Asbestos and Lead Based Paint Survey Report



ASBESTOS AND LEAD-BASED PAINT SURVEY REPORT

Desiderio Army Reserve Center 655 Westminster Drive Pasadena, California

Prepared for:

City of Pasadena

117 East Colorado Boulevard, 4th Floor Pasadena, California 91105

Prepared by:

Pacific Environmental Company

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Pacific Environmental Project No. 07070

April 6, 2007

ASBESTOS AND LEAD-BASED PAINT SURVEY REPORT

Desiderio Army Reserve Center

655 Westminster Drive Pasadena, California

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ASBESTOS AND LEAD-BASED PAINT SURVEY REPORT

Desiderio Army Reserve Center 655 Westminster Drive Pasadena, California

Introduction

Pacific Environmental Company was retained by the City of Pasadena to conduct an investigation to identify the presence of asbestos-containing materials and lead-based paints at the Desiderio Army Reserve Center located at 655 Westminster Drive in Pasadena, California.

All work was conducted by State of California certified personnel and sampling was conducted in accordance with established sampling protocols. Laboratory analysis was performed by AmeriSci Los Angeles, an independent and accredited laboratory.

Our scope of services included the performance of an asbestos survey inspection of the facilities to identify asbestos-containing materials that will have to be removed by qualified personnel prior to renovation or demolition of the facilities.

Additionally, Lead-Based Paint testing was performed using a portable X-ray fluorescence (XRF) analyzer. The inspection was performed by a certified lead inspector/assessor. Testing was patterned after the Department of Housing and Urban Development's document titled Lead-Based Paint: Interim Guidelines For Hazard Identification and Abatement in Public and Indian Housing (1997 Revision). The Los Angeles County Department of Health Services action level of 0.7 mg/cm2 was used in determining if the paint is classified as containing lead for this report. In areas where inconclusive readings were obtained, corrections were made.

The results of our inspection are detailed in this report and pursuant to Title 17, California Code of Regulations, Division 1, Chapter 8, a completed Department of Health Services (DHS) Form 8552 "Lead Hazard Evaluation Report" is included in Appendix D and has been forwarded to the DHS, Childhood Lead Poisoning Prevention Branch.

The survey included the following:

- An initial investigation to locate suspect ACMs.
- o An investigation to locate suspect LBPs.
- o Physical assessment of suspect materials.
- The collection of bulk samples from suspect ACMs.
- o XRF testing of suspect LBPs.
- o Laboratory analysis of collected samples.

David Tillema, a Cal/OSHA Certified Site Surveillance Technician, conducted the asbestos field investigation and sampling and Sean Tillema, a DHS Certified Lead Paint Inspector/Assessor and Cal/OSHA Certified Site Surveillance Technician, conducted the lead field investigation on April 4, 2007. Michael Lyssy, a State Certified Asbestos Consultant and Registered Environmental Assessor, coordinated the activities and reviewed the final report.

Building Description

The main building at the Desiderio Army Reserve Center is a two-story office building. There is also a large garage and two small accessory structures. The improvements were built some time in the 1940's or 1950's. The Army has used the site as a training facility for various military reserve units since 1956.

The main building is a two-story concrete block and concrete building built over a slab on grade. Interior finishes include plaster, drywall, block and concrete walls, and a variety of vinyl floorings. Mechanical equipment is located in boiler rooms or on the roof.

We made every effort to sample all of the suspect building materials however we did not have access to the arms vault. Please contact Pacific Environmental to arrange for sampling prior to demolition or renovations if any additional suspect materials are discovered at the site.

Asbestos – Containing Materials

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing more than one percent asbestos as determined by polarized light microscopy (PLM). Title 8, Section 1529, of the California Code of Regulations, however, defines asbestos-containing construction material (ACCM) as any manufactured construction material that contains more than one-tenth of one percent asbestos by weight.

A visual assessment of the suspect building materials located throughout the facilities was completed prior to the collection of samples. During the visual assessment, the building materials suspected of containing asbestos were categorized by homogeneous areas. Materials are classified as homogenous when they appear uniform, have a consistent texture and appear to have been installed at the same time.

The laboratory testing for the bulk samples was conducted in accordance with the recommended EPA Interim Method for Determination of Asbestos in Bulk Samples (EPA-600/R-93/116, July 1993).

Building Material	Material Locations	*Estimated Qty.
Exterior Stucco	Main Building Exterior	15,000 SF
Drywall Joint Compound	Drywall Joint Compound Main Building Drywall Partition Walls	
Window Putty Main Building, Original Windows		400 SF
Exterior Stucco	Garage Exterior	4,000 SF

Asbestos-containing materials identified at the subject building include the following:

*Note: Verification of quantities need to be conducted by contractors prior to estimating abatement.

The individual sample results are detailed in the following table:

Sample Number	Material Sampled	Building/Sample Location	Analytical Results	Friability/ Condition
001	Blue 12" VFT & Mastic	Main, Room 112	ND	N/D
002	Drywall Joint Compound	Main, Room 112	ND	N/D

Sample Number	Material Sampled	Building/Sample Location	Analytical Results	Friability/ Condition
003	Blue 12" VFT & Mastic	Main, Room 102	ND	N/D
004	Drywall Joint Compound	Main, Room 102	ND	N/D
005	Blue 12" VFT & Mastic	Main, Room 103	ND	N/D
006	Drywall Joint Compound	Main, Room 103	2% Chrysotile	N/D
007	Blue 12" VFT & Mastic	Main, Room 206	ND	N/D
008	Drywall Joint Compound	Main, Room 206	ND	N/D
009	Blue 12" VFT & Mastic	Main, Room 212	ND	N/D
010	Drywall Joint Compound	Main, Room 212	3% Chrysotile	N/D
011	Exterior Stucco	Main, North Exterior	3% Chrysotile	N/D
012	Exterior Stucco	Main, East Exterior	3% Chrysotile	N/D
013	Exterior Stucco	Main, South Exterior	3% Chrysotile	N/D
014	Roof Core	Main, Upper Roof	ND	N/D
015	Roof Core	Main, Lower Roof	ND	N/D
016	Window Putty	Main, Drill Hall	2% Chrysotile	N/D
017	Penetration Mastic	Main, Roof	ND	N/D
018	HVAC Mastic	Maiin, Lower Roof	ND	N/D
019	Exterior Stucco	Garage, South Exterior	2% Chrysotile	N/D
020	Exterior Stucco	Garage, West Exterior	2% Chrysotile	N/D
021	Roof Core	Garage, Roof	ND	N/D

NA=Not Analyzed Friable: Friability Codes: N=Non-friable; F=Friable ND=None Detected Condition: Condition Codes: G=Good; D=Damaged

* Limit of quantification is 1%

Lead-Based Paint

Lead-based paint is of concern both as a source of direct exposure through ingestion of paint chips, and as a contributor to lead interior dust and exterior soil. Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments and drying agents from the early 1950's. In 1972, the Consumer Products Safety Commission limited lead content in new paint to 0.5% (5000 ppm) and, in 1978, to 0.06% (600 ppm).

For the purposes of this report, painted surfaces with readings at or above 1.0 mg/cm2 are considered positive for lead-based paint. Cal/OSHA considers a paint to be lead-containing if it contains greater than 600 ppm (Title 8 CCR, Section 1532.1), which is below the limit of detection for the XRF used in this inspection. Prior to performing the Trigger Tasks outlined in Section 1532.1, verification paint chip samples should be collected and analyzed to eliminate the potential for false negatives.

Current industry standards suggest that when it is determined that paint abatement and/or interim control activities will be performed on components, they should be performed according to practices that will be described in the HUD Guidelines and the regulations to be promulgated under section 402 of the Toxic Substances Control Act (TSCA), 15 USC 2682.

