8, California Code of Regulations, Section 1532.1.
5. Please see the attached Lead Safe Work Practices for additional information on proper handling procedures for LBP.
6. We recommend baseline soil sampling of landscaping or other surfaces around the site prior to project startup to determine pre-existing lead levels. Clearance dust wipes or verification soil samples are recommended upon completion of field work. Upon request, FCG can provide project monitoring and clearance testing services under a separate bid.

General: As our survey was limited to readily accessible areas, there is potential that suspect materials previously unidentified could be discovered during site renovation work. This could 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 Forbess, Principal Consultant
Certified Lead Inspector/Assessor #17425
CA Certified Asbestos Consultant #94-1549

Attachments: 1 – Site Plan, Asbestos Analytical Results & Bulk Sampling Log
 2 – Lead XRF Field Readings, Sampling Methodology and Lead Safe Work Practices
 3 – FCG Inspector Certifications

Attachment 1

Site Plan with Sample Locations & LBP Noted

Laboratory Analytical Results for
Asbestos Bulk Samples

Bulk Sample Log Sheets/Chain-of-Custody

Attachment 2

XRF Field Readings from Lead Based Paint Survey

XRF Sampling Methodology

Lead Safe Work Practices

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 insure 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



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

William A Miller



Name

Certification No. **07-4160**

Expires on **03/22/17**

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 10/31/2017



Blake R. Forbess

ID #: **28474**