

## LEAD HAZARD EVALUATION NOTICE

Address: 34 North Maryland Avenue, Atlantic City, NJ 08401, Unit 2

Evaluation Completed (circle one): Paint Inspection    Paint Testing    **Risk Assessment**

Date: June 29, 2015

### Summary of Results:

       No lead-based paint or lead-based paint hazards were found.

  X   Lead-based paint and/or lead-based paint hazards were found. See attachment for details

Contact person for more information about the risk evaluation:

Printed name: Rafael L. Torres, III



Signature: \_\_\_\_\_

Date: July 3, 2015

Organization: PARS Environmental, Inc.

Street: 500 Horizon Drive, Suite 540

City & State: Robbinsville, New Jersey

Zip: 08691

Phone #: 609-890-7277

Person who prepared this notice:

Printed name: Margaret Halasnik



Signature: \_\_\_\_\_

Date: July 3, 2015

Organization: PARS Environmental, Inc.

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City & State: Robbinsville, New Jersey

Zip: 08691

Phone #: 609-890-7277

Summarize the types and locations of lead-based paint hazards below or attach your own summary. The summary must list at least the bare soil locations, dust-lead locations, and/or building components (including type of room or space and the material underneath the paint), and types of lead-based paint hazards found:

| <b>Contaminated Soil</b> |                          |                 |
|--------------------------|--------------------------|-----------------|
| <b>Area</b>              | <b>mg/g (ppm)</b>        | <b>Location</b> |
| <u>  X  </u> None        |                          | <b>N/A</b>      |
| <u>      </u> Perimeter  | <u>      </u> mg/g (ppm) |                 |
| <u>      </u> Play Area  | <u>      </u> mg/g (ppm) |                 |
| <u>      </u> Other-Yard | <u>      </u> mg/g (ppm) |                 |

| <b>Contaminated Dust</b> |                     |                    |
|--------------------------|---------------------|--------------------|
| <b>Area</b>              | <b>µg/SF</b>        | <b>Location</b>    |
| <u>      </u> None       |                     |                    |
| <u>  X  </u> Windowsill  | <u>      </u> µg/SF | <b>See Table 3</b> |
| <u>  X  </u> Floor       | <u>      </u> µg/SF | <b>See Table 3</b> |
| <u>      </u> Other      | <u>      </u> µg/SF |                    |
| <u>      </u> Other      | <u>      </u> µg/SF |                    |

| <b>Other Hazards</b>     |                        |  |  |   |
|--------------------------|------------------------|--|--|---|
| <b><u>Component*</u></b> | <b><u>Location</u></b> | <b><u>Condition</u><br/>(good, fair, poor)</b> | <b><u>Friction or</u><br/><u>Impact Surface?</u></b> | <b><u>Lead Content</u><br/>(if known)</b> |
| 1. <b>See Table 1</b>    |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 2.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 3.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 4.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 5.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 6.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 7.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 8.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 9.                       |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 10.                      |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 11.                      |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |
| 12.                      |                        |  |  | <u>      </u> mg/cm <sup>2</sup> (ppm)    |

\* Components include but are not limited to (interior and exterior) windows, doors, trim, fences, porches, walls and floors.



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Environmental  
Inc.

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**LEAD-BASED PAINT RISK ASSESSMENT  
34 N. MARYLAND AVE., UNIT 2  
ATLANTIC CITY, NEW JERSEY 08401  
SRP0043415.05.02.D.002**

**PREPARED BY**

**PARS Environmental, Inc.**

**500 Horizon Drive Suite 540**

**Robbinsville, N.J. 08691**

**(609) 890-7277**

**PARS Project No.: 1011-05**

**July 3, 2015**



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34 NORTH MARYLAND AVENUE, UNIT 2  
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**EXECUTIVE SUMMARY**

On June 29, 2015, PARS Environmental, Inc. (PARS) conducted a Lead-Based Paint (LBP) Inspection and Lead Hazard Risk Assessment (hereinafter the "Assessment") of the residential property located at 34 North Maryland Avenue, Unit 2, Atlantic City, New Jersey 08401 (hereinafter the "Property"). The Property had sustained damage during the October 2012 Hurricane Sandy and could be eligible for funding under the New Jersey Landlord Rental Repair (LRR) Program, which is being administered by the State of New Jersey Department of Community Affairs (NJDCa). NJDCa is providing funds made available by the US Department of Housing and Urban Development (HUD). PARS was authorized to perform this work by Gilbane Building Company (GBCO).

The purpose of the Assessment was to identify the potential presence of lead hazards on/in painted surfaces inside and outside the structure, including deteriorated LBP and LBP that may be disturbed during planned renovations.

The Property is improved with a three-story building constructed prior to 1940. The building is comprised of five rental units and common areas. Along with damage from the storm, the structure has fire damage stemming from an incident in Unit 1. No building renovations have been completed. The structure was vacant at the time of the Assessment. **This Assessment only details the findings for Unit 2.** The results of the Assessment indicate that LBP surface coatings and LBP hazards were present on the Property at the time of the Assessment.

| Location                | LBP Hazard                   | Quantity | Treatment/ Control                                  | Unit Cost (SF)      | Total Cost           |
|-------------------------|------------------------------|----------|---|---------------------|----------------------|
| LBP HAZARDS             |                              |          |   |                     |                      |
| Throughout Interior     | Floor (Dust)<br>Sills (Dust) | 400 SF   | Wet Wipe/HEPA Vacuum                                | \$10.00-<br>\$15.00 | \$4,000 -<br>\$6,000 |
| Throughout Unit         | Window Sills and Frames      | 36 SF    | Paint Removal /<br>Component Replacement            | \$10.00-<br>\$15.00 | \$360 - \$540        |
| Estimated Cost Subtotal |                              |          |   | \$4,360 - \$6,540   |                      |
| LBP COMPONENTS          |                              |          |   |                     |                      |
| Living Room             | Closet Jamb                  | 4 SF     | Paint Stabilization /<br>Enclosure or Encapsulation | \$1.00-<br>\$3.00   | \$4 - \$12           |
| Throughout Unit         | Baseboards                   | 130 SF   | Paint Stabilization /<br>Enclosure or Encapsulation | \$1.00-<br>\$3.00   | \$130 - \$390        |
| Bedroom                 | Closet Frame                 | 10 SF    | Paint Stabilization /<br>Enclosure or Encapsulation | \$1.00-<br>\$3.00   | \$10 - \$30          |
| Bedroom                 | Door Jamb                    | 4 SF     | Paint Stabilization /<br>Enclosure or Encapsulation | \$1.00-<br>\$3.00   | \$4 - \$12           |
| Bathroom                | Door Frame                   | 10 SF    | Paint Stabilization /<br>Enclosure or Encapsulation | \$1.00-<br>\$3.00   | \$10 - \$30          |



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| Location                | LBP Hazard | Quantity | Treatment/ Control | Unit Cost (SF)    | Total Cost |
|-------------------------|------------|----------|--------------------|-------------------|------------|
| Estimated Cost Subtotal |            |          |                    | \$158 - \$474     |            |
| TOTAL COST ESTIMATE:    |            |          |                    | \$4,518 - \$7,014 |            |

SF=Square Feet

**Identified LBP Surfaces**

- Throughout Unit – Window Frames and Sills;
- Living Room Closet Jamb;
- Throughout Unit – Baseboards;
- Bedroom Closet Jamb;
- Bedroom Door Jamb; and
- Bathroom Door Frame.

The above substrates are wood.

**Existing LBP Hazards and Potential Lead Hazards**

The following substrates coated with LBP are deteriorated (poor condition) and currently present existing LBP hazards:

- Throughout Unit – Window Frames and Sills.

**Identified Intact LBP Surfaces-No Current Hazard**

The following areas are coated with LBP that is intact and do not currently present lead hazards.

- Living Room Closet Jamb;
- Throughout Unit – Baseboards;
- Bedroom Closet Jamb;
- Bedroom Door Jamb; and
- Bathroom Door Frame.

Renovation plans may include work inside the house. If these renovations occur, lead-safe work practices will need to be implemented during the project to ensure that lead hazards are not created.

**Lead Dust Hazards**

A lead dust hazard was identified in the following locations:

- Throughout Unit – Floors and Sills.

**Soil Contamination**

The entire Property is covered with concrete. No bare or exposed soil was observed at the time of the Assessment, **therefore no soil sampling is required.**



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**Non-LBP Renovation Components**

The planned renovation may include disturbance of components that do not contain LBP.

- Interior walls in the rooms that were tested;
- Interior doors and door components that were tested; and
- Interior windows and window components that were tested.

Refer to **Table 1** for a list of those items and components that do not contain LBP.

**Recommendations**

All identified LBP and Lead Hazards should always be properly addressed by professionally trained, and/or licensed lead workers. Lead-safe work practices and worker/occupant protection practices complying with current HUD, US Environmental Protection Agency (USEPA), NJDCA, and Occupational Safety and Health Administration (OSHA) standards will be necessary to safely complete all work involving the disturbance of LBP coated surfaces and components.

