

3732 CHARTER PARK DRIVE
SUITE A
SAN JOSE, CA 95136
TEL: 408.448.7594
TOLL FREE: 800.988.7424
FAX: 408.448.3849



ASBESTOS SURVEY REPORT

Army Reserve Center 4 (ID: Building154)

NASA-AMES (PAI CORPORATION)
Moffett Field
Mountain View, CA 94035

BUILDING INSPECTIONS


ENVIRONMENTAL ENGINEERING

SPECIALIZED TRAINING

CONTRACT MANAGEMENT

Prepared for:
NASA - AMES (PAI CORPORATION)
Nasa-ames Research Center
Mt. View, CA 94035-1000

Prepared by:
Benchmark Environmental Engineering
July 19, 2002
Project Number: **E01-612-A-SU**

Prepared By:

Terri MacFarlane
a California Certified Asbestos Consultant
90-2747

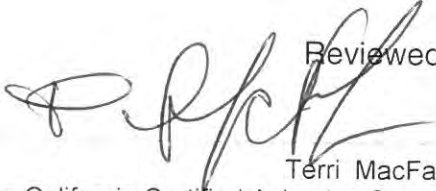
Reviewed By:

Terri MacFarlane
a California Certified Asbestos Consultant
90-2747

Table of Contents

Section:

	Executive Summary
1	Introduction
2	Description of Building Construction and Systems
3	Summary of Findings for Suspect Materials
4	Material Information Tables
5	Removal Cost Estimate Summary

Appendices:

A	Definitions of Terms and Assessment Criteria
B	Bulk Sampling Protocol and Analytical Methods
C	Laboratory Bulk Sampling Reports
D	Summary of Regulatory Requirements
E	AHERA Building Inspector Certifications
F	Drawings Indicating Material Locations

Executive Summary

Benchmark Environmental Engineering (Benchmark) was retained by NASA - Ames (PAI Corporation) to perform an Asbestos Hazard Emergency Response Act (AHERA) style asbestos survey of the Army Reserve Center 4 (Building ID: Building154), to determine the locations of accessible and to the extent feasible, inaccessible friable and non-friable asbestos containing building materials (ACBM).

This inspection included interior and exterior areas. Pre-existing survey data was used to help provide a picture of existing conditions of this building. Benchmark collected additional samples of the construction material to help supplement existing data, to contradict existing data or to provide additional data of materials not previously identified.

The entire interior of the building has been remodeled and all pre-existing materials have been removed and replaced with non-ACM material.

No friable asbestos-containing materials were observed in the building.

Asbestos was detected in the following non-friable materials:

- Sink Undercoating

The following materials were assumed to contain asbestos:

- Fire Door

Section 1 Introduction

Benchmark Environmental Engineering (Benchmark) performed an Asbestos Hazard Emergency Response Act (AHERA) style asbestos survey of the Army Reserve Center 4 located at Moffett Field, Mountain View, CA, to identify ACBM. This report identifies the locations and asbestos content of friable and non-friable ACBM, provides assessment of the friable ACBM in relation to the material's hazard potential to building occupants and provides removal cost estimates.

This inspection included interior and exterior areas. Pre-existing survey data was used to help provide a picture of existing conditions of this building. Benchmark collected additional samples of the construction material to help supplement existing data, to contradict existing data or to provide additional data of materials not previously identified.

The entire interior of the building has been remodeled and all pre-existing materials have been removed and replaced with non-ACM material.

All identified suspect asbestos-containing materials are summarized in Section 3. Materials testing positive for asbestos including material assessments, recommended response actions, and quantities are described in Section 4. Removal cost estimates for asbestos-containing materials are included in Section 5.

Removal cost estimates (Section 5) are for budgeting purposes only and should not be used as a quote for removal of the materials. It is not our recommendation to remove these materials unless they are beyond repair, or planned demolition or renovation activities will disturb the materials. Estimates are based on recent pricing we have received from contractors performing similar work and may vary from actual prices obtained due to the actual scope of work, quantity of material removed, control measures specified and contractor work loads.

On Friday, November 2, 2001 Terri MacFarlane (90-2747) , a California Certified Asbestos Consultant and Roy J. Mabus (92-0191) , a California Certified Asbestos Consultant, from Benchmark, performed an asbestos survey of the building(s) in accordance with the Asbestos Hazard and Emergency Response Act of 1987 (AHERA).

DISCLAIMER

This report is prepared for the express use and benefit of NASA - Ames (PAI Corporation), its agents and employees. The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building(s). This report is not intended to be used as a specification or work plan for any of the work suggested or recommended in this report.

This report is based upon conditions observed at the property and information made available to the surveyor. This report does not intend to identify all hazards or unsafe conditions, nor to indicate that other hazards or unsafe conditions do not exist at the premises.

Section 2 Description of Building Construction and Systems

Number of Floors: 3

Year Built: 1953

Total Square Footage: 9,285

Structural components consist of:

Concrete Foundation

Exterior Wall construction components consist of:

Concrete

Interior Wall construction components consist of:

Drywall

Interior ceiling components consist of:

Ceiling Tile

Building Description/Comments:

This is a two-story structure with a basement. Built in 1953, the building construction is concrete over a concrete foundation and with a flat composite roof. The concrete exterior is tan.

Comments:

There was a previous asbestos survey done by Tetra Tech, Inc. on January 19, 1993.

