05/21/22

Dewberry c/o NCORR
1545 Peachtree Street NE, Suite 250
Atlanta, Georgia 30309

Re: Lead Risk Assessment
1908 East 5th st., Lumberton, NC 28358
EI Project No: IHMO220083.00

Project Site Address: 1908 East 5th st., Lumberton, NC 28358

NCORR APP ID: APP-10101, INSP-0012853

Inspection Date: 05/05/22

Scope of Work: Lead Risk AssessmentLead Risk Assessment

Lead-Based Paint Inspection: Lead-Based Paint Found

Deteriorated Lead-Based Paint: No

Lead Containing Materials: No

Lead Dust Hazards: Yes

Lead Soil Hazards: None Found

Recommendations: Recommendations for lead-based paint hazards: see Table 6

Inspector: Fabrizzio Simoni, North Carolina Risk Assessor #120304

Larry Rockefeller, CIH, CSP
Director, Industrial Hygiene Services

Fabrizzio Simoni, NC Risk Assessor #120304

1. Findings:

Table 1: Lead-Based Paint[1]					
Room	Side	Component[2]	Substrate	Condition	Color
Bathroom	A	Wall	Drywall	Deteriorated	Tan

Note(s):

1. Positive results indicate lead in quantities equal to or greater than 1.0 mg/cm² and are considered lead-based paint.
2. Samples are taken to represent component types; therefore, it should be assumed that similar component types in the rest of that room of room equivalent also contain lead-based paint.

Table 2: Deteriorated Lead-Based Paint[1]					
Room	Side	Component[2]	Substrate	Condition	Color
Bathroom	A	Wall	Drywall	Deteriorated	Tan

Note(s):

1. Surfaces in deteriorated condition are considered to be lead-based paint hazards as defined by Title X and should be addressed through abatement or interim controls which are described in Table 6.

Table 3: Lead Containing Materials[2]					
Room	Side	Component[2]	Substrate	Condition	Color
None Found	N/A	N/A	N/A	N/A	N/A

Note(s):

2. Although not considered to be lead-based paint, these materials when disturbed through destructive measures such as sanding, chipping, grinding, and other sourceds of friction, can create dust hazards and should be treated through control described in Table 6.

Table 4: Dust Wipe Sample Analysis				
Sample #	Location	Surface Type	Concentration (ug/ft^2)	Lead Hazard[1]
DW1	Living Room	Floor	<5.00	No
DW2	Living Room	Windowsill	63.2	No
DW3	Bedroom	Floor	52.5	Yes
DW4	Bedroom	Windowsill	52.2	No
DW5	Bathroom	Floor	<5.00	No
DW6	Kitchen	Floor	<5.00	No
DW7	Bedroom	Floor	11.2	Yes
DW8	Living Room	Windowsill	37.6	No
DW9	Q/C	Blank Wipe	<5.00 µg/wipe	No

Note(s):

1. EPA Lead Dust Hazard for Floors: 10 µg/ft²; Window Sills: 100 µg/ft²

Table 5: Soil Sample Analysis				
Sample #	Location	Bare/Covered	Concentration (mg/kg)	Lead Hazard[1]
S-1	Soil	Bare	54.7	No

Note(s):

1. EPA Lead in Soil Hazard for children's play areas with bare residential soil: 400 mg/Kg; bare soil for the remainder of the yard: 1,200 mg/Kg

Table 6: Lead Hazard Control Options[1]			
Hazard Type	Location	Description	Control[2–5]
Lead Dust Hazard	Bedroom	Floor	Cleaning- Clean surfaces using HEPA filtered vacuum and wet cleaning agents to remove leaded dust

Note(s):

1. Lead hazard control options include abatement and interim controls.
2. Paint film stabilization: Wet scrape and prime building comopnents where chipping or peeling is present following acceptable methods.
3. Replace: Remove and dispose of components in accordance with applicable federal, state and local regulations. Prime coat any new unpainted wood components.
4. Enclosure: Enclose lead-based paint coated building components with a material that is structurally affixed and deemed to last 20 years.
5. General Cleaning-Clean using HEPA filtered vacuum and wet wipe impacted surfaces to remove paint chips and lead-dust hazards.