Based on the findings of the Assessment, PARS recommends the following action be implemented to minimize the potential exposure to LBP:

*Interim Control:*

Interim controls are measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. The recommended interim control measures include:

- Paint film stabilization (paint the LBP with a coat of lead-free paint); and/or
- Enclosure or encapsulation.

Interim control measures should be employed for the identified intact LBP surfaces noted above.

*Permanent Control (Abatement):*

Abatement is a measure or measures designed to permanently eliminate the LBP hazard. The recommended permanent control measures include:

- Paint removal by a heat gun, chemical or contained abrasive; and/or
- Removal and replacement of LBP building components; and
- Abatement of the lead dust hazard via wet wiping and HEPA vacuum techniques.

PARS recommends that a LBP abatement be performed to remove the deteriorated LBP and lead dust hazards from the Property. At the conclusion of the abatement, a NJ certified Lead Inspector/ Risk Assessor should be retained to collect wipe samples in the affected areas to verify that the lead hazard has been removed. As an alternative to *Interim Controls*, a LBP abatement also can be performed on the intact LBP surfaces. If permanent control is the selected remedial option, then a NJ certified Lead Inspector/ Risk Assessor should be retained to collect wipe



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samples in the affected areas to verify that a lead dust hazard has not been created during the removal activities.

## **1.0 INTRODUCTION, PURPOSE, AND SCOPE OF WORK**

On June 29, 2015, PARS Environmental, Inc. (PARS) conducted a Lead-Based Paint (LBP) Inspection and Lead Hazard Risk Assessment (hereinafter the “Assessment”) of the residential property located at 34 North Maryland Avenue, Unit 2, Atlantic City, New Jersey 08401 (hereinafter the “Property”). The Property had sustained damage during the October 2012 Hurricane Sandy and could be eligible for funding under the New Jersey Landlord Rental Repair (LRR) Program, which is being administered by the State of New Jersey Department of Community Affairs (NJDCA). NJDCA is providing funds made available by the US Department of Housing and Urban Development (HUD). PARS was authorized to perform this work by Gilbane Building Company (GBCO).

The purpose of the Assessment was to identify the potential presence of lead hazards on/in surfaces inside and outside the structure, including deteriorated LBP and LBP that may be disturbed during planned renovations. HUD, the United States Environmental Protection Agency (USEPA), and the NJDCA New Jersey Lead Hazard Evaluation and Abatement Code (N.J.A.C. 5:17) consider painted surfaces containing lead at a concentration of 1.0 milligram per square centimeter (mg/cm<sup>2</sup>) or greater to be LBP. LBP testing was conducted to assess whether LBP was present at levels exceeding the HUD, USEPA, and New Jersey Lead Hazard Evaluation and Abatement Code.

The Scope of Work included the following:

- Owner/occupant interview and a visual inspection of all painted and coated interior and exterior surfaces of the dwelling, all common areas, and, if present, all outbuildings and fences;
- X-Ray Fluorescence (XRF) analyzer testing for lead content of all coatings on surfaces that may be disturbed during the renovation;
- Lead hazard identification of deteriorated paint, friction, impact and chewable surfaces;
- Interior dust sampling; and
- Soil sampling, if appropriate.

## **2.0 APPLICABLE REGULATORY STANDARDS AND FIELD METHODOLOGIES**

### **2.1 APPLICABLE REGULATORY STANDARDS**

The inspection and Assessment were performed in accordance with the regulatory standards listed below, as appropriate:

1. HUD Community Development Block Grant (CDBG) Lead Safe Housing Rule;





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2. The guidelines of the Steel Structures Painting Council referenced in N.J.A.C. 5:17-1.3; and
3. Rules adopted by the U.S. Environmental Protection Agency at 40 C.F.R. 745.

## **2.2 Owner/Interview Visual Inspection**

The inspection was performed on June 29, 2015, by Mr. Rafael L. Torres, III, a licensed New Jersey Department of Health (NJDOH) Lead Inspector/Risk Assessor (Permit #027417). PARS is certified by the NJDCA as a Lead Evaluation Contractor (Cert. #00416E). The Assessment at the building commenced at 8:30 am and concluded at approximately 1:00 pm. A copy of Mr. Torres' license is provided in **Appendix A**.

The property owner contact information is:

Owner: Mr. Abdur Rafiq  
Address: 34 North Maryland Avenue  
Atlantic City, NJ 08401  
Day Phone #: 609-705-2083

Based on an interview with the Owner, there has not been previous LBP testing/assessment at the Property.

## **2.3 XRF Testing and Lead Hazard Identification**

Painted surfaces were evaluated according to the specifications described in the protocols for LBP inspection in the HUD Guidelines for the Evaluation and Control of Lead-Based Paint and requirements of the Lead Hazard Evaluation and Abatement Code using an X-Ray Fluorescence (XRF) analyzer. The XRF used for this evaluation was a Thermo-Scientific NITON, Model No. XLP 300A, Serial No. 94004.

A rough sketch is made of the Property. Instrument calibrations are performed at least three times before the start of testing and performed at least every four hours, and at the end of each inspection. At least one test location per testing combination, four readings are obtained, one on each wall, (interior room equivalent or exterior). When upper and lower walls have a different painting history, four tests are required of each.

The selection of the test locations is representative of the paint over the areas which are most likely to be coated with old paint or other lead-based coatings. Thus, locations, where the paint appears to be thickest are selected. Locations where paint has worn away or been scraped off are not selected. At each test location:

- All layers of paint are included; and
- the XRF probe faceplate is placed flat against the surface.



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Areas over pipes, electrical surfaces, nails and other possible interferences are avoided, if possible, as these materials may contain lead and contribute to the XRF reading. When testing combinations are repeated within a room equivalent (e.g., window, or door system), one test is taken on one part of the component system (e.g., the casing from window B) and another test from another part of the system from a separate component (e.g., the sash from window C-2), the same strategy would apply to the door system. If a room has two or more doors (including closet or pantry doors), the casing or jamb of the door itself is tested. If each door may have a different painting history, then each door system is tested separately.

Calibration and actual readings were taken using the standard paint mode. The instrument calibration was performed in accordance with the Performance Characteristic Sheet (PCS) for this instrument. The instrument PCS is in **Appendix B**. The instrument was calibrated using the paint film nearest 1.0 mg/cm<sup>2</sup> in the National Institute of Standard & Technology (NIST) Standard Reference Material. At least three calibration readings were taken before and after the testing to insure manufacturer standards were met.

The tested surfaces included:

- Walls
- Baseboards
- Doors and Door Components
- Windows and Window Components
- Archways

A total of 38 measurements were taken from painted surfaces. The XRF measurements were collected following the regulatory standards referenced in Section 2.1 of this report to evaluate the potential presence of LBP in the dwelling.

## **2.4 Interior Dust Wipe Sampling**

Interior dust wipe sampling is conducted in areas where the LBP surfaces are observed to be in deteriorated condition. USEPA and HUD define “*deteriorated paint*” as “*any interior or exterior paint or other coating that is peeling, chipping, chalking or cracking, or any paint or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate*”. This definition is most typically associated with surface conditions only. Usage of this term in describing conditions other than those associated with surface coatings are not known to be defined by USEPA or HUD. Wipe samples are collected from locations as observed during the Assessment:

- 1) In or near areas testing positive for LBP (window troughs, window sills, etc.);
- 2) In or near friction or impact areas (window troughs/sills, floors at doorway entrances, etc.);
- 3) In high traffic /common areas (doorway entrances, laundry rooms, bedrooms, etc.); and,
- 4) In or near areas where deteriorated paint exists (wherever observed during the Assessment).



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Wipe sampling was conducted in the living areas (i.e., bedrooms, living room, kitchen, and bathroom) to assess the presence of potential lead-dust concentrations. USEPA considers lead in dust to be a hazard if lead concentrations, as determined by wipe sampling, are equal to or greater than 40 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) on floors, 250  $\mu\text{g}/\text{ft}^2$  on window sills, and 400  $\mu\text{g}/\text{ft}^2$  on troughs and exterior surfaces.

Nine (9) wipe samples including one (1) Quality Control wipe sample were collected from the floors in the living room, bedroom, bathrooms, hall, and kitchen, and window sills in the kitchen, living room, and bathroom. The samples were collected from areas most likely to be lead contaminated if lead-in-dust is present, in accordance with the requirements of ASTM Standard E-1728, *Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques*.

Samples were collected by wiping either a 12 inch x 12 inch surface area or other pre-measured surface with alcohol free Ghost Wipes. The surface area was wiped side-to-side in 'S' like motions. The samples were placed in plastic tubes and submitted for laboratory analysis to EMSL Analytical, Inc. (EMSL) which is an American Industrial Hygiene Association, Environmental Lead Laboratory Accreditation Program (AIHA-ELLAP #101048) certified laboratory.

## **2.5 Soil Sampling**

The entire Property is covered with concrete. No bare or exposed soil was observed at the time of the Assessment, **therefore no soil sampling is required.**

## **3.0 RESULTS**

### **3.1 Owner/Interview Visual Inspection**

The Property is improved with a three-story building constructed prior to 1940. The building is comprised of five rental units and common areas. Along with damage from the storm, the structure has fire damage stemming from an incident in Unit 1. No building renovations have been completed. The structure was vacant at the time of the Assessment. **This Assessment only details the findings for Unit 2.** The following potential LBP painted/coated surfaces were identified:

- Walls
- Baseboards
- Doors and Door Components
- Windows and Window Components
- Archways

### **3.2 XRF Testing and Lead Hazard Identification**

XRF testing was conducted on painted components listed above. The XRF readings and their associated LBP levels are summarized in **Table 1**. XRF Direct Readings are provided in **Table 2**.



