



BARR & CLARK

Independent Environmental Testing
Asbestos • Lead • Mold • Phase I

LEAD-BASED PAINT INSPECTION/RISK ASSESSMENT REPORT

OF

LS# - Owner Name – Phone #

«PROJECT_NAME»

«PROJECT_INFOADDRESS»

«PROJECT_INFOCITY», «PROJECT_INFOSTATE»

PROJECT NO. «PROJECT_ID»

TODAY'S DATE

Picture of the Property

Prepared For:

«COMPANY»

«COMPANYADDRESS»

«COMPANYCITY», «COMPANYSTATE» «COMPANYZIP»

Inspected & Prepared By:

Reviewed By:

Inspector Name

State of California Certified

Lead Inspector / Risk Assessor

Matt Crochet

State of California Certified

Lead Inspector / Risk Assessor

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LEAD-BASED PAINT INSPECTION/RISK ASSESSMENT REPORT

1.0 EXECUTIVE SUMMARY

This report presents the results of (OUR COMPANY NAME) Lead-Based Paint (LBP) Inspection/Risk Assessment of the «PROJECT_NAME» located at «PROJECT_INFOADDRESS», «PROJECT_INFOCITY», California (Subject Property). This document is prepared for the sole use of the «COMPANY», and any regulatory agencies that are directly involved in this project. No other party should rely on the information contained herein without prior written consent of the «COMPANY».

As a result of the Lead-Based Paint (LBP) Inspection/Risk Assessment conducted on «INSPECTION_START», lead-based paint/lead hazards were present at the subject property on the date of this assessment. The analytical results from this assessment, the scope of services, inspection methodology, and results are presented below.

OR

As a result of the Lead-Based Paint (LBP) Inspection/Risk Assessment conducted on «INSPECTION_START», lead-based paint/lead hazards were not present at the subject property on the date of this assessment. The analytical results from this assessment, the scope of services, inspection methodology, and results are presented below.

2.0 IDENTIFIED LEAD HAZARDS & SUMMARY OF RESULTS

Paint Sampling: Throughout the subject property, several of the painted components indicated the presence of lead-based paint (LBP) at or above the respective action level. The following summary lists the specific components that tested above the action level and their respective locations:

Interior

- Room Name – types of components in each room
- Room Name – types of components in each room
- Room Name – types of components in each room
- Some of the tiled surfaces in the (LIST OF ALL ROOMS WITH POSITIVE TILE RESULTS) also tested positive for lead. These surfaces were not painted and the lead is most likely in the glazing or the matrix of the tile itself.

Exterior

- Types of components
- Types of components

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

The field data and results for paint sampling may be found in *Appendix A*.

OR

Paint Sampling: Throughout the subject property, none of the tested painted surfaces indicated the presence of lead based paint (LBP) at or above the respective action level.

However, some of the tiled surfaces in the (LIST OF ALL ROOMS WITH POSITIVE TILE RESULTS) tested positive for lead. These surfaces were not painted and the lead is most likely in the glazing or the matrix of the tile itself

Sampling for this inspection/risk assessment was representative. The field data and results for paint sampling may be found in *Appendix A*.

Dust / Soil Sampling: The tested items indicated a level of lead above the specified regulatory limit. A copy of the laboratory manifest and results may be found in *Appendix D*.

OR

Dust / Soil Sampling: None of the tested items indicated a level of lead above the specified regulatory limit. A copy of the laboratory manifest and results may be found in *Appendix D*.

Sample #	Type	Location	Test Results ($\mu\text{g}/\text{ft}^2$)
DS1	Dust Wipe		
DS2	Dust Wipe		
DS3	Dust Wipe		
DS4	Dust Wipe		
DS5	Dust Wipe		
DS6	Dust Wipe		
DS7	Dust Wipe		
DS8	Dust Wipe		
DS9	Dust Wipe	Blank	
SS1	Soil (composite)	Perimeter – Bare Soil/Play Area	
SS2	Soil (composite)	Perimeter – Bare Soil/Play Area	

Laboratory Information:

Laboratory: *LA Testing*
5431 Industrial Drive, Huntington Beach, CA 92649
Dust Wipe Analysis Protocol: *EPA 3050B/7000A*
Dust Wipe Media: *Lead-Wipes ASTM E1792*
Accreditation Program Number: *DOSH ELAP No. 1406*

3.0 IDENTIFYING INFORMATION & PURPOSE OF INSPECTION/RISK ASSESSMENT

The purpose of this inspection/risk assessment is to identify and assess the presence of Lead Hazards and Lead-Based Paint (LBP) present at the subject property as well as to identify the presence of deteriorated LBP and LBP that may be disturbed during planned renovations.

On «INSPECTION_START», (OUR COMPANY NAME) performed an inspection/risk assessment for lead-based paint at the subject property in Hacienda Heights, California. As part of the assessment, a visual survey of the property was conducted, dust wipe sampling was performed on a limited number of interior surfaces, and composite soil samples were collected. In addition, painted and varnished surfaces in every accessible “room equivalent” were sampled via x-ray fluorescence (XRF) for the presence of LBP. The intent was to ascertain the presence of lead-based paint above the federal action level. If LBP was found, the inspection would identify individual architectural components and their respective concentrations of lead in such a manner that this report would be used to characterize the presence of LBP at this property.

