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# LEAD BASED PAINT SURVEY REPORT

## ARMY RESERVE CENTER 3 (ID: Building 153)

NASA-AMES

Moffett Field, CA 94035

*PREPARED FOR*

NASA AMES PAI CORPORATION  
NASA Ames Research Center  
Moffett Field, CA 94035-1000

*PREPARED BY*

Benchmark Environmental Engineering  
February, 2002  
Project Number: E01-612-L-SU

Prepared By:

A handwritten signature in black ink, appearing to read "Richard E. MacFarlane", written over a horizontal line.

Richard E. MacFarlane  
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Reviewed By:

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14946

BUILDING INSPECTIONS

ENVIRONMENTAL ENGINEERING

SPECIALIZED TRAINING

CONTRACT MANAGEMENT

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## EXECUTIVE SUMMARY

Benchmark Environmental Engineering was retained by PAI Corporation, to conduct a lead-based paint survey at Building located at Moffett Field, California.

In order to determine if lead based paint was present, 233 assays were taken using an X-RAY FLUORESCENCE (XRF) instrument. The results indicated that the following building components were above the EPA and DHS level of 1.0 mg/cm<sup>2</sup> or 5000 PPM.

**Lead-based Paint was identified on the following building components:**

**Exterior:**

- ◆ Downspout, Door Frame, Fixed Window Panel, Window Sill.

**Interior:**

- ◆ Hallway – Handrail.
- ◆ Stairwell – Wall.

## INTRODUCTION

Benchmark Environmental Engineering was retained by Mr. Kris McGlothlin, to conduct a lead-based paint survey at NASA Ames-PAI Corporation, Moffett Field, California.

Authorization to perform this survey was received via signed agreement to BENCHMARK from Mr. Kris McGlothlin, on or about August 1, 2001, as referenced by BENCHMARK'S proposal E01-612.

### BACKGROUND

This structure, built in 1953 was originally the bachelor's enlisted quarters. It is a two-story facility with a basement approximately 15,000 square feet in size. It is concrete over a concrete foundation and with a flat composite roof.

### WARRANTY

Benchmark Environmental Engineering warrants that the findings contained herein have been prepared with the level of care and skill exercised by experienced and knowledgeable environmental consultants who are appropriately licensed or otherwise trained to perform lead-related construction risk assessments and inspections pursuant to the scope of work required on this Project.

The survey included inspection of accessible materials. BENCHMARK did not inspect or sample inaccessible areas such as behind walls or within ductwork, and did not dismantle any part of the structure to survey inaccessible areas. For the purpose of this warranty, inaccessible is defined as areas of the building that could not be tested (sampled) without destruction of the structure or a portion of the structure. Inaccessible materials that are not visible to Benchmark's inspectors are assumed to be lead containing.

Authorization to perform this survey was received by BENCHMARK from Mr. Kris McGlothlin, of The PAI Corporation, on August 1, 2001, as referenced by Benchmark's Proposal E01-612.

The survey was conducted in February of 2002. A comprehensive site survey was performed based on the building plan. All building components identified in the specifications that may contain lead-based paint/coating were targeted for testing. (Exterior and interior walls, exterior and interior windows, doors and numerous associated components).

Sampling protocol for identification of lead-based paint was in accordance with The U.S. Department of Housing and Urban Development (HUD) Guidelines for

the Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 7. All suspect lead-coated surfaces were identified by building, wall, and building component, as such each component had a unique identification number.

The report establishes lead concentrations in painted surfaces as a general guidance tool for the purpose of conducting demolition activities for Building 153.

A total of 233 XRF assays were collected within this building.

## SCOPE OF SERVICES

Benchmark recognized the scope of work for the NASA Ames-PAI Corporation, to be composed of a Lead Based Paint Inspection for the Army Reserve Center 3 (ID: Building 153). The survey consisted of testing for lead-base paint in general accordance with the U.S Department of Housing and Urban Development (HUD) guidelines for the evaluation and control of Lead-Based Paint Hazards in Housing, Chapter 7.