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2. Limitations:

- No limitations were encountered during the course of this survey

3. Lead Hazard Control Activities:

All lead abatement activities must be performed in strict compliance with the Department of Housing and Urban Development (HUD) 24 CFR Part 35, and the Environmental Protection Agency (EPA) 40 CFR Part 745 Subpart L.

All contractor's personnel who will disturb lead-based paint during the course of their work on this residence should be informed of the potential danger posed by lead-based paint and should be directed to comply with all applicable federal, state, and local lead abatement regulations.

Table 6 lists each lead hazard identified, along with control options. Highest priority should be given to correcting lead hazards with greater probability of being contacted by children six years of age and under, women who are or may become pregnant, and residents of the home. These include, but are not limited to, deteriorated lead-based paint inside the residence on friction and impact surfaces (windows and doors), other surfaces (i.e. walls or trims) at a height of six feet and below, lead dust hazards, deteriorated lead-based paint on exterior friction and impact surfaces (windows and doors), and lead soil hazards in children's play areas.

If paint condition is intact, no treatment is required at this time. However, ongoing monitoring and maintenance of painted surfaces containing lead-based paint must be performed on a routine basis as paint conditions may deteriorate potentially creating a lead dust hazard. Painted surfaces should be inspected annually and repainted as needed before deterioration occurs. Prior to any scraping or sanding, appropriate measures should be taken to prevent the generation or spreading of paint chips or dust.

4. HUD Notification:

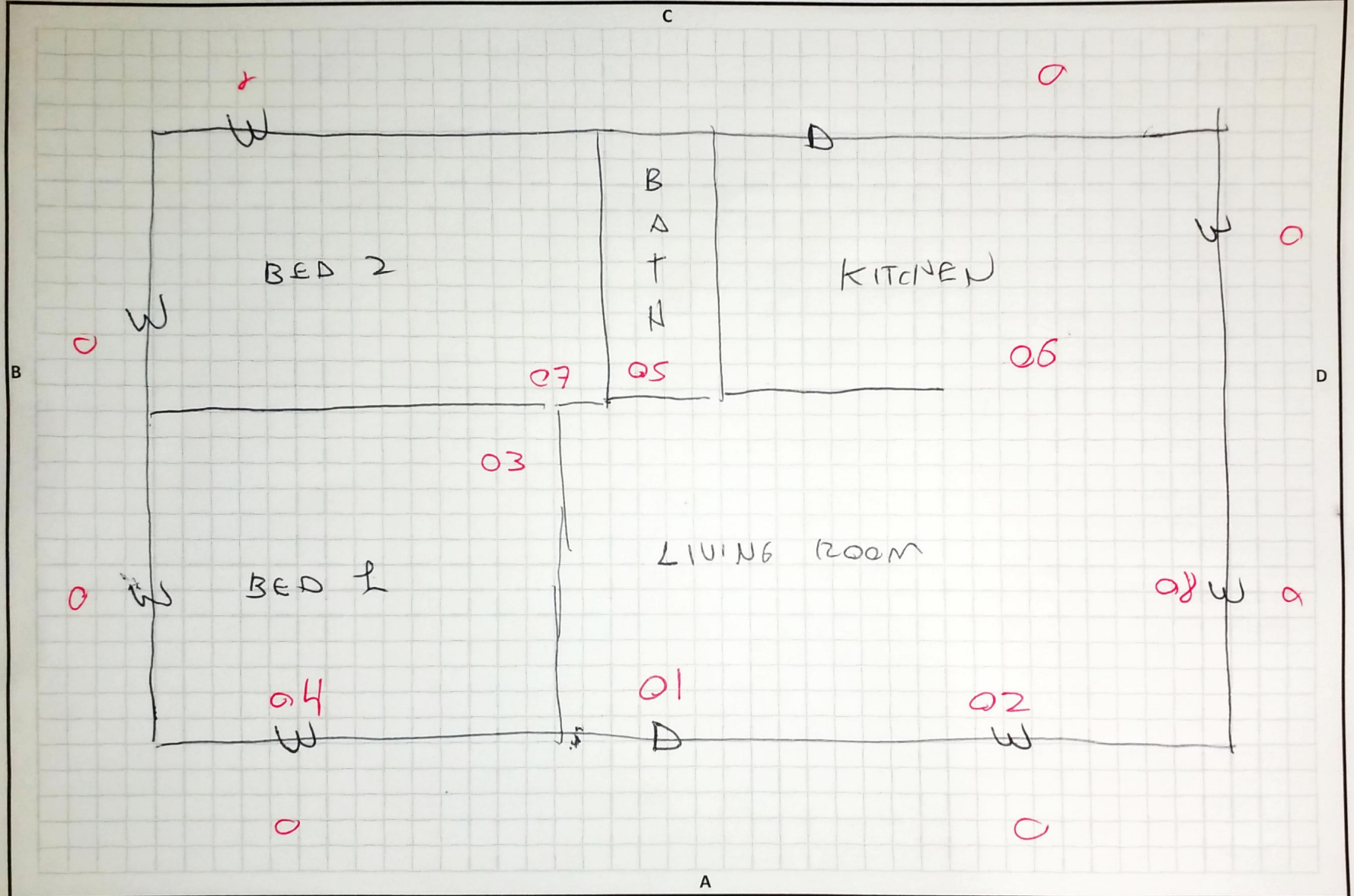
A copy of this summary must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts, to ensure that parents have the information necessary to protect their children from lead-based paint hazards.