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**Identified LBP Surfaces**

LBP in amounts equal to or exceeding the USEPA and/or HUD criteria of 1.0 mg/cm<sup>2</sup> was found on the following painted substrates:

- **Throughout Unit – Window Frames and Sills;**
- **Living Room Closet Jamb;**
- **Throughout Unit – Baseboards;**
- **Bedroom Closet Jamb;**
- **Bedroom Door Jamb; and**
- **Bathroom Door Frame.**

The above substrates are wood.

**Existing LBP Hazards**

The following substrates coated with LBP are deteriorated (poor condition) and currently present existing LBP hazards:

- **Throughout Unit – Window Frames and Sills.**

Hazard control options and associated cost estimates for the areas or components identified with LBP or lead hazards are also discussed later in this report. In an effort to aid in the interpretation of the listed findings, a glossary of terms and a list of publications and resources addressing lead hazards and their health effects is provided in **Appendix C**.

**Intact LBP Surfaces-No Current Hazard**

The following area is coated with LBP that is intact and does not currently present lead hazards.

- **Living Room Closet Jamb;**
- **Throughout Unit – Baseboards;**
- **Bedroom Closet Jamb;**
- **Bedroom Door Jamb; and**
- **Bathroom Door Frame.**

Renovation plans may include work inside the house. If these renovations occur, lead-safe work practices will need to be implemented during the project to ensure that lead hazards are not created.

**3.3 Interior Dust Wipe Sampling**

**Eight of the nine wipe samples exceeded the respective lead dust concentrations of 40 µg/ft<sup>2</sup> on floors and 250 µg/ft<sup>2</sup> on window sills.** The results of the lead dust wipe sampling are presented as **Table 3**. Laboratory analytical results are provided in **Appendix D**.



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### **3.4 Soil Sampling**

The entire Property is covered with concrete. No bare or exposed soil was observed at the time of the Assessment, **therefore no soil sampling is required.**

## **4.0 LEAD HAZARD CONTROL OPTIONS**

Lead-safe work practices and worker/occupant protection practices complying with current USEPA, HUD, and Occupational Safety and Health Administration (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 even creating hazards that were not present before. All persons and/or firms performing lead hazard control activities must have received proper training in Lead-Safe Work Practices and/or Lead Abatement. Details for the listed lead hazard control options and issues surrounding occupant/worker protection practices can be found in the publication titled: *Guidelines for the Evaluation and Control of LBP Hazards in Housing (Second Edition, July 2012)* (HUD Guidelines), published by HUD, as well as in the OSHA regulations found in 29 CFR, Part 1926.62, known as the OSHA Lead Exposure in Construction Industry Standard.

The associated cost estimates, unless otherwise noted, include the labor and materials to accomplish the stated activity and most additional funds typically found to be necessary to complete worker protection, site containment, and cleanup procedures. These are approximate estimates only and due to a variety of potential factors, may not accurately reflect all local cost factors. A precise estimate must be obtained from a NJ 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 residence.

*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 measures include, but are not limited to: component and/or substrate repairs; paint and varnish repairs; the removal of dust-lead hazards; renovation; remodeling; maintenance; temporary containment; placement of seed, sod or other forms of vegetation over bare soil areas; the placement of at least six (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 20 years, or these methods must have a design life of at least 20 years. These activities include, but are not limited to:

- The removal of LBP from substrates and components;



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- The replacement of components or fixtures with lead containing materials and/or LBP;
- 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.

Based on the findings of the Assessment, PARS recommends the following action be implemented to minimize the potential exposure to LBP:

*Interim Control:*

Interim controls are measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. The recommended interim control measures include:

- Paint film stabilization (paint the LBP with a coat of lead-free paint); and/or
- Enclosure or encapsulation.

Interim control measures should be employed for the identified intact LBP surfaces noted in **Section 3.2** above.

*Permanent Control (Abatement):*

Abatement is a measure or measures designed to permanently eliminate the LBP hazard. The recommended permanent control measures include:

- Paint removal by a heat gun, chemical or contained abrasive; and/or
- Removal and replacement of LBP building components; and
- Abatement of the lead dust hazard via wet wiping and HEPA vacuum techniques.

PARS recommends that a LBP abatement be performed to remove the deteriorated LBP and lead dust hazards from the Property. At the conclusion of the abatement, a NJ certified Lead Inspector/ Risk Assessor should be retained to collect wipe samples in the affected areas to verify that the lead hazard has been removed. As an alternative to *Interim Controls*, a LBP abatement also can be performed on the intact LBP surfaces. If permanent control is the selected remedial option, then a NJ certified Lead Inspector/ Risk Assessor should be retained to collect wipe samples in the affected areas to verify that a lead dust hazard has not been created during the removal activities. LBP abatement cost estimates are provided in **Table 4**.

## **5.0 SPECIAL CLEANING PRECEDING LEAD HAZARD CONTROL ACTIVITIES**

Before any lead hazard control activities begin, the structure and site must be inspected and pre-cleaned following HUD-specified cleaning protocols, as detailed in the HUD Guidelines. Some of the required steps include removing large debris and paint chips followed by high-efficiency particulate air (HEPA) vacuuming of all horizontal surfaces (floors, windowsills, troughs, etc.). The cleaning protocols described in this publication can assist the contractor in



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doing a preliminary cleaning and improving the chances of passing clearance inspections after remediation. Lead hazard control activities are prioritized below:

**HAZARD 1: Removal of floor dust-lead hazard**

1. ABATEMENT: Lead dust should be properly abated utilizing wet wiping and HEPA vacuum techniques. The work must be carried out by properly trained lead workers, following lead-safe work practices.

**HAZARD 2: Scraping LBP on window components**

1. INTERIM CONTROLS - STABILIZATION: A lead hazard could be created if the window components are prepared for repainting (scraped) during the upcoming renovations. Any work that will disturb these surfaces must be carried out by properly trained lead workers, following lead-safe work practices. Following preparation work, the lead-based paint coatings on the window components may be addressed by stabilizing the surfaces with new paint. This activity has the potential to create a high volume of lead contaminated dust, and extra care must be taken by the contractor to limit and contain the dust generated.
2. ABATEMENT - REPLACEMENT: Installation of replacement windows is another possible remediation option. This involves removing the window components and installing new replacement windows. This activity has the potential to create a high volume of lead contaminated dust.

**HAZARD 3: Scraping LBP on painted doors and door components**

1. INTERIM CONTROLS - STABILIZATION: A lead hazard could be created if the doors and door components are prepared for repainting (scraped) during the upcoming renovations. Any work that will disturb these surfaces must be carried out by properly trained lead workers, following lead-safe work practices. Following preparation work, the lead-based paint coatings on the doors and door components may be addressed by stabilizing the surfaces with new paint. This activity has the potential to create a high volume of lead-contaminated dust, and extra care must be taken by the contractor to limit and contain the dust generated.
2. ABATEMENT - REPLACEMENT: The removal and replacement of the doors and door components is another possible option for lead hazard control. This remediation option has the potential to generate extremely high amounts of lead contaminated dust and would require appropriate containment.

**HAZARD 4: Scraping LBP on the baseboards**

1. INTERIM CONTROLS - STABILIZATION: A lead hazard could be created if the baseboards are prepared for repainting (scraped) during the upcoming renovations. Any work that will disturb these surfaces must be carried out by properly trained lead workers, following lead-safe work practices. Following preparation work, the LBP coatings on the baseboards may be addressed by stabilizing the surfaces with new





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paint. This activity has the potential to create a high volume of lead-contaminated dust, and extra care must be taken by the contractor to limit and contain the dust generated.

2. **ABATEMENT - REPLACEMENT:** Replacement of the baseboards is another possible remediation option. This involves removing the existing baseboards and installing new building materials. This remediation option has the potential to generate extremely high amounts of lead contaminated dust and would require appropriate containment.

## **6.0 SPECIAL CLEANING FOLLOWING LEAD HAZARD CONTROL ACTIVITIES**

Interim Control - Follow all lead-safe work practice procedures to reduce dust lead content to less than acceptable clearance level (i.e., 40 micrograms per square foot for floors). Cleaning must be accomplished following the HUD indicated cleaning protocols, as detailed in the HUD Guidelines. The cleaning protocols described in this publication can assist the contractor in thoroughly, properly and safely cleaning the site.

Cleanup of the remediated areas should be accomplished on an ongoing basis throughout all activities that impact or disturb any known or assumed lead containing materials and paint. When a material, surface coating, substrate, component, or surface is to be impacted as a result of any activity and the lead content is not known, those areas and/or items should be assumed to contain LBP. Accumulation of debris is not recommended, and all plastic drop cloths must be replaced and disposed of properly each day. All trash must be promptly and properly removed from the site and the area left clean as close to original condition as possible. Following the HUD Guidelines will help increase the chances of attaining HUD and State of New Jersey lead-in dust clearance levels.