Certain building components that are adjacent to each other and not likely to have different painting histories have been grouped together into a single testing combination, as follows: Window Casings/Stops/Jambs/Aprons -Or- Door Jambs/Stops/Transoms/Casings and other door frame parts.

The following building components were inspected when applicable:

- Exterior Areas:

Walls	Windows
Windowsills	Stair Handrails
Doors	Door Molding
Downspouts	Window Screen
Building Trim	Skylight
Balusters	Stair Handrail
Stair Risers	Support Pillar

- Interior Areas:

Walls	Windows
Windowsills	Stair Treads
Balusters	Doors
Door Molding	Stair Stringer
Ceilings	Ceiling Molding
Skylight	Floors
Ceiling Molding	Grates
Baseboards	Support Beams
Electrical Box	Book Shelf
Chair Rail	Wainscot

# METHODOLOGY

## GENERAL REFERENCES

Inspection, sampling, and assessment procedures were performed in general accordance with the guidelines published by The Department of Housing and Urban Development's (HUD) 1995 Guidelines, Chapter 7. The survey consisted of three major activities: visual inspection, sampling, and analysis. Although these activities are listed separately, they are integrated tasks.

## VISUAL INSPECTION

An inspector that is a Department of Health Services Certified Lead Inspector/Risk Assessor performed the inspection. An initial building walkthrough was conducted to determine the presence of suspect materials that were accessible or exposed.

## SAMPLING PROCEDURES

Following the walkthrough, the inspector selected samples areas of exposed or accessible materials identified as suspect LBP. EPA and HUD guidelines were used to determine the sampling protocol. Sampling locations were chosen to be representative of the homogeneous material.

## X-RAY FLUORESCENCE (XRF) ANALYSIS

XRF instruments measure lead in paint by directing high energy X-rays and gamma rays into the paint, causing the lead atoms in the paint to emit X-rays which are detected by the instrument and converted to a measurement of the amount of lead in the paint. The EPA approved technology allows for measurement of X-rays without scraping or samples preparation to characterize substrate or matrix effects. The Spectrum Analyzer, Metals Analysis Probe (MAP 4) is combined with a microprocessor system that enables field-testing with a high degree of quality control and speed. Sample locations, descriptions, conditions, and measurement results are automatically recorded by the instrument and easily downloaded to a PC or laptop.

## QUALITY CONTROL PROGRAM

Benchmark Environmental Engineering utilizes only DHS approved inspectors, which are certified to use radioactive instruments. The MAP 4 Spectrum Analyzer has on-board calibration routines, which continuously operate, and self-correct to minimize sampling error. This is known as substrate correcting software.

# FINDINGS AND OBSERVATIONS

## LEAD

A total of 233 assays were taken. The results indicated that six (6) assays contained lead above the EPA and DHS level of 1.0 mg/ cm<sup>2</sup> or greater. The components, which contain lead-based paint, are:

### Exterior:

- ◆ Downspout, Door Frame, Fixed Window Panel, Window Sill

### Interior:

- ◆ Hallway – Handrail.
- ◆ Stairwell – Wall.

Cal/OSHA's Lead in Construction Standard, Title 8, CCR section 1532.1, is primarily concerned with worker protection when disturbing any detectable level of lead in paint or surface coatings.

Assays with results **less than** 1.0 mg/cm<sup>2</sup> and paint chip samples with results less than 5000 ppm may create hazardous conditions if subjected to poor and/or prohibited work practices. Refer to Work Activities on the following page.

## OSHA LEAD REGULATION SUMMARY

The Federal Occupational Safety and Health Administration (OSHA) has enacted an interim lead standard, which was adopted by Cal/OSHA as 8 CCR 1532.1. The purpose of both standards is to protect construction workers from exposure to lead. OSHA is primarily concerned with activities that disturb lead-containing material. Lead was used in most paints until the mid 1950's and was banned in amounts in excess of 0.06% by weight in 1978 for most non-industrial paints by the Consumer Product Safety Commission (CPSC).