3. Lead Hazard Control Activities:

- **Floor Plan/Diagram**
- **Risk Assessment Forms**
- **XRF Data Sheets/Photo Log**
- **Lab Results/Chain of Custody**
- **Methodology**
- **Lead Hazard Control Options**
- **Definitions**
- **Lead Based Paint Activity Summary (LBPAS)**
- **XRF Analyzer Performance Characteristics Sheet**
- **Certifications and Licensure**

ATTACHMENTS

FLOOR PLAN/DIAGRAM



EI

APP - 10101

1908 E. 5TH ST, LUMBERTON

INTERIOR

D Door
W Window
△ Pb Window
□ Pb Floor
O Pb Soil

N

RISK ASSESSMENT FORMS

Form 5.0 Questionnaire for a Lead Hazard Risk Assessment of an Individual Occupied Dwelling Unit.

(To be completed by risk assessor via interview with owner-occupant or, if a rental unit, an adult resident and, for questions 15 & 16, the owner.)

Property address: 1908 EAST 5TH ST, LUMBERTON NC

Apt. No.: _____ Unit is: Owner occupied X Renter occupied_____

Year of construction:_____ Prior LBP testing? (Y or N)_____

Name of owner interviewed: DARRON MCRAE Owner interview date: 5/5/22

Name of resident interviewed (if rental unit): _____ Interview date: ___/___/___

Name of risk assessor: F. Simoni

Children and Children's Habits

1. Do any children under age 6 live in the home or visit frequently? □ Yes □ No (*If no children under age 6, skip to Question 5.*)
2. If yes, how many? _____
3. Please provide the following information about each child under 6 to the extent you can.

	Child 1	Child 2	Child 3	Child 4
(a) Age:				
(b) Blood lead level:				
(c) Month/year of blood lead test:				
(d) Location of bedroom:				
(e) Main room where child eats:				
(f) Main room where child plays:				
(g) Main room where toys are stored:				
(h) Main locations where child plays outdoors:				

(If a resident child under age 6 has had an elevated blood lead level, an environmental investigation may be necessary [see Chapter 16 of the HUD Guidelines*].)*

4. (a) Do any children tend to chew on any painted surfaces, such as interior window sills?
   □ Yes □ No
   (b) If yes, where?_____

Form 5.0 Questionnaire for a Lead Hazard Risk Assessment of an Individual Occupied Dwelling Unit.

