



environmental consulting solutions
523 W. Sunnybrook Drive, Royal Oak, Michigan 48073

June 9, 2016

Mr. Lance R. Mitchell
Ann Arbor Housing Commission
727 Miller Avenue
Ann Arbor, Michigan 48103

**Re: Lead Based Paint Inspection and Risk Assessment
805-807 West Washington
Ann Arbor, Michigan
ECS Project A108-0001**

Dear Mr. Mitchell,

Environmental Consulting Solutions, LLC (ECS) has completed the Lead Based Paint Inspection and Risk Assessment (LBP I/RA) for the referenced property in Ann Arbor, Michigan.

ECS contracted American Environmental Consultants (AEC) to perform the work. testing. The LBP I/RA was performed on May 17, 2016 by a State of Michigan Certified Lead Inspector/Risk Assessor in general accordance with Michigan Department of Community Health (MDCH) and HUD guidelines.

The results of the LBP I/RA indicated that no Lead Based Paint or Lead Hazards were identified in either unit. Please refer to the attached AEC report for details.

Thank you for the opportunity to provide this service to you. If you have any questions, please contact us at 248-763-3639.

Sincerely,

ENVIRONMENTAL CONSULTING SOLUTIONS, LLC

A handwritten signature in black ink that reads 'Andrew J. Foerg'.

Andrew J. Foerg, CPG
President

Enclosure

LEAD BASED PAINT INSPECTION AND RISK ASSESSMENT

FOR THE PROPERTY LOCATED AT

805-807 West Washington St.
Ann Arbor, Michigan 48103

PREPARED FOR

Environmental Consulting Solutions (ECS)
523 W. Sunnybrook Drive
Royal Oak, Michigan 48073

PERFORMED BY

Matthew Rodgers
American Environmental Consultants, LLC
12838 Gavel
Detroit, MI 48227
313-491-2600

PROJECT NUMBER

1478-16007

DATE

5/17/16

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1. GENERAL PROVISIONS

1.1 INTRODUCTION

Matthew Rodgers, of American Environmental Consultants (AEC), LLC, conducted a lead-based paint inspection and risk assessment at 805-807 West Washington St. in Ann Arbor, Michigan on May 17th, 2016. Mr. Rodgers is a certified Lead Inspector and Risk Assessor through the Michigan Department of Community Health, Certification Number P-04247. This property is owned by The Ann Arbor Housing Commission which is located at 727 Miller Ave., Ann Arbor and can be reached at 734-794-6720.

1.2 PURPOSE

The purpose of the risk assessment was to determine the location, type, and severity of existing or potential health hazards at the property associated with exposures to lead and to develop recommendations in response to those hazards. The property is scheduled for rehabilitation.

The following report details the results of the inspection and assessment. The findings of this report will be forwarded to the property owner. The findings of this report must be provided to any purchaser of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under sales contract. Sellers are also required to distribute an educational pamphlet approved by the Environmental Protection Agency (EPA), entitled *Protect Your from Family Lead in Your Home*, and include standard warning language in their sales contracts to ensure that parents have the information they need to protect their children from lead-based paint hazards. For more information regarding your obligations under federal lead based paint regulations, contact 800-424-LEAD (5323).

1.3 SITE DESCRIPTION

The subject property is owned by The Ann Arbor Housing Commission and is located at 805-807 West Washington St. in Ann Arbor, MI. The subject property is a 1 story 2 unit building. Both of the units were tested using the HUD guidelines. The general construction material of the building is wood frame. The exterior of the building has wood siding. The building was built in 1969. See Appendix A for site location and floor plan maps.

1.4 REPORT SUMMARY

No lead based paint or lead hazards were identified. No further testing is needed.

2. BACKGROUND

2.1 HEALTH AFFECTS OF LEAD EXPOSURE

Lead is a soft metal, naturally occurring in the earth's crust. It has been widely used in consumer products since 6500 B.C. It has been determined; however, that lead has no useful purpose in the human body and acts as a toxin. It takes the place of essential minerals such as calcium, potassium, and iron, which are all vital to the construction and repair of bones, organs and blood. Lead exposures have become a major health concern.

Children, due to their smaller body mass and higher metabolism, are affected by lead exposures much more severely than adults. They ingest lead through daily hand-to-mouth activities and may develop severe attention deficit disorders, irreversible brain injury and aggressive behaviors. The symptoms of lead poisoning often mimic other afflictions such as flu, colic or general malaise. It is important to have your young children's blood tested for lead burden.

2.2 SOURCES OF LEAD

Since lead is ingested by routine daily activities such as eating, playing, and working, it is important to understand the sources of lead exposures. The most common places to find lead in building settings are interior and exterior paint and contaminated soil or dust. Lead-based paint is most hazardous when it is chipping, peeling, cracking, chalking, applied to friction or impact surfaces of components such as doors, windows, and floors. The abrasive action of painted surfaces rubbing together causes lead-containing paints to be ground into a fine dust. Lead dust can also be created from decaying vinyl mini blinds. Lead dust then settles on furniture, play areas, and children's toys, where children are exposed during regular activities.

Several other sources of lead in a building include lead dust brought into the building from occupational exposures, water pipes, fixtures and joints, decorative china, leaded crystal, fishing lures and sinkers, firearms ammunition, wine bottles and cosmetics. Some hobbies may also contribute to lead contamination within the building. Exposure to all sources should be minimized or eliminated.

2.3 SIMPLE METHODS TO REDUCE LEAD HAZARDS

The simplest way to reduce lead hazards is through regular washing of hands, toys, and horizontal surfaces in the building with a liquid hand soap or dish soap and water. It is

highly recommended that disposable cleaning materials be used to wash the surface, so as to not re-contaminate them with a used mop or cloth.

Other ways of reducing lead hazards within the building include taking shoes off before entering living areas, letting water run prior to drinking or cooking, covering exposed soil with plant materials, and vacuuming with a High Efficiency Particulate Air (HEPA) filtered vacuum.

3. SAMPLING PROCEDURES

3.1 LABORATORY

Samples for paint, dust, and soil, where applicable, were analyzed by Accurate Analytical Testing located at 30105 Beverly in Romulus, Michigan 48174. The phone number is 734-699-LABS. The laboratory participates in the Environmental Lead Laboratory Accreditation Program (ELLAP) quality control rounds and are recognized and approved by the National Lead Laboratory Accreditation Program.

3.2 DIRECT-READING ANALYSIS

During this assessment, direct-reading analyses for lead content of painted surfaces were performed using a Niton X-ray fluorescence analyzer Serial Number 21503, by Matthew Rodgers (P-04247), a trained operator. The unit was calibrated according to the manufacturer's procedures on May 17th, 2016 and operated in accordance with the Performance Characteristic Sheet.

XRF technology utilizes low-level radiation to induce energy in lead atoms within a painted surface, which the XRF unit is able to analyze. The analyzer then displays the direct-reading results in milligrams of lead per square centimeter of surface area tested (mg/cm^2) and are able to determine if lead based paint is present. Lead-based paint (LBP) is defined by state and federal regulations as surface coatings which contain $1.0 \text{ mg}/\text{cm}^2$ of lead, or greater.

For risk assessments, all deteriorated painted surfaces are tested if the surface is determined to be in poor condition or poses a potential hazard and has a distinct painting history [Michigan Rule No. 325.9916(4)] or is paint on an accessible, friction or impact surface [MCL 333.5458(3)].

3.3 SURFACE TESTING (PAINT CHIP SAMPLING)

Paint chip samples, when collected, are analyzed for lead content, as deemed appropriate by the investigator, usually where the XRF results are inconclusive. Paint chip samples were processed in the following manner:

- The surface coatings were scored with a clean sampling tool and a material sample collected, carefully removing all layers, excluding any substrate material.
- The coating materials were placed into a labeled airtight container, indicating site identification and sample location.
- The sample area and tools were cleaned with a damp cloth and the sample location repaired.
- Samples were submitted for analysis to an EPA approved laboratory. Results are reported in percent lead by weight (% by wt.).