This inspection/risk assessment will help determine if the unit is eligible for ***U.S. Department of Housing and Urban Development*** (HUD)-funded renovation activities. The inspection/risk assessment is required for federally assisted renovation.

«INSPECTOR_1» of (OUR COMPANY NAME) performed the inspection/risk assessment at the site using an RMD LPA-1 XRF spectrum analyzer instrument. He has attended the radiation safety course for handling the instrument, and completed an EPA approved curriculum in Lead in Construction Inspector / Risk Assessor Training.

At the time of this report, the California Department of Health Services, Childhood Lead Poisoning Branch, has implemented a State Certification Model Accreditation Plan adopted from the EPA. «INSPECTOR_1» has received certification. Personnel certificate(s) have been provided in ***Appendix B.***

4.0 ONGOING MONITORING

Ongoing monitoring is necessary in all dwellings in which LBP is known or presumed to be present. At these dwellings, the very real potential exists for LBP hazards to develop. Hazards can develop by means such as, but not limited to: the failure of lead hazard control measures; previously intact LBP becoming deteriorated; dangerous levels of lead-in-dust (dust lead) re-accumulating through friction, impact, and deterioration of paint; or, through the introduction of contaminated exterior dust and soil into the interior of the structure. Ongoing monitoring typically includes two different activities: re-evaluation and annual visual assessments. A re-evaluation is a risk assessment that includes limited soil and dust sampling and a visual evaluation of paint films and any existing lead hazard controls. Re-evaluations are supplemented with visual assessments by the Client, which should be conducted at least once a year, when the Client or its management agent (if the housing is rented in the future) receives complaints from residents about deteriorated paint or other potential lead hazards, when the residence (or if, in the future, the house will have more than one dwelling unit, any unit that turns over or becomes vacant), or when significant damage occurs that could affect the integrity of hazard control treatments (e.g., flooding, vandalism, fire). The visual assessment should cover the dwelling unit (if, in the future, the housing will have more than one dwelling unit, each unit and each common area used by residents), exterior painted surfaces, and ground cover (if control of soil-lead hazards is required or recommended). Visual assessments should confirm that all Paint with known or suspected LBP is not deteriorating, that lead hazard control methods have not failed, and that structural problems do not threaten the integrity of any remaining known, presumed or suspected LBP.

The visual assessments do not replace the need for professional re-evaluations by a certified risk assessor. The re-evaluation should include:

1. A review of prior reports to determine where lead-based paint and lead-based paint hazards have been found, what controls were done, and when these findings and controls happened;
2. A visual assessment to identify deteriorated paint, failures of previous hazard controls, visible dust and debris, and bare soil;
3. Environmental testing for lead in dust, newly deteriorated paint, and newly bare soil; and
4. A report describing the findings of the reevaluation, including the location of any lead-based paint hazards, the location of any failures of previous hazard controls, and, as needed, acceptable options for the control of hazards, the repair of previous controls, and modification of monitoring and maintenance practices.

5.0 DISCLOSURE REGULATIONS & TITLE X REQUIREMENTS

A copy of this complete report must be provided to new lessees (tenants) and purchasers of this property under Federal law (Section 1018 of Title X - 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 entitled **“Protect Your Family From Lead in Your Home”** and include standard warning language in their leases or sales contracts 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.

OR

The results of this inspection/risk assessment indicate that no lead in amounts greater than or equal to 1.0 mg/cm² in paint was found on any building components, using the inspection protocol in Chapter 7 of the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Revision)*. Therefore, this dwelling qualifies for the exemption in 24 CFR part 35 and 40 CFR part 745 for target housing being leased that is free of lead-based paint, as defined in the rule. However, some painted surfaces may contain levels of lead below 1.0 mg/cm², which could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, or sanding. This report should be maintained as a permanent maintenance record for this property.

6.0 FUTURE REMODELING PRECAUTIONS

It should be noted that during this Assessment, a number of areas were tested for the presence of LBP. All LBP, dust, and soil hazards that were identified are addressed in this report. Additional dust and/or soil sample collection and analysis should follow any hazard control activity, repair, remodeling, or renovation effort, and any other work efforts that may in any way disturb LBP and/or any lead containing materials. These Assessment activities will help the Client and owner to ensure the health and safety of the occupants and the neighborhood. Details concerning lead-safe work techniques and approved hazard control methods can be found in the HUD publication entitled: *“Guidelines for the Evaluation and Control of LBP Hazards in Housing”* (www.hud.gov/offices/lead). Remodeling, repair, renovation and painting at the residence beyond the scale of minor repair and maintenance activities must be conducted in accordance with the EPA’s Lead Repair, Renovation, and Painting Rule (within 40 CFR part 745); see the EPA’s website on the RRP Rule at <http://www.epa.gov/lead/pubs/renovation.htm> for the scope and requirements of that Rule. Lead-based paint abatement or lead-based paint hazard abatement at the residence must be conducted in accordance with the EPA’s Lead Abatement Rule (also within 40 CFR 745); see the EPA’s website for Lead Abatement Professionals at <http://www.epa.gov/lead/pubs/traincert.htm>.