Please remember that lead testing occurred at a limited number of locations in the structure; LBP and/or lead-containing materials (LCM) could still be present at areas not tested as part of this Lead Hazard Risk Assessment. Great care should be taken by the Homeowner and Contractor if, at a later date, any repair, maintenance, remodeling or renovation activities disturb any paint where the concentrations of lead are not known. In lieu of any additional testing, all surfaces and paint should be assumed to contain lead-based paint.

Some of the remaining test locations exhibited lead-in-paint levels below the HUD levels, but at concentrations high enough to be detectable by the XRF analyzer. It should be noted that lead concentrations (in paint) that are less than the levels that identify a surface coating as LBP still have the potential of causing lead poisoning. Should these or any potential LBP painted components and/or surfaces be disturbed in any manner that generates dust, extreme care must be taken to limit its spread. It should be assumed that any and all painted surfaces, components, or surfaces not requested to be tested as part of this investigation, or any previous investigations are coated with LBP, and that renovation or repair activities in these areas dictate the use of safe work practices that limit dust generation and area contamination.





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## 7.0 ONGOING MONITORING

Ongoing monitoring is necessary in all dwellings in which LBP is known or assumed 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 surveys. 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 surveys by the Homeowner, which should be conducted at least once a year. Homeowner conducted visual surveys do not replace the need for professional re-evaluations. Visual surveys should confirm that all paint with known or suspected LBP are not deteriorating, that lead hazard control methods have not failed, and that structural problems do not threaten the integrity of any remaining known, assumed or suspected LBP. The partial table below is taken from **Table 6.1, Standard Re-evaluation Schedules**, as found in the HUD Guidelines. It is intended as a guideline for the Homeowner to assess the condition of areas where hazard control activities occurred.

Factors at this residence require the use of **Ongoing Monitoring Schedule Number 4** to dictate monitoring protocol. Visual surveys by the Homeowner should occur at least every six months for all painted surfaces and then annually thereafter. All surfaces that have undergone the hazard control strategy of Interim Controls, Encapsulation or Enclosure should also be checked during this survey. If components are replaced (i.e., windows, doors, etc.), no re-evaluation or visual survey would be needed, since the LBP would have been removed with the old windows/doors. Please refer to your community development agency, housing authority, or other applicable agency for additional local/regional regulations and guidelines governing re-evaluation activities.

| <b>LBP Schedule</b> | <b>Original Evaluation Results</b>  | <b>Action taken</b>  | <b>Re-evaluation Frequency &amp; Duration</b> | <b>Visual Survey Schedule</b>   |
|---------------------|---|--|---|---|
| 4                   | The average of lead dust levels on all floors, interior windows, or window troughs sampled exceeds the applicable standard by a factor of 10 or more. | A. Interim controls and/or hazard abatement or a mixture of interim controls and abatement including, but not limited to, dust removal (not including window replacement). | 6 months, 1-2 years                           | Annually and whenever information indicates a possible problem except for encapsulants. The first visual survey of encapsulants should be done one month after clearance; the second should be done 6 months later and annually thereafter. |



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| LBP Schedule | Original Evaluation Results | Action taken   | Re-evaluation Frequency & Duration | Visual Survey Schedule |
|--------------|-----------------------------|--|------------------------------------|------------------------|
|              |                             | B. Treatment specified in Section A plus replacement of all windows with lead hazards. | 6 months, 2 years                  |                        |
|              |                             | C. Abatement of all LBP using encapsulation or enclosure.                              | None                               |                        |
|              |                             | D. Removal of all LBP.   | None                               |                        |

## **8.0 DISCLOSURE REGULATIONS**

Every purchaser of any interest in residential real property on which a residential dwelling was built prior to 1978 must be notified that such property may present exposure to lead from LBP that may place young children at risk of developing lead poisoning. The seller must disclose any known information concerning LBP or LBP hazards. The seller must also disclose information such as the location of the LBP and/or LBP hazards, and the condition of the painted surfaces. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. Lead poisoning also poses a particular risk to pregnant women. The seller of any interest in residential real property is required to provide the buyer with any information on LBP hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards. A risk assessment or inspection for possible LBP hazards is recommended prior to purchase.

## **9.0 FUTURE REMODELING PRECAUTIONS**

Deteriorated or disturbed painted surfaces may still contain LBP and may pose a hazard, especially during renovation. The OSHA Lead in Construction Standard 29 CFR 1926.62 states that those "negative" readings (i.e., those below the HUD/USEPA definition of what constitutes LBP (1.0 mg/cm<sup>2</sup>)) do not relieve contractors from performing exposure assessments (personal air monitoring) on their employees, and should not be interpreted as lead free. Although a reading may indicate "negative", airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

A limited number of painted surfaces observed during the Assessment were tested for the presence of LBP. Only LBP hazards that were identified are addressed in this report. However, LBP, dust lead hazards, and/or soil lead hazards may be present at other locations on the property. Additional paint testing should precede any future remodeling activities that occur at any untested areas. 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



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Homeowner 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 titled: *"Guidelines for the Evaluation and Control of LBP Hazards in Housing"* (Second Edition, July 2012).

## **10.0 CONDITIONS AND LIMITATIONS**

This report is prepared for the sole benefit of NJDCA and GBCO under the LRR Program and may not be relied upon by any other person or entity without the written authorization of PARS. This is our report of a visual survey, XRF analysis of the tested components, wipe sampling, and soil sampling. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that the conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the site tested after June 29, 2015. No other environmental concerns or conditions were addressed during this evaluation.

**-o0o-**

PARS appreciates the opportunity to assist the NJDCA and GBCO with this project. Should you have any questions or comments please feel free to contact us at (609) 890-7277.

Respectfully submitted,

**PARS ENVIRONMENTAL, INC.**

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**TABLE 1  
XRF Lead-Based Paint Test Results**



**TABLE 1**  
**XRF Lead-Based Paint Test Results**  
**34 North Maryland Avenue, Unit 2**  
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| Date      | Reading | Room        | Component    | Substrate | Side | Paint Color | Paint Condition | Friction, Impact, or Teeth Marked Surface F/I/TM | Result   | Lead Content (mg/cm <sup>2</sup> ) |
|-----------|---------|-------------|--------------|-----------|------|-------------|-----------------|--|----------|------------------------------------|
| 6/29/2015 | 228     |             |              |           |      |             |                 |  |          | 5.41                               |
| 6/29/2015 | 229     | CALIBRATION | RED FILM     |           |      |             |                 |  | Negative | 0.9                                |
| 6/29/2015 | 230     | CALIBRATION | RED FILM     |           |      |             |                 |  | Negative | 0.9                                |
| 6/29/2015 | 231     | CALIBRATION | RED FILM     |           |      |             |                 |  | Negative | 0.9                                |
| 6/29/2015 | 232     | KITCHEN     | WALL         | PLASTER   | A    | WHITE       | POOR            |  | Negative | 0                                  |
| 6/29/2015 | 233     | KITCHEN     | WALL         | PLASTER   | B    | WHITE       | POOR            |  | Negative | 0                                  |
| 6/29/2015 | 234     | KITCHEN     | WALL         | PLASTER   | C    | WHITE       | POOR            |  | Negative | 0.3                                |
| 6/29/2015 | 235     | KITCHEN     | WALL         | PLASTER   | A    | WHITE       | POOR            |  | Negative | 0                                  |
| 6/29/2015 | 236     | KITCHEN     | WINDOW SILL  | WOOD      |      | WHITE       | POOR            |  | Positive | 2.5                                |
| 6/29/2015 | 237     | KITCHEN     | WINDOW FRAME | WOOD      |      | WHITE       | POOR            |  | Positive | 2.3                                |
| 6/29/2015 | 238     | KITCHEN     | DOOR         | WOOD      | B    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 239     | KITCHEN     | DOOR FRAME   | WOOD      |      | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 240     | KITCHEN     | ARCHWAY      | WOOD      |      | WHITE       | INTACT          |  | Negative | 0.3                                |
| 6/29/2015 | 241     | LIVING ROOM | WALL         | PLASTER   | A    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 242     | LIVING ROOM | WALL         | PLASTER   | B    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 243     | LIVING ROOM | WALL         | PLASTER   | C    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 244     | LIVING ROOM | WALL         | PLASTER   | D    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 245     | LIVING ROOM | CLOSET DOOR  | PLASTER   |      | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 246     | LIVING ROOM | CLOSET JAMB  | WOOD      |      | WHITE       | INTACT          |  | Positive | 2.9                                |
| 6/29/2015 | 247     | LIVING ROOM | BASEBOARD    | WOOD      |      | WHITE       | INTACT          |  | Positive | 1.6                                |
| 6/29/2015 | 248     | LIVING ROOM | WINDOW SILL  | WOOD      |      | WHITE       | POOR            |  | Positive | 2.4                                |
| 6/29/2015 | 249     | LIVING ROOM | WINDOW FRAME | WOOD      |      | WHITE       | POOR            |  | Positive | 1.7                                |
| 6/29/2015 | 250     | BEDROOM 1   | WALL         | PLASTER   | A    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 251     | BEDROOM 1   | WALL         | PLASTER   | B    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 252     | BEDROOM 1   | WALL         | PLASTER   | C    | WHITE       | INTACT          |  | Negative | 0.2                                |
| 6/29/2015 | 253     | BEDROOM 1   | WALL         | PLASTER   | D    | WHITE       | INTACT          |  | Negative | 0                                  |