3.4 SOIL SAMPLING

Soil samples, when collected, are from the building drip line, from bare soil areas and play areas within the boundaries of the property. Samples may be composited from several locations, from the upper ½ inches of soil and were analyzed by an EPA-approved laboratory. Results are reported in parts per million of sampled soil (ppm).

3.5 DUST WIPE SAMPLING

Dust wipe samples, when collected, were collected according to HUD Guidelines and Michigan Lead Hazard Remediation Program (LHRP) requirements in each area where a child, 6 or under, may come in contact with lead-contaminated dust currently or at any time in the future regardless of who presently resides there. Sample collection protocol is as follows:

- An area located on the surface to be sampled was measured (between 1.0 ft² and 2 ft²) and marked.
- A single approved sampling wipe (disposable towelette) was opened with a gloved hand and wiped across the sampling area in a series of S patterns. Composite dust wipe samples are prohibited in Michigan.
- The wipe was then placed into an airtight container labeled with the site location identification, sample location and size of area sampled.
- Samples were analyzed by an EPA- approved laboratory, and results were reported in micrograms per square foot (µg/ft²).

4. RESULTS

4.1 VISUAL INSPECTION

The condition of the building on the date of the survey was good.

4.2 REGULATORY STANDARDS

EPA guidelines and HUD guidelines define lead-based paint and LBP hazard as:

Paint (XRF)	equal to or exceeding 1.0 milligrams of lead per square centimeter of sampled surface area (mg/cm ²)
Paint (chip sample)	equal to or exceeding 0.5% lead by dry weight or 5000 parts of lead per million parts of sampled material (ppm)
Hazardous lead-based paint	Lead-based paint that is deteriorated, or present in chewable, friction or impact surfaces
Bare soil (play areas)	equal to or exceeding 400 parts per million (ppm) lead
Bare soil (other)	equal to or exceeding 1200 ppm lead
Dust hazard (floors)	equal to or exceeding 40 micrograms per square foot of sampled surface area (µg/ft ²)
Dust hazard (window sill)	equal to or exceeding 250 µg/ft ²
Dust Hazard (window trough)	EPA: No level defined; Michigan LHRP: 400 µg/ft ² lead

4.3 ANALYTICAL RESULTS

Detailed descriptions of all sample results, including laboratory results are located as follows:

- Appendix C for XRF analyses
- Appendix D for paint chips
- Appendix E for all other media sample results

4.4 LEAD-BASED PAINT RESULTS

A lead-based paint inspection summary is located in Appendix C. The table describes the location, color and condition along with the content of lead and the substrate the paint is on. Paint that has a lead content of greater than 1.0 mg/cm² is highlighted and marked as Positive in the results column. If the paint is less than 1.0 mg/cm² then the paint is considered to be not lead-based paint and is marked with a Negative in the results column.

No lead-based paint was identified during the inspection.

4.5 PAINT CHIP RESULTS

Paint chip samples are taken usually of paint that cannot be directly read by the XRF method. Lead-based paint in paint chip analysis is analyzed by Flame Atomic Absorption (AA) Method AOAC 5.009(974.02). Regulations state that paint is lead-based if the paint has a quantity of lead greater than or equal to 0.5% dry weight.

No paint chip samples were taken at the time of the inspection.

4.6 SOIL SAMPLE RESULTS

The soil samples are composited from areas defined as play areas and non-play areas. Bare soil areas are noted in Appendix A. Soil samples are composited from various locations and taken to the lab for analysis by NIOSH Method 6010. Soils from play areas that have a lead concentration greater than or equal to 400 ppm and soils from non-play areas that have a lead concentration greater than or equal to 1200 ppm are deemed lead containing.

The soil samples collected at the 805-807 West Washington St. were taken from the A-side (front) open soil and the C-side (rear) garden open soil.

Sample Number	Sample Location	Side	Area/Type	Results
S-1	A-side (front) open soil	A	Open	88.44 ppm
S-2	C-side (rear) garden open soil	C	Open	<95.88 ppm

The soil samples taken from the A-side (front) open soil and the C-side (rear) garden open soil had lead levels below the applicable EPA/HUD Standards.

4.7 WIPE SAMPLE RESULTS

Wipes taken during the inspection were taken to the laboratory to be analyzed by NIOSH 7105 Method which expresses lead concentrations in micrograms per square foot ($\mu\text{g}/\text{ft}^2$) of sampled area. The lead in dust on the floor that is equal to or exceeding $40 \mu\text{g}/\text{ft}^2$ is lead containing. Lead in dust on window sills that equal to or exceed $250 \mu\text{g}/\text{ft}^2$ is lead containing. Lead in dust in window troughs is lead containing if the lead concentration is $400 \mu\text{g}/\text{ft}^2$.

The lead dust wipe samples collected at 805 and 807 West Washington St. were taken from the floor and window trough in the living room, the floor and window sill in bedroom 1, the floor and window trough in the kitchen, the floor and window sill in the bathroom and also the floor in the entry.

Unit	Sample Number	Sample Location	Wall	Component	Results
805	W-1	Living room	N/A	Floor	< 10 µg/ft ²
805	W-2	Living room	C	Window Trough	< 22.50 µg/ft ²
805	W-3	BR 1	N/A	Floor	< 10 µg/ft ²
805	W-4	BR 1	A	Window sill	< 22.50 µg/ft ²
805	W-5	Kitchen	N/A	Floor	< 10 µg/ft ²
805	W-6	Kitchen	C	Window Trough	< 22.50 µg/ft ²
805	W-7	Bath	N/A	Floor	< 10 µg/ft ²
805	W-8	Bath	A	Window sill	< 22.50 µg/ft ²
805	W-9	Entry	N/A	Floor	< 10 µg/ft ²
805	FB	Field Blank	N/A	N/A	N/D
807	W-1	Living room	N/A	Floor	< 10 µg/ft ²
807	W-2	Living room	C	Window Trough	< 22.50 µg/ft ²
807	W-3	BR 1	N/A	Floor	< 10 µg/ft ²
807	W-4	BR 1	A	Window sill	< 22.50 µg/ft ²
807	W-5	Kitchen	N/A	Floor	< 10 µg/ft ²
807	W-6	Kitchen	C	Window Trough	< 22.50 µg/ft ²
807	W-7	Bath	N/A	Floor	< 10 µg/ft ²

807	W-8	Bath	A	Window sill	< 22.50 µg/ft ²
807	W-9	Entry	N/A	Floor	< 10 µg/ft ²
807	FB	Field Blank	N/A	N/A	N/D

No lead in dust hazards were identified at time of inspection.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 EXISTING LEAD-BASED PAINT HAZARDS

A lead-based paint hazard is defined by the EPA as: any condition that causes exposure to lead from dust, soil or lead based paint that is on chewable, friction or impacted surfaces. The following lead-based paint hazards have been identified as a result of this assessment:

No existing lead based paint hazards were identified.

5.2 POTENTIAL LEAD BASED PAINT HAZARDS

A lead-based paint hazard is defined by the EPA as: any condition that causes exposure to lead from dust, soil or lead based paint that is on chewable, friction or impacted surfaces. The following lead-based paint potential hazards have been identified as a result of this assessment:

No potential lead based paint hazards were identified.

5.3 LEAD SOIL HAZARDS

No lead in soil hazards were identified at the subject property.

5.4 LEAD DUST HAZARD

A lead dust hazard is any lead dust in an occupied space with elevated levels of 40 µg/ft² on floors, 250µg/ft² on window sills, and 400µg/ft² on window trough.

No lead in dust hazards were identified.

5.4 LEAD HAZARD CONTROL OPTIONS

No lead based paint or lead hazards were identified.

Lead hazard control may consist of either or a combination of abatement and interim controls. Abatement options are designed to permanently eliminate a lead-based paint hazard. Examples include removal of paint, dust, soil or painted components and permanent enclosure or encapsulation of painted surfaces. Interim controls are designed to temporarily reduce human exposure to hazards. Examples include specialized cleaning, maintenance, repairs, painting, temporary containment, and ongoing monitoring of hazards and potential hazards.

