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LEAD BASED PAINT SURVEY REPORT

ARMY RESERVE DORMITORY (ID: Building 155)

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".

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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, 300 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/cm² or 5000 PPM.

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

Exterior:

- ◆ Door Frame, Window Jamb, Window Sill, Window Sash, Fire Exit, Handrail, Stair Tread, Stair Riser, Fixed Window Panel, Door Landing.

Interior:

- ◆ Storage Room (101) – Wainscot, Window Sash.
- ◆ Office (100) – Eaves, Window Jamb.
- ◆ Copier Room (100)– Window Sash, Sink/Cabinet.
- ◆ Men's Restroom (100) – Tile Walls, Floor, Window Jamb, Window Sash.
- ◆ Hallway (101) – Electrical Panel Cover.
- ◆ Stairwell (101) – Handrail, Door Frame
- ◆ Hallway (102) – Walls, Wainscot, Window Jamb, Window Sash, Window Sill, Radiator Cover.
- ◆ Office (102) – Window Jamb, Window Sash.
- ◆ Conference Room (103) – Wall Panel, Window Sash, Window Jamb.
- ◆ Common Area (103) – Wall Panel, Window Jamb, Window Sash, Steel Post.
- ◆ Office (104) – Window Jamb, Window Sash.
- ◆ Office (109) – Wall, Window Jamb, Window Sash.
- ◆ Hallway (201) – Fire Alarm Pull, Electrical Panel Cover.
- ◆ Women's Restroom (201) – Tile Walls, Window Jamb.
- ◆ Common Area (201) – Window Jamb, Window Sash.

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 facility, built in 1953, was previously used for bachelor's enlisted quarters. This structure is a two-story building with a basement. The building construction 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 155.

A total of 300 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 Dormitory (ID: Building 155). 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 300 assays were taken. The results indicated that seventy-four (74) assays contained lead above the EPA and DHS level of 1.0 mg/ cm² or greater. The components, which contain lead-based paint, are:

Exterior:

- ◆ Door Frame, Window Jamb, Window Sill, Window Sash, Fire Exit, Handrail, Stair Tread, Stair Riser, Fixed Window Panel, Door Landing.

Interior:

- ◆ Storage Room (101) – Wainscot, Window Sash.
- ◆ Office (100) – Eaves, Window Jamb.
- ◆ Copier Room (100)– Window Sash, Sink/Cabinet.
- ◆ Men's Restroom (100) – Tile Walls, Floor, Window Jamb, Window Sash.
- ◆ Hallway (101) – Electrical Panel Cover.
- ◆ Stairwell (101) – Handrail, Door Frame
- ◆ Hallway (102) – Walls, Wainscot, Window Jamb, Window Sash, Window Sill, Radiator Cover.
- ◆ Office (102) – Window Jamb, Window Sash.
- ◆ Conference Room (103) – Wall Panel, Window Sash, Window Jamb.
- ◆ Common Area (103) – Wall Panel, Window Jamb, Window Sash, Steel Post.
- ◆ Office (104) – Window Jamb, Window Sash.
- ◆ Office (109) – Wall, Window Jamb, Window Sash.
- ◆ Hallway (201) – Fire Alarm Pull, Electrical Panel Cover.
- ◆ Women's Restroom (201) – Tile Walls, Window Jamb.
- ◆ Common Area (201) – Window Jamb, Window Sash.