Section 3 Summary of Findings for Suspect Materials

The following table is a list of all materials at this building which were tested for the presence of asbestos or were assumed to contain asbestos along with overall sample results. Complete information on asbestos containing materials is included in Section 4 of this report.

Each unique material within the building is assigned a unique HM number by the surveyor at the time the survey is performed.

Section 3 and Section 4 are organized by building, surfacing, thermal systems insulation, flooring, walls, ceilings, roofing and miscellaneous materials.

Site Information

Army Reserve Center 4 (Site ID: 3-15 Yrs.)
Moffett Field
Mountain View, CA 94035

Client Information

NASA - Ames (PAI Corporation)
NASA-Ames Research Center
Mt. View, CA 94035-1000

Survey Performed By

Benchmark Environmental Engineering

Inspector

Terri MacFarlane

Inspection Date

Friday, November 2, 2001

Job Number

E01-612-A-SU

<i>Suspect Material</i>	<i>Category</i>	<i>HM Number</i>	<i>Material Location(s)</i>	<i>Asbestos Present?</i>
Roofing Material	Roofing	RM-2		No

Section 4 Material Information Tables

Site Information

Army Reserve Center 4 (Site ID: 3-15 Yrs.)
 Moffett Field
 Mountain View, CA 94035

Client Information

NASA - Ames (PAI Corporation)
 NASA-Ames Research Center
 Mt. View, CA 94035-1000

Survey Performed By

Benchmark Environmental Engineering

Inspector

Terri MacFarlane

Inspection Date

Friday, November 2, 2001

Job Number

E01-612-A-SU

Material Description

Roofing Material

Material Number

RM-2

Asbestos Present?

No

Material Category

Roofing

Friable Classification

Non-Friable

EPA Category

Category I

Total Quantity

Unit of Measure

Square Feet

General Condition

Damage Category

Overall Material Assessment

No Assessment, Non-asbestos

Recommended Response

Manage in Place

General Material Comments

Material Location(s)

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
RM-2-02-7224-154-1	West Roof	Roof	Yes	0%	1) Roofing core 2) 3)	Non Detected
RM-2-02-7225-154-2	East Roof	Roof	Yes	0%	1) Roofing core 2) 3)	Non Detected
RM-2-02-7226-154-3	West End	Roof	Yes	0%	1) Roofing material 2) 3)	Non Detected
RM-2-02-7227-154-4	Southeast Roof	Roof	Yes	0%	1) Roof penetration 2) 3)	Non Detected
RM-2-02-7228-154-5	North West Roof	Roof	Yes	0%	1) Roof penetration 2) 3)	Non Detected

Appendix A
Definitions of Terms and Assessment Criteria

Definitions of Terms and Assessment Criteria

This survey report organizes information on each suspect ACBM identified in tables located in Section 4. This section describes how to interpret the data found on materials listed in Section 4.

Material description contains the description of the suspect homogeneous asbestos containing building material.

Material Serial Number is used to reference the material for reinspections, etc.

Asbestos type and content describes the type of asbestos and its percentage in the material.

Asbestos Results for positive materials are shown as a percentage. Samples having less than 1% asbestos are reported as containing "Trace" amounts of asbestos and samples with no detected asbestos are reported as "BLD" or below limit of detection.

Sample number(s) identifies a particular material sample obtained from a specific sample location. Sample numbers are used primarily for laboratory identification.

Sample Location identifies where the samples of this material were obtained.

Material Category categorizes each material as surfacing, TSI or miscellaneous.

Surfacing Materials - Asbestos containing materials that are sprayed-on, trowled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

Thermal Systems Insulation (TSI) - Asbestos containing materials applied to pipes, fittings, boilers, breaching, tanks, ducts or other interior structural components to prevent heat loss or gain or water condensation.

Miscellaneous Materials - Asbestos containing materials applied to or a part of building components that are not classified as surfacing materials or thermal systems insulation.

Quantity & Units reports approximate total quantity per unit of measure for each material.

Building(s) & Floor(s) specifies where a material is located.

Material Location describes where the material is found throughout the building.

Material Condition identifies the material as Friable, Non-friable or Jacketed (for thermal systems insulation only) if asbestos is present.

Friable - An asbestos containing material that can be crumbled, pulverized or reduced to powder, when dry, by hand pressure, such as spray applied fireproofing on structural steel members, spray applied acoustical ceiling materials or damaged thermal systems insulation. Friable materials are of greatest concern due to their potential fiber release.

Non-Friable - An asbestos containing material where the asbestos is bound tightly in a matrix or sealed by a protective layer. Non-friable materials can become friable by being rendered to a crumbled, pulverized or powdered state, when dry, by crushing, sanding, sawing, shot-blasting, severe weathering or by other mechanically induced means. Common examples of non-friable materials are adhesives, floor tiles, transite and roofing materials.

Jacketed - An asbestos containing material applied to thermal systems insulation and "jacketed" with a protective outer layer such as canvas or metal to keep the material in good condition. Undamaged jacketed ACBM is considered non-friable. If the jacketing is damaged, the material is considered friable.

Damage Category describes the type of damage, if any, to the material. The following damage categories are used: None, Physical, Air, and Water.