**TABLE 1**  
**XRF Lead-Based Paint Test Results**  
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| Date      | Reading | Room        | Component    | Substrate | Side | Paint Color | Paint Condition | Friction, Impact, or Teeth Marked Surface F/I/TM | Result   | Lead Content (mg/cm <sup>2</sup> ) |
|-----------|---------|-------------|--------------|-----------|------|-------------|-----------------|--|----------|------------------------------------|
| 6/29/2015 | 254     | BEDROOM 1   | WINDOW SILL  | WOOD      | C    | WHITE       | POOR            |  | Positive | 2.9                                |
| 6/29/2015 | 255     | BEDROOM 1   | WINDOW FRAME | WOOD      |      | WHITE       | POOR            |  | Positive | 2.1                                |
| 6/29/2015 | 256     | BEDROOM 1   | BASEBOARD    | WOOD      |      | WHITE       | INTACT          |  | Positive | 1.5                                |
| 6/29/2015 | 257     | BEDROOM 1   | CLOSET DOOR  | WOOD      |      | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 258     | BEDROOM 1   | CLOSET FRAME | WOOD      |      | WHITE       | INTACT          |  | Positive | 2.1                                |
| 6/29/2015 | 259     | BEDROOM 1   | DOOR         | WOOD      |      | WHITE       | INTACT          |  | Negative | 0.03                               |
| 6/29/2015 | 260     | BEDROOM 1   | DOOR JAMB    | WOOD      |      | WHITE       | INTACT          |  | Positive | 2.8                                |
| 6/29/2015 | 261     | BATHROOM    | WALL         | PLASTER   | A    | WHITE       | INTACT          |  | Negative | 0                                  |
| 6/29/2015 | 262     | BATHROOM    | WALL         | PLASTER   | B    | WHITE       | INTACT          |  | Negative | 0.1                                |
| 6/29/2015 | 263     | BATHROOM    | WALL         | PLASTER   | D    | WHITE       | INTACT          |  | Negative | 0.04                               |
| 6/29/2015 | 264     | BATHROOM    | WINDOW SILL  | WOOD      |      | WHITE       | POOR            |  | Positive | 2.2                                |
| 6/29/2015 | 265     | BATHROOM    | DOOR FRAME   | WOOD      |      | WHITE       | INTACT          |  | Positive | 2.4                                |
| 6/29/2015 | 266     | HALL        | WALL         | PLASTER   | B    | WHITE       | POOR            |  | Negative | 0                                  |
| 6/29/2015 | 267     | HALL        | WALL         | PLASTER   | D    | WHITE       | POOR            |  | Negative | 0                                  |
| 6/29/2015 | 268     | HALL        | BASEBOARD    | WOOD      |      | WHITE       | INTACT          |  | Positive | 3.3                                |
| 6/29/2015 | 269     | HALL        | DOOR JAMB    | WOOD      |      | WHITE       | INTACT          |  | Negative | 0.2                                |
| 6/29/2015 | 270     | CALIBRATION | RED FILM     |           |      |             |                 |  | Positive | 1.1                                |
| 6/29/2015 | 271     | CALIBRATION | RED FILM     |           |      |             |                 |  | Positive | 1                                  |
| 6/29/2015 | 272     | CALIBRATION | RED FILM     |           |      |             |                 |  | Positive | 1.1                                |



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**TABLE 2  
XRF Direct Reading Results**

| Date & Time            | Reading    | Mode         | Duration     | Pass Fail Standard | Pb         | Pb +/-      |
|------------------------|------------|--------------|--------------|--------------------|------------|-------------|
| 6/29/2015 12:02        | 228        | SHUTTER_CAL  | 70.32        |                    | 5.41       | 0           |
| 6/29/2015 12:03        | 229        | PAINT        | 6.37         | Negative           | 0.9        | 0.1         |
| 6/29/2015 12:03        | 230        | PAINT        | 6.8          | Negative           | 0.9        | 0.1         |
| 6/29/2015 12:04        | 231        | PAINT        | 9.38         | Negative           | 0.9        | 0.1         |
| 6/29/2015 12:05        | 232        | PAINT        | 1.43         | Negative           | 0          | 0.12        |
| 6/29/2015 12:06        | 233        | PAINT        | 1.43         | Negative           | 0          | 0.09        |
| 6/29/2015 12:06        | 234        | PAINT        | 1.42         | Negative           | 0.3        | 0.02        |
| 6/29/2015 12:06        | 235        | PAINT        | 1.42         | Negative           | 0          | 0.02        |
| <b>6/29/2015 12:07</b> | <b>236</b> | <b>PAINT</b> | <b>3.32</b>  | <b>Positive</b>    | <b>2.5</b> | <b>0.8</b>  |
| <b>6/29/2015 12:07</b> | <b>237</b> | <b>PAINT</b> | <b>3.32</b>  | <b>Positive</b>    | <b>2.3</b> | <b>0.1</b>  |
| 6/29/2015 12:08        | 238        | PAINT        | 1.43         | Negative           | 0          | 0.02        |
| 6/29/2015 12:08        | 239        | PAINT        | 1.43         | Negative           | 0          | 0.02        |
| 6/29/2015 12:08        | 240        | PAINT        | 6.18         | Negative           | 0.3        | 0.22        |
| 6/29/2015 12:09        | 241        | PAINT        | 1.43         | Negative           | 0          | 0.02        |
| 6/29/2015 12:10        | 242        | PAINT        | 1.42         | Negative           | 0          | 0.02        |
| 6/29/2015 12:10        | 243        | PAINT        | 1.42         | Negative           | 0          | 0.02        |
| 6/29/2015 12:10        | 244        | PAINT        | 1.43         | Negative           | 0          | 0.02        |
| 6/29/2015 12:11        | 245        | PAINT        | 1.42         | Negative           | 0          | 0.13        |
| <b>6/29/2015 12:11</b> | <b>246</b> | <b>PAINT</b> | <b>6.65</b>  | <b>Positive</b>    | <b>2.9</b> | <b>0.4</b>  |
| <b>6/29/2015 12:12</b> | <b>247</b> | <b>PAINT</b> | <b>3.31</b>  | <b>Positive</b>    | <b>1.6</b> | <b>0.5</b>  |
| <b>6/29/2015 12:12</b> | <b>248</b> | <b>PAINT</b> | <b>5.24</b>  | <b>Positive</b>    | <b>2.4</b> | <b>0.1</b>  |
| <b>6/29/2015 12:12</b> | <b>249</b> | <b>PAINT</b> | <b>10.92</b> | <b>Positive</b>    | <b>1.7</b> | <b>0.1</b>  |
| 6/29/2015 12:15        | 250        | PAINT        | 1.43         | Negative           | 0          | 0.02        |
| 6/29/2015 12:15        | 251        | PAINT        | 1.42         | Negative           | 0          | 0.02        |
| 6/29/2015 12:15        | 252        | PAINT        | 1.43         | Negative           | 0.2        | 0.02        |
| 6/29/2015 12:15        | 253        | PAINT        | 3.31         | Negative           | 0          | 0.1         |
| <b>6/29/2015 12:16</b> | <b>254</b> | <b>PAINT</b> | <b>3.32</b>  | <b>Positive</b>    | <b>2.9</b> | <b>0.31</b> |
| <b>6/29/2015 12:17</b> | <b>255</b> | <b>PAINT</b> | <b>3.32</b>  | <b>Positive</b>    | <b>2.1</b> | <b>0.3</b>  |
| <b>6/29/2015 12:17</b> | <b>256</b> | <b>PAINT</b> | <b>4.74</b>  | <b>Positive</b>    | <b>1.5</b> | <b>0.2</b>  |
| 6/29/2015 12:18        | 257        | PAINT        | 1.43         | Negative           | 0          | 0.16        |
| <b>6/29/2015 12:18</b> | <b>258</b> | <b>PAINT</b> | <b>2.38</b>  | <b>Positive</b>    | <b>2.1</b> | <b>0.5</b>  |
| 6/29/2015 12:18        | 259        | PAINT        | 1.43         | Negative           | 0.03       | 0.43        |
| <b>6/29/2015 12:19</b> | <b>260</b> | <b>PAINT</b> | <b>3.32</b>  | <b>Positive</b>    | <b>2.8</b> | <b>0.25</b> |
| 6/29/2015 12:20        | 261        | PAINT        | 1.43         | Negative           | 0          | 0.02        |
| 6/29/2015 12:20        | 262        | PAINT        | 1.43         | Negative           | 0.1        | 0.02        |
| 6/29/2015 12:20        | 263        | PAINT        | 1.42         | Negative           | 0.04       | 0.02        |
| <b>6/29/2015 12:21</b> | <b>264</b> | <b>PAINT</b> | <b>3.31</b>  | <b>Positive</b>    | <b>2.2</b> | <b>0.3</b>  |
| <b>6/29/2015 12:22</b> | <b>265</b> | <b>PAINT</b> | <b>6.65</b>  | <b>Positive</b>    | <b>2.4</b> | <b>0.21</b> |
| 6/29/2015 12:23        | 266        | PAINT        | 4.74         | Negative           | 0          | 0.07        |
| 6/29/2015 12:23        | 267        | PAINT        | 6.65         | Negative           | 0          | 0.11        |
| <b>6/29/2015 12:23</b> | <b>268</b> | <b>PAINT</b> | <b>2.38</b>  | <b>Positive</b>    | <b>3.3</b> | <b>0.6</b>  |