7.0 CONDITIONS & INSPECTION LIMITATIONS

This inspection/risk assessment was planned, developed, and implemented based on (OUR COMPANY NAME)'s previous experience in performing lead-based paint inspections/risk assessments. This inspection was patterned after ***Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Revision)***. (OUR COMPANY NAME) utilized state-of-the-art-practices and techniques in accordance with regulatory standards while performing this inspection/risk assessment. (OUR COMPANY NAME)'s evaluation of the relative risk of exposure to lead identified during this inspection/risk assessment is based on conditions observed at the time of the inspection. (OUR COMPANY NAME) cannot be responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology.

(OUR COMPANY NAME) cannot guarantee and does not warrant that this inspection/risk assessment has identified all adverse environmental factors and/or conditions affecting the subject property on the date of the assessment. (OUR COMPANY NAME) cannot and will not warrant that the inspection/risk assessment that was requested by the client will satisfy the dictates of, or provide a legal defense in connection with, any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards, including EPA's Renovation, Repair and Painting regulation.

The results reported and conclusions reached by (OUR COMPANY NAME) are solely for the benefit of the client.

The results and opinions in this report, based solely upon the conditions found on the property as of the date of the assessment, will be valid only as of the date of the assessment. (OUR COMPANY NAME) assumes no obligation to advise the client of any changes in any real or potential lead hazards at this residence that may or may not be later brought to our attention.

8.0 SITE INFORMATION

The subject property is a single family residence that was built circa 19???. It is a one-story building that is constructed over a raised foundation. The exterior walls are covered with stucco and all of the windows are aluminum-framed types. -OR- the windows are a combination of double-hung sash, casement, fixed and aluminum-framed types. The home consists of three bedrooms, two bathrooms and an attached OR a detached garage. At the time of this inspection/risk assessment, most of the painted surfaces were in good condition.

9.0 LEAD HAZARD CONTROL OPTIONS & RECOMMENDATIONS

Lead-safe work practices and worker/occupant protection practices complying with current EPA, HUD and OSHA standards will be necessary to safely complete all work involving the disturbance of LBP coated surfaces and components. In addition, any work considered lead hazard control will enlist the use of interim control (temporary) methods and/or abatement (permanent) methods. It should be noted that all lead hazard control activities have the potential of creating additional hazards or hazards that were not present before.

Details for the listed lead hazard control options and issues surrounding occupant/worker protection practices can be found in the publication entitled: *Guidelines for the Evaluation and Control of LBP Hazards in Housing* published by HUD, the Environmental Protection Agency (EPA) lead-based paint regulations, and the Occupational Safety and Health Administration (OSHA) regulations found in its Lead in Construction Industry Standard.

Cost estimates should be obtained from a certified LBP abatement contractor or a contractor trained in lead-safe work practices. Properly trained and/or licensed persons, as well as properly licensed firms (as mandated) should accomplish all abatement/interim control activities conducted at this property.

Interim controls, as defined by HUD, means a set of measures designed to temporarily reduce human exposure to LBP hazards and/or lead containing materials. These activities include, but are not limited to: component and/or substrate repairs; paint and varnish repairs; the removal of dust-lead hazards; maintenance; temporary containment; placement of seed, sod or other forms of vegetation over bare soil areas; the placement of at least 6 inches of an appropriate mulch material over an impervious material, laid on top of bare soil areas; the tilling of bare soil areas; extensive and specialized cleaning; and, ongoing LBP maintenance activities.

Abatement, as defined by HUD, means any set of measures designed to permanently eliminate LBP and/or LBP hazards. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of twenty (20) years, or these methods must have a design life of at least twenty (20) years. These activities include, but are not necessarily limited to: the removal of LBP from substrates and components; the replacement of components or fixtures with lead containing materials and/or lead containing paint; the permanent enclosure of LBP with construction materials; the encapsulation of LBP with approved products; the removal or permanent covering (concrete or asphalt) of soil-lead hazards; and, extensive and specialized cleaning activities. (EPA's definition is substantively the same.)

The greatest potential for lead exposure from lead painted architectural components occurs when:

- the paint has become defective; or
- when the paint is applied to a friction / impact component where the paint is continually disturbed; or
- when the paint is disturbed through routine maintenance or renovation activities.