Material Assessment identifies the condition of the material in relation to physical and water damage, delamination of the material from its substrate, the extent of the damage and the potential for damage from building conditions, such as, accessibility by building occupants, influence of vibration, etc. The six standard assessment categories ranked by hazard potential, with the first being the lowest hazard are as follows: 1) Potential for Damage, 2) Potential for Significant Damage, 3) Damaged, 4) Damaged with Potential for Damage, 5) Damaged with Potential for Significant Damage, and 6) Significantly Damaged. Only friable materials are assessed under AHERA regulations. Non-friable materials, unless damaged, are not assessed and can be assumed to be in good condition.

Damaged - The damage or deterioration of the material results in inadequate cohesion or adhesion with crumbling, blistering, water stains, marring or otherwise abraded over less than one-tenth (1/10) of the surface if the damage is evenly distributed or one-fourth (1/4) if the damage is localized.

Significant Damage - The damage or deterioration of the material results in inadequate adhesion or cohesion and the damage is extensive and severe with one or more of the following characteristics: 1) Crumbling or blistering over at least one-tenth (1/10) of the surface if evenly distributed, one-fourth (1/4) if the damage is localized; 2) Areas of the material hanging from the surface, delaminated, or showing adhesive failure; 3) Water stains, gouges or marred.

Recommended Response suggests the appropriate options for controlling or maintaining ACBM in a safe manner. There are four options used:

Operations & Maintenance (O&M) - A program designed to "manage" asbestos in-place. As long as asbestos containing materials remain in a building, an O&M program should be instituted to alert maintenance personnel, custodial workers and outside vendors of the existence and location of these materials and to set a policy for the maintenance of these materials. The material is usually only required to be removed if it is significantly damaged, prior to demolition of the building or if it will be disturbed by renovation activities.

Repair - The restoration of damaged or deteriorated asbestos containing building materials to an intact condition. Once the intact condition is established, the material should be included in an O&M program. The material is usually only required to be removed if it is significantly damaged, prior to demolition of the building or if it will be disturbed by renovation activities.

Abate Due to Condition - This material is significantly damaged and is unsafe in its current condition. The access to the area should be restricted to personnel equipped with appropriate personal protection. This material should be properly removed by a licensed contractor using workers trained in the safe removal of asbestos.

Abate Prior to Renovation - This material should be properly removed prior to planned renovation activities by a licensed contractor using workers trained in the safe removal of asbestos. This recommendation is usually made only on survey reports prepared prior to planned renovation activities.

Comments & Damage Description contains any additional information and or specific details of material damage are noted here.

EPA Category provides the appropriate material category as outlined in the NESHAPS regulation. The four options are friable, Category 1, Category 2, and needs determination.

Friable - Materials containing greater than 1% asbestos are always considered Regulated Asbestos Containing Materials (RACM) that require removal prior to building renovation or demolition activities that impact the material.

Category 1 - Materials that are bituminous non-friable and contain more than 1% asbestos that become RACM and require removal only when will be subject to grinding, cutting, sanding or abrading.

Appendix B
Bulk Sampling Protocol and Analytical Methods

SCHNEIDER LABORATORIES

INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

Excellence in Service and Technology

AIHA/ELLAP 100527, NVLAP 1150, NYELAP 11413, CAELAP 2078, NC 593, SC 93003

LABORATORY ANALYSIS REPORT

Asbestos Identification by EPA Method 600/R-93/116

ACCOUNT: 2541-02-559
CLIENT: Benchmark
ADDRESS: 3732 Charter Park Drive Suite A
San Jose, CA 95136

DATE COLLECTED: 4/30/2002
DATE RECEIVED: 5/ 1/2002
DATE ANALYZED: 5/ 8/2002
DATE REPORTED: 5/ 9/2002

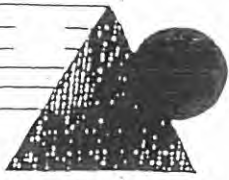
PO NO.:
PROJECT NAME:
PROJECT NO.: E01-612
JOB LOCATION: Bldg 154

Client Sample No.	SLI Sample/ Layer ID	Sample Identification/ Layer Name	Asbestos Detected (Yes/No)	Sample Description
02-7224-154-1	2264172 Layer 1: 100% Non-Asbestos	W Roof Roofing	No	Black, Bituminous CELLULOSE FIBER 45%, NON FIBROUS MATERIAL 55%
02-7225-154-2	2264173 Layer 1: 100% Non-Asbestos	E Roof Roofing	No	Black, Bituminous CELLULOSE FIBER 45%, NON FIBROUS MATERIAL 55%
02-7226-154-3	2264174 Layer 1: 100% Non-Asbestos	West End Roofing	No	Black, Bituminous NON FIBROUS MATERIAL 100%
02-7227-154-4	2264175 Layer 1: 100% Non-Asbestos	Southeast Roof Roofing	No	Black, Bituminous NON FIBROUS MATERIAL 100%
02-7228-154-5	2264176 Layer 1: 100% Non-Asbestos	Northwest Roof Roofing	No	Black, Bituminous NON FIBROUS MATERIAL 100%

ANALYST: SAMI A. HOSN
Total no. of pages in report = 1


REVIEWED BY Jean L. Mayes, Analyst

Samples analyzed by the EPA Test Method are subject to the inherent limitations of light microscopy including interference by matrix components. Gravimetric reduction and correlative analyses are recommended for all non-friable, organically bound materials. For calibrated visual estimate, 1% is the concentration at which there is a quantitative uncertainty. This report relates only to the items tested, must not be reproduced except in full with the approval of the lab, and must not be used to claim NVLAP or other government agency endorsement.