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/cm² 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^3) over an eight-hour time weighted average (TWA) or the Permissible Exposure Limit (PEL) of 50 ug/m^3 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^2 versus 3.5 mg/cm^2 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^3 to 500 ug/m^3
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/m³ to 2,500 ug/m³
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/m³.
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
155	0001		Negative	18142	Exterior	4	Wall	0.018	
155	0001		Negative	18143	Exterior	4	Double Doors	0.184	
155	0001		XRF Positive	18144	Exterior	4	Door Frame	2.903	
155	0001		XRF Positive	18145	Exterior	4	Window Jamb	3.289	
155	0001		Negative	18146	Exterior	4	Window Sill	-0.236	
155	0001		XRF Positive	18147	Exterior	4	Window Sash	2.13	
155	0001		Negative	18148	Exterior	4	Overhang	-2.374	
155	0001		Negative	18149	Exterior	4	Overhang	-0.325	
155	0001		Negative	18150	Exterior	4	Fascia	0.542	
155	0001		Negative	18151	Exterior	4	Downspout	-0.235	
155	0001		XRF Positive	18152	Exterior	1	Fire Exit	1.913	
155	0001		XRF Positive	18153	Exterior	1	Door Frame	1.827	
155	0001		Negative	18254	Exterior	4	Wall	-1.756	
155	0001		Negative	18155	Exterior	1	Ceiling	0.706	
155	0001		XRF Positive	18156	Exterior	1	Handrail	2.838	
155	0001		XRF Positive	18157	Exterior	1	Stair Tread	4.5	
155	0001		XRF Positive	18518	Exterior	1	Stair Riser	3.93	
155	0001		Negative	18159	Exterior	2	Wall	-0.25	
155	0001		Negative	18160	Exterior	4	Downspout	-0.292	
155	0001		XRF Positive	18161	Exterior	2	Window Jamb	1.886	
155	0001		XRF Positive	18162	Exterior	2	Window Sill	1.842	
155	0001		XRF Positive	18163	Exterior	2	Window Sash	2.055	
155	0001		Negative	18164	Exterior	2	Kick Panel	0.326	
155	0001		Negative	18165	Exterior	2	Double Doors	0.102	
155	0001		XRF Positive	18166	Exterior	2	Door Frame	2.628	
155	0001		Negative	18167	Exterior	2	Overhang	0.053	
155	0001		Negative	18168	Exterior	2	Fascia	0.805	
155	0001		XRF Positive	18169	Exterior	2	Fix.Win.Panel	1.923	
155	0001		XRF Positive	18170	Exterior	2	Window Sill	1.331	
155	0001		Negative	18171	Exterior	2	Door	-0.118	
155	0001		XRF Positive	18172	Exterior	2	Door Frame	3.561	
155	0001		Negative	18174	Exterior	3	Wall	0.166	
155	0001		Negative	18175	Exterior	3	Fire Exit	-0.784	
155	0001		XRF Positive	18176	Exterior	3	Door Frame	1.608	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0001		Negative	18177	Exterior	3	Ceiling	-0.351	
155	0001		XRF Positive	18178	Exterior	3	Handrail	2.147	
155	0001		XRF Positive	18179	Exterior	3	Stair Tread	18.565	
155	0001		XRF Positive	18180	Exterior	3	Stair Riser	9.996	
155	0001		Negative	18181	Exterior	3	Fire Exit	1.1	
155	0001		XRF Positive	18182	Exterior	3	Door Frame	2.548	
155	0001		XRF Positive	18183	Exterior	3	Door Landing	2.518	
155	0001		Negative	18184	Exterior	3	Fascia	0.122	
155	0001	100	XRF Positive	18187	Storage Room	4	Wainscot	1.689	
155	0001	100	Negative	18188	Storage Room	4	Wall	0.173	