Table 2  
XRF Direct Reading Results  
34 North Maryland Avenue, Unit 2  
Atlantic City, NJ 08401  
SRP0043415.05.02.D.002

| Date & Time     | Reading | Mode  | Duration | Pass Fail Standard | Pb  | Pb +/- |
|-----------------|---------|-------|----------|--------------------|-----|--------|
| 6/29/2015 12:24 | 269     | PAINT | 1.43     | Negative           | 0.2 | 0.02   |
| 6/29/2015 12:25 | 270     | PAINT | 8.51     | Positive           | 1.1 | 0.1    |
| 6/29/2015 12:25 | 271     | PAINT | 19.98    | Positive           | 1   | 0.1    |
| 6/29/2015 12:26 | 272     | PAINT | 8.54     | Positive           | 1.1 | 0.1    |



**LEAD-BASED PAINT RISK ASSESSMENT  
34 NORTH MARYLAND AVENUE, UNIT 2  
ATLANTIC CITY, NEW JERSEY 08401  
SRP0043415.05.02.D.002**

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**TABLE 3  
Lead Dust Wipe Sample Results**



**TABLE 3**  
**LBP Dust Wipe Sample Test Results**  
**34 North Maryland Avenue, Unit 2**  
**Atlantic City, New Jersey 08401**  
**SRP0043415.05.02.D.002**

| Sample ID | Date      | Room        | Location    | Lead Dust Concentration<br>indicative of Lead Hazard<br>( $\mu\text{g}/\text{ft}^2$ ) | Wipe Sample Result<br>( $\mu\text{g}/\text{ft}^2$ ) |
|-----------|-----------|-------------|-------------|---|---|
| U2-01     | 6/29/2015 | Kitchen     | Floor       | 40  | 92  |
| U2-02     | 6/29/2015 | Living Room | Floor       | 40  | 58  |
| U2-03     | 6/29/2015 | Hall        | Floor       | 40  | 96  |
| U2-04     | 6/29/2015 | Bedroom     | Floor       | 40  | 54  |
| U2-05     | 6/29/2015 | Bathroom    | Floor       | 40  | 86  |
| U2-06     | 6/29/2015 | Kitchen     | Window Sill | 250   | 3200  |
| U2-07     | 6/29/2015 | Living Room | Window Sill | 250   | 930   |
| U2-08     | 6/29/2015 | Bedroom     | Window Sill | 250   | 370   |
| U2-09     | 6/29/2015 | QC          | Blank       | N/A   | <10   |

**4400 =** Exceeds lead dust concentration



**LEAD-BASED PAINT RISK ASSESSMENT  
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**TABLE 4**  
**Lead Based Paint Abatement Cost Estimate**



**Table 4**  
**LBP Cost Estimate Table**  
**34 Norht Maryland Avenue, Unit 2**  
**Atlantic City, NJ 08401**  
**SRP0043415.05.02.D.002**

| Location   | Approximate Quantity (SF) | Estimated Cost Per SF     | Estimated Abatement Cost |
|--|---------------------------|---------------------------|--------------------------|
|  |                           | <b>Interim Control*</b>   |                          |
| Living Room Closet Jamb  | 4                         | <b>\$1.00-\$3.00</b>      | <b>\$158 - \$474</b>     |
| Throughout Unit Baseboards   | 130                       |                           |                          |
| Bedroom Closet Frame   | 10                        |                           |                          |
| Bedroom Door Jamb  | 4                         |                           |                          |
| Bathroom Door Frame  | 10                        |                           |                          |
| <b>Estimated Total</b>   | <b>158</b>                |                           |                          |
| *Cost provided for paint film stabilization. Encapsulation/Enclosure costs may run higher. |                           |                           |                          |
|  |                           | <b>Permanent Control*</b> |                          |
| Throughout Unit Window Frames and Sills  | 36                        | <b>\$10.00-\$15.00</b>    | <b>\$1,940 - \$2,910</b> |
| Living Room Closet Jamb  | 4                         |                           |                          |
| Throughout Unit Baseboards   | 130                       |                           |                          |
| Bedroom Closet Frame   | 10                        |                           |                          |
| Bedroom Door Jamb  | 4                         |                           |                          |
| Bathroom Door Frame  | 10                        |                           |                          |
| <b>Estimated Total</b>   | <b>194</b>                |                           |                          |
| Lead Dust Contamination*   | 400                       | <b>\$10.00-\$15.00</b>    | <b>\$4,000- \$6,000</b>  |
| <b>Estimated Total</b>   |                           |                           |                          |



**LEAD-BASED PAINT RISK ASSESSMENT  
34 NORTH MARYLAND AVENUE, UNIT 2  
ATLANTIC CITY, NEW JERSEY 08401  
SRP0043415.05.02.D.002**

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## **APPENDIX A**

### **Licenses**

**Lead Identification Permit**

**New Jersey Department of Health**

**RAFAEL L TORRES**

**Permit No.: 027417**

**ID No.: 010211**

**Expires: 4/6/2016**

Authorization Signature:   
Joseph D. Eldridge, M.P.H., Director

**Inspector/Risk Assessor**





41089

# *National Asbestos & Environmental Training Institute*

## **CERTIFICATE OF COMPLETION**

*This is to certify that*

***Rafael L. Torres, III***

*Successfully completed the course entitled*

**5-Day New Jersey/EPA Model Lead Inspector/Risk Assessor Program on  
February 3-7, 2014**

*Examination Passed on February 7, 2014*

*Expiration Date on February 7, 2016*

  
Doris L. Adler

President, NAETI

Language: English  
3321 Doris Avenue, Building B, Ocean, NJ 07712

Phone (732) 531-5571

ABIH 5 CM POINTS  
Fax (732) 531-5956

[www.naeti.com](http://www.naeti.com)





CHRIS CHRISTIE  
Governor

KIM GUADAGNO  
Lt. Governor

LOCATION  
101 SOUTH BROAD STREET  
TRENTON, NEW JERSEY 08618

STATE OF NEW JERSEY  
DEPARTMENT OF COMMUNITY AFFAIRS  
DIVISION OF CODES AND STANDARDS  
BUREAU OF CODE SERVICES  
LEAD HAZARD ABATEMENT

RICHARD E. CONSTABLE, III  
Commissioner

MAILING ADDRESS  
PO BOX 816  
TRENTON, NJ 08625-0816

Certificate - Lead Evaluation Contractor

This is to certify that the Department of Community Affairs has

( ) CERTIFIED  
(XX) RECERTIFIED

PARS ENVIRONMENTAL  
500 HORIZON DRIVE  
SUITE 540  
ROBBINSVILLE, NJ 08691

To act as a Lead Evaluation Contractor on the following projects

Residential  
Public Buildings

Cert # 00416 E

Effective Date: MARCH 1, 2014

Date of Expiration: FEBRUARY 29, 2016

Certificate Type: 2 YEAR

Sincerely,

James L. Amici  
Supervisor of Certification  
Lead Hazard Abatement Unit





**LEAD-BASED PAINT RISK ASSESSMENT  
34 NORTH MARYLAND AVENUE, UNIT 2  
ATLANTIC CITY, NEW JERSEY 08401  
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**APPENDIX B**  
**Performance Characteristic Sheet**

## Performance Characteristic Sheet

EFFECTIVE DATE: September 24, 2004

EDITION NO.: 1

### MANUFACTURER AND MODEL:

Make: Niton LLC

Tested Model: XLp 300

Source:  $^{109}\text{Cd}$ 

Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.

XLp 300A, XLp 301A, XLp 302A and XLp 303A.

XLi 700A, XLi 701A, XLi 702A and XLi 703A.

XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

## FIELD OPERATION GUIDANCE

### OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

### XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm<sup>2</sup> (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> 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:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is not needed for:

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

### INCONCLUSIVE RANGE OR THRESHOLD:

| K+L MODE<br>READING DESCRIPTION                           | SUBSTRATE | THRESHOLD<br>(mg/cm <sup>2</sup> ) |
|---|-----------|------------------------------------|
| Results 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 in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 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.

### SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

### 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 the K+L variable time mode 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 housing a result is defined as the average of three readings. In multifamily housing, a result is 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.

#### TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

| Testing Times Using K+L Reading Mode (Seconds) |                             |        |                             |  |                 |          |
|--|-----------------------------|--------|-----------------------------|--|-----------------|----------|
|  | All Data                    |        |                             | Median for laboratory-measured lead levels (mg/cm <sup>2</sup> ) |                 |          |
| Substrate                                      | 25 <sup>th</sup> Percentile | Median | 75 <sup>th</sup> Percentile | Pb < 0.25  | 0.25 ≤ Pb < 1.0 | 1.0 ≤ Pb |
| Wood Drywall                                   | 4                           | 11     | 19                          | 11   | 15              | 11       |
| Metal  | 4                           | 12     | 18                          | 9  | 12              | 14       |
| Brick<br>Concrete<br>Plaster                   | 8                           | 16     | 22                          | 15   | 18              | 16       |

#### CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

#### 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.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. 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*.



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ATLANTIC CITY, NEW JERSEY 08401  
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## **APPENDIX C**

### **Lead Glossary**



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## “LEAD SPEAK” A BRIEF GLOSSARY

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### COMMON LBP TERMS

**LBP:** Any and all paint that contains at least 1 milligram of lead per square centimeter of surface area ( $1.0 \text{ mg/cm}^2$ ). This is infrequently expressed as 0.5% lead by weight and/or 5,000 parts per million lead concentrations by dry weight.

**LBP HAZARDS:** Housing conditions that cause human exposure to unsafe levels of lead from paint. These conditions include, but are not necessarily limited to: deteriorated LBP; friction, impact, or chewable surfaces; lead contaminated dust; or lead contaminated soil.

**PAINT:** Any and all paints, stains, varnishes, shellacs, epoxies, lacquers, polyurethanes, etc.

**HOUSE WALL IDENTIFICATION GUIDE:** The exterior wall that contains the front entry to the house is labeled as the A wall of the house. Proceeding clock-wise around the house label the remaining walls B, C, and D respectively. The interior room walls correspond to the exterior walls

### LEAD HAZARD EVALUATION METHODS

**VISUAL EVALUATION:** A visual evaluation of interior and exterior paint and surfaces in an effort to try to identify specific conditions that contribute to LBP hazards. A certified risk assessor or a Housing Quality Standards inspector trained in visual assessments should perform these inspections.

**PAINT TESTING:** Testing of specific surfaces that are coated with paint, by XRF (x-ray fluorescence) or laboratory analysis, to determine the lead content of these surfaces, performed by a NJ certified Lead Inspector/Risk Assessor.

**RISK ASSESSMENT:** An on-site investigation to help determine the existence of LBP hazards. This can include paint testing, dust, and soil sampling, water sampling and a visual inspection. The risk assessment report identifies lead hazards and potential options for lead hazard control. A certified risk assessor must conduct the assessment.

**CLEARANCE EXAMINATION:** Clearance is performed after hazard reduction, rehabilitation, renovation, repair, modernization, or maintenance activities to determine if a unit is safe for occupancy. It involves a visual inspection, analysis of dust and soil samples, and preparation of a report. A certified risk assessor that is independent from the company or individual conducting the lead hazard control activities should conduct the clearance examination.

**X-RAY FLUORESCENCE ANALYZER (XRF):** This device, often called an XRF, is used to help identify levels of lead in paint without disturbing the painted surfaces themselves. The unit uses X-rays to measure the lead content in the paint on a per square centimeter basis.



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**“LEAD SPEAK” A BRIEF GLOSSARY**

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**LEAD POISONING:** Environmental Intervention Blood Lead Level (EIBLL): The level of lead in blood that requires intervention in a child under the age of seventy-two (72) months (6 years). This is typically defined as a blood lead level of 20  $\mu\text{g/dL}$  (micrograms per deciliter) of whole blood or above for a single test, or blood levels of 15-19 in two tests taken at least three months apart.

**KEY UNITS OF MEASUREMENT**

$\mu\text{g}$  (Microgram): A microgram is  $1/1000^{\text{th}}$  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.

$\mu\text{g/dL}$  (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.

$\mu\text{g/ft}^2$  (micrograms per square foot): the unit used to express levels of lead in dust samples. All reports should report levels of lead in dust in  $\mu\text{g/ft}^2$ ,  $\text{mg/cm}^2$  (milligrams per centimeter square): 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:  $\mu\text{g/gram}$  or  $\text{mg/kg}$  (soil) or  $\text{mg/l}$  (aqueous).

PPB (parts per billion): Typically used to express the amount of lead found in drinking water. This measurement is also sometimes expressed as:  $\mu\text{g/l}$ .

**EPA/HUD PUBLISHED LBP STANDARDS****Dust-thresholds for Lead Contamination**

- Floors: less than ( $<$ )  $40 \mu\text{g/ft}^2$
- Interior Window Sills:  $<250 \mu\text{g/ft}^2$
- Window Troughs:  $<400 \mu\text{g/ft}^2$

**Soil-thresholds for Lead Contamination**

- Play areas used by children 6 and under:  $<400 \mu\text{g/gram}$  or 400 PPM
- Other areas:  $<1200 \mu\text{g/gram}$  or 1200 PPM
- Threshold for abatement:  $<5000 \mu\text{g/gram}$  or 5000 PPM





**“LEAD SPEAK” A BRIEF GLOSSARY**

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NATIONAL CENTER FOR HEALTHY HOUSING: <http://www.leadsofthousing.org/>

NATIONAL LEAD INFORMATION CENTER AND CLEARINGHOUSE:  
1-800-424 LEAD, Fax: 301-585-7976 [www.epa.gov/lead/nlic.htm](http://www.epa.gov/lead/nlic.htm)

NATIONAL LEAD ASSESSMENT AND ABATEMENT COUNCIL:  
1-800-590-6522 Fax: 301-924-0265 <http://www.nlaac.org>

HUD's OFFICE OF HEALTH HOMES AND LEAD HAZARD CONTROL:  
<http://www.hud.gov/offices/lead>

THE ALLIANCE TO END CHILDHOOD LEAD POISONING:  
<http://www.aecpl.org>

THE ENVIRONMENTAL PROTECTION AGENCY LEAD PROGRAMS:  
<http://www.epa.gov/opptintr/lead> Voice: 1-202-260-2090

NEW JERSEY DEPARTMENT OF HEALTH, INDOOR ENVIRONMENTS PROGRAM  
<http://www.state.nj.us/health/iep/lead.shtml>

**ADDITIONAL INFORMATION:**

Lists of recalled products containing lead: [www.safetyalerts.com](http://www.safetyalerts.com). The Lead listing for info On lead-safe service providers and EPA accredited laboratories throughout the United States:  
<http://www.leadlisting.org>



**LEAD-BASED PAINT RISK ASSESSMENT  
34 NORTH MARYLAND AVENUE, UNIT 2  
ATLANTIC CITY, NEW JERSEY 08401  
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**APPENDIX D  
EMSL Lead Report**

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>[cinnaminsonleadlab@emsl.com](mailto:cinnaminsonleadlab@emsl.com)

EMSL Order: 201507696  
CustomerID: PARS51  
CustomerPO: 1011-05  
ProjectID: GILBANE

Attn: **Rafael Torres**  
**PARS Environmental**  
**500 Horizon Drive**  
**Suite 540**  
**Robbinsville, NJ 08691**

Phone: (609) 890-7277  
Fax: (609) 890-9116  
Received: 06/30/15 9:00 AM  
Collected:

Project: **Gilbane - Maryland - Unit 2****Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)\***

| <i>Client Sample Description</i> | <i>Lab ID</i>  | <i>Collected</i> | <i>Analyzed</i>     | <i>Area Sampled</i> | <i>Lead Concentration</i> |
|----------------------------------|----------------|------------------|---------------------|---------------------|---------------------------|
| U2-01                            | 201507696-0001 | 6/30/2015        | 144 in <sup>2</sup> |                     | 92 µg/ft <sup>2</sup>     |
| Site: Kitchen Floor              |                |                  |                     |                     |                           |
| U2-02                            | 201507696-0002 | 6/30/2015        | 144 in <sup>2</sup> |                     | 58 µg/ft <sup>2</sup>     |
| Site: Living Room Floor          |                |                  |                     |                     |                           |
| U2-03                            | 201507696-0003 | 6/30/2015        | 144 in <sup>2</sup> |                     | 96 µg/ft <sup>2</sup>     |
| Site: Hall Floor                 |                |                  |                     |                     |                           |
| U2-04                            | 201507696-0004 | 6/30/2015        | 144 in <sup>2</sup> |                     | 54 µg/ft <sup>2</sup>     |
| Site: Bedroom Floor              |                |                  |                     |                     |                           |
| U2-05                            | 201507696-0005 | 6/30/2015        | 144 in <sup>2</sup> |                     | 86 µg/ft <sup>2</sup>     |
| Site: Bathroom Floor             |                |                  |                     |                     |                           |
| U2-06                            | 201507696-0006 | 6/30/2015        | 48 in <sup>2</sup>  |                     | 3200 µg/ft <sup>2</sup>   |
| Site: Kitchen Sill               |                |                  |                     |                     |                           |
| U2-07                            | 201507696-0007 | 6/30/2015        | 48 in <sup>2</sup>  |                     | 930 µg/ft <sup>2</sup>    |
| Site: Living Room Floor          |                |                  |                     |                     |                           |
| U2-08                            | 201507696-0008 | 6/30/2015        | 48 in <sup>2</sup>  |                     | 370 µg/ft <sup>2</sup>    |
| Site: Bedroom Sill               |                |                  |                     |                     |                           |
| U2-09                            | 201507696-0009 | 6/30/2015        | n/a                 |                     | <10 µg/wipe               |
| Site: QC                         |                |                  |                     |                     |                           |