BENCHMARK

Sample Location Worksheet
Chain Of Custody

2541-02-55

3680 Charter Park Dr Suite E San Jose, CA 95136
(408) 448-7594 (408) 448-3849 (fax)

Project Number: ED1-012 Date: 4/30/02

Technician: T. Jeff

Project Location: Bldg 154

Client Name: K. McGLATHLIN Company: PAI

Project Type

- Asbestos
- Lead-based Paint
- Lead Risk Assessment
- Lead (water)
- Mold/Fungus/Bacteria
- Indoor Air Quality
- Other: _____

Type Of Analysis

- PLM/Bulk (EPA 600)
- EPA-SW846-7420, FLAA
- Dust Wipes, Paint Chips
- Air, Soil
- SM313B, GFAA, Water
- TEM/Bulk (Chatfield)
- Other: _____

Turnaround Time

- Same Day 3 Hr 6 Hr
- 24 Hour
- 48 Hour
- 72 Hour
- 5 Day
- Other: _____

TTP = Test Till Positive

Homogenous Material Group	Material / Component	Sample Number	Location Of Samples	Analysis Specification
①	Roof (cfe)	02-7224-154-1	WEST ROOF	
	↓	02-7225-154-2	EAST ROOF	
	Paint	02-7226-154-3	WEST end	
	Penetration Test	02-7227-154-4	SOUTHEAST ROOF	
	↓	02-7228-154-5	NORTH WEST ROOF	

Relinquished By: T. Jeff Received By: Fadi S-1-02 Date/Time Received: _____

YPS 262899221019 2802

Bulk Sampling Protocol and Analytical Methods

Bulk samples of suspect asbestos containing building materials were obtained using standard industrial hygiene techniques including wetting the material to minimize fiber release. Our personnel wore half-face air purifying respirators equipped with high efficiency particulate (HEPA) filters while obtaining samples

Our sampling strategy for suspect friable surfacing materials was based on the guidelines outlined in the EPA publication *Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials*, and the procedures outlined in 40 CFR 763, Subpart E (AHERA). For non-friable suspect materials, AHERA requires the building inspector to determine the appropriate number of samples to obtain and analyze. Usually one to three samples of non-friable materials are collected.

For each homogeneous material identified by visual inspection as suspect material, random samples are obtained. A single bulk sample is randomly selected from each homogeneous material for first-round testing. If the sample is positive, the remaining samples are not analyzed; if the sample is negative, the other samples are submitted for study. Every sample must be reported negative if the material is to be considered non-asbestos containing.

The bulk samples were delivered to an independent laboratory that participates in the bulk sample proficiency analysis program conducted by the United States Environmental Protection Agency and is accredited by the National Voluntary Laboratory Program (NVLAP). The samples were analyzed using Polarized Light Microscopy (PLM) with dispersion staining to estimate the percent of asbestos composition by volume. Samples with no observable asbestiform minerals are designated as None-Detected. Samples in which asbestiform minerals are observed, but exist in concentrations of less than one percent (<1%), are designated as present in Trace amounts; all other samples are designated as asbestos containing with the appropriate percent of asbestos noted.

Appendix C
Laboratory Bulk Sampling Reports

Appendix D
Summary of Regulatory Requirements

Appendix D Summary of Regulatory Requirements

This appendix provides a summary of building owner and manager requirements under various asbestos regulations promulgated by the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) to protect building occupants and employees from exposure to asbestos.

Survey Requirements

Prior to any renovation activity, OSHA and EPA regulations require that a complete asbestos survey be performed to determine if asbestos is present in any suspect asbestos containing material that will be present in the construction or work area. This survey report addresses accessible materials. It is recommended that prior to renovation activities, inaccessible areas that could contain asbestos materials be inspected.

Notification and Posting Requirements

Regulatory agencies feel that the building owner or manager should be responsible for knowing and communicating the locations of asbestos in their buildings to building employees, outside contractors and tenants to prevent exposure to asbestos.

Under the California Health and Safety Code, building owners and managers are required to provide annual notifications regarding known asbestos containing materials in their buildings to building employees, tenants, vendors and outside contractors. Therefore, specific information contained in this survey report is required to be included in the notification.

OSHA requires building employees, outside contractors, vendors and construction contractors bidding on or performing work in buildings be provided with notification regarding asbestos containing materials in their work areas. OSHA also requires that asbestos warning signs be posted in mechanical rooms.

Removal Requirements

Under EPA regulations, asbestos containing materials must be properly removed by licensed asbestos abatement contractors prior to renovation or demolition activities that would disturb friable materials or cause non-friable materials to become friable and a regulated material.

Repair of Damaged Materials and Cleanup of Debris

OSHA requires that asbestos containing debris be immediately cleaned up. It is recommended that damaged materials that may release fibers be repaired as soon as possible to prevent fiber release and potential exposures.

Training Requirements

OSHA requires employers whose employees are likely to or required to disturb asbestos to receive an asbestos training course. Refresher training is required to be provided annually.