Testing of the painted surfaces was patterned after the inspection protocol in Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Revision 1997). The

method employed for paint testing was X-Ray Fluorescence (XRF) using an EDAX MAP4 lead paint analyzer (Serial Number M41509), with the capability to measure the lead content in dry paint films, in the range of 0 to 50 milligrams per centimeter square. The on-site assessment capability of the XRF equipment typically reduces and may even eliminate the number of paint chip samples that may need to be collected and sent for laboratory analysis.

The instrument's calibration was verified according to the manufacturer's specifications in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument. The PCS is located in the appendices of this report.

The readings from this instrument produce a 95% confidence level that the "lead" reading accurately reflects the actual level of lead in the tested surfaces, relative to the federal action level.

<u>Title X Requirements:</u> A copy (or summary) of this report must be provided to new lessees (tenants) and purchasers of this property under Federal law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency and include standard warning language in their leases or sales contract to ensure that parents have the information they need to protect their children from lead-based paint hazards. This report should be maintained and updated as a permanent maintenance record for this property.

Title 17 defines "lead hazard" as deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent ad quantifiable lead exposure. SB 460 makes it illegal to create a lead hazard or to have a condition that is a lead hazard in residential or public buildings.

Lead components identified at the facility including the following:

- o Exterior Garage Door and Frame
- o Exterior Metal Window and Door Frames
- o Exterior Roll-up Door Frame, Drill Hall
- o Interior Metal Door Frames
- o Interior Doors in Room 11 ("A" side) and in Drill Hall ("D" side)
- o Interior Stairway Railings
- o Interior Drill Hall Ceiling Beams
- o Interior Chalkboard in Room 212
- o Ceramic Tile in Women's Restroom (Wall Tile), Men's Toilet (Shower Wall Tile), No. Women's Latrine (Wall Tile)

Sampling for this inspection was representative and any components that were not tested, but are similar to those components that tested positive for LBP should be considered and treated as lead laden.

The individual, positive assays are detailed below:

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)
Garage Exterior	Garage Door Frame	А	Metal	Intact	Brown	1.2
Exterior	Door Frame	D	Metal	Intact	Brown	1.3
Exterior	Door Frame	С	Metal	Intact	Brown	1.2
Exterior	Rollup Door Frame-Drill Hall	С	Metal	Intact	Brown	9.6
Exterior	Window Frame	С	Metal	Defective	Brown	1.6

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)
Room 1	Door Frame	С	Metal	Intact	White	1.2
Room 2	Door Frame	С	Metal	Intact	White	1.2
Room 3	Door Frame	С	Metal	Intact	White	1.2
Lobby	Door Frame - Outside	А	Metal	Intact	Blue	1.3
Room 10	Door Frame	А	Metal	Intact	White	1.3
Boiler Room North	Door Frame	В	Metal	Intact	White	1.3
Men's Toilet/Shower	Door Frame	В	Metal	Intact	White	1.3
Men's Toilet/Shower	Wall Tile	А	Ceramic	Intact	Green	12.8
Women's Restroom	Wall Tile	В	Ceramic	Intact	Yellow	4.9
Room 5	Door Frame	А	Metal	Intact	White	1.4
Room 11	Door	А	Wood	Intact	White	1.2
Room 11	Door Frame	А	Metal	Intact	White	1.2
Room 11	Door Frame	В	Metal	Intact	White	1.2
Room 12	Door Frame	А	Metal	Intact	White	1.2
Room 13	Door Frame	А	Metal	Intact	White	1.2
Room 4	Door Frame	С	Metal	Intact	White	1.2
North Women's Latrine	Door Frame	А	Metal	Intact	White	1.3
North Women's Latrine	Wall Tile	А	Ceramic	Intact	Green	20.1
Room 8	Door Frame	С	Metal	Intact	White	1.3
Room 7	Door Frame	С	Metal	Intact	White	1.2
Common Stariway	Stairway Railing	с	Metal	Intact	Blue	5.4
Common Stariway	2nd Floor Stair Railing	А	Metal	Intact	Blue	4.0
Room 201	Door Frame	С	Metal	Intact	White	1.2
Room 203	Door Frame	С	Metal	Intact	White	1.2
Room 202	Door Frame	С	Metal	Intact	White	1.2
Room 204	Door Frame	С	Metal	Intact	White	1.2
Room 206	Door Frame	С	Metal	Intact	White	1.2
Room 16	Door Frame	D	Metal	Intact	White	1.3
Room 17	Door Frame	D	Metal	Intact	White	1.3
Kitchen	Door Frame	В	Metal	Intact	Blue	1.2
Drill Hall	Door	В	Metal	Intact	Blue	1.3
Drill Hall	Door Frame	В	Metal	Intact	Blue	1.3
Drill Hall	Ceiling Beams	-	Metal	Intact	Blue	1.2
Room 212	Door Frame	A	Metal	Intact	White	1.3
Room 212	Chalkboard	D	Wood	Intact	White	1.3
Room 214	Door Frame	А	Metal	Intact	White	1.2

Summary

The identified asbestos-containing materials need to be removed by a licensed and certified asbestos abatement contractor prior to demolition of the building or renovations that will impact the identified materials.

Asbestos must be handled in strict accordance with the various federal, state, and local regulations. Failure to abide by these regulations can result in penalties to both the contractor as well as the owner. Detailed below are the regulations and procedures to follow when working with ACM at the property.

All asbestos related work must be completed in accordance with the following regulations:

- o South Coast Air Quality Management District Rule 1403 Requirements
- o National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, M
- o Occupational Safety and Health Administration, Asbestos in the Workplace, 29 CFR 1910.1001
- Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101
- o Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard

All asbestos waste must be properly disposed of and documented. Waste Manifests must be submitted at the end of a project. Disposing of a known hazardous waste is illegal in the State of California. Every effort was made to sample all of the building materials, however some materials may have been concealed and could not be exposed without demolition. If any additional materials are encountered during the renovation or demolition activities, please call us and we will sample and analyze accordingly.

The identified defective lead-based paints must be treated and made intact prior to demolition. The greatest potential for lead exposure from lead painted architectural components occurs when the paint has become defective, when the paint is applied to a friction or impact component where the paint is continually disturbed or when the paint is disturbed through routine maintenance, renovation or demolition activities.

- o All lead related work should be completed in accordance with the following regulations.
 - Title 17, California Code of Regulations, Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards.
 - o Title 8, California Code of Regulations, Section 1532.1: Cal/OSHA Construction Safety Orders, Lead.
 - "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," US Department of Housing and Urban Development, June 1995
 - All waste generated from any lead related work must be properly profiled and disposed of.
 Waste manifests documenting the disposal site will need to be submitted at the end of each phase of the job.

Pacific Environmental recommends that all future renovation, demolition, construction or abatement activities with the potential for disturbing identified ACM or LBP, be performed by properly trained and qualified

personnel. These activities should employ state-of-the-art techniques, and be conducted in accordance with all applicable local, State and Federal laws and regulations.

We recommend that certain interim measures be considered in cases where abatement is not immediately feasible or possible. These measures can best be addressed through the initiation of a formal Operations and Maintenance Program. An O&M Program sets guidelines and procedures for dealing with asbestos-containing materials and lead-based paint until some type of abatement or remedial action is undertaken. Although an O&M Program is considered to be a type of abatement in itself, it does not replace other methods of abatement such as removal, encapsulation or enclosure. When encapsulation or enclosure is selected as a means of abatement, an O&M Program must be instituted. The O&M Program is a temporary means of protecting people from asbestos and lead related hazards until final action becomes possible.