With this in mind, the following are our recommendations for this property:

- The results from this inspection should be provided to any individuals that may disturb the painted surfaces. It is encouraged to utilize certified professionals that have experience working with LBP if the work is performed by someone other than the homeowner.
- If renovation is scheduled in the near future (less than three months), all lead painted components that have been previously targeted for replacement should be replaced utilizing “lead safe” containment and work practices.
- ALL components that have been identified with defective lead paint should have the paint repaired as soon as possible. Any paint repair should be done utilizing “lead safe” containment, work practices, and clean-up techniques.
- All components with lead painted friction / impact surfaces should be treated to minimize the friction or impact as necessary.
- Lead painted components that **have not** been targeted for replacement should either be considered for abatement (replacement, enclosure, encapsulation, etc.) or included in an Operations & Management (O & M) Plan that will help to minimize exposures to lead hazards.
- All lead painted surfaces that are not expected to be impacted in the near future (less than three months) should also be included the O & M plan.
- In addition, the tenants or occupants of the dwelling should be notified of the test results and instructed in actions that they may perform to keep the living areas “lead safe.”
- The tile surfaces are not a likely source of lead dust contamination as long as they remain intact. If future renovation or repair activities require that the tile be removed, or the surfaces disturbed, it should be done in a manner that does not break the tiles. If this is not feasible, this task should be assigned to a lead certified contractor.

-----SOIL & DUST - IF APPLICABLE – TAKE OUT IF NOT!-----

- Because the dust wipe sampling indicated a level of lead **above** the specified regulatory limit, all floors, window sills, and window wells should be properly cleaned (*HEPA / TSP Equivalent / HEPA*).
- Since the soil sampling indicated a level of lead **above** the specified regulatory limit, it is recommended that an interim control be used. A surface covering should be used to act as a barrier between the bare, lead-contaminated soil and people and pets. Surface coverings include: Grass or other live ground covers, artificial turf, bark and gravel.

-----ONLY USE IF SOIL IS ABOVE 5000 – TAKE OUT IF NOT!-----

- Since the soil sampling indicated a level of lead **significantly above** the specified regulatory limit, it is recommended that soil removal and replacement be used. Due to the high level of lead present, an interim control is not appropriate. All bare soil should be removed to a minimum depth of six inches and replaced with uncontaminated soil.

OR

Since none of the tested painted surfaces indicated the presence of lead based paint (LBP) at or above the respective action level, **no further testing is required at this time.**

10.0 TESTING PROTOCOL

XRF Testing: 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 Housing¹ (2012 Revision). In every “room equivalent” within the tested property, one representative surface of each “testing combination” was tested. Multiple readings were collected to resolve inconsistencies in the test results.

Regulatory Compliance: Several public (government) agencies have a published “regulatory action level” to classify LBP. To further complicate matters, some of the established “levels” are quantified in different units of measurement. Listed below are the current regulatory agencies that have defined LBP, along with the respective action level:

Agency	Ordinance #	Action level (mg / cm ²)	Action level (ppm ²)
L.A. County	Title 11, 11.28.010	0.7 mg / cm ²	600 ppm ³
HUD / EPA	24 CFR 35.86 & 40 CFR 745.103	1.0 mg / cm ²	5,000 ppm
OSHA / CAL OSHA	29 CFR 1926.62 & Title 8, 1532.1	Not Specified	600 ppm ⁴

HUD / EPA have recently issued the following guidance regarding units of measurement for paint samples:

“Report lead paint amounts in mg/cm² because this unit of measurement does not depend on the number of layers of non-lead-based paint and can usually be obtained without damaging the painted surface. All measurements of lead in paint should be in mg/cm², unless the surface area cannot be measured or if all paint cannot be removed from the measured surface area. In such cases, concentrations may be reported in weight percent (%) or parts per million by weight (ppm).”⁵

Furthermore, EPA has previously issued guidance on lead content classification as follows:

“... The rule, at 24 CFR 35.86 and 40 CFR 745.103 states that a lead-based paint free finding must demonstrate that the building is free of ‘paint or other surface coatings that contain lead in excess of 1.0 milligrams per square centimeter (1.0 mg / cm²) or 0.5 percent by weight (5000 ppm).’ The State standards are not applicable, whether more or less stringent, since a State cannot amend Federal requirements.”⁶

In recognition of the various action levels the testing results are classified as follows for this report:

- Painted surfaces with readings at or above 0.5 mg / cm² are considered - Positive
- Painted surfaces with readings at or below 0.4 mg / cm² are considered - Negative

In recognition of the various action levels the testing results are classified as follows for this report:

- Painted surfaces with readings at or above 0.7 mg / cm² are considered - Positive
- Painted surfaces with readings at or below 0.6 mg / cm² are considered - Negative

In recognition of the various action levels the testing results are classified as follows for this report:

- Painted surfaces with readings at or above 1.0 mg / cm² are considered - Positive
- Painted surfaces with readings at or below 0.9 mg / cm² are considered - Negative

¹ 2012 Revision

² Parts per million

³ Applies to sale and application of LBP.

⁴ Applies to construction related activities

⁵ Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Revision).

⁶ Office of Pollution Prevention and Toxics, (August 20, 1996)

The individual readings have been provided on all field data sheets. Any future change in action levels by one of the regulating agencies may affect the classification of results.

Dust Wipe Sampling: The California Department of Public Health/HUD action level for lead dust is 10 µg/ft² for floors, 100 µg / ft² for window sills, 100 µg / ft² for window troughs/wells, and 40 µg / ft² for exterior porches – **see note***.