Appendix E
AHERA Building Inspector Certifications

State of California
Division of Occupational Safety and Health

Certified Asbestos Consultant

Terri A. MacFarlane



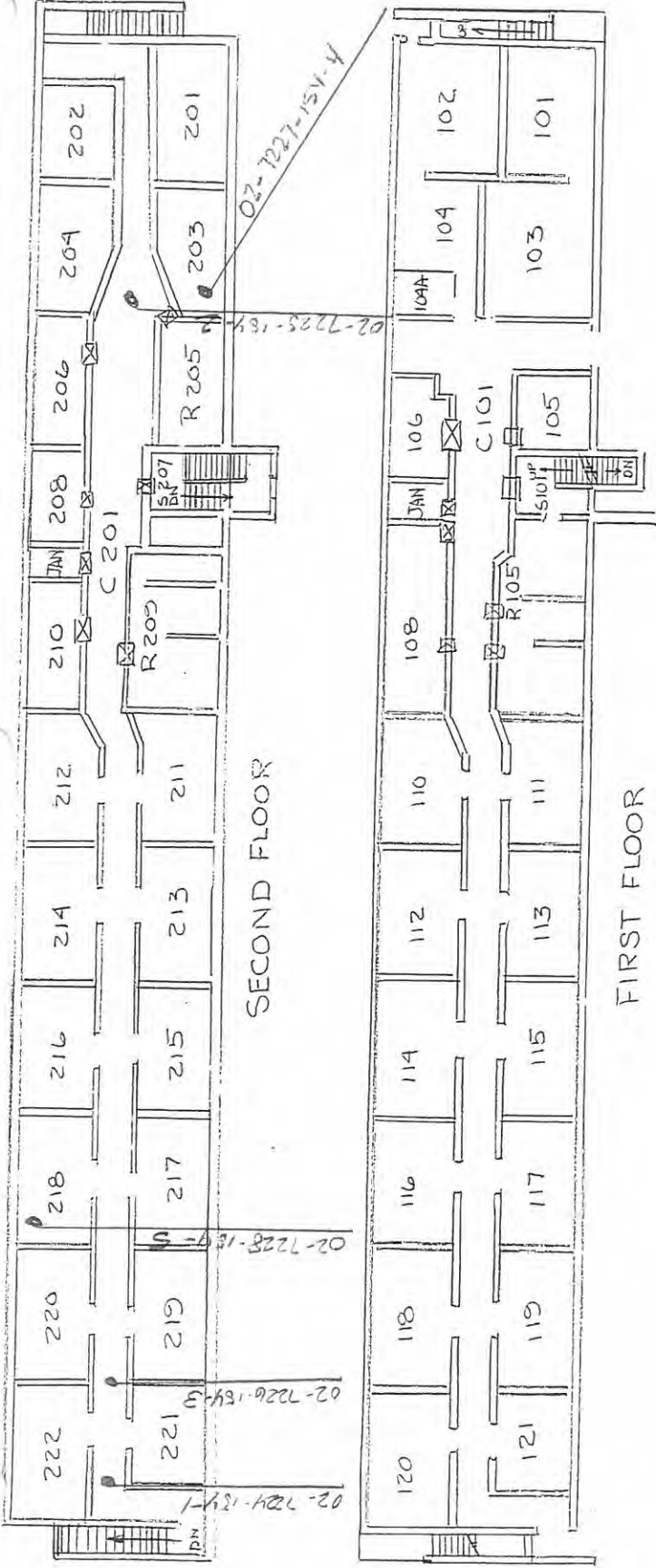
Name

Certification No. 90-2747

Expires on 5/3/2002

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

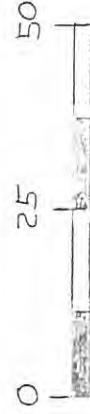
Appendix F
Drawings Indicating Sampling Locations



SECOND FLOOR

FIRST FLOOR

BASEMENT



APPROX. SCALE IN FEET

Property Inspections - Environmental Engineering
 Specialized Training - Contract Management
 3732 - A Charter Park Drive
 San Jose, CA 95136
 Phone: (408) 448-7594 - Fax: (408) 448-3849

PROJECT NAME:
BUILDING 154
NASA-AMES
3-15 Years Out

DRAFT PERSON:
RJM
 DATE:
12/30

DWG. No.
01

PROJECT No.
E01-612-AL-SU



3732 CHARTER PARK DRIVE
SUITE A
SAN JOSE, CA 95136
TEL: 408.448.7594
TOLL FREE: 800.988.7424
FAX: 408.448.3849



LEAD BASED PAINT SURVEY REPORT

ARMY RESERVE CENTER 4 (ID: Building 154)

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
DHS Inspector/Assessor
DHS# I-2241

Reviewed By:

Bryan K. Buller
COO, UPIN, Inc
14946

BUILDING INSPECTIONS

ENVIRONMENTAL ENGINEERING

SPECIALIZED TRAINING

CONTRACT MANAGEMENT

Table of Contents

Section

	Executive Summary
1	Introduction
2	Scope of Services
3	Methodology
4	Findings and Observations

APPENDICES

A	XRF- Data Results Tables
B	Certification(s)

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, 188 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, Fixed Window Panel, Window Sill, Stair Riser.

Interior:

- ◆ Basement Stairwell – Handrail.
- ◆ Stairwell at Room 121 – Door Frame.

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 is a two-story facility with a basement. It was built in 1953. The 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 154.