Limitations

This report is not intended to identify all hazards or unsafe conditions or to imply that others do not exist. This survey was planned and implemented on the basis of a mutually agreed scope of work and Pacific Environmental's experience in performing this type of assessment.

Pacific Environmental has performed this survey in a professional manner using the degree of skill and care exercised for similar projects under similar conditions, by reputable and competent environmental consultants. Pacific Environmental shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this survey was conducted.

Pacific Environmental further states that no warranties, expressed or implied, are made regarding the quality, fitness, or results to be achieved as a consequence of this report or impacted by information not properly disclosed to Pacific at the time of this report. It further states that no responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client.

References

Title 17, California Code of Regulations, Division 1, Chapter 8: Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards.

Title 8, California Code of Regulations, Section 1532.1: Cal/OSHA Construction Safety Orders, Lead.

"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," US Department of Housing and Urban Development, June 1995

South Coast Air Quality Management District Requirements

National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, M

Occupational Safety and Health Administration, Asbestos in the Workplace, 29 CFR 1910.1001

Occupational Safety and Health Administration, Asbestos Construction Standard, 29 CFR 1926.1101

Title 8, California Code of Regulations Section 1529, Cal-OSHA Construction Standard

Site Plan





Asbestos Bulk Sampling Data and Chain-of Custody Forms



AmeriSci Los Angeles 24416 S. Main Street, Ste 308

24416 S. Main Street, Ste 308 Carson, California 90745 TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Pacific Environmental Company Attn: Mike Lyssy	Date Received 04/04/07 Date Examined 04/05/07	AmeriSci Job No. 90704110 P.O. # 655 Westminster Dr)6
1475 S. State College Blvd.		Page 1 of 5	_
Suite 212	RE 655 Westminster Dr.; C	ity Of Pasadena, Pasadena, C	A
Anaheim, CA 92806			

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
001	907041106-01L1	No	NAD
	Location: Blue 12" X 12" VAT W/Blk Mastic	2 / Rm 112	(by CVES) by Arturo A. Aklana
Description: Asbestos Types:	Grey, Homogeneous, Non-Fibrous, Floor Tile		on 04/05/07
Other Material:	Non-fibrous 100 %		
001	907041106-01L2	No	NAD
•••	Location: Blue 12" X 12" VAT W/Blk Mastic	c / Rm 112	(by CVES) by Arturo A. Aldana
Description: Asbestos Types:	Black, Homogeneous, Non-Fibrous, Mastic		on 04/06/07
Other Material:	Non-fibrous 100 %		
002	907041106-02	No	NAD
	Location: Joint Compound / Rm 112		(by CVES) by Arturo A. Aldana
Description: Asbestos Types:	White, Homogeneous, Non-Fibrous, Joint C	ompound	on 04/05/07
Other Material:	Non-fibrous 100 %		
003	907041106-03L1	No	NAD
	Location: Blue 12" X 12" VAT W/Blk Masti	c / Rm. 102	(by CVES) by Arturo A. Aldana
Description: Asbestos Types:	Grey, Homogeneous, Non-Fibrous, Floor Til	e	on 04/05/07
Other Material:	Non-fibrous 100 %		
003	907041106-03L2	Νο	NAD
	Location: Blue 12" X 12" VAT W/Blk Mastie	c / Rm. 102	(by CVES) by Arturo A. Aldana
Description: Asbestos Types:	Black, Homogeneous, Non-Fibrous, Mastic		on 04/05/07
Other Material:	Non-fibrous 100 %		

See Reporting notes on last page

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AmeriSci Job #: 907041106 Client Name: Pacific Environmental Company

PLM Bulk Asbestos Report

655 Westminster Dr.; City Of Pasadena, Pasadena, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos	
004	907041106-04	No	NAD	
004	Location: Joint Compound / Rm 107		(by CVES) by Arturo A. Aldana	
Description:	White, Homogeneous, Non-Fibrous, Joint	Compound	on 04/05/07	
Other Material:	Non-fibrous 100 %			
	907041106-05L1	No	NAD	
	Location: Blue 12" X 12" VAT W/Bk Mas	tic / Rm 103	(by CVES) by Arturo A. Alciana	
Description: Asbestos Types:	Grey, Homogeneous, Non-Fibrous, Floor	File	on 04/05/07	
Other Material:	Non-fibrous 100 %			
005	907041106-05L2	No	NAD	
	Location: Blue 12" X 12" VAT W/Bk Mastic / Rm 103			
Description:	Black, Homogeneous, Non-Fibrous, Masti	c	on 04/05/07	
Asbestos Types: Other Material:	Cellulose 3 %, Non-fibrous 97 %			
006	907041106-06	Yes	2 %	
	Location: Joint Compound / Rm 103		(by CVES) by Arturo A. Aldana	
Description: Asbestos Types: Other Material:	White, Homogeneous, Non-Fibrous, Joint Chrysotile 2.0 % Non-fibrous 98 %	Compound	on 04/05/07	
	907041106-071 1	No	NAD	
001	Location: Blue 12" X 12" VAT W/Blk Mas	stic / Rm 206	(by CVES) by Arturo A. Aldana	
Description:	Grey, Homogeneous, Non-Fibrous, Floor	Tile	on 04/05/07	
Asbestos Types: Other Material:	Non-fibrous 100 %			
007	907041106-07L2	No	NAD	
	Location: Blue 12" X 12" VAT W/Blk Mar	stic / Rm 206	(by CVES) by Arturo A. Aldana	
Description: Asbestos Types:	Black, Homogeneous, Non-Fibrous, Masti	c	on 04/05/07	
Other Material:	Cellulose 3 %, Non-fibrous 97 %			

See Reporting notes on last page

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AmeriSci Job #: 907041106 Client Name: Pacific Environmental Company

PLM Bulk Asbestos Report

655 Westminster Dr.; City Of Pasadena, Pasadena, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
008	907041106-08	Νο	NAD
000	Location: Joint Compound / Rm 206		(by CVËS) by Arturo A. Aldana
Description:	White Homogeneous, Non-Fibrous, Joint Cor	npound	on 04/05/07
Asbestos Types:	······································	,	
Other Material:	Non-fibrous 100 %	<u> </u>	
009	907041106-09L1	No	NAD
000	Location: Blue 12" X 12" VAT W/Blk Mastic	' Rm 212	(by CVES)
			by Arturo A. Aldana
Description:	Grey, Homogeneous, Non-Fibrous, Floor Tile		on 04/05/07
Asbestos Types: Other Material:	Non-fibrous 100 %		
	907041106-09L2	No	NAD
000	Location: Blue 12" X 12" VAT W/Blk Mastic	/ Rm 212	(by CVES
			by Arturo A. Aldana
Description:	Black, Homogeneous, Non-Fibrous, Mastic		on 04/05/07
Asbestos Types: Other Material:	Cellulose 2 %, Non-fibrous 98 %		
009	907041106-09L3	No	NAD
	Location: Blue 12" X 12" VAT W/Blk Mastic	/ Rm 212	(by CVES
			by Arturo A. Aldana
Description:	White, Homogeneous, Non-Fibrous, Underlay	rment	011 04/05/07
Other Material:	Non-fibrous 100 %		
		 Vos	2.0/
010	907041106-10	/03	J 70 (by CVES)
	Eleanon. Joint Compound / Kin 200		by Arturo A. Aldana
Description:	Off-White, Homogeneous, Non-Fibrous, Joint	Compound	on 04/05/07
Asbestos Types:	Chrysotile 3.0 %		
Other Material:	Non-fibrous 97 %		
011	907041106-11	Yes	3 %
	Location: Stucco / Exterior North		(by CVES
			by Arturo A. Aldana
Description:	Beige/Green, Heterogeneous, Non-Fibrous, C	Coating	on 04/05/07
Aspestos Types: Other Meterial	Chrysolile 3.0 % Non-fibrous 97 %		