Soil Sampling: The California Department of Public Health /HUD action level for lead in soil is 400 parts per million (ppm) for bare soil and 1000 ppm for soil covered with vegetation (ground cover, grass, etc.).

***NOTE:** Per the U.S. Department of Housing and Urban Development (*HUD*) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards (*Office of Healthy Homes and Lead Hazard Control Second Edition, July 2012*), if Federal standards differ from State, Tribal or local standards, **the most stringent (protective) standards must be applied.**

The U.S. Department of Housing and Urban Development (*HUD*) has revised the Dust-Lead Action Levels for Risk Assessment and Clearance; Clearance of Porch Floors (**Policy Guidance Number: 2017-01 Date: January 31, 2017**). Effective April 1, 2017, the following lead dust hazard and clearance action levels (*or lower levels if required by their state regulations*) should be followed:

New Lead Dust Hazard Action Levels: Floors: ≥10 µg/ft² and Window Sills: ≥100 µg/ft²,

New Lead Clearance Action Levels: Interior Floors: <10 µg/ft²; Porch Floors: <40 µg/ft², Window Sills: <100 µg/ft², and Window Troughs: <100 µg/ft²

11.0 METHOD OF TESTING

Paint Testing: The method employed was X-ray fluorescence (XRF) using a Radiation Monitoring Device Lead Paint Analyzer (RMD LPA-1). The instrument was operated in “Quick Mode,” where the duration for each test result is determined by a combination of:

- * the actual reading relative to the designated action level;
- * the age of the radioactive source; and
- * the substrate on which the test was taken.

The instrument’s calibration was verified according to the manufacturer’s specifications in compliance with the Performance Characteristic Sheet (PCS) developed for this instrument. A copy of the PCS for this instrument may be found in **Appendix C**.

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.

Laboratory Sample Analysis: Soil and dust samples were collected from this property and analyzed for lead content by an independent environmental laboratory which is accredited by the American Industrial Association (AIHA), the National Institute for Standards and Technology (NVLAP) and the California Department of Health Services (ELAP). The samples were analyzed as follows:

- * Dust Wipe Sampling - The method of analysis was Flame Atomic Absorption Spectroscopy (EPA 3050B/7000A, Flame AA) performed on samples collected from measured areas.
- * Soil Sampling - The method of analysis was Flame Atomic Absorption Spectroscopy (EPA 3050B/7000A, Flame AA) performed on samples collected from the top ½" of bare soil areas (drip line, etc.).

APPENDIX

A

XRF FIELD DATA

APPENDIX

B

*FLOORPLAN/MAPS
RESIDENT QUESTIONNAIRE
BUILDING CONDITIONS SURVEY
CDPH 8552
INSPECTOR'S CERTIFICATES
INSURANCE CERTIFICATE*

LEAD HAZARD EVALUATION REPORT

Section 1-Date of Lead Hazard Evaluation Inspection date

Section 2-Type of Lead Hazard Evaluation (Check one box only)

Lead inspection Risk assessment Clearance inspection Other (Limited Inspection)

Section 3-Structure Where Lead Hazard Evaluation Was Conducted

Address (number, street, apartment (if applicable)) 2049 Montera Drive	City Hacienda Heights	County	ZIP code 91745
Construction date (year) of structure 19??	Type of structure (check one box only) <input checked="" type="checkbox"/> Multi-unit building <input type="checkbox"/> School or Daycare <input checked="" type="checkbox"/> Single Family Dwelling <input type="checkbox"/> Other (specify)	Children Living in Structure? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know	

Section 4-Owner of Structure (If business/agency, list contact person)

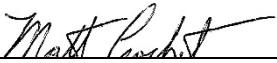
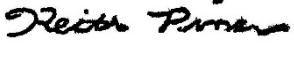
Name Contact Name	Telephone number Contact Number		
Address [number, street, apartment (if applicable)] «PROJECT_INFOADDRESS»	City «PROJECT_INFOCITY»	State CA	ZIP code «PROJECT_ZIP»

Section 5-Results of Lead Hazard Evaluation (Check all that apply)

No lead-based paint detected Intact Lead-based paint detected Deteriorated Lead-based paint detected

No lead hazards detected Lead Contaminated Dust Found Lead Contaminated Soil Found Other (specify)

Section 6-Individual Conducting Lead Hazard Evaluation

Name Inspector Names	Telephone number 714-894-5700		
Address (number, street, apartment (if applicable)) 16531 Bolsa Chica, Suite 205	City Huntington Beach	State CA	ZIP code 92649
CDPH certification number 12 14441 25548	Signature 		Date Inspection date 

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7-Attachments

- 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.