A total of 188 XRF assays 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 4 (ID: Building 154). 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 188 assays were taken. The results indicated that seven (7) 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, Fixed Window Panel, Window Sill, Stair Riser.

Interior:

- ◆ Basement Stairwell – Handrail.
- ◆ Stairwell at Room 121 – Door Frame.

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/m³) over an eight-hour time weighted average (TWA) or the Permissible Exposure Limit (PEL) of 50 ug/m³ 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/cm² versus 3.5 mg/cm² 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/m³ to 500 ug/m³
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
154	Base.		Negative	19063	Boiler/Tunnel	4	Iron Gate	-0.205	
154	Base.		Negative	19064	Boiler/Tunnel	2	Door	-0.364	
154	Base.		Negative	19065	Boiler/Tunnel	3	Door Frame	-0.046	
154	Base.		Negative	19066	Stairwell	1	Wall	-1.371	
154	Base.		XRF Positive	19067	Stairwell	1	Hand Rail	3.309	
154	Base.		Negative	19068	Stairwell	1	Door	-0.244	
154	Base.		Negative	19069	Stairwell	1	Door Frame	-0.214	
154	Base.		Negative	19070	Stairwell	1	Ceiling	-0.109	
154	Base.		Negative	19071	Stairwell	3	Wall	0.524	
154	Base.		XRF Positive	19072	Stairwell	3	Hand Rail	2.893	
154	Base.		Negative	19073	Stairwell	4	Door	0.071	
154	Base.		Negative	19074	Stairwell	4	Door Frame	0.217	
154	Base.		Negative	19075	Stairwell	3	Door	-0.741	
154	Base.		Negative	19076	Stairwell	3	Door Frame	0.401	
154	Base.	3	Negative	19084	Locker Room	2	Door	-1.26	
154	Base.	3	Negative	19085	Locker Room	2	Door Frame	0.02	
154	Base.	3	Negative	19086	Locker Room	2	Wall	-0.34	
154	0001		Negative	19089	Exterior	2	Wall	0.429	
154	0001		Negative	19090	Exterior	4	Fire Exit	-0.336	
154	0001		Negative	19091	Exterior	2	Door Frame	-0.199	
154	0001		Negative	19092	Exterior	2	Overhang	0.28	
154	0001		Inclusive	19092	Exterior	2	Fascia	0.975	
154	0001		Negative	19094	Exterior	2	Window Jamb	-0.191	
154	0001		Negative	19095	Exterior	2	Window Sill	0.121	
154	0001		Negative	19097	Exterior	2	Downspout	0.151	
154	0001		Negative	19098	Exterior	2	Downspout	-0.768	
154	0001		Negative	19099	Exterior	2	Door	-0.973	
154	0001		XRF Positive	19100	Exterior	2	Door Frame	2.576	
154	0001		XRF Positive	19101	Exterior	2	Fix.WindowPanel	1.407	
154	0001		XRF Positive	19102	Exterior	2	Window Sill	1.573	
154	0001		Negative	19103	Exterior	2	Conc. Column	0.05	
154	0001		Inclusive	19104	Exterior	1	Wall	0.98	
154	0001		Negative	19105	Exterior	1	Handrail	0.005	
154	0001		XRF Positive	19106	Exterior	1	Stair Riser	3.979	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
154	0001		Negative	19251	Exterior	1	Fire Exit	0.084	
154	0001		Negative	19252	Exterior	1	Door Frame	0.455	
154	0001		Negative	19253	Exterior	1	Door Landing	0.391	
154	0001		Negative	19254	Exterior	4	Wall	-0.151	
154	0001		Negative	19255	Exterior	4	Fire Exit	-0.409	
154	0001		Negative	19256	Exterior	4	Door Frame	0.694	
154	0001		Negative	19257	Exterior	4	Downspout	0.413	
154	0001		Negative	19258	Exterior	4	Overhang	-0.765	
154	0001		Negative	19259	Exterior	4	Fascia	0.36	
154	0001		Negative	19260	Exterior	4	Conc. Column	0.308	
154	0001		Negative	19261	Exterior	4	Window Jamb	-0.063	
154	0001		Negative	19262	Exterior	4	Window Sill	0.063	
154	0001		Negative	19263	Exterior	4	Window Sash	0.085	
154	0001		Negative	19264	Exterior	4	Double Doors	-0.14	
154	0001		Negative	19265	Exterior	4	Door Frame	0.115	
154	0001		Negative	19266	Exterior	3	Wall	0.032	
154	0001		Negative	19267	Exterior	3	Handrail	0.409	
154	0001		Negative	19268	Exterior	3	Stair Riser	-1.21	
154	0001		Negative	19269	Exterior	3	Fire Exit	-0.53	
154	0001		Negative	19270	Exterior	3	Door Frame	1.026	
154	0001		Negative	19271	Exterior	3	Door Landing	0.132	
154	0001		Negative	19272	Exterior	3	Ceiling	0.441	
154	0001		Negative	19273	Exterior	3	Fascia	0.538	
154	0001	101	Negative	19114	Common Area	1	Wall	0.171	
154	0001	101	Negative	19115	Common Area	1	Baseboard	-0.281	
154	0001	101	Negative	19116	Common Area	2	Wall	-0.333	
154	0001	101	Negative	19117	Common Area	2	Window Jamb	-0.623	
154	0001	101	Negative	19118	Common Area	2	Window Sash	-0.318	
154	0001	101	Negative	19119	Common Area	2	Radiator Cover	-0.606	
154	0001	101	Negative	19120	Common Area	2	Fire Riser/Valve	-1.049	
154	0001	101	Negative	19121	Common Area	2	Fire Exit	-0.518	
154	0001	101	Negative	19122	Common Area	3	Wall	-0.055	
154	0001	101	Negative	19123	Common Area	3	Door Frame	0.686	
154	0001	101	Negative	19124	Common Area	3	Conc. Column	-0.141	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
154	0001	101	Negative	19125	Common Area	3	Wall	0.091	
154	0001	101	Negative	19126	Common Area	4	Wall	0.026	
154	0001	101	Negative	19127	Common Area	4	Window Jamb	-0.393	
154	0001	101	Negative	19128	Common Area	4	Window Sash	0.127	
154	0001	101	Negative	19129	Hallway	2	Wall	0.181	
154	0001	101	Negative	19130	Hallway	2	Baseboard	-1.066	
154	0001	101	Negative	19131	Hallway	2	Door	-0.854	
154	0001	101	Negative	19132	Hallway	2	Door Frame	-0.669	
154	0001	101	Negative	19133	Hallway	2	Window Jamb	-0.083	
154	0001	101	Negative	19134	Hallway	2	Window Sash	0.118	
154	0001	101	Negative	19135	Hallway	2	Door	-0.207	
154	0001	101	Negative	19136	Hallway	2	Door Frame	-0.505	