155	0001	100	Negative	18189	Storage Room	4	Window Jamb	0.935	
155	0001	100	Negative	18190	Storage Room	4	Window Sill	0.449	
155	0001	100	XRF Positive	18191	Storage Room	4	Window Sash	7.245	
155	0001	100	Negative	18192	Storage Room	1	Fire Ext. Box	-0.302	
155	0001	100	Negative	18193	Storage Room	2	Door Frame	-0.087	
155	0001	100	Negative	18194	Office	1	Wall	-0.361	
155	0001	100	Negative	18195	Office	1	Wall	0.009	
155	0001	100	XRF Positive	18196	Office	4	Eaves	1.792	
155	0001	100	Negative	18197	Office	4	Door	-0.534	
155	0001	100	Negative	18198	Office	4	Door Frame	0.027	
155	0001	100	Negative	18199	Office	4	Chair Rail	0.153	
155	0001	100	XRF Positive	18200	Office	2	Window Jamb	1.408	
155	0001	100	Negative	18201	Office	2	Window Sill	0.496	
155	0001	100	Negative	18202	Office	2	Window Sash	0.391	
155	0001	100	Negative	18203	Office	3	Wall	0.112	
155	0001	100	Negative	18204	Office	2	Chair Rail	0.054	
155	0001	100	Inconclusive	18205	Janitor Closet	1	Wall	1.147	
155	0001	100	Negative	18206	Janitor Closet	4	Wall	0.548	
155	0001	100	Inconclusive	18207	Janitor Closet	2	Wall	1.058	
155	0001	100	Negative	18208	Janitor Closet	2	Wall	0.844	
155	0001	100	Negative	18209	Janitor Closet	2	Door	-0.218	
155	0001	100	Negative	18210	Janitor Closet	2	Door Frame	0.345	
155	0001	100	Negative	18211	Janitor Closet	2	Floor	0.003	
155	0001	100	Negative	18212	Copier Room	4	Wall	0.129	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0001	100	Negative	18213	Copier Room	4	Window Jamb	0.478	
155	0001	100	Negative	18214	Copier Room	4	Window Sill	-0.255	
155	0001	100	XRF Positive	18215	Copier Room	4	Window Sash	8.981	
155	0001	100	Negative	18216	Copier Room	1	Wall	-0.077	
155	0001	100	XRF Positive	18217	Copier Room	1	Sink/Cabinet	1.236	
155	0001	100	Negative	18218	Copier Room	2	Door	-0.875	
155	0001	100	Negative	18219	Copier Room	2	Door Frame	0.092	
155	0001	100	Negative	18220	Copier Room	2	Wall	0.557	
155	0001	100	Negative	18221	Mens Bathroom	1	Wall	-0.024	
155	0001	100	XRF Positive	18222	Mens Bathroom	1	Tile Wall	13.178	
155	0001	100	XRF Positive	18223	Mens Bathroom	1	Floor	9.924	
155	0001	100	Negative	18224	Mens Bathroom	1	Ceiling	-0.193	
155	0001	100	Negative	18225	Mens Bathroom	2	Wall	0.439	
155	0001	100	XRF Positive	18226	Mens Bathroom	2	Tile Wall	15.563	
155	0001	100	XRF Positive	18227	Mens Bathroom	2	Window Jamb	2.344	
155	0001	100	Negative	18228	Mens Bathroom	2	Window Sill	0.12	
155	0001	100	Negative	18229	Mens Bathroom	2	Window Sash	0.6	
155	0001	100	XRF Positive	18230	Mens Bathroom	2	Window Sash	4.089	
155	0001	100	Negative	18231	Mens Bathroom	3	Tile Wall	0.571	
155	0001	100	XRF Positive	18232	Mens Bathroom	3	Tile Wall	12.396	
155	0001	100	Negative	18233	Mens Bathroom	3	Wall	-0.134	
155	0001	100	Negative	18234	Mens Bathroom	3	Stall Door	-0.925	
155	0001	100	Negative	18235	Mens Bathroom	4	Door	-0.004	
155	0001	100	Negative	18236	Mens Bathroom	4	Door Frame	0.252	
155	0001	101	Negative	18239	Entry Way	1	Wall	0.747	
155	0001	101	Negative	18240	Entry Way	1	Ceiling	0.12	
155	0001	101	Negative	18241	Entry Way	1	Baseboard	-0.211	