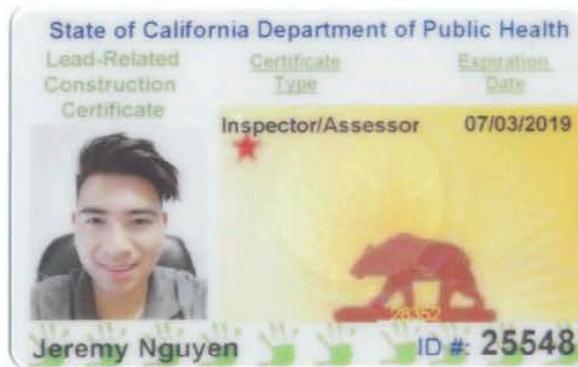
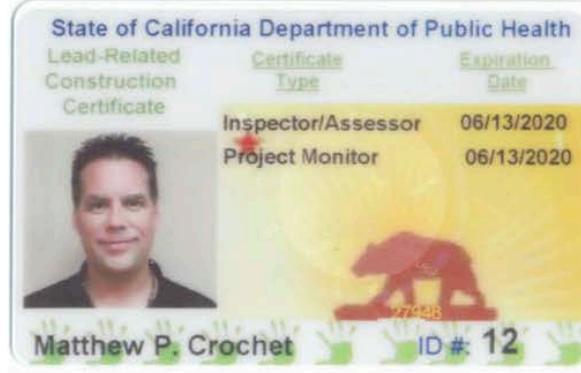
First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Maria Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403 Fax (510) 620-5656

Lead Inspector/Risk Assessor/Project Designer Certifications





CERTIFICATE OF LIABILITY INSURANCE

BARR&CL-01

PHILLIPS

DATE (MM/DD/YYYY)
3/2/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERNS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0E67768

Legends Environmental Ins. Services
130 Vantis
Suite 250
Aliso Viejo, CA 92656

CONTACT NAME:	Elizabeth Leach
PHONE (A/C, No, Ext):	(949) 297-5537 52011
FAX (A/C, No):	(949) 297-5960
E-MAIL ADDRESS:	Elizabeth.Leach@ioausa.com
INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Westchester Surplus Lines Insurance Company	10172
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

Barr & Clark
16531 Bolsa Chica Street, Suite 205
Huntington Beach, CA 92649

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR X Contractors Poll. _____		X	G46606954001	03/09/2017	03/09/2019	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (EA occurrence) \$ 50,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Deductible \$ 2,500
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:						COMBINED SINGLE LIMIT (ea accident) \$ _____ BODILY INJURY (Per person) \$ _____ BODILY INJURY (Per accident) \$ _____ PROPERTY DAMAGE (Per accident) \$ _____ \$ _____
	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY Hired AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY						EACH OCCURRENCE \$ _____ AGGREGATE \$ _____ \$ _____
	UMBRELLA LIAB EXCESS LIAB DED RETENTION \$						PER STATUTE E.L. EACH ACCIDENT \$ _____ E.L. DISEASE - EA EMPLOYEE \$ _____ E.L. DISEASE - POLICY LIMIT \$ _____
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				
A	*Professional Liab.			G46606954001	03/09/2017	03/09/2019	Each Claim 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

*Professional Liability is written on a Claims Made basis.

The City of Hemet is Additional Insured for General Liability with respect to work performed for them by the Named Insured as required by written contract, per Blanket Additional Insured endorsement ENV-3100 (08-04) & ENV-3225 (10-08). Liability Coverage is Primary and Non-Contributory, per endorsement ENV-3101 (08-04) & ENV-3226 (10-08).

CERTIFICATE HOLDER

NOTE: This is a copy of our general liability insurance. Your city or company's specific insurance is on file.

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



CI CW A02 10 11

CERTIFICATE OF INSURANCE

This certificate is issued for informational purposes only. It certifies that the policies listed in this document have been issued to the Named Insured. It does not grant any rights to any party nor can it be used, in any way, to modify coverage provided by such policies. Alteration of this certificate does not change the terms, exclusions or conditions of such policies. Coverage is subject to the provisions of the policies, including any exclusions or conditions, regardless of the provisions of any other contract, such as between the certificate holder and the Named Insured. The limits shown below are the limits provided at the policy inception. Subsequent paid claims may reduce these limits.

Certificate Holder: This is a copy of our general auto insurance. Your company or city's specific insurance is on file.	Named Insured: BARR & CLARK, INC. 16531 BOLSA CHICA ST STE 205 HUNTINGTON BEACH CA 92649-3595
---	---

Automobile Liability				
Insurer Name: Allstate Insurance Company				
Policy Number: 648761551				
<input type="checkbox"/> 1 -- Any Auto	<input type="checkbox"/> 2 - Owned Autos Only	<input type="checkbox"/> 3 - Owned Priv. Pass. Autos Only		
<input type="checkbox"/> 4 -- Owned Autos Other Than Priv. Pass. Autos Only	<input type="checkbox"/> 5 - Owned Autos Subject to No Fault	<input type="checkbox"/> 6 - Owned Autos Subject to a Compulsory UM Law		
<input checked="" type="checkbox"/> 7 -- Specifically Described Autos	<input type="checkbox"/> X 8 - Hired Autos Only	<input type="checkbox"/> X 9 - Nonowned Autos Only		
Policy Effective Date :		Policy Expiration Date:		
Limits of Insurance:	\$1,000,000	Combined Single Limit (each accident) BI Per Person BI Per Accident PD Per Accident		
Description of Operations/Locations/Vehicles/Endorsements/Special Provisions				
Interested Party Type: Additional Insured - All Other				
THIS CERTIFICATE DOES NOT GRANT ANY COVERAGE OR RIGHTS TO THE CERTIFICATE HOLDER.				
IF THIS CERTIFICATE INDICATES THAT THE CERTIFICATE HOLDER IS AN ADDITIONAL INSURED, THE POLICY(IES) MUST EITHER BE ENDORSED OR CONTAIN SPECIFIC LANGUAGE PROVIDING THE CERTIFICATE HOLDER WITH ADDITIONAL INSURED STATUS. THE CERTIFICATE HOLDER IS AN ADDITIONAL INSURED ONLY TO THE EXTENT INDICATED IN SUCH POLICY LANGUAGE OR ENDORSEMENT.				