The lead-based paint hazards and lead hazard control options recommendations are consolidated in Appendix F. Also an excerpt from the *Lead in Your Home: A Parents Reference Guide*, about interim controls that residents can take immediately to reduce lead hazards is located in Appendix G.

5.5 ON-GOING MONITORING SCHEDULE (REEVALUATION AND OWNER VISUAL SURVEY)

A Reevaluation is a follow-up limited risk assessment to determine the effectiveness of implemented hazard controls, and whether new hazards have developed. The reevaluation must be performed by a licensed risk assessor and will be implemented in order to discover:

- The presence of leaded dust above applicable standards
- Newly deteriorated known or suspected lead-based paint
- Deteriorated or failed interim controls, encapsulants or enclosure treatments
- New bare soil with lead levels above applicable standards

An Owner Visual Survey is an annual task performed by an owner or owner's representative which will be implemented in order to discover:

- New deterioration on known lead-based paint surfaces
- Deterioration or failed interim controls, encapsulants or enclosure treatments
- Structural problems which may degrade the integrity of any known or suspected lead-based paint

The Reevaluation and Owner Visual Survey schedules are determined by taking into consideration the risk assessment evaluation results (leaded dust, soil and paint findings) and the actions taken (abatement and interim controls). This information is then used

with guidance found in the Standard Reevaluation Schedule (HUD Table 6.1) to determine when these activities should take place.

5.6 COST ESTIMATE

HUD and EPA regulations require the risk assessor to provide cost estimates for possible work to be completed. Below find a rough estimate of cost associated with lead control/abatement activities.

• Encapsulation	\$ 3.50 sq. ft
• Wet Plane Friction Surface	\$ 2.75 sq. ft
• Wet Plane Impact Points	\$ 2.50 sq. ft
• Wet Scrape and Repaint	\$ 2.00 sq. ft
• Window Replacement	\$ 500 each
• Dust Removal-Clean Up	\$ 3.50 sq. ft
• Enclosure Wood	\$ 4.00 sq. ft
• Enclosure Metal	\$ 5.00 sq. ft
• Enclosure Drywall	\$ 2.50 sq. ft
• Floor Replacement	\$ 750.00 each
• Soil Abatement	\$ 10.00 sq. ft
• Component Replacement	5 times material cost

5.7 RECOMMENDATIONS FOR FUTURE OPERATIONS AND MAINTENANCE

The future disturbance of lead painted surfaces may cause new additional lead hazards. Homeowners, building managers and landlords are expected to follow “lead safe work practices” anytime that a lead painted surface is disturbed. This meaning very little dust is generated, not burning lead painted items, cleaning up thoroughly after work, etc.

In order to provide guidance for the owners, managers and landlords when conducting renovation, maintenance or potential future disturbance of painted surfaces, they should refer to an excellent manual developed by HUD titled “Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work” This manual can be found for free on the internet at <http://www.hud.gov/offices/lead/training/LBPguide.pdf>. Please download a copy of this manual before disturbing any painted surfaces within the residence. If access to the internet is not available, you may order a copy at 1800-424-5323.

If you have any questions not answered by this manual, please contact our office at (313) 491-2600.

6. ADDITIONAL RESOURCES

For further information regarding lead-based paint hazards and poisoning prevention, consult the following resources:

6.1 CONTACTS

National Lead Information Center	800-424-LEAD (5323)
U.S. Department of Housing and Urban Development	888-532-3547 (LEADLIST)
Michigan Lead Hazard Remediation Program	866-691-LEAD (5323)

6.2 PUBLICATIONS

Lead in Your Home: A Parent's Reference Guide
U.S. Environmental Protection Agency

Protect Your Family From Lead in Your Home
U.S. Environmental Protection Agency

Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work
U.S. Department of Housing and Urban Development.

The information contained in this report is a true and accurate representation of the lead-based paint conditions at the subject property at the time of assessment, based on the professional judgment of:



Matthew Rodgers
MI Certified Lead Inspector/Risk Assessor
Number: P-04247

6-6-16
Date



**AMERICAN
ENVIRONMENTAL
CONSULTANTS, L.L.C.**

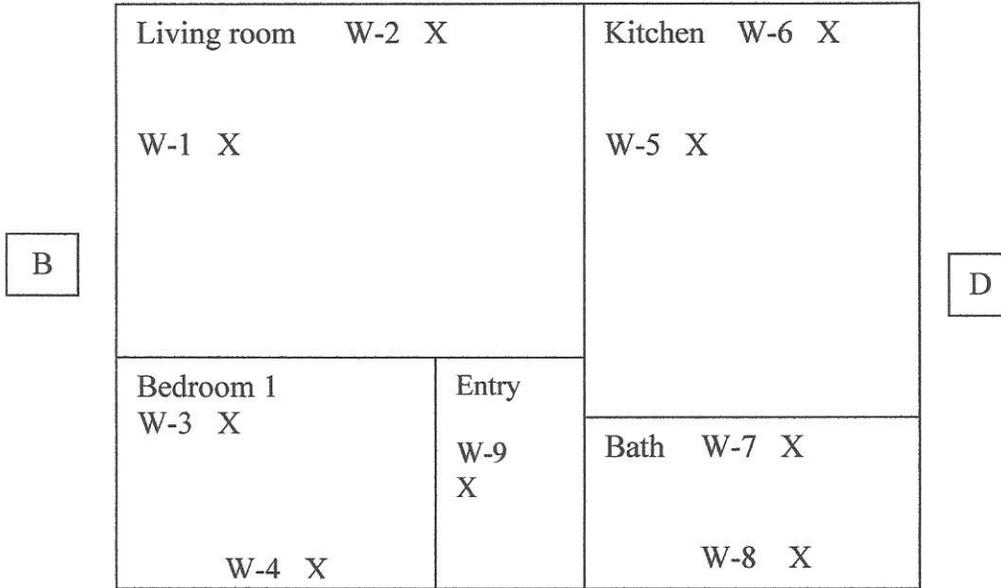
ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