Property address: _____ Apt. No. _____

Other Household Information and Family Use Patterns

5. Do women of child-bearing age live in the home? □ Yes □ No
6. If this home is in a building with other dwelling units, what common areas in the building are used by children?
   N/A
7. (a) Which entrance is used most frequently?
   FRONT
   (b) What other entrances are used frequently?
   BACK
8. Which windows are opened most frequently?
9. (a) Do you use window air conditioners?* ☒ Yes □ No (b) If yes, where?
   KITCHEN
   **Condensation underneath window air conditioners often causes paint deterioration.*
10. (a) Do you or any other household members garden? □ Yes ☒ No
    (b) If yes, where is the garden?
11. (a) Are you planning any landscaping activities that will remove grass or ground covering? □ Yes ☒ No
    (b) If yes, where?
12. (a) Which areas of the home get cleaned regularly?
    KITCHEN, BATH
    (b) Which areas of the home do not get cleaned regularly?
    OTHER
13. (a) Are any household members exposed to lead at work? □ Yes ☒ No
    [If no, go to question 14.]
    (b) If yes, are dirty work clothes brought home? □ Yes □ No
    (c) If they are brought home, who handles are dirty work clothes and where they placed and cleaned?
14. (a) Do you have pets? □ Yes ☒ No
    (b) If yes, do these pets go outdoors?