The new standard requires contractors and employers who perform activities that would disturb lead, must monitor their employees to determine whether they are being exposed in excess of the Action Level (AL) of 30 micrograms per cubic meter of air (ug/m<sup>3</sup>) over an eight-hour time weighted average (TWA) or the Permissible Exposure Limit (PEL) of 50 ug/m<sup>3</sup> TWA. Monitoring is performed by personal exposure air sampling.



Even when concentrations are below the AL, an employer must provide employees with High Efficiency Particulate Air (HEPA) filtered vacuums, wetting agents and hand-washing facilities. If the exposure exceeds the AL or the PEL, other procedures such as containing the area, decontamination facilities and medical monitoring are required.

OSHA has identified several activities that pose varying levels of potential lead exposure to laborers disturbing lead-containing paint. Estimated exposure levels of lead are founded on the activity itself, rather than the concentrations of lead present in paint. Therefore, as an example, paints that contain 0.5% versus 15% of lead by weight or 0.8 mg/cm<sup>2</sup> versus 3.5 mg/cm<sup>2</sup> of lead in paint could present the same levels of potential exposure to workers depending on the activities that cause the disturbance and the administrative and engineering controls that are followed.

The following is a summary of work activities that disturb paint, the expected exposures and the respiratory protection requirements as outlined in the OSHA standards:

**Class I Activities:**

Class I activities include: Manual demolition, manual scraping, manual sanding, heat gun application, general cleanup, power tool cleaning with dust collection systems and spray painting activities.

Potential Exposure: 50 ug/m<sup>3</sup> to 500 ug/m<sup>3</sup>  
Minimum Respiratory Protection: Half mask air purifying respirator equipped with HEPA filters having a protection factor of 10.

**Class II Activities:**

Class II activities include: Using lead-containing mortars, lead burning, lead riveting, rivet busting, power tool cleaning without dust collection systems, cleanup of dry expendable abrasives and abrasive blasting.

Potential Exposure: 500 ug/m<sup>3</sup> to 2,500 ug/m<sup>3</sup>  
Minimum Respiratory Protection: Full face powered air-purifying respirators equipped with HEPA filters having a protection Factor of 100.

**Class III Activities:**

Class III activities include: Abrasive blasting, welding, cutting and torch burning on steel structures.

Potential Exposure: Greater than 2,500 ug/m<sup>3</sup>.

Minimum Respiratory Protection: Full face supplied - air respirator operated in pressure demand mode or - the positive pressure mode.

DOSH 8 CCR 1532.1 requires that an initial exposure assessment be performed if workers will be performing any of the trigger tasks found in 1532.1. It should be noted that the California Department of Health Services (DHS) has issued emergency work procedures for lead paint materials that in the absence of any other procedures are recommendations.

The following recommendations are general site specific work practice specifications.

- You must use "containment" when you sand, scrape, or disturb any detectable level of lead in paint or surface coatings.
- Containment is required for abatement and/or any activity that or disturb any detectable level of lead in paint or surface coatings.
- You must be DHS-certified (workers, supervisors, monitors, and inspectors) if you are conducting abatement.
- You must follow an abatement plan.
- A DHS -certified supervisor, monitor, and/or project designer must design an abatement project.
- A clearance inspection by dust wipe sampling is required for abatement.

## **LEAD WASTE DISPOSAL**

The visual determination indicated that all building components that tested positive were in intact to poor condition (minor cracking to flaking and peeling). As such, these components need to be considered a lead hazard if flaking paint is not stabilized. All small debris (paint chips, rags, filters, and components smaller than 2"x2") that may be generated during the paint stabilization process (paint preparation) should be considered Class I, lead hazardous waste. The debris generated from paint stabilization of LBP building components should be segregated from all other dust and debris. Building components, which tested positive, should be stabilized by a DHS-accredited Contractor.

Power washing may be conducted on the building. Run off water must be collected and analyzed by an accredited laboratory to meet the criteria established by the Clean Water Act, Resource Conservation and Recovery Act (RCRA 1972). Lead levels must not exceed 5mg/L.