See Reporting notes on last page

AmeriSci Job #: 907041106

Client Name: Pacific Environmental Company

PLM Bulk Asbestos Report

655 Westminster Dr.; City Of Pasadena, Pasadena, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
012	907041106-12	Yes	3 %
0.2	Location: Stucco / Exterior East		(by CVES) by Arturo A. Aldana
Description: Asbestos Types: Other Material:	Beige/Green, Heterogeneous, Non-Fibrou Chrysotile 3.0 % Non-fibrous 97 %	s, Coating	on 04/05/07
	907041106-13	Yes	3 %
010	Location: Stucco / Exterior South		(by CVES) by Arturo A. Aldana
Description: Asbestos Types: Other Material:	Beige/Green, Heterogeneous, Non-Fibrou Chrysotile 3.0 % Non-fibrous 97 %	s, Coating	on 04/05/07
014	907041106-14	No	NAD
	Location: Roof Core Upper / Exterior		(by CVES) by Arturo A. Aklana
Description: Asbestos Types: Other Material:	Black / Grey, Heterogeneous, Fibrous, Ro Fibrous glass 2 %, Non-fibrous 98 %	ofing	an 04/05/07
015	907041106-15	NO	NAU (by CVES
	Eddation. Roof Core Lower / Exterior		by Arturo A. Aldana
Description:	Black / Grey, Heterogeneous, Fibrous, Ro	pofing	on 04/05/07
Other Material:	Cellulose Trace, Fibrous glass 2 %, Non	-fibrous 98 %	
016	907041106-16	Yes	2 %
	Location: Window Putty / Exterior		(by CVES) by Arturo A. Aldana
Description: Asbestos Types: Other Material:	Light Grey, Heterogeneous, Non-Fibrous, Chrysotile 2.0 % Non-fibrous 98 %	Window Putty	on 04/05/07
017	907041106-17	No	NAD
	Location: Penetration Mastic / Exterior		(by CVES) by Arturo A. Aldana
Description: Asbestoe Types:	Black / Grey, Heterogeneous, Non-Fibrou	s, Penetration Mastic	on 04/05/07
Other Material:	Cellulose 3 %, Non-fibrous 97 %		

See Reporting notes on last page

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AmeriSci Job #: 907041106

Client Name: Pacific Environmental Company

PLM Bulk Asbestos Report

655 Westminster Dr.; City Of Pasadena, Pasadena, CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
018	907041106-18 Location: HVAC Mastic / Exterior (Lower R	No [°]	NAD (by CVES) by Arturo A. Aldana
Description: Asbestos Types:	Grey, Heterogeneous, Non-Fibrous, Mastic		on 04/05/07
Other Material:	Non-fibrous 100 %	<u></u>	
019	907041106-19	Yes	2 %
	Location: Stucco / Exterior South Garage		(by CVES) by Arturo A. Aldana
Description: Asbestos Types: Other Material:	Beige/Green, Heterogeneous, Non-Fibrous, Chrysotile 2.0 % Non-fibrous 98 %	Coating	on 04/05/07
	907041106-20	Yes	2 %
020	Location: Stucco / Exterior West Garage		(by CVES) by Arturo A. Aldana
Description: Asbestos Types: Other Material:	Beige/Green, Heterogeneous, Non-Fibrous. Chrysotile 2.0 % Non-fibrous 98 %	Coating	on 04/05/07
021	907041106-21	No	NAD
	Location: Roof Core / Exterior Garage		(by CVES) by Arturo A. Aldana
Description: Asbestos Types: Other Material:	Black, Heterogeneous, Non-Fibrous, Roofir Cellulose Trace, Non-fibrous 100 %	g	on 04/05/07
Reporting Note Analyzed By: Arta *NAD = no asbes not analyzed; Na 600/M4-82-020 p asbestos in floor material can be o 146, 38970, 8/16 approver of the la Reviewed By:	S: Jro A. Aldana <u>At Oldana</u> ; District of the stop	Date Analyzed: $4/5/2007$ <u>4</u> - nits: CVES = 1%, 400 Pt Ct = 0 red light microscopy) Bulk Asbe P lab #2322); Note: PLM is not rrently the only method that can in New York State (also see Ef- at this report must not be repro- ems tested.	-5 - 07 25%, 1000 Pt Ct = 0, 1%; NA istos Analysis by EPA consistently reliable in detect be used to determine if this PA Advisory for floor tile, FR 5 duced except in full with the 0 - 7

Page 5 of 5

🖉 007/009

=1C IMENTAL

	9/1/070102	
Date:	655 Westminste	ρ_{r}
Client:	City of Pasachera	Pasaders, CA
Site:	Ý	
Project No:		
Inspector (s) :	D.T. /P.M.	

. 1. 69707041106

	ASBESTOS BULK SAMPLE FIELD LOG AND C	HAIN OF COSTODI	
Sample Number	Matarial Sampled	Sample Location	Condition
$\varphi \omega$	BUJ2"X12" VAT L/ Blk Mustice	Rm. 112	p
607	Joint Corpound	Pr. 112	
003	BIZ" XU" VAT V/ B/K MASTIZ	P 162	<u> </u>
004	Joint Congourd	Pr- 107 ~	
005	B"12"×12" VAT W/ BK Master	Ru. 103	
006	Joint Compound	P., 103	.
007	Blue 12"×12" VAT -/ Blk Master	Rn. 206	\mathcal{O}
608	Joint Compand	Rm. 206	Í
009	Blue 12"×12" VIFT ~/ Blk Mastic	P- aia	
010	Joint Compound	R- 212	-
011	Stucio	Abut Exterior North	0
OR		East	
013		- South.	, <u> </u>
014	foot Core Upper	Exterior	p
OIS	Root Core Larer		
016	Windon_ Putty		
017	Penetry Mastic		
018	HVAC Mastic	(Love Roof)	<u> </u>
011	Stacco	Exterior South Cocon	Garage D
020		L West	
021	Root Core_	Extain Garage	R

ASBESTOS BULK SAMPLE FIELD LOG AND CHAIN OF CUSTODY

Analytical Method: PLM

Turn Around Time: Standard 24H4.

Please fax results to (714)776-3500 and mail to

Pacific Environmental Company 1475 \$. \$tate College Blvd., Suite 212 Anaheim, California 92806

CHAIN OF CUSTODY: 4 David Tillema Name U 12 ~ 100 Name Date/Time Signature

XRF Inspection Data

UNDERSTANDING THE INSPECTION DATA

The following information has been provided as a guide to interpreting the data in the following reports.

- 1. Project Name Name and address of the project for this inspection.
- 2. Project Number Identifying Project Number. This number should be included regarding any inquiries about this project.
- 3. Instrument Name of XRF manufacturer.
- 4. Unit Name or identifying information about the unit inspected.
- 5. Area This field is used to differentiate interior, exterior, room or areas.
- 6. Component Name of architectural component tested.
- 7. Location Side of room where tested component is located. "A" side is the entry or street side. "B", "C", "D" sides are directly to the right, or clockwise from the "A" side. A number to the right of the side (A2) indicates a replicate component on the same side of the room. For interior components, replications are counted from left to right (clockwise). Where there is no definitive street side, locations are identified as north, south, east and west.
- 8. Color of the top layer of the paint.
- 9. Substrate The surface directly under the paint.
- 10. Condition The condition of the paint.
- 11. Pb (mg/cm2) The amount of lead on the painted surfaces.
- 12. Result A reading is positive if it is equal to or greater than the federal action level.