Appendix A

FLOOR PLAN AND SITE LOCATION MAP

805 West Washington St

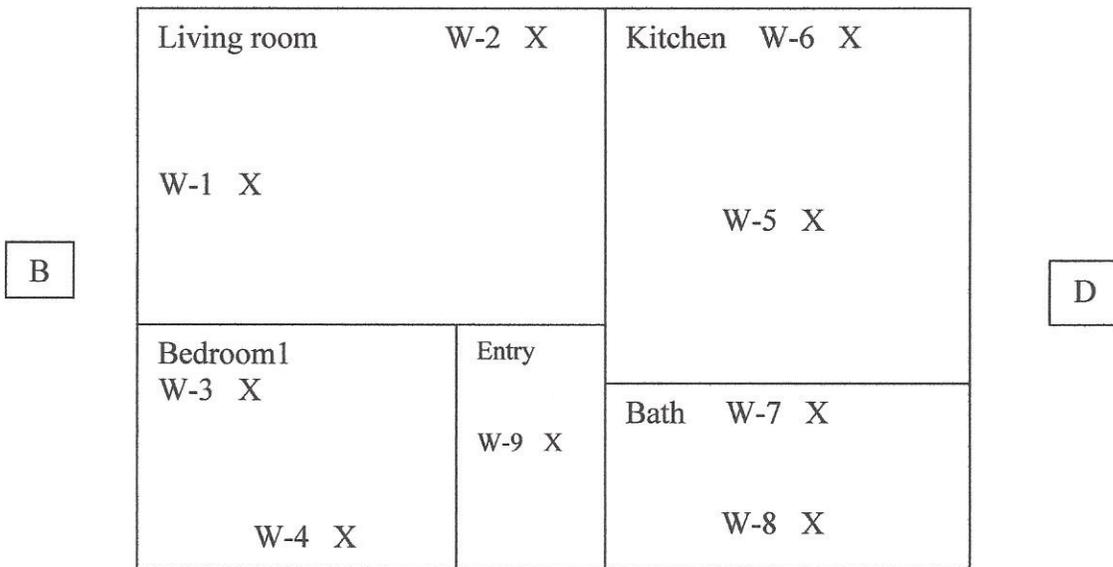
C



A

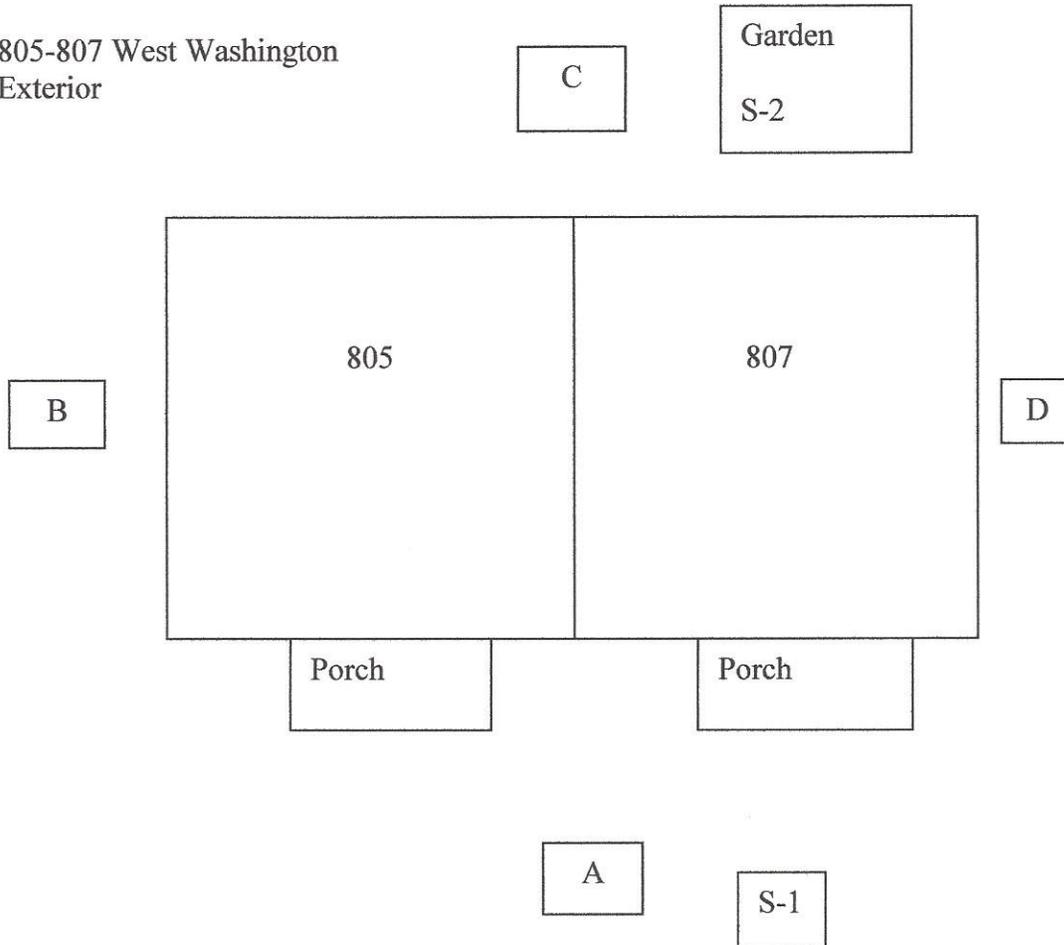
807 West Washington St

C



A

805-807 West Washington
Exterior





**AMERICAN
ENVIRONMENTAL
CONSULTANTS, L.L.C.**

ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

APPENDIX B

HUD FORMS 5.0 & 5.1

**RESIDENT QUESTIONNAIRE
BUILDING CONDITION CHECKLIST**

PROPERTY:	805-807 W. Washington
UNIT NO.:	
OWNER:	AAHC
DATE:	5-17-16

HUD FORM 5.1
BUILDING CONDITION CHECKLIST
LHRP Rule No. 325.8916 (2)
Risk Assessor: Matthew K. Rodgers P-04247

CONDITION KEY	YES	NO
Roof missing parts of surfaces: tiles, boards, etc. COMMENTS:		X
Roof has holes or large cracks COMMENTS:		X
Gutters/downspouts broken COMMENTS:		X
Chimney masonry cracked, bricks loose or missing, obviously out of plumb COMMENTS:		X
Exterior walls have obvious large cracks/ holes requiring more than routine painting COMMENTS:		X
Exterior siding missing boards or shingles COMMENTS:		X
Water stains on interior walls or ceilings COMMENTS:		X
Plaster walls deteriorated COMMENTS:		X
Two or more windows or doors broken, missing or boarded up COMMENTS:		X
Porch or steps have major elements broken, missing, or boarded up COMMENTS:		X
Foundation has major cracks, missing material, structural leans or visibly unsound COMMENTS:		X
TOTAL		11

TOTAL: IF THERE ARE TWO OR MORE CHECKS IN THE YES COLUMN, THE DWELLING IS CONSIDERED TO BE IN POOR CONDITION FOR THE PURPOSES OF A RISK ASSESSMENT. HOWEVER, CONSIDER ALL SPECIFIC CONDITIONS AND EXTENUATING CIRCUMSTANCES BEFORE DETERMINING FINAL CONDITION OR APPROPRIATENESS OF A LEAD HAZARD SCREEN.



**AMERICAN
ENVIRONMENTAL
CONSULTANTS, L.L.C.**

ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

APPENDIX C

XRF FIELD DATA SHEET

Reading #	Time	Units	Component	Substrate	Side	Condition	Color	Site	Inspc Floor	Room	Results	Pbc	Pbc Error
775	5/17/16	mg/cm ²	cal								Positive	1.1	0.1
776	5/17/16	mg/cm ²	cal								Positive	1	0.1
777	5/17/16	mg/cm ²	cal								Negative	0.9	0.1
778	5/17/16	mg/cm ²	WALL	PLASTER	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
779	5/17/16	mg/cm ²	WALL	PLASTER	B	INTACT	WHITE	805	m.r	FIRST	Negative	0.01	0.04
780	5/17/16	mg/cm ²	WALL	PLASTER	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
781	5/17/16	mg/cm ²	WALL	PLASTER	D	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
782	5/17/16	mg/cm ²	DOOR	METAL	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
783	5/17/16	mg/cm ²	DOOR j	METAL	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
784	5/17/16	mg/cm ²	WINDOW s	WOOD	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
785	5/17/16	mg/cm ²	WINDOW t	WOOD	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
786	5/17/16	mg/cm ²	WALL	PLASTER	B	INTACT	WHITE	805	m.r	FIRST	Negative	0.04	0.09
787	5/17/16	mg/cm ²	WALL	PLASTER	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
788	5/17/16	mg/cm ²	WALL	PLASTER	D	INTACT	WHITE	805	m.r	FIRST	Negative	0.12	0.23
789	5/17/16	mg/cm ²	WALL	ceramic	A	INTACT	WHITE	805	m.r	FIRST	Negative	0.01	0.06
790	5/17/16	mg/cm ²	WALL	PLASTER	A	INTACT	WHITE	805	m.r	FIRST	Negative	0.02	0.09
791	5/17/16	mg/cm ²	WALL	PLASTER	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
792	5/17/16	mg/cm ²	WALL	PLASTER	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
793	5/17/16	mg/cm ²	WALL	PLASTER	D	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
794	5/17/16	mg/cm ²	CEILING	PLASTER	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
795	5/17/16	mg/cm ²	WINDOW s	WOOD	A	INTACT	WHITE	805	m.r	FIRST	Negative	0.01	0.06
796	5/17/16	mg/cm ²	WINDOW t	WOOD	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
797	5/17/16	mg/cm ²	WALL	PLASTER	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
798	5/17/16	mg/cm ²	WALL	PLASTER	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
799	5/17/16	mg/cm ²	WALL	PLASTER	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
800	5/17/16	mg/cm ²	WALL	PLASTER	D	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
801	5/17/16	mg/cm ²	DOOR	METAL	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
802	5/17/16	mg/cm ²	BASEBOARD	WOOD	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
803	5/17/16	mg/cm ²	DOOR j	WOOD	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
804	5/17/16	mg/cm ²	BASEBOARD	WOOD	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
805	5/17/16	mg/cm ²	WALL	PLASTER	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
806	5/17/16	mg/cm ²	WALL	PLASTER	B	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
807	5/17/16	mg/cm ²	WALL	PLASTER	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
808	5/17/16	mg/cm ²	WALL	PLASTER	D	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
809	5/17/16	mg/cm ²	WINDOW s	WOOD	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
810	5/17/16	mg/cm ²	WINDOW tr	WOOD	C	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
811	5/17/16	mg/cm ²	BASEBOARD	WOOD	A	INTACT	WHITE	805	m.r	FIRST	Negative	0	0.02
812	5/17/16	mg/cm ²	WALL	DRYWALL	A	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
813	5/17/16	mg/cm ²	WALL	DRYWALL	B	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
814	5/17/16	mg/cm ²	WALL	DRYWALL	C	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
815	5/17/16	mg/cm ²	WALL	DRYWALL	D	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
816	5/17/16	mg/cm ²	BASEBOARD	WOOD	D	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
817	5/17/16	mg/cm ²	CEILING	DRYWALL	D	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
818	5/17/16	mg/cm ²	DOOR	METAL	D	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02
819	5/17/16	mg/cm ²	DOOR j	WOOD	A	INTACT	WHITE	807	m.r	FIRST	Negative	0	0.02