155	0001	101	Negative	18242	Entry Way	2	Double Doors	0.149	
155	0001	101	Negative	18243	Entry Way	2	Door Frame	0.625	
155	0001	101	Inconclusive	18244	Entry Way	2	Wall	1.032	
155	0001	101	Negative	18245	Entry Way	3	Wall	0.576	
155	0001	101	Negative	18246	Entry Way	3	Eaves	-0.383	
155	0001	101	Negative	18247	Entry Way	4	Wall	0.898	
155	0001	101	Negative	18248	Entry Way	4	Wall	0.895	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0001	101	Negative	18249	Entry Way	4	Double Doors	-1.147	
155	0001	101	Negative	18250	Entry Way	4	Door Frame	0.493	
155	0001	101	Negative	18251	Hallway	2	Wall	0.618	
155	0001	101	XRF Positive	18252	Hallway	2	Elect.Panel Cvr.	5.73	
155	0001	101	Negative	18253	Hallway	2	Door	-0.353	
155	0001	101	Negative	18254	Hallway	2	Door Frame	0.247	
155	0001	101	Negative	18255	Hallway	2	Double Doors	-0.214	
155	0001	101	Inconclusive	18256	Hallway	2	Door Frame	1.09	
155	0001	101	Negative	18257	Hallway	3	Wall	-1.34	
155	0001	101	Negative	18258	Hallway	3	Double Doors	-0.288	
155	0001	101	Negative	18259	Hallway	3	Door Frame	0.601	
155	0001	101	Inconclusive	18260	Hallway	4	Wall	1.001	
155	0001	101	Negative	18261	Hallway	4	Door	-0.225	
155	0001	101	Negative	18262	Hallway	4	Door Frame	0.434	
155	0001	101	Negative	18263	Hallway	4	Baseboard	0.109	
155	0001	101	Negative	18264	Hallway	4	Door	-1.622	
155	0001	101	Negative	18265	Hallway	4	Door Frame	0.498	
155	0001	101	Negative	18266	Hallway	4	Door	0.051	
155	0001	101	Negative	18267	Hallway	4	Door Frame	0.184	
155	0001	101	Inconclusive	18269	Stairwell	1	Wall	1.088	
155	0001	101	XRF Positive	18270	Stairwell	1	Handrail	4.344	
155	0001	101	Negative	18271	Stairwell	2	Door	0.755	
155	0001	101	XRF Positive	18272	Stairwell	2	Door Frame	1.836	
155	0001	101	Negative	18273	Stairwell	1	Door	-0.345	
155	0001	101	Negative	18274	Stairwell	1	Door Frame	-0.931	
155	0001	101	Negative	18275	Stairwell	3	Wall	0.975	
155	0001	101	Negative	18276	Stairwell	4	Double Doors	0.236	
155	0001	101	Negative	18277	Stairwell	4	Door Frame	0.628	
155	0001	101	Inconclusive	18278	Stairwell	2	Concrete Cap	1.031	
155	0001	101	Negative	18279	Stairwell	2	Fix. Win. Panel	-0.095	
155	0001	102	XRF Positive	18282	Hallway	1	Wall	2.175	
155	0001	102	Negative	18283	Hallway	1	Double Doors	-0.386	
155	0001	102	Negative	18284	Hallway	1	Door Frame	0.221	
155	0001	102	Negative	18285	Hallway	1	Ceiling	0.152	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0001	102	XRF Positive	18286	Hallway	2	Wall	2.442	
155	0001	102	Negative	18287	Hallway	2	Door	-0.131	
155	0001	102	Negative	18288	Hallway	2	Door Frame	0.468	
155	0001	102	Negative	18289	Hallway	2	Baseboard	0.534	
155	0001	102	XRF Positive	18290	Hallway	2	Wall	2.377	
155	0001	102	XRF Positive	18291	Hallway	2	Wainscot	1.652	
155	0001	102	XRF Positive	18292	Hallway	4	Wall	2.682	
155	0001	102	Negative	18293	Hallway	4	Door	-0.524	
155	0001	102	Negative	18294	Hallway	4	Door Frame	-1	
155	0001	102	Negative	18295	Hallway	2	Door	-0.128	
155	0001	102	Negative	18296	Hallway	2	Door Frame	0.168	