LEAD-CONTAINING COMPONENTS

PROJECT NAME: Desiderio Army Reserve Center 655 Westminster Drive Pasadena CA

PROJECT NO.: 07070

	, 1 4344614, 0/1					
Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)
Garage Exterior	Garage Door Frame	А	Metal	Intact	Brown	1.2
Exterior	Door Frame	D	Metal	Intact	Brown	1.3
Exterior	Door Frame	С	Metal	Intact	Brown	1.2
Exterior	Rollup Door Frame-Drill Hall	С	Metal	Intact	Brown	9.6
Exterior	Window Frame	С	Metal	Defective	Brown	1.6
Room 1	Door Frame	С	Metal	Intact	White	1.2
Room 2	Door Frame	С	Metal	Intact	White	1.2
Room 3	Door Frame	С	Metal	Intact	White	1.2
Lobby	Door Frame - Outside	А	Metal	Intact	Blue	1.3
Room 10	Door Frame	А	Metal	Intact	White	1.3
Boiler Room North	Door Frame	В	Metal	Intact	White	1.3
Men's Toilet/Shower	Door Frame	В	Metal	Intact	White	1.3
Men's Toilet/Shower	Wall Tile	А	Ceramic	Intact	Green	12.8
Women's Restroom	Wall Tile	В	Ceramic	Intact	Yellow	4.9
Room 5	Door Frame	А	Metal	Intact	White	1.4
Room 11	Door	А	Wood	Intact	White	1.2
Room 11	Door Frame	А	Metal	Intact	White	1.2
Room 11	Door Frame	В	Metal	Intact	White	1.2
Room 12	Door Frame	А	Metal	Intact	White	1.2
Room 13	Door Frame	А	Metal	Intact	White	1.2
Room 4	Door Frame	С	Metal	Intact	White	1.2
North Women's Latrine	Door Frame	А	Metal	Intact	White	1.3
North Women's Latrine	Wall Tile	А	Ceramic	Intact	Green	20.1
Room 8	Door Frame	С	Metal	Intact	White	1.3
Room 7	Door Frame	С	Metal	Intact	White	1.2
Common Stariway	Stairway Railing	С	Metal	Intact	Blue	5.4
Common Stariway	2nd Floor Stair Railing	А	Metal	Intact	Blue	4.0
Room 201	Door Frame	С	Metal	Intact	White	1.2
Room 203	Door Frame	С	Metal	Intact	White	1.2
Room 202	Door Frame	С	Metal	Intact	White	1.2
Room 204	Door Frame	С	Metal	Intact	White	1.2
Room 206	Door Frame	С	Metal	Intact	White	1.2
Room 16	Door Frame	D	Metal	Intact	White	1.3
Room 17	Door Frame	D	Metal	Intact	White	1.3
Kitchen	Door Frame	В	Metal	Intact	Blue	12

LEAD-CONTAINING COMPONENTS

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)
Drill Hall	Door	В	Metal	Intact	Blue	1.3
Drill Hall	Door Frame	В	Metal	Intact	Blue	1.3
Drill Hall	Ceiling Beams	-	Metal	Intact	Blue	1.2
Room 212	Door Frame	A	Metal	Intact	White	1.3
Room 212	Chalkboard	D	Wood	Intact	White	1.3
Room 214	Door Frame	A	Metal	Intact	White	1.2

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Exterior	Wall	А	Stucco	Intact	White	0.3	Negative
Exterior	Wall	В	Stucco	Intact	White	0.2	Negative
Exterior	Wall	С	Stucco	Intact	White	0.3	Negative
Exterior	Wall	D	Stucco	Intact	White	0.3	Negative
Garage Exterior	Wall	А	Stucco	Intact	White	0.4	Negative
Garage Exterior	Wall	В	Stucco	Intact	White	0.2	Negative
Garage Exterior	Garage Door	А	Metal	Intact	White	0.4	Negative
Exterior	Door	D	Metal	Intact	Brown	0.2	Negative
Exterior	Door	С	Metal	Intact	Brown	0.3	Negative
Exterior	Rollup Door-Drill Hall	С	Metal	Intact	Brown	0.1	Negative
Garage Exterior	Garage Door Frame	Α	Metal	Intact	Brown	1.2	Positive
Exterior	Door Frame	D	Metal	Intact	Brown	1.3	Positive
Exterior	Door Frame	С	Metal	Intact	Brown	1.2	Positive
Exterior	Rollup Door Frame-Drill Hall	С	Metal	Intact	Brown	9.6	Positive
Exterior	Window Frame	С	Metal	Defective	Brown	1.6	Positive
Exterior	Fascia	D	Metal	Intact	Brown	0.4	Negative
Exterior	Downspout	А	Metal	Intact	Brown	0.0	Negative
Exterior	Gutter	А	Metal	Intact	Brown	0.2	Negative
Garage Exterior	Downspout	В	Metal	Intact	Brown	0.1	Negative
Room 1	Wall	А	Concrete Block	Intact	White	0.2	Negative
Room 1	Wall	В	Concrete Block	Intact	White	0.3	Negative
Room 1	Wall	С	Plaster	Intact	White	0.2	Negative
Room 1	Wall	D	Plaster	Intact	White	0.2	Negative
Room 1	Door	С	Wood	Intact	White	0.3	Negative
Room 1	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 1	Ceiling	-	Plaster	Intact	White	0.4	Negative
Room 2	Wall	А	Concrete	Intact	White	0.4	Negative
Room 2	Wall	В	Plaster	Intact	White	0.2	Negative
Room 2	Wall	С	Concrete Block	Intact	White	0.4	Negative
Room 2	Wall	D	Drywall	Intact	White	0.2	Negative
Room 2	Door	С	Wood	Intact	White	0.5	Negative
Room 2	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 3	Wall	A	Concrete	Intact	White	0.3	Negative
Room 3	Wall	В	Drywall	Intact	White	0.2	Negative
Room 3	Wall	С	Concrete Block	Intact	White	0.3	Negative

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Room 3	Wall	D	Concrete	Intact	White	0.3	Negative
Room 3	Door	С	Wood	Intact	White	0.4	Negative
Room 3	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 3	Ceiling		Plaster	Intact	White	0.3	Negative
Lobby	Wall	А	Glass	Intact	Glass	0.0	Negative
Lobby	Wall	В	Concrete	Intact	White	0.3	Negative
Lobby	Wall	С	Concrete	Intact	White	0.4	Negative
Lobby	Wall	D	Concrete	Intact	White	0.3	Negative
Lobby	Door	A	Wood	Intact	Blue	0.2	Negative
Lobby	Door Frame	A	Wood	Intact	Blue	0.3	Negative
Lobby	Door Frame - Outside	A	Metal	Intact	Blue	1.3	Positive
Lobby	Window Frame	A	Wood	Intact	Blue	0.2	Negative
Lobby	Ceiling	-	Concrete	Intact	White	0.3	Negative
Room 10	Wall	A	Concrete Block	Intact	White	0.3	Negative
Room 10	Wall	В	Concrete	Intact	White	0.2	Negative
Room 10	Wall	С	Concrete	Intact	White	0.3	Negative
Room 10	Wall	D	Concrete Block	Intact	White	0.3	Negative
Room 10	Door	A	Wood	Intact	White	0.3	Negative
Room 10	Door Frame	A	Metal	Intact	White	1.3	Positive
Room 10	Ceiling	-	Plaster	Intact	White	0.4	Negative
Boiler Room North	Wall	А	Concrete Block	Intact	White	0.0	Negative
Boiler Room North	Wall	В	Concrete Block	Intact	White	0.2	Negative
Boiler Room North	Wall	С	Concrete Block	Intact	White	0.3	Negative
Boiler Room North	Wall	D	Concrete Block	Intact	White	0.2	Negative
Boiler Room North	Door	В	Wood	Intact	White	0.3	Negative
Boiler Room North	Door Frame	В	Metal	Intact	White	1.3	Positive
Boiler Room North	Ceiling	-	Plaster	Intact	White	0.4	Negative
Men's Toilet/Shower	Wall	А	Plaster	Intact	White	0.4	Negative
Men's Toilet/Shower	Wall	В	Plaster	Intact	White	0.2	Negative
Men's Toilet/Shower	Wall	С	Plaster	Intact	White	0.4	Negative
Men's Toilet/Shower	Wall	D	Plaster	Intact	White	0.4	Negative
Men's Toilet/Shower	Door	В	Wood	Intact	White	0.3	Negative
Men's Toilet/Shower	Door Frame	В	Metal	Intact	White	1.3	Positive
Men's Toilet/Shower	Ceiling	-	Plaster	Intact	White	0.4	Negative
Men's Toilet/Shower	Wall Tile	A	Ceramic	Intact	Green	12.8	Positive