Julie Smith - Laboratory Director  
NJ-NELAP Accredited:03036  
or other approved signatory

\*Analysis following Lead in Dust by EMSL SOP/ Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. ug/wipe = ug/ft2 x area sampled in ft2. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities (such as volume sampled) or analytical method limitations. Samples received in good condition unless otherwise noted. The lab is not responsible for data reported in µg/ft<sup>2</sup> which is dependant on the area provided by non-lab personnel. The test results contained within this report meet the requirements of NELAC unless otherwise noted. "<" (less than) results signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically indicated otherwise

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 07/01/2015 09:46:58



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING  
LABORATORY PRODUCTS TRAINING

## Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

201507696

200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

FAX: (856) 786-5974

|  |                                 |  |  |
|--|---------------------------------|--|--|
| Company: PARS Environmental, Inc.  |                                 | EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different<br>If Bill to is Different note instructions in Comments** |  |
| Street: 500 Horizon Drive, Suite 540   |                                 | Third Party Billing requires written authorization from third party  |  |
| City: Robbinsville   | State/Province: NJ              | Zip/Postal Code: 08691   | Country: United States   |
| Report To (Name): Rafael Torres  |                                 | Telephone #: 6098907277  |  |
| Email Address: rtorres@parsenviro.com  |                                 | Fax #:   | Purchase Order: 1011-05  |
| Project Name/Number: GILDAE-MARYLAND-UNT 2   |                                 | Please Provide Results <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email  |  |
| U.S. State Samples Taken: NJ   |                                 | CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt  |  |
| Turnaround Time (TAT) Options* - Please Check  |                                 |  |  |
| <input type="checkbox"/> 3 Hour  | <input type="checkbox"/> 6 Hour | <input checked="" type="checkbox"/> 24 Hour  | <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week |
| *Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide  |                                 |  |  |
| Matrix   | Method                          | Instrument   | Reporting Limit  |
| Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm                               | SW846-7000B                     | Flame Atomic Absorption  | 0.01%  |
| Air  | NIOSH 7082                      | Flame Atomic Absorption  | 4 µg/filter  |
|  | NIOSH 7105                      | Graphite Furnace AA  | 0.03 µg/filter   |
|  | NIOSH 7300 modified             | ICP-AES/ICP-MS   | 0.5 µg/filter  |
| Wipe* <input checked="" type="checkbox"/> ASTM non ASTM <input checked="" type="checkbox"/><br>*if no box is checked, non-ASTM Wipe is assumed | SW846-7000B                     | Flame Atomic Absorption  | 10 µg/wipe   |
|  | SW846-6010B or C                | ICP-AES  | 1.0 µg/wipe  |
| TCLP   | SW846-1311/7000B/SM 3111B       | Flame Atomic Absorption  | 0.4 mg/L (ppm)   |
|  | SW846-1131/SW846-6010B or C     | ICP-AES  | 0.1 mg/L (ppm)   |
| Soil   | SW846-7000B                     | Flame Atomic Absorption  | 40 mg/kg (ppm)   |
|  | SW846-6010B or C                | ICP-AES  | 2 mg/kg (ppm)  |
| Wastewater Unpreserved <input type="checkbox"/><br>Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>                             | SM3111B/SW846-7000B             | Flame Atomic Absorption  | 0.4 mg/L (ppm)   |
|  | EPA 200.9                       | Graphite Furnace AA  | 0.003 mg/L (ppm)   |
|  | EPA 200.7                       | ICP-AES  | 0.020 mg/L (ppm)   |
| Drinking Water Unpreserved <input type="checkbox"/><br>Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>                         | EPA 200.9                       | Graphite Furnace AA  | 0.003 mg/L (ppm)   |
|  | EPA 200.8                       | ICP-MS   | 0.001 mg/L (ppm)   |
| TSP/SPM Filter   | 40 CFR Part 60 (2013)           | ICP-MS   | 1.2 µg/filter  |
| Other:   |                                 |  |  |
| Name of Sampler: R. TORRES   |                                 | Signature of Sampler: [Signature]  |  |
| Sample #   | Location                        | Volume/Area  | Date/Time Sampled  |
|  |                                 |  |  |
|  |                                 |  |  |
|  |                                 |  |  |
|  |                                 |  |  |
|  |                                 |  |  |
| Client Sample #'s: VZ-01 - VZ-07   |                                 | Total # of Samples:  |  |
| Relinquished (Client): [Signature]   | Date: 6/29/15                   | Time:  |  |
| Received (Lab): [Signature]  | Date: 6/30/15                   | Time:  | 9am courier  |
| Comments:  |                                 |  |  |

**EMBL ANALYTICAL, INC.**  
LABORATORY • INSTRUMENTS • TRAINING

**EMSL ORDER ID** (Lab Use Only):

201507696

FAX: (856) 786-5974

[illegible]

Comments/Special Instructions:



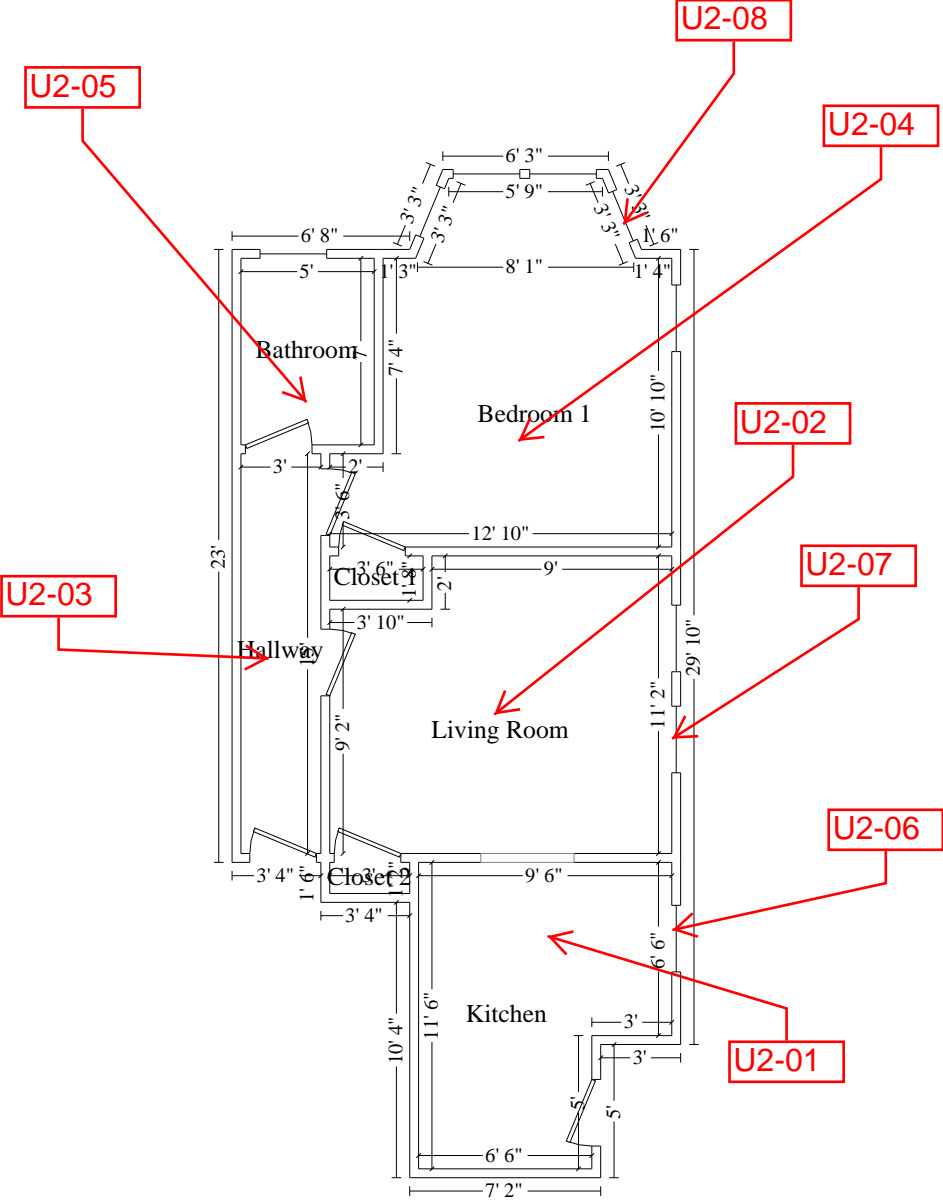
**LEAD-BASED PAINT RISK ASSESSMENT  
34 NORTH MARYLAND AVENUE, UNIT 2  
ATLANTIC CITY, NEW JERSEY 08401  
SRP0043415.05.02.D.002**

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PARS

**APPENDIX E**

**Bare Soil / Deteriorated Paint / Lead Dust Wipe Sample  
Location**



34 North Maryland Avenue  
Atlantic City, NJ  
SRP0043415.05.02.D.002 Unit 2  
Lead Wipe Sample Locations

Note: All windows and plaster  
walls in poor condition



Main Level