## **CODES AND REGULATIONS - LEAD-BASED PAINT**

Federal and state regulations, which govern lead-based, paint work or hauling and disposal of lead-based paint waste materials include but are not limited to the following:

### FEDERAL

Housing and Urban Development (HUD) 1995 Guidelines For The Evaluation and Control of Lead-Based Paint in Housing

### OSHA

Lead In Construction  
29 CFR 1926.62

### NESHAP

Emissions Standards  
40 CFR 50.12

Lead-Based Paint Poisoning Prevention Act (LBPPPA), 1970.

Title 10 - Residential LBP Hazard Reduction Act, 1992, (amendment for LBPPPA, 1970)

Resource Conservation Recovery Act (RCRA)

### STATE

#### Cal/OSHA

Lead In Construction  
Title 8 CCR 1532.1

Department of Health Services (DHS)

Emergency Work Practice Regulations  
Title 17 CCR, Division 1, Chp.

APPENDIX A  
XRF - DATA RESULTS TABLE

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
153	Base.	0001	Negative	18797	Locker Room	1	I-Beam Ceiling	0.342	
153	Base.	0001	Negative	18798	Locker Room	1	Wall	-0.14	
153	Base.	0001	Negative	18799	Locker Room	2	Wall	0.571	
153	Base.	0001	Negative	18800	Locker Room	2	Door	0.139	
153	Base.	0001	Negative	18801	Locker Room	2	Door Frame	0.296	
153	Base.	0001	Negative	18802	Locker Room	3	Wall	0.452	
153	0001	0001	Negative	18803	Hallway	1	Wall	0.853	
153	0001	0001	Negative	18804	Hallway	1	Wall	0.465	
153	0001	0001	XRF Positive	18805	Hallway	1	Handrail	4.477	
153	0001	0001	Negative	18806	Hallway	1	Ceiling	0.393	
153	0001	0001	Negative	18807	Hallway	1	Door Frame	-0.24	
153	0001	0001	Negative	18808	Hallway	3	Wall	0.62	
153	0001	0001	Negative	18809	Hallway	2	Door	-0.033	
153	0001	0001	Negative	18810	Hallway	2	Door Frame	0.069	
153	0001	0001	Negative	18811	Hallway	1	Eave	0.383	
153	0001		Negative	18812	Exterior	1	Wall	0.295	
153	0001		Negative	18813	Exterior	1	Fire Ext. Box	0.031	
153	0001		Inconclusive	18814	Exterior	4	Wall	0.98	
153	0001		Negative	18815	Exterior	4	Fire Exit	-0.169	
153	0001		Negative	18816	Exterior	4	Door Frame	0.056	
153	0001		Negative	18817	Exterior	4	Downspout	-0.155	
153	0001		Negative	18818	Exterior	4	Window Jamb	-0.056	
153	0001		Negative	18819	Exterior	4	Window Sill	-0.36	
153	0001		Negative	18820	Exterior	4	Window Sash	0.148	
153	0001		Negative	18821	Exterior	4	Conc. Column	-0.632	
153	0001		Negative	18823	Exterior	4	Fascia	-0.338	
153	0001		Negative	18824	Exterior	4	Double Door	-0.134	
153	0001		Inconclusive	18825	Exterior	4	Door Frame	0.993	
153	0001		Negative	18826	Exterior	3	Wall	0.17	
153	0001		Negative	18827	Exterior	3	Handrail	0.422	
153	0001		Negative	18828	Exterior	3	Ceiling	0.559	
153	0001		Negative	18829	Exterior	3	Ceiling Vent	-0.341	
153	0001		Negative	18830	Exterior	3	Fire Exit	0.023	
153	0001		Negative	18831	Exterior	3	Door Frame	0.519	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
153	0001		Negative	18832	Exterior	3	Door Landing	-0.021	
153	0001		Negative	18833	Exterior	3	Stair Riser	0.384	