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Men's Toilet/Shower	Floor Tile	-	Ceramic	Intact	Grey	0.0	Negative
Women's Restroom	Wall	A	Plaster	Intact	White	0.3	Negative
Women's Restroom	Wall	В	Plaster	Intact	White	0.4	Negative
Women's Restroom	Wall	С	Plaster	Intact	White	0.3	Negative
Women's Restroom	Wall	D	Plaster	Intact	White	0.3	Negative
Women's Restroom	Door	С	Wood	Intact	White	0.3	Negative
Women's Restroom	Partition Door	D	Metal	Intact	Yellow	0.2	Negative
Women's Restroom	Door Frame	С	Metal	Intact	White	0.4	Negative
Women's Restroom	Wall Tile	В	Ceramic	Intact	Yellow	4.9	Positive
Women's Restroom	Floor Tile	-	Ceramic	Intact	Yellow	0.4	Negative
Room 5	Wall	A	Concrete	Intact	White	0.0	Negative
Room 5	Wall	В	Plaster	Intact	White	0.2	Negative
Room 5	Wall	С	Concrete	Intact	White	0.3	Negative
Room 5	Wall	D	Concrete Block	Intact	White	0.3	Negative
Room 5	Door	A	Wood	Intact	White	0.2	Negative
Room 5	Door Frame	A	Metal	Intact	White	1.4	Positive
Room 5	Ceiling	-	Concrete	Intact	White	0.4	Negative
Room 11	Wall	A	Concrete	Intact	White	0.0	Negative
Room 11	Wall	В	Plaster	Intact	White	0.2	Negative
Room 11	Wall	С	Concrete	Intact	White	0.3	Negative
Room 11	Wall	D	Concrete Block	Intact	White	0.3	Negative
Room 11	Door	A	Wood	Intact	White	1.2	Positive
Room 11	Door	В	Wood	Intact	White	0.4	Negative
Room 11	Door Frame	A	Metal	Intact	White	1.2	Positive
Room 11	Door Frame	В	Metal	Intact	White	1.2	Positive
Room 11	Ceiling	-	Plaster	Intact	White	0.4	Negative
Room 12	Wall	A	Concrete Block	Intact	White	0.3	Negative
Room 12	Wall	В	Concrete	Intact	White	0.2	Negative
Room 12	Wall	С	Concrete	Intact	White	0.3	Negative
Room 12	Wall	D	Concrete	Intact	White	0.3	Negative
Room 12	Baseboard	В	Wood	Intact	White	0.3	Negative
Room 12	Door	A	Wood	Intact	White	0.3	Negative
Room 12	Door	D	Wood	Intact	White	0.3	Negative
Room 12	Door Frame	A	Metal	Intact	White	1.2	Positive
Room 12	Door Frame	D	Wood	Intact	White	0.4	Negative

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Room 13	Wall	A	Concrete Block	Intact	White	0.4	Negative
Room 13	Wall	В	Concrete Block	Intact	White	0.3	Negative
Room 13	Wall	С	Concrete Block	Intact	White	0.4	Negative
Room 13	Wall	D	Concrete Block	Intact	White	0.4	Negative
Room 13	Door	А	Wood	Intact	White	0.3	Negative
Room 13	Door	В	Wood	Intact	White	0.4	Negative
Room 13	Door Frame	A	Metal	Intact	White	1.2	Positive
Room 13	Door Frame	В	Wood	Intact	White	0.2	Negative
Room 4	Wall	Α	Concrete	Intact	White	0.3	Negative
Room 4	Wall	В	Concrete Block	Intact	White	0.2	Negative
Room 4	Wall	С	Concrete	Intact	White	0.3	Negative
Room 4	Wall	D	Concrete Block	Intact	White	0.3	Negative
Room 4	Door	С	Wood	Intact	White	0.4	Negative
Room 4	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 4	Ceiling	-	Concrete	Intact	White	0.4	Negative
North Women's Latrine	Wall	Α	Concrete	Intact	White	0.4	Negative
North Women's Latrine	Wall	В	Concrete	Intact	White	0.3	Negative
North Women's Latrine	Wall	С	Concrete	Intact	White	0.4	Negative
North Women's Latrine	Wall	D	Concrete	Intact	White	0.4	Negative
North Women's Latrine	Door	Α	Wood	Intact	White	0.2	Negative
North Women's Latrine	Door Frame	Α	Metal	Intact	White	1.3	Positive
North Women's Latrine	Window Fan Attachment	D	Metal	Intact	White	0.0	Negative
North Women's Latrine	Door Partition	С	Wood	Intact	Green	0.3	Negative
North Women's Latrine	Wall Tile	A	Ceramic	Intact	Green	20.1	Positive
North Women's Latrine	Floor Tile	-	Ceramic	Intact	Grey	0.1	Negative
Room 8	Wall	A	Concrete	Intact	White	0.3	Negative
Room 8	Wall	В	Concrete	Intact	White	0.2	Negative
Room 8	Wall	С	Concrete	Intact	White	0.3	Negative
Room 8	Wall	D	Concrete	Intact	White	0.3	Negative
Room 8	Baseboard	В	Wood	Intact	White	0.4	Negative
Room 8	Door	С	Wood	Intact	White	0.3	Negative
Room 8	Door Frame	С	Metal	Intact	White	1.3	Positive
Room 8	Ceiling	-	Plaster	Intact	White	0.4	Negative
Room 7	Wall	A	Concrete	Intact	White	0.4	Negative
Room 7	Wall	В	Concrete Block	Intact	White	0.2	Negative

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Room 7	Wall	С	Concrete	Intact	White	0.2	Negative
Room 7	Wall	D	Concrete	Intact	White	0.4	Negative
Room 7	Door	С	Wood	Intact	White	0.2	Negative
Room 7	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 7	Ceiling	-	Concrete	Intact	White	0.4	Negative
Common Stariway	Wall	А	Concrete	Intact	White	0.3	Negative
Common Stariway	Wall	В	Concrete	Intact	White	0.2	Negative
Common Stariway	Wall	С	Concrete	Intact	White	0.3	Negative
Common Stariway	Wall	D	Concrete	Intact	White	0.4	Negative
Common Stariway	Stairway Railing	С	Metal	Intact	Blue	5.4	Positive
Common Stariway	2nd Floor Stair Railing	А	Metal	Intact	Blue	4.0	Positive
Room 201	Wall	А	Concrete	Intact	White	0.3	Negative
Room 201	Wall	В	Concrete	Intact	White	0.3	Negative
Room 201	Wall	С	Concrete	Intact	White	0.4	Negative
Room 201	Wall	D	Concrete	Intact	White	0.3	Negative
Room 201	Door	С	Wood	Intact	White	0.4	Negative
Room 201	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 201	Ceiling	-	Concrete	Intact	White	0.4	Negative
Room 203	Wall	А	Concrete	Intact	White	0.3	Negative
Room 203	Wall	В	Concrete	Intact	White	0.3	Negative
Room 203	Wall	С	Concrete	Intact	White	0.4	Negative
Room 203	Wall	D	Concrete	Intact	White	0.3	Negative
Room 203	Door	С	Wood	Intact	White	0.4	Negative
Room 203	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 203	Ceiling	-	Concrete	Intact	White	0.3	Negative
Room 202	Wall	A	Concrete	Intact	White	0.4	Negative
Room 202	Wall	В	Drywall	Intact	White	0.4	Negative
Room 202	Wall	С	Concrete	Intact	White	0.3	Negative
Room 202	Wall	D	Drywall	Intact	White	0.3	Negative
Room 202	Door	С	Wood	Intact	White	0.1	Negative
Room 202	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 204	Wall	A	Concrete	Intact	White	0.4	Negative
Room 204	Wall	В	Drywall	Intact	White	0.4	Negative
Room 204	Wall	С	Concrete	Intact	White	0.3	Negative
Room 204	Wall	D	Drywall	Intact	White	0.3	Negative