155	0001	102	XRF Positive	18297	Hallway	2	Wall	2.627	
155	0001	102	Negative	18298	Hallway	2	Door	0.167	
155	0001	102	Negative	18299	Hallway	2	Wall	-0.417	
155	0001	102	XRF Positive	18300	Hallway	2	Wall	1.443	
155	0001	102	XRF Positive	18301	Hallway	3	Wall	2.331	
155	0001	102	XRF Positive	18302	Hallway	3	Wainscot	1.727	
155	0001	102	Negative	18303	Hallway	3	Baseboard	-0.096	
155	0001	102	Negative	18304	Hallway	3	Wall	-1.357	
155	0001	102	Negative	18305	Hallway	3	Door Frame	0.467	
155	0001	102	XRF Positive	18306	Hallway	2	Window Jamb	1.492	
155	0001	102	XRF Positive	18307	Hallway	2	Window Sash	6.504	
155	0001	102	XRF Positive	18308	Hallway	2	Window Sill	1.416	
155	0001	102	XRF Positive	18309	Hallway	2	Radiator Cover	3.233	
155	0001	102	Negative	18310	Hallway	4	Wall	0.367	
155	0001	102	Negative	18311	Hallway	4	Baseboard	0.304	
155	0001	102	XRF Positive	18312	Hallway	4	Wainscot	1.487	
155	0001	102	Negative	18313	Hallway	4	Door	-0.35	
155	0001	102	Negative	18314	Hallway	4	Door Frame	-0.175	
155	0001	102	XRF Positive	18315	Hallway	4	Wall	2.2	
155	0001	102	Negative	18316	Hallway	4	Wall	0.25	
155	0001	102	Negative	18317	Hallway	4	Door Frame	0.266	
155	0001	102	Negative	18319	Office	4	Wall	0.888	
155	0001	102	XRF Positive	18320	Office	4	Window Jamb	3.07	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0001	102	XRF Positive	18321	Office	4	Window Sash	1.899	
155	0001	102	Negative	18322	Office	4	Window Sill	-0.383	
155	0001	102	Negative	18323	Office	2	Common Wall	-0.101	
155	0001	102	Negative	18324	Office	2	Door	0.017	
155	0001	102	Negative	18325	Office	2	Door Frame	0.059	
155	0001	103	Negative	18328	Conference Rm.	1	Wall	0.367	
155	0001	103	Negative	18329	Conference Rm.	1	Open Ceiling	0.265	
155	0001	103	Negative	18330	Conference Rm.	1	Fire Exit	0.05	
155	0001	103	Negative	18331	Conference Rm.	1	Door Frame	0.346	
155	0001	103	Negative	18332	Conference Rm.	1	Baseboard	-0.675	
155	0001	103	XRF Positive	18333	Conference Rm.	2	Wall Panel	1.246	
155	0001	103	Negative	18334	Conference Rm.	2	Kick Panel	-0.479	
155	0001	103	Negative	18335	Conference Rm.	2	Conc. Column	0.358	
155	0001	103	XRF Positive	18336	Conference Rm.	2	Window Sash	1.534	
155	0001	103	Negative	18337	Conference Rm.	2	Radiator Cover	-1.348	
155	0001	103	Negative	18338	Conference Rm.	3	Common Wall	0.278	
155	0001	103	Negative	18339	Conference Rm.	3	Door Frame	-0.704	
155	0001	103	Negative	18340	Conference Rm.	3	Baseboard	0.095	
155	0001	103	Negative	18341	Conference Rm.	3	Door Frame	-0.142	
155	0001	103	Negative	18342	Conference Rm.	4	Wall	-2.339	
155	0001	103	Negative	18343	Conference Rm.	4	Wall	0.105	
155	0001	103	Negative	18344	Conference Rm.	4	Radiator Cover	0.032	
155	0001	103	XRF Positive	18345	Conference Rm.	4	Window Jamb	1.907	
155	0001	103	XRF Positive	18346	Conference Rm.	4	Window Sash	9.507	
155	0001	103	Negative	18348	Conference Rm.	4	Chair Rail	-0.228	
155	0001	103	Negative	18349	Common Area	1	Common Wall	-0.187	
155	0001	103	Negative	18350	Common Area	1	Door Frame	0.445	
155	0001	103	XRF Positive	18351	Common Area	2	Wall Panel	1.622	