154	0001	101	Negative	19137	Common Area	4	Wall	-0.118	
154	0001	101	Negative	19138	Common Area	4	Window Jamb	-0.133	
154	0001	101	Negative	19139	Common Area	4	Window Sash	0.131	
154	0001	101	Negative	19140	Hallway	4	Wall	-0.831	
154	0001	101	Negative	19141	Hallway	4	Door	0.105	
154	0001	101	Negative	19142	Hallway	4	Door Frame	0.072	
154	0001	101	Negative	19143	Common Area	3	Wall	0.992	
154	0001	101	Negative	19144	Common Area	1	Wall	-0.123	
154	0001	101	Negative	19145	Hallway	2	Water Fount.	-0.892	
154	0001	101	Negative	19146	Hallway	2	Door	-0.435	
154	0001	101	Negative	19147	Hallway	2	Door Frame	0.101	
154	0001	101	Negative	19148	Hallway	2	Double Doors	0.046	
154	0001	101	Negative	19149	Hallway	2	Door Frame	0.828	
154	0001	101	Negative	19150	Entry Way	1	Wall	-1.142	
154	0001	101	Negative	19151	Entry Way	1	Radiator Cover	0.226	
154	0001	101	Negative	19152	Entry Way	1	Baseboard	-0.066	
154	0001	101	Negative	19153	Entry Way	4	Double Doors	-1.024	
154	0001	101	Negative	19154	Entry Way	4	Door Frame	0.696	
154	0001	101	Negative	19155	Entry Way	2	Stair Riser	0.212	
154	0001	101	Negative	19156	Entry Way	4	Window Jamb	-0.311	
154	0001	101	Negative	19157	Entry Way	4	Window Sash	0.231	
154	0001	101	Negative	19158	Hallway	1	Soffit	-1.948	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
154	0001	101	Negative	19159	Hallway	4	Door	-0.076	
154	0001	101	Negative	19160	Hallway	4	Door Frame	-0.069	
154	0001	101	Negative	19161	Hallway	4	Wall	0.288	
154	0001	101	Negative	19162	Hallway	1	Wall	0.19	
154	0001	101	Negative	19163	Hallway	1	Wall	0.687	
154	0001	101	Negative	19164	Hallway	4	Fire Exit	0.15	
154	0001	101	Negative	19165	Hallway	4	Door Frame	-0.265	
154	0001	101	Negative	19166	Mens Bathroom	1	Wall	-0.465	
154	0001	101	Negative	19167	Mens Bathroom	1	Ceiling	0.588	
154	0001	101	Negative	19168	Mens Bathroom	1	Sink/Cabinet	-0.943	
154	0001	101	Negative	19169	Mens Bathroom	2	Tile Wall	-0.115	
154	0001	101	Negative	19170	Mens Bathroom	2	Floor	0.131	
154	0001	101	Negative	19171	Mens Bathroom	2	Window Jamb	-0.268	
154	0001	101	Negative	19172	Mens Bathroom	2	Window Sash	-0.489	
154	0001	101	Negative	19173	Mens Bathroom	3	Stall Door	-0.746	
154	0001	101	Negative	19174	Mens Bathroom	3	Tile Wall	-0.087	
154	0001	101	Negative	19175	Mens Bathroom	3	Wall	-0.478	
154	0001	101	Negative	19176	Mens Bathroom	4	Door	-0.152	
154	0001	101	Negative	19177	Mens Bathroom	4	Door Frame	0.31	
154	0001	121	Negative	19180	Stairwell	1	Wall	-1.026	
154	0001	121	Negative	19181	Stairwell	1	Handrail	-0.072	
154	0001	121	Negative	19182	Stairwell	4	Double Doors	0.236	
154	0001	121	Negative	19183	Stairwell	4	Door Frame	0.163	
154	0001	121	Negative	19184	Stairwell	4	Wall	0.567	
154	0001	121	Negative	19185	Stairwell	4	Baseboard	0.818	
154	0001	121	Negative	19186	Stairwell	3	Wall	0.851	
154	0001	121	Negative	19187	Stairwell	3	Radiator Cover	-0.366	
154	0001	121	Negative	19188	Stairwell	2	Fire Exit	-0.773	
154	0001	121	XRF Positive	19189	Stairwell	2	Door Frame	2.203	
154	0001	121	Negative	19190	Stairwell	1	Door	-0.609	
154	0001	121	Negative	19191	Stairwell	1	Door Frame	0.509	
154	0001	121	Negative	19192	Stairwell	1	Ceiling	0.164	
154	0001	121	Negative	19193	Stairwell	2	Fix.Win. Panel	0.074	
154	0001	121	Negative	19194	Stairwell	1	Concrete Cap	0.115	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
154	0002	201	Negative	19197	Hallway	3	Fire Exit	0.091	
154	0002	201	Negative	19198	Hallway	3	Door Frame	0.712	
154	0002	201	Negative	19199	Hallway	3	Conc. Column	0.199	
154	0002	201	Negative	19200	Hallway	3	Chair Rail	-0.177	
154	0002	201	Negative	19201	Common Area	2	Radiator Cover	-0.544	
154	0002	201	Negative	19202	Common Area	2	Window Jamb	0.219	
154	0002	201	Negative	19203	Common Area	2	Window Sash	0.242	
154	0002	201	Negative	19204	Common Area	1	Wall	-1.233	
154	0002	201	Negative	19205	Common Area	1	Baseboard	0.292	
154	0002	201	Negative	19206	Common Area	3	Wall	-0.085	
154	0002	201	Negative	19207	Hallway	1	Door	0.136	
154	0002	201	Negative	19208	Hallway	4	Door Frame	-0.065	
154	0002	201	Negative	19209	Hallway	4	Baseboard	-0.15	
154	0002	201	Negative	19210	Hallway	4	Wall	-0.102	
154	0002	201	Negative	19211	Hallway	4	Door	-0.415	
154	0002	201	Negative	19212	Hallway	4	Door Frame	-0.65	
154	0002	201	Negative	19213	Hallway	2	Wall	-0.193	
154	0002	201	Negative	19214	Hallway	2	Door	0.015	
154	0002	201	Negative	19215	Hallway	2	Door Frame	0.088	
154	0002	201	Negative	19216	Hallway	4	Door	-0.982	
154	0002	201	Negative	19217	Hallway	4	Door Frame	0.112	
154	0002	201	Negative	19218	Common Area	1	Wall	-0.092	
154	0002	201	Negative	19219	Common Area	2	Wall	-0.014	
154	0002	201	Negative	19220	Common Area	2	Window Jamb	0.183	
154	0002	201	Negative	19221	Common Area	2	Window Sash	0.35	
154	0002	201	Negative	19222	Common Area	2	Radiator Cover	0.234	
154	0002	201	Negative	19223	Common Area	3	Wall	0.197	
154	0002	201	Negative	19224	Common Area	4	Window Jamb	-0.787	
154	0002	201	Negative	19225	Common Area	4	Window Sash	0.411	
154	0002	201	Negative	19226	Common Area	4	Wall	-0.83	
154	0002	201	Negative	19227	Common Area	2	Chair Rail	-1.148	
154	0002	201	Negative	19228	Common Area	2	Door Frame	0.067	
154	0002	201	Negative	19229	Common Area	1	Baseboard	0.506	
154	0002	201	Negative	19230	Hallway	2	Wall	0.118	