153	0001		Negative	18834	Exterior	2	Wall	0.715	
153	0001		Negative	18835	Exterior	2	Fire Exit	-0.385	
153	0001		Negative	18836	Exterior	2	Door Frame	0.097	
153	0001		Negative	18837	Exterior	2	Conc. Column	0.118	
153	0001		Negative	18838	Exterior	2	Window Jamb	-0.857	
153	0001		Negative	18839	Exterior	2	Window Sill	0.304	
153	0001		Negative	18840	Exterior	2	Window Sash	-0.129	
153	0001		Negative	18841	Exterior	2	Downspout	0.056	
153	0001		XRF Positive	18842	Exterior	2	Downspout	4.029	
153	0001		Negative	18843	Exterior	2	Overhang	0.463	
153	0001		Negative	18844	Exterior	2	Fascia	-0.032	
153	0001		Negative	18845	Exterior	2	Door	0.21	
153	0001		XRF Positive	18846	Exterior	2	Door Frame	1.465	
153	0001		XRF Positive	18847	Exterior	2	Fixed W. Panel	3.254	
153	0001		XRF Positive	18848	Exterior	2	Window Sill	1.452	
153	0001		Negative	18849	Exterior	1	Handrail	0.229	
153	0001		Negative	18850	Exterior	1	Stair Riser	0.794	
153	0001		Negative	18851	Exterior	1	Fire Exit	-0.598	
153	0001		Negative	18852	Exterior	1	Door Frame	0.014	
153	0001		Negative	18853	Exterior	1	Door Landing	0.302	
153	0001	101	Negative	18854	Exterior	1	Ceiling	0.158	
153	0001	101	Negative	18859	Entry Way	1	Wall	0.248	
153	0001	101	Negative	18860	Entry Way	1	Radiator Cover	0.023	
153	0001	101	Negative	18861	Entry Way	2	Base. Railing	0.006	
153	0001	101	Negative	18862	Entry Way	1	Double Door	0.326	
153	0001	101	Negative	18863	Entry Way	1	Door Frame	0.051	
153	0001	101	Negative	18864	Entry Way	3	Wall	0.026	
153	0001	101	Negative	18865	Entry Way	4	Double Door	-0.243	
153	0001	101	Negative	18866	Entry Way	4	Door Frame	-0.235	
153	0001	101	Negative	18867	Hallway	2	Door	-0.053	
153	0001	101	Negative	18868	Hallway	2	Door Frame	0.446	
153	0001	101	Negative	18869	Hallway	2	Baseboard	0.284	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
153	0001	101	Negative	18870	Hallway	2	Wall	0.113	
153	0001	101	Negative	18871	Hallway	2	Fire Ext. Box	0.201	
153	0001	101	Negative	18872	Hallway	2	Water Fount. Alc	-1.139	
153	0001	101	Negative	18873	Hallway	2	Door	0.089	
153	0001	101	Negative	18874	Hallway	2	Door Frame	-0.274	
153	0001	101	Negative	18875	OpenArea/Research	1	Wall	-0.593	
153	0001	101	Negative	18876	OpenArea/Research	1	Baseboard	0.28	
153	0001	101	Negative	18877	OpenArea/Research	1	Soffit	0.245	
153	0001	101	Negative	18878	OpenArea/Research	2	Wall	0.071	
153	0001	101	Negative	18879	OpenArea/Research	2	Window Jamb	0.185	
153	0001	101	Negative	18880	OpenArea/Research	2	Window Sash	0.256	
153	0001	101	Negative	18881	OpenArea/Research	2	Window Shelf	0.146	
153	0001	101	Negative	18882	OpenArea/Research	3	Wall	-1.027	
153	0001	101	Negative	18883	OpenArea/Research	4	Wall	-0.414	
153	0001	101	Negative	18884	OpenArea/Research	4	Window Jamb	-0.798	
153	0001	101	Negative	18885	OpenArea/Research	4	Window Sash	-0.048	
153	0001	101	Negative	18886	OpenArea/Research	4	Window Shelf	-0.208	
153	0001	101	Negative	18887	Hallway	2	Door	-0.023	