820	5/17/16	mg/cm ²	WALL	DRYWALL	A	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
821	5/17/16	mg/cm ²	WALL	DRYWALL	B	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
822	5/17/16	mg/cm ²	WALL	DRYWALL	C	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
823	5/17/16	mg/cm ²	WALL	DRYWALL	D	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
824	5/17/16	mg/cm ²	CEILING	DRYWALL	A	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
825	5/17/16	mg/cm ²	WINDOW t	WOOD	C	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
826	5/17/16	mg/cm ²	WINDOW s	WOOD	C	INTACT	WHITE	807 m.r	FIRST	KITCHEN	Negative	0	0.02
827	5/17/16	mg/cm ²	WALL	DRYWALL	B	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
828	5/17/16	mg/cm ²	WALL	DRYWALL	C	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
829	5/17/16	mg/cm ²	WALL	DRYWALL	D	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
830	5/17/16	mg/cm ²	WALL	ceramic	A	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0.01	0.04
831	5/17/16	mg/cm ²	WINDOW t	ceramic	A	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Null	0.01	0.02
832	5/17/16	mg/cm ²	WINDOW t	ceramic	A	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Null	0	0.02
833	5/17/16	mg/cm ²	WINDOW t	ceramic	A	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0.04	0.12
834	5/17/16	mg/cm ²	CEILING	DRYWALL	A	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
835	5/17/16	mg/cm ²	DOOR	WOOD	C	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Null	0	0.02
836	5/17/16	mg/cm ²	DOOR	WOOD	C	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
837	5/17/16	mg/cm ²	DOOR j	WOOD	C	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
838	5/17/16	mg/cm ²	WALL	DRYWALL	A	INTACT	WHITE	807 m.r	FIRST	BATHROOM	Negative	0	0.02
839	5/17/16	mg/cm ²	WALL	DRYWALL	B	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
840	5/17/16	mg/cm ²	WALL	DRYWALL	C	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
841	5/17/16	mg/cm ²	WALL	DRYWALL	D	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
842	5/17/16	mg/cm ²	BASEBOARD	WOOD	A	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
843	5/17/16	mg/cm ²	DOOR	WOOD	A	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
844	5/17/16	mg/cm ²	DOOR j	WOOD	A	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
845	5/17/16	mg/cm ²	WALL	DRYWALL	A	INTACT	WHITE	807 m.r	FIRST	entry	Negative	0	0.02
846	5/17/16	mg/cm ²	WALL	DRYWALL	B	INTACT	WHITE	807 m.r	FIRST	BEDROOM 1	Negative	0	0.02
847	5/17/16	mg/cm ²	WALL	DRYWALL	C	INTACT	WHITE	807 m.r	FIRST	BEDROOM 1	Negative	0.01	0.03
848	5/17/16	mg/cm ²	WALL	DRYWALL	D	INTACT	WHITE	807 m.r	FIRST	BEDROOM 1	Negative	0	0.02
849	5/17/16	mg/cm ²	BASEBOARD	WOOD	A	INTACT	WHITE	807 m.r	FIRST	BEDROOM 1	Negative	0	0.02
850	5/17/16	mg/cm ²	WINDOW s	WOOD	A	INTACT	WHITE	807 m.r	FIRST	BEDROOM 1	Negative	0	0.02
851	5/17/16	mg/cm ²	WINDOW t	WOOD	A	INTACT	WHITE	807 m.r	FIRST	BEDROOM 1	Negative	0.01	0.03
852	5/17/16	mg/cm ²	WALL	DRYWALL	A	INTACT	GREEN	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
853	5/17/16	mg/cm ²	WALL	DRYWALL	B	INTACT	GREEN	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
854	5/17/16	mg/cm ²	WALL	DRYWALL	C	INTACT	GREEN	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
855	5/17/16	mg/cm ²	WALL	DRYWALL	D	INTACT	GREEN	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
856	5/17/16	mg/cm ²	address	DRYWALL	D	INTACT	GREEN	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
857	5/17/16	mg/cm ²	WINDOW fr	WOOD	D	INTACT	WHITE	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
858	5/17/16	mg/cm ²	DOOR	METAL	D	INTACT	WHITE	807 m.r	FIRST	OUTSIDE	Negative	0	0.02
859	5/17/16	mg/cm ²	cal								Positive	1.1	0.1
860	5/17/16	mg/cm ²	cal								Positive	1	0.1
861	5/17/16	mg/cm ²	cal								Negative	0.9	0.1



**AMERICAN
ENVIRONMENTAL
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ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

APPENDIX D

PAINT CHIP LABORATORY RESULTS



**AMERICAN
ENVIRONMENTAL
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ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

NO PAINT CHIP SAMPLES TAKEN



**AMERICAN
ENVIRONMENTAL
CONSULTANTS, L.L.C.**

ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

APPENDIX E

OTHER SAMPLE LABORATORY RESULTS



30105 Beverly Road
Romulus, MI 48174
Ph: 734-629-8161; Fax: 734-629-8431

Certificate of Analysis: Lead In Dust Wipe by NIOSH Method 7082

Client : American Environmental Consultants LLC
12838 Gavel
Detroit, MI 48232

Attn : Jeff Fox **Email :** jfox@aecmi.net
Phone : 313-491-2600 **Fax :** 313-491-2601

AAT Project : 287639
Sampling Date : 05/17/2016
Date Received : 05/17/2016
Date Analyzed : 05/20/2016
Date Reported : 5/20/2016 3:01:17PM
Analyst : Chris Kennedy

Client Project : 807 Washington Ann Arbor MI
Project Location : 807 Washington Ann Arbor MI

Lab Sample ID	Client Code	Sample Description	Length (inch)	Width (inch)	Area (Sq ft)	Results Lead $\mu\text{g}/\text{ft}^2$ *
2740511	1	LV FL	12	12	1.00	<10.00
2740512	2	LV WT	4	16	0.44	<22.50
2740513	3	BED 1 FL	12	12	1.00	<10.00
2740514	4	BED 1 WS	4	16	0.44	<22.50
2740515	5	KIT FL	12	12	1.00	<10.00
2740516	6	KIT WT	4	16	0.44	<22.50
2740517	7	BATH FL	12	12	1.00	<10.00
2740518	8	BATH WS	4	16	0.44	<22.50
2740519	9	ENTRY FL	12	12	1.00	<10.00
2740520	FB	FIELD BLANK	N/A	N/A	N/A	N/D