Producer: SMART MONEY SOL INC	
Authorized Representative:	Date:



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CI CW A02 10 11

Allstate Insurance Company

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Insured Full Copy



P.O. BOX 8192, PLEASANTON, CA 94588

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

GROUP:
POLICY NUMBER: 1917813
CERTIFICATE ID: 243

This is a copy of our general worker's compensation insurance. Your company or city's specific insurance is on file.

This is to certify that we have issued a valid Workers' Compensation Insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon 30 days advance written notice to the employer.

We will also give you 30 days advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policy listed herein. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate of insurance may be issued or to which it may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions, and conditions, of such policy.

A handwritten signature in black ink, appearing to read "Karen R. Va Lant".

Authorized Representative

A handwritten signature in black ink, appearing to read "Karen Stein".

President and CEO

EMPLOYER'S LIABILITY LIMIT INCLUDING DEFENSE COSTS: \$1,000,000 PER OCCURRENCE.

ENDORSEMENT #0015 ENTITLED ADDITIONAL INSURED EMPLOYER EFFECTIVE IS ATTACHED TO AND FORMS A PART OF THIS POLICY. NAME OF ADDITIONAL INSURED:

ENDORSEMENT #2065 ENTITLED CERTIFICATE HOLDERS' NOTICE EFFECTIVE IS ATTACHED TO AND FORMS A PART OF THIS POLICY.

EMPLOYER

BARR & CLARK, INC
16531 BOLSA CHICA ST STE 205
HUNTINGTON BEACH CA 92649

SP

[P14,SP]

APPENDIX

C

PERFORMANCE CHARACTERISTIC SHEET (PCS)
LEAD SPEAK – A BRIEF GLOSSARY & KEY UNITS OF MEASUREMENT
ADDITIONAL LEAD & LEAD SAFETY RESOURCE DATA

Performance Characteristic Sheet

EFFECTIVE DATE: December 1, 2006

EDITION NO.: 5

MANUFACTURER AND MODEL:

Make: **Radiation Monitoring Devices**
 Model: **LPA-1**
 Source: **^{57}Co**
 Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above **for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.**

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Quick mode or 30-second equivalent standard (Time Corrected) mode readings.

XRF CALIBRATION CHECK LIMITS:

0.7 to 1.3 mg/cm² (inclusive)

SUBSTRATE CORRECTION:

For XRF results below 4.0 mg/cm², substrate correction is recommended for:

Metal using 30-second equivalent standard (Time Corrected) mode readings.
 None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second equivalent standard (Time Corrected) mode readings
 Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

THRESHOLDS:

30-SECOND EQUIVALENT STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

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 the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

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 bare 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):

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

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 the Quick Mode or 30-second equivalent standard (Time Corrected) Mode readings.

Conduct XRF re-testing 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 re-test 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.

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.

BIAS AND PRECISION:

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm² lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm² lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm² and none of the quick mode readings were less than 1.0 mg/cm². The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm ²)	PRECISION* (mg/cm ²)
0.0 mg/cm ²	Brick Concrete Drywall Metal Plaster Wood	0.0 0.0 0.1 0.3 0.1 0.0	0.1 0.1 0.1 0.1 0.1 0.1
0.5 mg/cm ²	Brick Concrete Drywall Metal Plaster Wood	0.0 0.0 0.0 0.2 0.0 0.0	0.2 0.2 0.2 0.2 0.2 0.2
1.0 mg/cm ²	Brick Concrete Drywall Metal Plaster Wood	0.0 0.0 0.0 0.2 0.0 0.0	0.3 0.3 0.3 0.3 0.3 0.3
2.0 mg/cm ²	Brick Concrete Drywall Metal Plaster Wood	-0.1 -0.1 -0.1 0.1 -0.1 -0.1	0.4 0.4 0.4 0.4 0.4 0.4

*Precision at 1 standard deviation.

CLASSIFICATION 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 Characteristic 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, so previous inspection results are not affected.

DOCUMENTATION:

An EPA 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. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, www.hud.gov/offices/lead.

This XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Abatement: A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead-contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. (For full EPA definition, see 40 CFR 745.223).

Bare soil: Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Chewable surface: An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an "accessible surface" as defined in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.