155	0001	103	Negative	18352	Common Area	2	Kick Panel	0.233	
155	0001	103	XRF Positive	18353	Common Area	2	Window Jamb	2.074	
155	0001	103	XRF Positive	18354	Common Area	2	Window Sash	10.944	
155	0001	103	XRF Positive	18355	Common Area	2	Steel Post	14.319	
155	0001	103	Negative	18356	Common Area	2	Radiator Cover	0.61	
155	0001	103	Negative	18357	Common Area	3	Wall	0.418	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0001	103	Negative	18358	Common Area	3	Chair Rail	-0.164	
155	0001	103	Negative	18359	Common Area	3	Double Doors	-0.088	
155	0001	103	Negative	18360	Common Area	3	Door Frame	0.028	
155	0001	103	Negative	18361	Common Area	3	Baseboard	-0.006	
155	0001	103	Negative	18362	Common Area	4	Wall	-0.573	
155	0001	103	Negative	18363	Common Area	4	Radiator Cover	-0.325	
155	0001	103	Inconclusive	18364	Common Area	4	Window Jamb	0.918	
155	0001	103	Inconclusive	18365	Common Area	4	Window Jamb	0.929	
155	0001	103	Negative	18366	Common Area	4	Window Sill	0.507	
155	0001	103	XRF Positive	18367	Common Area	4	Window Sash	5.87	
155	0001	103	Negative	18368	Common Area	4	Chair Rail	0.103	
155	0001	104	Negative	18371	Office	1	Wall	0.466	
155	0001	104	Negative	18372	Office	4	Radiator Cover	0.616	
155	0001	104	XRF Positive	18373	Office	4	Window Jamb	3.441	
155	0001	104	Inconclusive	18374	Office	4	Window Sill	1.127	
155	0001	104	XRF Positive	18375	Office	4	Window Sash	1.947	
155	0001	104	Negative	18376	Office	2	Common Wall	0.329	
155	0001	104	Negative	18377	Office	2	Door	0.141	
155	0001	104	Negative	18378	Office	2	Door Frame	-0.007	
155	0001	109	Negative	18381	Office	4	Door	0.195	
155	0001	109	Negative	18382	Office	4	Door Frame	0.356	
155	0001	109	Negative	18383	Office	3	Wall	0.102	
155	0001	109	XRF Positive	18384	Office	2	Wall	3.862	
155	0001	109	XRF Positive	18385	Office	2	Window Jamb	1.275	
155	0001	109	Negative	18386	Office	2	Window Sill	0.316	
155	0001	109	XRF Positive	18388	Office	2	Window Sash	4.943	
155	0001	109	Negative	18389	Office	1	Baseboard	-0.792	
155	0002	201	Negative	18392	Hallway	1	Fire Exit	0.037	
155	0002	201	Negative	18393	Hallway	1	Door Frame	0.312	
155	0002	201	XRF Positive	18394	Hallway	1	Fire Alarm Pull	2.761	
155	0002	201	Negative	18395	Hallway	1	Wall	0.268	
155	0002	201	Negative	18396	Hallway	1	Wainscot	-0.696	
155	0002	201	Negative	18397	Hallway	1	Baseboard	-0.573	
155	0002	201	Negative	18398	Hallway	4	Wall	-577	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0002	201	Negative	18399	Hallway	4	Wainscot	-0.115	
155	0002	201	Inconclusive	18400	Hallway	4	Window Jamb	1.005	
155	0002	201	Negative	18401	Hallway	4	Window Sill	0.197	
155	0002	201	Negative	18402	Hallway	4	Window Sash	0.646	
155	0002	201	Negative	18403	Hallway	3	Wainscot	-0.15	
155	0002	201	Negative	18404	Hallway	2	Wall	0.266	
155	0002	201	Negative	18405	Hallway	2	Door	0.312	
155	0002	201	Negative	18406	Hallway	2	Door Frame	0.243	
155	0002	201	Negative	18407	Hallway	4	Wall	0.291	
155	0002	201	Negative	18408	Hallway	4	Door	0.273	
155	0002	201	Negative	18409	Hallway	4	Door Frame	-0.057	