PROJECT NAME: Desiderio Army Reserve Center

PROJECT NO.: 07070

Area	Component	Location	Substrate	Condition	Color	Pb(mg/cm2)	Results
Room 204	Door	С	Wood	Intact	White	0.1	Negative
Room 204	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 206	Wall	А	Concrete	Intact	White	0.3	Negative
Room 206	Wall	В	Drywall	Intact	White	0.4	Negative
Room 206	Wall	С	Concrete	Intact	White	0.3	Negative
Room 206	Wall	D	Concrete	Intact	White	0.3	Negative
Room 206	Door	С	Wood	Intact	White	0.4	Negative
Room 206	Door Frame	С	Metal	Intact	White	1.2	Positive
Room 16	Wall	А	Concrete	Intact	White	0.3	Negative
Room 16	Wall	В	Concrete	Intact	White	0.2	Negative
Room 16	Wall	С	Concrete	Intact	White	0.3	Negative
Room 16	Wall	D	Concrete	Intact	White	0.3	Negative
Room 16	Door	D	Wood	Intact	White	0.3	Negative
Room 16	Door Frame	D	Metal	Intact	White	1.3	Positive
Room 16	Ceiling	-	Concrete	Intact	White	0.2	Negative
Room 17	Wall	А	Concrete	Intact	White	0.3	Negative
Room 17	Wall	В	Concrete	Intact	White	0.2	Negative
Room 17	Wall	С	Concrete	Intact	White	0.3	Negative
Room 17	Wall	D	Concrete	Intact	White	0.3	Negative
Room 17	Door	D	Wood	Intact	White	0.3	Negative
Room 17	Door Frame	D	Metal	Intact	White	1.3	Positive
Room 17	Ceiling	-	Concrete	Intact	White	0.2	Negative
Kitchen	Wall	A	Concrete Block	Intact	Blue	0.3	Negative
Kitchen	Wall	В	Concrete Block	Intact	Blue	0.4	Negative
Kitchen	Wall	С	Concrete	Intact	Blue	0.3	Negative
Kitchen	Wall	D	Concrete	Intact	Blue	0.3	Negative
Kitchen	Door	В	Wood	Intact	Blue	0.4	Negative
Kitchen	Door Frame	В	Metal	Intact	Blue	1.2	Positive
Drill Hall	Wall	A	Concrete Block	Intact	Blue	0.3	Negative
Drill Hall	Wall	В	Concrete Block	Intact	Blue	0.4	Negative
Drill Hall	Wall	С	Concrete	Intact	Blue	0.3	Negative
Drill Hall	Wall	D	Concrete	Intact	Blue	0.3	Negative
Drill Hall	Door	В	Metal	Intact	Blue	1.3	Positive
Drill Hall	Door Frame	В	Metal	Intact	Blue	1.3	Positive
Drill Hall	Ceiling Beams	-	Metal	Intact	Blue	1.2	Positive

PROJECT NAME: Desiderio Army Reserve Center

Door

Door Frame

Room 214

Room 214

655 Westminster Drive, Pasadena, CA Location Condition Component Pb(mg/cm2) Results Area Substrate Color Drill Hall Ceiling Wood Intact Blue 0.4 Negative -Room 212 Wall А Concrete Block Intact White 0.3 Negative Wall В 0.4 Negative Room 212 Concrete Block Intact White 0.3 Room 212 Wall С Concrete Intact White Negative Wall 0.3 Negative Room 212 D Concrete Intact White Room 212 Door А Wood Intact White 0.3 Negative 1.3 Room 212 Door Frame А Metal Intact White Positive 1.3 Positive Room 212 Chalkboard D Wood Intact White Room 212 -Concrete 0.2 Ceiling Intact White Negative Concrete Block Room 214 Wall А Intact White 0.3 Negative Room 214 Wall В Drywall 0.2 Intact White Negative Room 214 Wall С Concrete White 0.3 Negative Intact D Room 214 Wall Concrete Block 0.4 Intact White Negative

Wood

Metal

White

White

Intact

Intact

0.4

1.2

А

А

PROJECT NO .: 07070

Negative

Positive

DHS Form 8552

LEAD HAZARD EVALUATION REPORT

Section 1-Date of Lead Hazard Evaluation ()	4/04/07	· · · · · · · · · · · · · · · · · · ·	
Section 2-Type of Lead Hazard Evaluation (Check one box oniv)		· · · · · · · · · · · · · · · · · · ·
Lead inspection	Clearance inspection	Other (specify)	
Section 3—Structure Where Lead Hazard Eva	luation Was Conducted	· · · · · · · · · · · · · · · · · · ·	
Address [number, street, apartment (if applicable)]	City	County	ZIP code
655 Westminster Drive	Pasadena	Los Angeles	91105
Construction date (year) of Type of structure (check one box only) structure (01/01/45 Single family dwelling	Multi-unit building 🔲 Chi	Id-occupied facility 🔽 Othe	r (specify) Army Reserve
Section 4-Owner of Structure (If business/age	ency, list contact person)		
Name	· · _ /	Telephone number	· · · · · · · · · · · · · · · · · · ·
City of Pasadena		(626) 744-50	00
Address (number, street, apartment (if applicable))	City	State	ZIP code
117 East Colorado Boulevard	Pasadena	California	91105
 Lead hazard evaluation was conducted foll Division 1, Chapter 8. No lead hazards were Lead-based paint and/or lead hazards dete Lead hazard evaluation was conducted foll Division 1, Chapter 8. Lead-based paint and 	owing the procedures o detected. acted. owing the procedures o /or lead hazards were de	utlined in Title 17, Califo utlined in Title 17, Califo tected.	rnia Code of Regulations, rnia Code of Regulations,
Section 6—Individual Conducting Lead Hazard	d Evaluation		<u></u>
Name Sean Tillema/Pacific Environmental		Telephone number (714) 776-440	00
Address (number, street, apartment (if applicable))	City	State	ZIP code
1475 S. State College Boulevard, Suite 212	Anaheim	California	92806
Brand name and serial number of any portable x-ray fluorescence (XR SDAX Man 4 — Serial Number M41590)	(F) Instrument used (if applicable)		• • • • • • • • • • • • • • • • • • • •
DHS certification number Signature			Date
-1646	2		04/06/07
Section 7—Attachments	1 1 1 11100		

- A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;
- B. Each testing method, device, and sampling procedure used;
- C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector	Second copy and attachments retained by owner	Third copy only (no attachments) mailed to; Department of Health Services Childhood Lead Poisoning Provention Branel Reports 1515 Clay Street, No. 1801 Oxidand CA 94612
		Cakland, CA 94012

FAX (510) 822-5002

XRF Performance Characteristics Sheet

Performance Characteristic Sheet

EFFECTIVE DATE: June 26, 1996

EDITION NO.: 3

MANUFACTURER AND MODEL :

Make:	Scitec Corporation
Model:	MAP-4
Source:	⁵⁷ Co
Note:	This sheet supersedes all previous sheets for the XRF
	instrument of the make, model, and source shown above.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Test mode, Screen mode, or Unlimited mode.