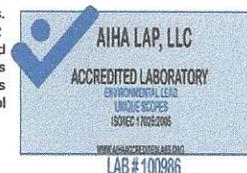
Analyst Signature

(ND=Not Detected, N/A Not Available, RL Reporting Limit, Analytical Reporting Limit is 10 ug/sample) * For true values assume (2) significant figures. The method and batch QC is acceptable unless otherwise stated. EPA HUD Regulatory Limits: 40 ug/ft² (Floors Carpeted/uncarpeted), 250ug/ft² (Window Sill/Stools), 400 ug/ft² (Window Trough /Well/Ext Concrete Surfaces) The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA and NY State DOH ELAP programs. These results are submitted pursuant to AAT LLC current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. Analytical results relate to the samples as received by the lab. AAT will not assume any liability or responsibility for the manner in which the results are used or interpreted. All Quality control requirements for the samples this report contains have been met

AIHA ELLAP- Lab ID #100986, NY State DOH ELAP -Lab ID #11864, State of Ohio- Lab ID # 10042

Date Printed: 05/20/2016

AAT Project: 287639





30105 Beverly Road
 Romulus, MI 48174
 Ph: 734-629-8161; Fax: 734-629-8431

Certificate of Analysis: Lead In Soil by EPA SW-846 7420 and 3050B Method

Client : American Environmental Consultants LLC
 12838 Gavel
 Detroit, MI 48232

Attn : Jeff Fox **Email :** jfox@aecmi.net
Phone : 313-491-2600 **Fax :** 313-491-2601

Client Project : 807 Washington Ann Arbor MI

Project Location : 807 Washington Ann Arbor MI

AAT Project : 287639
Sampling Date : 05/17/2016
Date Received : 05/17/2016
Date Analyzed : 05/20/2016
Date Reported : 5/20/2016 3:01:17PM
Analyst : Chris Kennedy

Lab Sample ID	Client Code	Sample Description	Results Lead µg/g (PPM)	Calculated RL µg/g *
2740521	S-1	FRONT YARD OPEN SOIL	88.44	77.04
2740522	S-2	BACK YARD NEXT TO GARDEN OPEN SOIL	<95.88	95.88

Analyst Signature

*RL= Reporting Limit * For true values assume (2) significant figures. The method and batch QC are acceptable unless otherwise stated. Current EPA/HUD Interim Standard for soil samples are: 400 PPM (parts per million) for play area's, 1200 PPM for building Perimeters and 1000 PPM for California Building Perimeters. AAT internal sop S204. The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA and NY State DOH ELAP programs. These results are submitted pursuant to AAT LLC current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. Analytical results relate to the samples as received by the lab. AAT will not assume any liability or responsibility for the manner in which the results are used or interpreted. Reproduction of this document other than in its entirety is not permitted.

AIHA ELLAP- Lab ID #100986, NY State DOH ELAP -Lab ID #11864, State of Ohio- Lab ID # 10042

Date Printed: 05/20/2016 3:17PM

AAT Project: 287639





30105 BEVERLY RD.
ROMULUS MI 48174
(734) 699-LABS (5227)
FAX: (734) 699-8407

www.accurate-test.com



SAMPLING DATE: 5/17/16

PROJECT ADDRESS: 807 Washington Ave, Auburn, MA

SAMPLE START TIME: J

SAMPLE END TIME:

SUBMITTING COMPANY

American Environmental Consultants

CONTACT INFORMATION

JEF Fox
Office: 313-491-2600
Fax:
Cell:
Email: J.Fox@AECmi.net

PO #

Request Turnaround time (please check one)
SAME DAY () 24 Hour ()
48 Hour () 72 hours (X)
If none indicated, default is 72 hours.

CLIENT COMMENTS
Risk Assessor: _____
Samples shipped

SEALS INTACT Y N
CONTAINERS LABELED Y N
RECD & ACCEPTED Y N
LAB REMARKS
BATH
876039
LAB PROJECT NUMBER

REQUESTED ANALYSIS
SINGLE WIPE DUST (X)
COMPOSITE SOIL (X)
PAINT CHIP ()
% By Wt. ()
mg/cm² ()

WEIPE AREA (e.g. 12in X 12in)
12 X 12
4 X 16
12 X 12
4 X 16

WS, WT, F
FL
WT
FL
WS
FL
WT
FL
WS
FL

SAMPLES RECEIVED BY
MJS 5/17/16

By submitting samples to AAT, the client agrees to AAT's terms and conditions.

TW DO 12:45pm 5-17-16



30105 Beverly Road
 Romulus, MI 48174
 Ph: 734-629-8161; Fax: 734-629-8431

Certificate of Analysis: Lead In Dust Wipe by NIOSH Method 7082

Client : American Environmental Consultants LLC
 12838 Gavel
 Detroit, MI 48232

Attn : Jeff Fox **Email :** jfox@aecmi.net
Phone : 313-491-2600 **Fax :** 313-491-2601

AAT Project : 287647
Sampling Date : 05/17/2016
Date Received : 05/17/2016
Date Analyzed : 05/20/2016
Date Reported : 5/20/2016 12:01:57PM
Analyst : Nathan Ditty

Client Project : 805 Washington Ann Arbor MI
Project Location : 805 Washington Ann Arbor MI

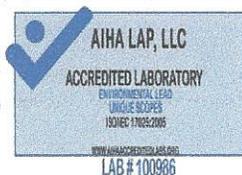
Lab Sample ID	Client Code	Sample Description	Length (inch)	Width (inch)	Area (Sq ft)	Results Lead µg/ft2 *
2740572	1	LV FL	12	12	1.00	<10.00
2740573	2	LV WT	4	16	0.44	<22.50
2740574	3	BED 1 FL	12	12	1.00	<10.00
2740575	4	BED 1 WS	4	16	0.44	<22.50
2740576	5	KIT FL	12	12	1.00	<10.00
2740577	6	KIT WT	4	16	0.44	<22.50
2740578	7	BATH FL	12	12	1.00	<10.00
2740579	8	BATH WS	4	16	0.44	<22.50
2740580	9	ENTRY FL	12	12	1.00	<10.00
2740581	FB	FIELD BLANK	N/A	N/A	N/A	N/D

Nathan Ditty
 Analyst Signature

(ND=Not Detected, N/A Not Available, RL Reporting Limit, Analytical Reporting Limit is 10 ug/sample) * For true values assume (2) significant figures. The method and batch QC is acceptable unless otherwise stated. EPA HUD Regulatory Limits: 40 ug/ft2 (Floors Carpeted/uncarpeted), 250ug/ft2 (Window Sill/Stools), 400 ug/ft2 (Window Trough /Well/Ext Concrete Surfaces) The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA and NY State DOH ELAP programs. These results are submitted pursuant to AAT LLC current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. Analytical results relate to the samples as received by the lab. AAT will not assume any liability or responsibility for the manner in which the results are used or interpreted. All Quality control requirements for the samples this report contains have been met
 AIHA ELLAP- Lab ID #100986, NY State DOH ELAP -Lab ID #11864, State of Ohio- Lab ID # 10042

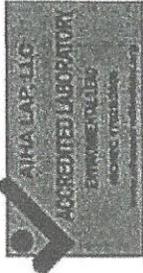
Date Printed: 05/20/2016

AAT Project: 287647





30105 BEVERLY RD.
 ROMULUS MI 48174
 (734) 699-LABS (5227)
 FAX: (734) 699-8407
 www.accurate-test.com



SUBMITTING COMPANY

American Environmental Consultants LLC

CONTACT INFORMATION

JEFF FOX
 Office: 313-441-2600
 Fax:
 Cell: *JEFF FOX @ AECMI.NET*
 Email: *JEFF FOX @ AECMI.NET*

PO #

PROJECT NUMBER: _____
 PROJECT ADDRESS: *805 Washington Ave. Auburn, MA*
 SAMPLE START TIME: _____
 RISK ASSESSOR: _____

SAMPLING DATE: *5/17/16*
 SAMPLE END TIME: _____

REQUESTED ANALYSIS: _____
 LEAD: _____
 SINGLE WIPE DUST: (*X*)
 COMPOSITE SOIL: ()
 PAINT CHIP: ()
 % By Wt. _____
 mg/cm² _____