153	0001	101	Negative	18888	Hallway	2	Wall	0.022	
153	0001	101	Negative	18889	Hallway	2	Fire Riser/Valve	0.086	
153	0001	101	Negative	18890	Hallway	2	Fire Exit	-0.231	
153	0001	101	Negative	18891	Hallway	2	Door Frame	0.049	
153	0001	101	Negative	18892	Hallway	2	Window Transom	0.411	
153	0001	101	Negative	18893	Hallway	3	Wall	-0.003	
153	0001	101	Negative	18894	Hallway	2	Door Frame	-0.202	
153	0001	101	Negative	18895	Hallway	4	Alcove/Exit		
153	0001	101	Negative	18896	Hallway	4	Wall	-0.274	
153	0001	101	Negative	18897	Hallway	4	Door	0.375	
153	0001	101	Negative	18898	Hallway	4	Door Frame	0.392	
153	0001	101	Negative	18899	Hallway	4	Baseboard	0.069	
153	0001	101	Negative	18900	Copier Room	1	Wall	-0.026	
153	0001	101	Negative	18901	Copier Room	4	Window Jamb	0.001	
153	0001	101	Negative	18902	Copier Room	4	Window Sash	-0.388	
153	0001	101	Negative	18903	Men's Bathroom	1	Wall	-0.125	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
153	0001	101	Negative	18904	Men's Bathroom	1	Ceiling	-0.038	
153	0001	101	Negative	18905	Men's Bathroom	1	Countertop	-0.155	
153	0001	101	Negative	18906	Men's Bathroom	2	Tile Wall	-0.385	
153	0001	101	Negative	18907	Men's Bathroom	2	Widow Shelf	0.386	
153	0001	101	Negative	18908	Men's Bathroom	2	Window Jamb	-0.114	
153	0001	101	Negative	18909	Men's Bathroom	2	Window Sash	0.255	
153	0001	101	Negative	18910	Men's Bathroom	3	Stall Door	-0.209	
153	0001	101	Negative	18911	Men's Bathroom	3	Floor	0.012	
153	0001	101	Negative	18912	Men's Bathroom	4	Door	-0.028	
153	0001	101	Negative	18913	Men's Bathroom	4	Door Frame	0.273	
153	0001	101	Negative	18914	Stairwell	1	Wall	0.615	
153	0001	101	Negative	18915	Stairwell	1	Handrail	-0.204	
153	0001	101	Negative	18916	Stairwell	1	Ceiling	0.379	
153	0001	101	Negative	18917	Stairwell	4	Double Door	0.353	
153	0001	101	Negative	18918	Stairwell	4	Door Frame	0.306	
153	0001	101	XRF Positive	18919	Stairwell	4	Wall	1.271	
153	0001	101	Negative	18920	Stairwell	4	Wall	0.174	
153	0001	101	Negative	18921	Stairwell	3	Wall	-0.638	
153	0001	101	Negative	18922	Stairwell	3	Fire Exit	0.411	
153	0001	101	Negative	18923	Stairwell	2	Fire Exit	-0.307	
153	0001	101	Negative	18924	Stairwell	2	Door Frame	0.429	
153	0001	101	Negative	18925	Stairwell	1	Door	-0.176	
153	0001	101	Negative	18926	Stairwell	1	Door Frame	0.421	
153	0001	101	Negative	18927	Stairwell	2	Fix.Window Panel	-0.06	
153	0001	101	Negative	18928	Stairwell	2	Door Landing	-0.806	
153	0001	101	Negative	18929	Stairwell	1	Concrete Cap	0.286	
153	0001	132	Negative	18941	Office	1	Wall	-0.689	
153	0001	132	Negative	18942	Office	1	Baseboard	-0.029	
153	0001	132	Negative	18942	Office	2	Wall	-0.834	
153	0001	132	Negative	18944	Office	2	Window Jamb	-0.071	
153	0001	132	Negative	18945	Office	2	Window Sash	-0.094	
153	0001	132	Negative	18946	Office	3	Wall	-0.558	
153	0001	132	Negative	18947	Office	4	Door	-0.282	
153	0001	132	Negative	18948	Office	4	Door Frame	0.241	



Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
153	0001	135	Negative	18956	Conference Rm.	1	I-Beam Ceiling	0.217	
153	0001	135	Negative	18957	Conference Rm.	1	Soffit	-0.995	
153	0001	135	Negative	18958	Conference Rm.	1	Wall	0.035	
153	0001	135	Negative	18959	Conference Rm.	1	Baseboard	-1.073	
153	0001	135	Negative	18960	Conference Rm.	1	Door Frame	0.303	
153	0001	135	Negative	18961	Conference Rm.	1	Conc. Column	-0.651	
153	0001	135	Negative	18962	Conference Rm.	2	Wall	-1.091	
153	0001	135	Negative	18963	Conference Rm.	2	Door	0.104	
153	0001	135	Negative	18964	Conference Rm.	2	Door Frame	-0.343	
153	0001	135	Negative	18965	Conference Rm.	2	Baseboard	-0.414	
153	0001	135	Negative	18966	Conference Rm.	2	Door	-0.1	
153	0001	135	Negative	18967	Conference Rm.	2	Door Frame	0.213	
153	0001	135	Negative	18968	Conference Rm.	3	Fix.Window Panel	-0.195	
153	0001	135	Negative	18969	Conference Rm.	3	Door	-0.492	
153	0001	135	Negative	18970	Conference Rm.	4	Wall	0.313	
153	0001	135	Negative	18971	Conference Rm.	4	Door	-0.213	
153	0001	135	Negative	18972	Conference Rm.	4	Door Frame	-0.042	
153	0001	135	Negative	18973	Conference Rm.	4	Baseboard	0.11	
153	0001	135	Negative	18974	Conference Rm.	4	Door	-0.749	
153	0001	135	Negative	18975	Conference Rm.	4	Door Frame	0.075	
153	0001	135	Negative	18976	Conference Rm.	4	Window Jamb	0.387	
153	0001	135	Negative	18977	Conference Rm.	4	Windo Sash	-0.054	
153	0001	135	Negative	18978	Conference Rm.	4	Alcove/Exit	0.438	
153	0001	135	Negative	18979	Conference Rm.	4	Fire Exit	-0.197	
153	0001	135	Negative	18980	Conference Rm.	4	Window Transom	0.337	
153	0001	135	Negative	18981	Conference Rm.	1	Alcove/Exit	0.322	
153	0001	136	Negative	18984	Office	1	Wall	-1.251	
153	0001	136	Negative	18985	Office	1	Baseboard	0.253	
153	0001	136	Negative	18986	Office	2	Wall	0.251	
153	0001	136	Negative	18987	Office	2	Door	-0.491	
153	0001	136	Negative	18988	Office	2	Door Frame	-0.311	
153	0001	136	Negative	18989	Office	3	Wall	-0.487	
153	0001	136	Negative	18990	Office	4	Radiator Cover	0.167	
153	0001	136	Negative	18991	Office	4	Window Jamb	-0.308	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
153	0001	136	Negative	18992	Office	4	Window Sash	-0.078	
153	0001	137	Negative	18995	Office	1	Wall	-0.967	
153	0001	137	Negative	18996	Office	2	Door	-0.133	
153	0001	137	Negative	18997	Office	2	Door Frame	-0.175	
153	0001	137	Negative	18998	Office	2	Baseboard	-0.274	
153	0001	137	Negative	18999	Office	4	Wall	0.21	
153	0001	137	Negative	19000	Office	4	Window Jamb	-0.328	
153	0001	137	Negative	19001	Office	4	Window Sash	-0.847	
153	0001	137	Negative	19002	Office	4	Radiator Cover	-0.068	
153	0002	201	Negative	19005	Hallway	1	Fire Exit	-0.559	
153	0002	201	Negative	19006	Hallway	1	Door Frame	0.484	
153	0002	201	Negative	19007	Hallway	1	Soffit	-0.435	
153	0002	201	Negative	19008	Hallway	4	Wall	-0.335	
153	0002	201	Negative	19009	Hallway	4	Baseboard	-0.548	
153	0002	201	Negative	19010	Hallway	1	Floor	0.167	
153	0002	201	Negative	19011	Hallway	1	Wall	-0.014	
153	0002	201	Negative	19012	Hallway	3	Wall	-0.069	
153	0002	201	Negative	19013	Hallway	2	Wall	-0.994	
153	0002	201	Negative	19014	Hallway	2	Door	-0.272	
153	0002	201	Negative	19015	Hallway	2	Door Frame	-0.816	
153	0002	201	Negative	19016	Hallway	2	Door	-0.496	
153	0002	201	Negative	19017	Hallway	2	Door Frame	-0.695	
153	0002	201	Negative	19018	Hallway	2	Baseboard	0.119	
153	0002	201	Negative	19019	Hallway	2	Door	0.043	
153	0002	201	Negative	19020	Hallway	2	Door Frame	-0.315	
153	0002	201	Negative	19021	Hallway	4	Window Jamb	0.022	
153	0002	201	Negative	19022	Hallway	4	Window Sash	0.015	
153	0002	201	Negative	19023	Hallway	4	Radiator Cover	-0.057	
153	0002	201	Negative	19024	Common Area	2	Wall	0.318	
153	0002	201	Negative	19025	Common Area	2	Window Jamb	0.031	
153	0002	201	Negative	19026	Common Area	2	Window Sash	0.103	
153	0002	201	Negative	19027	Common Area	2	Baseboard	0.048	
153	0002	201	Negative	19028	Common Area	2	Radiator Cover	0.082	
153	0002	201	Negative	19029	Common Area	3	Wall	-0.754	