Deteriorated paint: Any paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or otherwise becoming separated from the substrate.

Drip line/foundation area: The area within 3 feet out from the building wall and surrounding the perimeter of a building.

Dust-lead hazard: Surface dust in residences that contains an area or mass concentration of lead equal to or in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for dust-lead hazards, which are based on wipe samples, are published at 40 CFR 745.65(b); as of the publication of this edition of these *Guidelines*, these are 40 µg/ft² on floors and 250 µg/ft² on interior windowsills. Also called lead-contaminated dust.

Friction surface: Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Garden area: An area where plants are cultivated for human consumption or for decorative purposes.

Impact surface: An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

Lead-based paint: Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0* mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 mg/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis. (Local definitions may vary.)^{*}NOTE: LBP in LA County is defined as any coating that contains lead equal to or greater than 0.7 mg/cm² via XRF or 0.06 % by weight (600mg/g, 600ppm, 600mg/kg) as measured by lab analysis.
Lead-based paint hazard: A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA at 40 CFR 745.65, under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, **paint-lead hazards, dust-lead hazards, and soil-lead hazards**.

Paint-lead hazard: Lead-based paint on a friction surface that is subject to abrasion and where a dust-lead hazard is present on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor); damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component; a chewable lead-based painted surface on which there is evidence of teeth marks; or any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

Play area: An area of frequent soil contact by children of under age 6 as indicated by, but not limited to, such factors including the following: the presence of outdoor play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

Soil-lead hazard: Bare soil on residential property that contains lead in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for soil-lead hazards, published at 40 CFR 745.65(c), as of the publication of this edition of these *Guidelines*, is 400 µg/g in play areas and 1,200 µg/g in the rest of the yard. Also called lead-contaminated soil.

Key Units of Measurement

Gram (g or gm): A unit of mass in the metric system. A nickel weighs about 1 gram, as does a 1 cube of water 1 centimeter on each side. A gram is equal to about 35/1000 (thirty-five thousandths of an ounce). Another way to think of this is that about 28.4 grams equal 1 ounce.

µg (microgram): A microgram is 1/1000th of a milligram. To put this into perspective, a penny weighs 2 grams. To get a microgram, you would need to divide the penny into 2 million pieces. A microgram is one of those two million pieces.

µg/dL (microgram per deciliter): used to measure the level of lead in children's and worker's blood to establish whether intervention is needed. A deciliter is a little less than a half a cup.

µg/ft² (micrograms per square feet): the unit used to express levels of lead in dust samples. All reports should report levels of lead in dust in µg/ft².

mg/cm² (milligrams per square centimeter): used to report levels of lead in paint thru XRF testing.

ppm (parts per million): Typically used to express the concentrations of lead in soil. Can also be used to express the amount of lead in a surface coating on a mass concentration basis. This measurement can also be shown as: µg/g, mg/kg or mg/l.

ppb (parts per billion): Typically used to express the amount of lead found in drinking water. This measurement is also sometimes expressed as: µg/L (micrograms per liter).

EPA/HUD Lead-Based Paint and Lead-Based Paint Hazard Standards

Lead-Based Paint (may be determined in either of two ways)

- ◆ Surface concentration (mass of lead per area) 1.0 µg/cm²*
- ◆ Bulk concentration (mass of lead per volume) 0.5%, 5000 µg/g, or 5000 ppm*

*Note: In LA County LBP - surface concentration = 0.7 mg/cm² and bulk concentration = 0.06%, 600 mg/g, or 600 ppm

Dust-thresholds for Lead-Contamination

- ◆ Floors 40 µg/ft²
- ◆ Interior Window Sills 250 µg/ft²
- ◆ Window Troughs (clearance examination only) 400 µg/ft²

Soil-thresholds for Lead Contamination

- ◆ Play areas used by children under age 6 400 µg/g, or 400 ppm
- ◆ Other areas 1200 µg/g, or 1200 ppm

Resources For Additional Information On Lead-Based Paint And Lead-Based Paint Hazards:

National Lead information Center & Clearinghouse:

1-800-424 LEAD

www.epa.gov/lead/pubs/nlic.htm

Centers for Disease Control and Prevention Lead Program:

www.cdc.gov/lead

Toll-free CDC Contact Center: 800-CDC-INFO; TTY 888-232-6348

Consumer Product Safety Commission

www.cpsc.gov

Toll-free consumer hotline: 1-800-638-2772; TTY 301-595-7054

Environmental Protection Agency Lead Program:

www.epa.gov/lead

202-566-0500

HUD Office of Healthy Homes and Lead Hazard Control:

www.hud.gov/offices/lead

202-402-7698

Anystate Department of Health and Environment, Lead Poisoning Prevention Program

<http://depthealth.state.an/lead/>

Hearing- or speech-challenged individuals may access the federal agency numbers above through TTY by calling the toll-free Federal Relay Service at 800-877-8339; see also <http://www.federalrelay.us/tty>.

APPENDIX

D

DUST WIPE & SOIL SAMPLE LABORATORY MANIFESTS AND RESULTS