Request Turnaround time (please check one)
 SAME DAY () 24 Hour ()
 48 Hour () 72 hours (*X*)

If no TAT is indicated, default is 72 hours

CLIENT SAMPLE ID	DESCRIPTION	WS, WT, F	WIPE AREA (e.g. 12in X 12in)	WIPES	RESULTS	WIPES	RESULTS
1	LV	FL	12	X	12	X	12
2	LV	WT	4	X	16	X	16
3	BED	FL	12	X	12	X	12
4	BED	WS	4	X	16	X	16
5	kit	FL	12	X	12	X	12
6	kit	WT	4	X	16	X	16
7	BATH	FL	12	X	12	X	12
8	BATH	WS	4	X	16	X	16
9	ENTRY	FL	12	X	12	X	12
FB	FIELD Blank			X		X	
				X		X	
				X		X	
				X		X	
				X		X	

LAB ID: _____

SEALS INTACT: Y N
 PRESERVATIVES: Y N
 CONTAINERS LABELED: Y N

SAMPLE CONDITION: _____

RISK ASSESSOR: _____
 Samples shipped: _____

LAB PROJECT NUMBER: *887-1111*

DATE: _____ TIME: _____

SAMPLES RELINQUISHED BY: *[Signature]*

SAMPLES RECEIVED BY: _____

By submitting samples to AAT, the client agrees to AAT's terms and conditions.

TW DO 12:45pm 5-17-16



**AMERICAN
ENVIRONMENTAL
CONSULTANTS, L.L.C.**

ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

APPENDIX F

RISK ASSESSMENT REPORT



**AMERICAN
ENVIRONMENTAL
CONSULTANTS, L.L.C.**

ECS
805-807 West Washington St.
Ann Arbor, MI
May 17th, 2016
Project Number: 1467-16007

American Environmental Consultants, LLC

Risk Assessment Report

Risk Assessor: Matthew Rodgers

Inspector Number: P-04247

Owner: Ann Arbor Housing Commission

Property: 805-807 West Washington St Ann Arbor, MI

Inspection Date: 5/17/16

No lead based paint was identified.

APPENDIX G

INTERIM CONTROLS

LEAD IN YOUR HOME: A PARENTS REFERENCE GUIDE

CHAPTER 6

US EPA

Interim Controls

QUICK TIPS

1

There are ways you can temporarily control exposure to lead-based paint, dust, and soil. They are called **interim controls**.

2

Keep in mind **interim controls** will not get rid of lead hazards forever. They can, however, help cut down on the risk of exposure.

3

Lead dust in your home can be harmful to you and your family. It should be removed.

Safe Management of Lead-Based Paint in Your Home

Interim controls are actions you can take to reduce lead hazards in your home **without hiring** an abatement contractor. They are less expensive than abatement and a good alternative if you cannot afford abatement, but it is very important to remember that the results are only temporary. Nevertheless, if maintained properly, interim controls can protect you and your family for a long time. (See Chapter 7 and Appendix D for more information on performing an abatement to permanently contain or remove lead hazards.)

A list of interim controls follows. They can be used separately or together:

- ▶ Removing lead dust.
- ▶ Repainting lead-based painted surfaces.
- ▶ Repairing friction and impact surfaces.
- ▶ Preventing access to soil hazards.

Interim controls provide a useful alternative for homes that cannot be abated right away.

ADVANTAGES of Interim Controls

- 4 **Less expensive than abatement.**
- 4 **Can be implemented immediately.**

DISADVANTAGES of Interim Controls

- 8 **Lead-based paint remains in housing.**
- 8 **Continuing expense, if done regularly.**
- 8 **Requires ongoing monitoring of paint condition and dust levels.**

When Interim Controls Will NOT Work

Interim controls will not work if—

- ▶ The windows, doors, porches, or interior or exterior walls are seriously deteriorated or are subject to excessive moisture.
- ▶ The windows, doors, porches, or interior or exterior walls are not sound (which would cause the treatment to fail rapidly).

If any child in the home has an elevated blood-lead level, many states and localities require you to have the home abated by a certified contractor. Contact your state lead program contact (Appendix B) for more details.

Lead dust in your home can be hazardous to you and your family and should be removed.

Although interim controls will not rid your home of lead-based paint hazards forever, they can help you reduce the risk of exposure if you do them right and check your work often. To ensure success when you perform any type of interim control, it is recommended that you—

- ▶ Surround your work area with thick, plastic sheeting (mentioned on page 25) to avoid spreading lead dust to other parts of your home.
- ▶ Hire a certified contractor to conduct a clearance examination once you have finished your work. This is not required, but a contractor can determine if you successfully completed the interim control action.
- ▶ Check your interim control work once a year. For example, if you have performed an interim control of lead-based paint and see signs of peeling or flaking, you may need to redo the work.

Removing Dust

Dust removal is a continuing process. You begin with an initial treatment and then follow up with re-cleaning as needed. Dust removal is always a part of lead hazard control measures, whether done alone or as part of cleanup following other work.

Lead dust can be found on surfaces and in cracks throughout your home. Windows, worn floors, carpets, and upholstered furnishings seem to collect most of the lead dust. It is very hard to clean these surfaces thoroughly, and dust settles on them rapidly after they are cleaned.

Major Dust Collectors and Potential Dust Traps

Interior	Exterior
Window sills	Porch swings
Floors or steps	Window troughs
Cracks and crevices	Steps
Carpets and rugs	Exposed soil
Mats	Sandboxes
Upholstered furnishings	Window coverings
Radiators	Heating, ventilation, or air conditioners
Grates and registers	

Removing Lead Dust Inside Your Home

It is very hard to remove lead dust without specialized equipment. You will need to use a vacuum equipped with a HEPA filter combined with wet cleaning methods.

1. Vacuum the surface with a HEPA filter-equipped vacuum cleaner. This special type of vacuum will trap lead particles and prevent them from being released back into the air. A household vacuum will not do this. Remember—when you finish vacuuming—carefully empty the dust collected in the vacuum cleaner, being sure to dampen it with water first to control the spread of collected dust.
2. Wet clean exposed areas with a solution of water and an all-purpose cleaner or a cleaner made specifically for lead. Use one bucket for the cleaning solution and one bucket for rinsing. Change the rinse water frequently (at least once for each room being cleaned) and replace rags, sponges, and mops often. Clean the surface until no dust is visible. After cleaning, rinse the surface with clean water and a new sponge or cloth.



At the same time that you undertake a cleaning project, have all the drapes and curtains professionally cleaned, and replace the filters in heating and air-conditioning units. Have your rugs and carpets

Because removing lead dust from older carpets is difficult, it may be best to remove the carpets altogether.

professionally cleaned. If you cannot have them cleaned professionally at this time, clean your carpets in the following manner:

For rugs and carpets that can be folded over:

- ▶ HEPA vacuum the carpet.
- ▶ Fold the carpet over in half and HEPA vacuum the bottom side of the carpet.
- ▶ Vacuum the top side of the carpet again.
- ▶ If there is foam padding under the carpet, clean both sides of the padding.
- ▶ Vacuum the floor under the carpet.

For carpets that cannot be folded over (such as wall-to-wall carpeting):

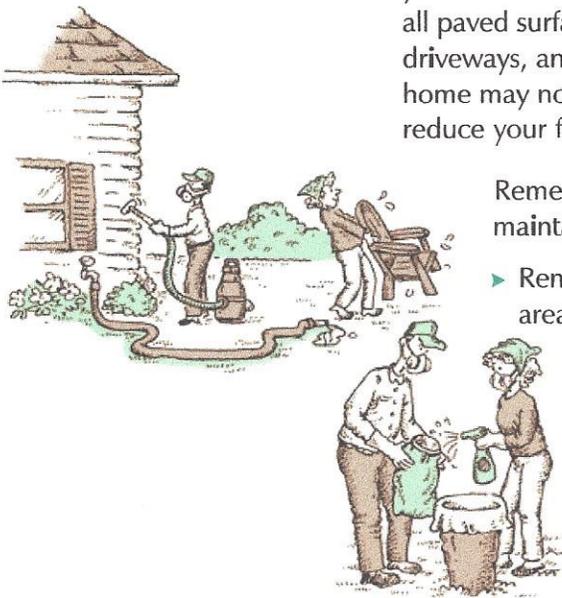
- ▶ Vacuum the carpet in a side-to-side direction.
- ▶ Vacuum the carpet in a side-to-side direction, opposite the first direction.
- ▶ Steam clean the carpet using a solution containing detergent specifically made to reduce static between the carpet and lead dust.