XRF CALIBRATION CHECK LIMITS

0.6 to 1.2 mg/cm² (inclusive)

SUBSTRATE CORRECTION:

When using Unlimited mode, substrate correction recommended for:

None

When using Unlimited mode, substrate correction not recommended for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

When using Screen or Test mode, for XRF results below 4.0 mg/cm², substrate correction recommended for:

Drywall, Metal, and Wood

When using Screen or Test mode, substrate correction not recommended for:

Brick, Concrete, and Plaster

INCONCLUSIVE RANGE OR THRESHOLD

UNLIMITED MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm²)
Results not corrected for substrate bias for unlimited mode readings	Brick Concrete Drywail Metal Plaster Wood	0.91 to 1.19 0.91 to 1.19 0.91 to 1.19 0.91 to 1.19 0.91 to 1.19 0.91 to 1.19 0.91 to 1.19

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SCREEN MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm²)
Results corrected for substrate bias for screen mode readings on drywall, metal, and wood substrates only	Brick Concrete Drywall Metal Plaster Wood	0.91 to 1.09 0.91 to 1.09 0.91 to 1.39 0.91 to 1.19 0.91 to 1.09 0.91 to 1.29

TEST MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm²)	INCONCLUSIVE RANGE (mg/cm²)
Readings corrected for substrate bias for test mode readings on drywall, metal, and wood substrates only	Brick Concrete Drywali Metal Plaster Wood	0.9 0.9 None None 0.9 None	None None 0.91 to 1.39 0.91 to 1.09 None 0.91 to 1.29

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from an EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations. All of the test locations were tested in February 1996 using two different instruments. One instrument had a new source installed in July 1994 and its strength at the time of testing was calculated as 9.4 mCi. The other instrument had a new source installed in September 1994 and its strength at the time of testing was calculated as 10.6 mCi.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds

SUBSTRATE CORRECTION VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm² for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm² at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the

NIST SRM paint film nearest 1 mg/cm². Repeat this procedure by taking three more readings on a second <u>bare</u> substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm² NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

 $\frac{Correction}{Value} = \frac{1^{st} + 2^{nd} + 3^{rd} + 4^{th} + 5^{th} + 6^{th} Reading}{6} - 1.02 mg/cm^{2}$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either 15-second readings or 60-second readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten retest XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

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Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES

For screen, test, and confirm modes, the MAP 4 instrument tests until a K-shell result is obtained relative to a level of precision. A result is "positive", "negative" or "retest" as displayed by indicator lights. For the unlimited mode, the MAP 4 instrument tests until a K-shell result is indicated relative to an action level (1.0 mg/cm² for archive testing) and the current precision, or until the the reading is terminated by releasing the trigger. A few unlimited mode readings were terminated because they exceeded the two-minute limit used for archive testing. The following tables provide testing time information for three testing modes. Insufficient information is available to provide this information for confirm mode. All times have been scaled to match an initial 12 miC source. Note that source strength and factors such as substrate may affect testing times.

UNLIMITED MODE TESTING TIMES (Seconds)						
	ALL DATA			MEDIAN FOR LABORATORY-MEASI LEAD LEVELS (mg/cm²)		ASURED
SUBSTRATE	25 th Percentile	Median	75 th Percentile	Pb < 0.25	0.25 ∡ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	3	4	6	4	13	3
Metai	3	4	8	4	9	3
Brick Concrete Plaster	4	5	8	6	6	3

"The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

	ALL DATA			MEDIAN	ASURED	
SUBSTRATE	25 th Percentile	Median	75 ⁿ Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ ₽b
Wood Drywall	4	6	7	5	6	7
Metal	4	5	6	5	5	5
Brick Concrete Plaster	11	11	13	11	11	11

"The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

TEST MODE TESTING TIMES (Seconds)						
	ALL DATA		MEDIAN FOR LABORATORY-MEASUREI LEAD LEVELS (mg/cm²)			
SUBSTRATE	25 th Percentile	Median	75 th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	17	22	27	21	20	28
Metal	13	20	23	20	20	20
Brick Concrete Plaster	41	42	52	41	46	43
The general calibra	*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal.					

BIAS AND PRECISION

Do not use these bias and precision data to correct for substrate bias. These bias and precision data wer e computed without substrate correction from samples with laboratory-measured lead levels less than 4.0 mg/cm² lead. There were 15 testing locations taken in the screen mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the alaboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the test mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were not any testing locations taken in the confirm mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. There were 15 testing locations taken in the unlimited mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². All testing was done in February 1996 with two different instruments. The following data are for illustrative purposes only. Actual bias must be determined on the site. Inconclusive ranges provided above already account for bias and precision.

SCREEN MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION (mg/cm²)
	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywali	0.1	0.2
0.0	Metal	0.1	0.3
0.0 mg/cm-	Plaster	-0.1	0.3
	Wood	0.0	0.2
	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywal!	0.3	0.4
0.5	Metal	0.2	0.3
0.5 mg/cm-	Plaster	0.0	0.3
	Wood	0.2	0.4
	Brick	0.1	0.4
	Concrete	0.1	0.4
	Drywall	0.5	0.6
	Metal	0.3	0.3
1.0 mg/cm ⁻	Plaster	0.1	0.4
	Wood	0.4	0.6

	Brick	0.4	0.5
	Concrete	0.4	0.5
	Drywall	0.9	0.8
2.0 mg/cm ²	Metal	0.5	0.3
	Plaster	0.4	0.5
	Wood	0.7	0.8
Precision at 1 standard deviation			· · · · · · · · · · · · · · · · · · ·

TEST MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION (mg/cm²)
	Brick	-0.1	0.2
	Concrete	-0.1	0.2
	Drywall	0.1	0.1
	Metal	0.1	0.2
0.0 mg/cm	Plaster	-0.1	0.2
	Wood	0.0	0.1
	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.3	0.4
$0.5 \rightarrow c/cm^2$	Metal	0.2	0.2
0.5 mg/cm	Plaster	-0 .1	0.3
	Wood	0.2	0.4
	Brick	- 0 .1	0.3
	Concrete	-0.1	0.3
	Drywall	0.5	0.6
$1.0 \text{ ma}/\text{om}^2$	Metal	0.3	0.2
1.0 mg/cm	Plaster	-0.1	0.3
	Wood	0.4	0.6
	Brick	0.0	0.4
	Concrete	0.0	0.4
	Drywall	1.0	0.8
2.0 ma/cm ²	Metal	0.5	0.2
2.0 mg/om	Plaster	0.0	0.4
	Wood	0.8	0.8
Precision at 1 standard deviation			

CLASSIFICATION OF RESULTS

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, s o previous inspection results are not affected.

DOCUMENTATION

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

Scitec Corp. MAP-4. PCS 6/26/96, ed. 3

This XRF Performance Characteristics Sheet is a joint product of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD). The issuance of this sheet does not constitute rulemaking. The information provided here is intended solely as guidance to be used in conjunction with Chapter 7, Lead-Based Paint Inspection, of the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. EPA and HUD reserve the right to revise this guidance. Please address questions and comments on this sheet to: Director, Office of Lead Hazard Control (L), U.S. Department of Housing and Urban Development, 451 Seventh St, S.W., Washington, DC 20410.