155	0002	201	Negative	18410	Wms Bathroom	1	Wall	0.38	
155	0002	201	XRF Positive	18411	Wms Bathroom	1	Tile Wall	15.396	
155	0002	201	Negative	18412	Wms Bathroom	1	Door	-0.217	
155	0002	201	Negative	18413	Wms Bathroom	1	Door Frame	0.372	
155	0002	201	Negative	18414	Wms Bathroom	1	Floor	0.306	
155	0002	201	Negative	18415	Wms Bathroom	2	Wall	-0.001	
155	0002	201	XRF Positive	18416	Wms Bathroom	2	Window Jamb	1.522	
155	0002	201	Negative	18417	Wms Bathroom	2	Window Sill	0.335	
155	0002	201	Negative	18418	Wms Bathroom	2	Window Sash	0.221	
155	0002	201	XRF Positive	18419	Wms Bathroom	2	Tile Wall	9.211	
155	0002	201	Negative	18420	Wms Bathroom	3	Wall	-2.289	
155	0002	201	Negative	18421	Wms Bathroom	4	Stall Door	0.168	
155	0002	201	Negative	18422	Wms Bathroom	4	Wall	0.429	
155	0002	201	Negative	18423	Common Area	1	Wall	0.285	
155	0002	201	Negative	18424	Common Area	1	Wainscot	0.437	
155	0002	201	Negative	18425	Common Area	1	Door Frame	0.329	
155	0002	201	Negative	18426	Common Area	2	Wall	-0.446	
155	0002	201	Negative	18427	Common Area	3	Door Frame	0.14	
155	0002	201	Negative	18428	Common Area	3	Wainscot	-0.274	
155	0002	201	Inconclusive	18429	Common Area	4	Wall	1.032	
155	0002	201	Negative	18430	Common Area	4	Radiator Cover	0.467	
155	0002	201	Negative	18431	Common Area	4	Chair Rail	0.51	
155	0002	201	XRF Positive	18432	Common Area	4	Window Jamb	1.304	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
155	0002	201	Negative	18433	Common Area	4	Window Sill	-0.084	
155	0002	201	XRF Positive	18434	Common Area	4	Window Sash	7.839	
155	0002	201	Negative	18435	Hallway	2	Double Doors	-0.148	
155	0002	201	Negative	18436	Hallway	2	Door Frame	0.012	
155	0002	201	XRF Positive	18437	Hallway	2	Elect. Panel Cvr.	4.057	
155	0002	201	Negative	18438	Hallway	4	Door	-0.244	
155	0002	201	Negative	18439	Hallway	4	Door Frame	0.611	
155	0002	201	Negative	18440	Hallway	2	Wall	0.776	
155	0002	201	Negative	18441	Hallway	2	Wainscot	-0.596	
155	0002	201	Negative	18442	Hallway	2	Wall	0.335	
155	0002	201	Negative	18443	Hallway	4	Wall	0.35	
155	0002	201	Negative	18444	Hallway	4	Wainscot	0.172	
155	0002	201	Negative	18445	Hallway	4	Door	-1.206	
155	0002	201	Negative	18446	Hallway	4	Door Frame	-0.069	
155	0002	201	Negative	18447	Hallway	2	Door	-0.172	
155	0002	201	Negative	18448	Hallway	2	Door Frame	-0.069	
155	0002	201	Negative	18449	Hallway	2	Baseboard	0.183	
155	0002	201	Negative	18450	Hallway	4	Door	0.183	
155	0002	201	Negative	18451	Hallway	4	Door Frame	0.319	
155	0002	201	Negative	18452	Hallway	3	Wall	-0.152	
155	0002	201	Negative	18453	Hallway	3	Wainscot	0.099	
155	0002	201	Inconclusive	18454	Hallway	3	Fire Exit	1.017	
155	0002	201	Negative	18455	Hallway	3	Door Frame	0.786	
155	0002	201	Inconclusive	18456	Hallway	2	Wall	1.151	
155	0002	201	Inconclusive	18457	Hallway	2	Wainscot	0.995	
155	0002	201	Inconclusive	18458	Hallway	2	Window Jamb	0.941	
155	0002	201	Negative	18459	Hallway	2	Window Sill	-0.052	
155	0002	201	Negative	18460	Hallway	2	Window Sash	0.769	

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