For upholstered furnishings:

- ▶ HEPA vacuum each surface three to five times.

Removing Lead Dust From the Exterior of Your Home

Lead in exterior dust can be dangerous because it can be tracked inside your home. You need to remove as much dust and dirt as possible from all paved surfaces on your property (such as sidewalks, patios, driveways, and parking areas). Removing all lead dust outside your home may not be possible, but by following some simple steps you can reduce your family's exposure to exterior lead dust.



Remember—These measures need to be repeated often to maintain safe lead dust levels outside your home:

- ▶ Remove all large items, such as outdoor furniture, from the areas you are going to clean. Dampen the areas with water to control the spread of lead dust.
- ▶ Vacuum all hard surfaces with a HEPA filter-equipped vacuum cleaner. Clean all surfaces continuously until no visible dirt or dust is present.
- ▶ Carefully empty the dust collected in the vacuum cleaner, being sure to dampen it with water first to control the spread of the collected dust.

Repainting Lead-Painted Surfaces

Repainting is often used on painted surfaces that have begun to deteriorate due to problems such as structural defects or water damage. It is a good choice for walls and ceilings because they are not constantly bumped or rubbed. Repainting a surface with a lead-free paint will help to lessen lead hazards by reducing the amount of lead dust and paint chips.

It is very important that you check the surface regularly and maintain it. If properly maintained, you can expect your repainting effort to last from 4 to 10 years.

Recommendations for Repainting a Lead-Painted Surface

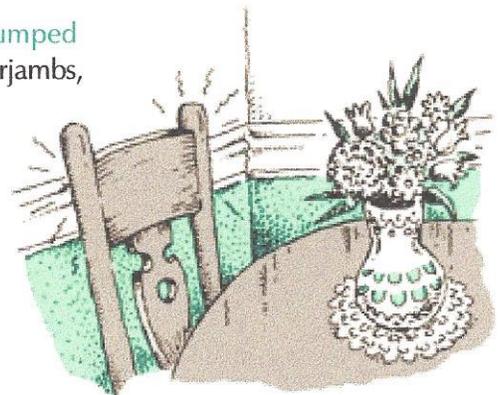
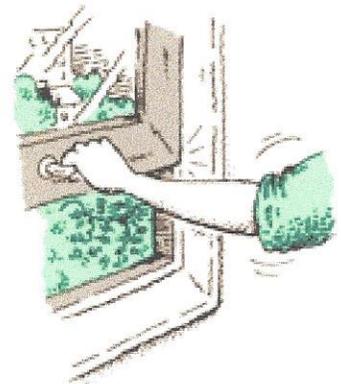
If you plan to repaint a lead-painted surface, take the following steps:

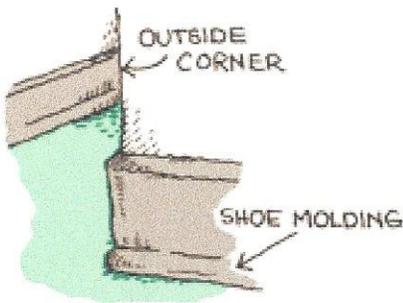
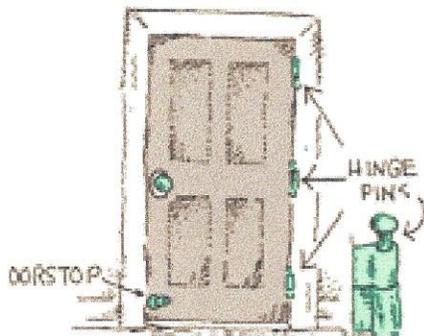
- ▶ Make sure that what is causing the paint to deteriorate is fixed or eliminated. This can include repairing water leaks, defective plaster, and damaged structural parts.
- ▶ Use a high-quality paint recommended by a manufacturer for the type of surface you are painting.
- ▶ Read and follow the manufacturer's instructions for applying paint.

Repairing Friction and Impact Surfaces

Friction surfaces are surfaces that are subject to abrasion, that is, rubbing or friction actions that cause wear on a surface. Common examples of friction surfaces are the parts of a window that rub when opened and closed, tight-fitting doors, cabinet doors and drawers, stairs and hand railings, and floors. When covered with lead-based paint, friction surfaces subject to abrasion can disturb lead-based paint. Friction surfaces may be treated by fixing the areas that rub together. For example, if you replace a tight-fitting door with a loose-fitting one, you will reduce the chances that the door will create lead dust.

Impact surfaces are surfaces that stick out and tend to be bumped or banged. The most common impact surfaces are doors and doorjamb, door trim, doorstops, outside corners of walls, baseboards, shoe moldings, chair rails, and stair risers. Repeated impacts can cause small chips of paint to fall to the floor and contaminate dust. You can reduce impact surface problems by placing barriers in front of the surfaces. For example, put a new chair rail on a lead-painted wall. This will lessen the damage done to the wall when a chair bumps against the rail.





How to Repair a Friction or Impact Surface

The following actions will help to reduce lead hazards from lead-painted friction and impact surfaces in your home. Remember—when performing any type of interim control—always cover work areas with thick, plastic sheeting and spray components with water to reduce dust.

- ▶ If you are repairing a window, remove the window. Wet scrape the deteriorated paint. If the window trough is badly weathered, cover with back-caulked, aluminum coil stock. Reinstall the window.
- ▶ If you are repairing a door, remove the doorstop and dispose of it properly. (See Chapter 8.) Remove the door by pulling out the hinge pins. Mist the door with water and plane the door to eliminate areas that might rub together. Reinstall the door and install a new doorstop.
- ▶ If you are repairing stairs, install a hard, cleanable covering, such as rubber tread guards. You can install carpeting on the stairs instead, but fasten it securely so that it does not cause abrasion. Repaint any railings that may have deteriorated lead-based paint. (For more information on repainting, see page 37.)

Other ways to repair friction and impact surfaces include—

- ▶ Removing and replacing shoe moldings around baseboards.
- ▶ Installing new plastic or wood corner beads to abraded outside corners.
- ▶ Removing and replacing cabinet doors, or having the paint stripped off at a professional paint stripping plant. Strip paint from drawers and drawer guides or plane impact points and repaint. Or, install rubber or felt bumpers at points of friction or impact.
- ▶ Repainting porches, decks, and interior floors.

Preventing Access to Soil Hazards

Whether the source is lead-based paint or leaded gasoline, soil that is contaminated by lead can be dangerous if children play in it or if it is tracked into your home by people and pets. If you think that your soil may be contaminated, have a risk assessor test it. A test will determine what action, if any, needs to be taken.

Never plant vegetable gardens in lead-contaminated soil. You can get lead poisoned from eating carrots and leafy vegetables grown in leaded soil.

What to Do After a Soil Lead Test

If the test results in parts per million (ppm) are . . .

It is recommended that you do the following . . .

Less than 400 ppm

Nothing

400–5,000 ppm

- Cover bare soil by planting grass, piling mulch or sand on top of it, or landscaping with sod and bushes. To keep children from playing in soil near your home (which may have higher concentrations of lead), plant bushes close to the house. In areas near children's playgrounds, cover soil with mulch and gravel piled at least 6 inches.
- Move play areas away from contaminated soil.
- Put doormats outside and inside all entryways. Remove your shoes before entering.

Higher than 5,000 ppm

Abatement (see Chapter 7 and Appendix D).