<u>Bldg.</u>	<u>Floor</u>	<u>Room</u>	<u>Result</u>	<u>Shot Sequence</u>	<u>Location</u>	<u>Wall</u>	<u>Description</u>	<u>XRF Result</u>	<u>AA Analysis in PPM</u>
153	0002	201	Negative	19030	Common Area	4	Wall	-0.363	
153	0002	201	Negative	19031	Common Area	4	Window Jamb	-1.03	
153	0002	201	Negative	19032	Common Area	4	Window Sash	-1.09	
153	0002	201	Negative	19033	Common Area	4	Chair Rail	0.023	
153	0002	201	Negative	19034	Common Area	4	Radiator Cover	0.21	
153	0002	201	Negative	19035	Hallway	2	Fire Ext. Box	-0.539	
153	0002	201	Negative	19036	Hallway	2	Door	0.156	
153	0002	201	Negative	19037	Hallway	2	Door Frame	-0.464	
153	0002	201	Negative	19038	Hallway	2	Wall	0.064	
153	0002	201	Negative	19039	Hallway	3	Fire Exit	0.174	
153	0002	201	Negative	19040	Hallway	3	Door Frame	0.178	
153	0002	201	Negative	19041	Hallway	3	Wall	-0.735	
153	0002	201	Negative	19042	Hallway	4	Door	0.029	
153	0002	201	Negative	19043	Hallway	4	Door Frame	-0.1	
153	0002	201	Negative	19044	Hallway	4	Wall	0.014	
153	0002	201	Negative	19045	Hallway	4	Baseboard	0.451	
153	0002	201	Negative	19046	Hallway	4	Door	-0.185	
153	0002	201	Negative	19047	Hallway	4	Door Frame	0.094	
153	0002	201	Negative	19048	Hallway	4	Wall	-0.659	
153	0002	217	Negative	19051	Conference Rm.	1	Wall	0.28	
153	0002	217	Negative	19052	Conference Rm.	2	Wall	0.09	
153	0002	217	Negative	19053	Conference Rm.	2	Baseboard	0.026	
153	0002	217	Negative	19054	Conference Rm.	2	Door	-0.192	
153	0002	217	Negative	19055	Conference Rm.	2	Door Frame	-0.17	
153	0002	217	Negative	19056	Conference Rm.	3	Wall	-0.053	
153	0002	217	Negative	19057	Conference Rm.	4	Wall	-0.308	
153	0002	217	Negative	19058	Conference Rm.	4	Window Jamb	-0.205	
153	0002	217	Negative	19059	Conference Rm.	4	Window Sash	-0.1	
153	0002	217	Negative	19060	Conference Rm.	4	Radiator Cover	-0.454	

**APPENDIX B**  
**CERTIFICATION(S)**

State of California Department of Health Services

Lead-Related	Certificate	Expiration Date
Construction Certificate	Inspector/Assessor	11/03/2002



Richard E. MacFarlane ID # 2241