Bldg.	Floor	Room	Result	Shot Sequence	Location	Wall	Description	XRF Result	AA Analysis in PPM
154	0002	201	Negative	19231	Hallway	2	Water Fount.	-0.031	
154	0002	201	Negative	19232	Hallway	2	Double Doors	0.026	
154	0002	201	Negative	19233	Hallway	2	Door Frame	0.13	
154	0002	201	Negative	19234	Hallway	4	Door	-0.049	
154	0002	201	Negative	19235	Hallway	4	Door Frame	0.172	
154	0002	207	Negative	19238	Conference Rm.	1	Wall	0.148	
154	0002	207	Negative	19239	Conference Rm.	1	Baseboard	0.327	
154	0002	207	Negative	19240	Conference Rm.	2	Wall	-0.268	
154	0002	207	Negative	19241	Conference Rm.	2	Door	-0.455	
154	0002	207	Negative	19242	Conference Rm.	2	Door Frame	0.18	
154	0002	207	Negative	19243	Conference Rm.	3	Wall	-0.159	
154	0002	207	Negative	19244	Conference Rm.	4	Wall	-0.089	
154	0002	207	Negative	19245	Conference Rm.	4	Radiator Cover	-0.3	
154	0002	207	Negative	19246	Conference Rm.	4	Window Jamb	-0.804	
154	0002	207	Negative	19247	Conference Rm.	4	Window Sash	0.202	
154	0002	207	Negative	19248	Conference Rm.	1	Fire Exit	-0.28	
154	0002	207	Negative	19249	Conference Rm.	1	Door Frame	0.172	
154	0002	207	Negative	19250	Conference Rm.	1	Conc. Column	0.376	

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