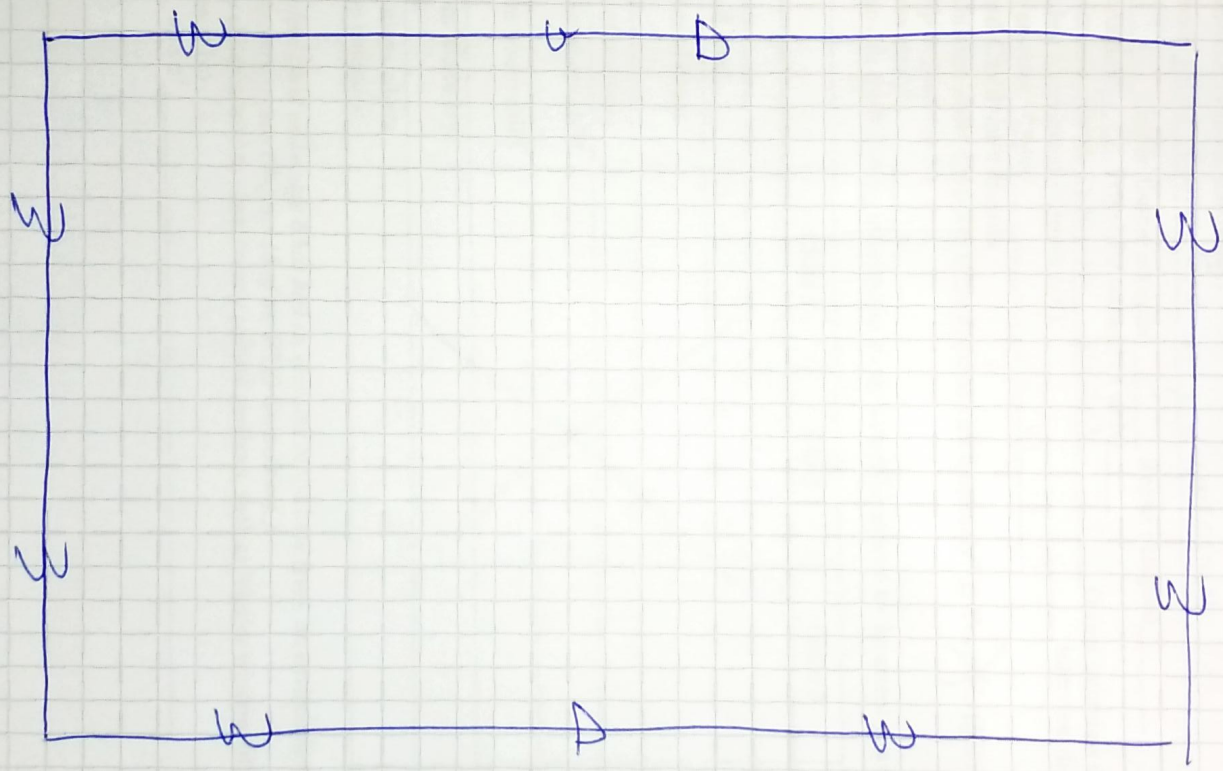
Building Renovations

15. (a) Were any building renovations or repainting done here during the past year? ☒ Yes □ No
    (b) If yes, what work was done, and when?
    (c) Were carpets, furniture and/or family belongings present in the work areas? □ Yes □ No
    (d) If yes, which items and where were they?
    (e) Was construction debris stored in the yard? □ Yes ☒ No
    (f) If yes, please describe what, where and how was it stored.
16. (a) Are you conducting or planning any building renovations? ☒ Yes □ No
    (b) If yes, what work will be done, and when?

C

B

D



A

APP-10101

1908 E. 5TH ST, LUMBERTON

EXTERIOR

D Door
W Window
△ Pb Window
□ Pb Floor
O Pb Soil

N

XRF DATA SHEETS & PHOTO LOG

Reading #	Job	Room	Side	Component	Substrate	Condition	Color	Result	PbC	Units
103	1908 East 5th st.	Calibration						Positive	1.0	mg/cm2
104	1908 East 5th st.	Calibration						Positive	1.0	mg/cm2
105	1908 East 5th st.	Calibration						Negative	0.9	mg/cm2
106	1908 East 5th st.	Living Room	A	Wall	Wood	Intact	Grey	Negative	0.2	mg/cm2
107	1908 East 5th st.	Living Room	A	Ceiling	Drywall	Deteriorated	White	Negative	0.2	mg/cm2
108	1908 East 5th st.	Living Room	A	Crown Molding	Wood	Intact	White	Negative	0.1	mg/cm2
109	1908 East 5th st.	Living Room	A	Baseboard	Wood	Intact	White	Negative	0.1	mg/cm2
110	1908 East 5th st.	Living Room	A	Door Jamb	Wood	Intact	White	Negative	0.0	mg/cm2
111	1908 East 5th st.	Living Room	A	Door Casing	Wood	Intact	Grey	Negative	0.1	mg/cm2
112	1908 East 5th st.	Living Room	A	Window Sash	Wood	Intact	White	Negative	0.1	mg/cm2
113	1908 East 5th st.	Living Room	A	Window Casing	Wood	Intact	Grey	Negative	0.1	mg/cm2
114	1908 East 5th st.	Living Room	A	Window Sill	Wood	Intact	Grey	Negative	0.1	mg/cm2
115	1908 East 5th st.	Bedroom 1	D	Wall	Drywall	Deteriorated	Beige	Negative	0.2	mg/cm2
116	1908 East 5th st.	Bedroom 1	D	Ceiling	Drywall	Deteriorated	White	Negative	0.2	mg/cm2
117	1908 East 5th st.	Bedroom 1	D	Baseboard	Wood	Intact	Tan	Negative	0.2	mg/cm2
118	1908 East 5th st.	Bedroom 1	D	Door	Wood	Deteriorated	Beige	Negative	0.2	mg/cm2
119	1908 East 5th st.	Bedroom 1	D	Door Jamb	Wood	Deteriorated	Beige	Negative	0.3	mg/cm2
120	1908 East 5th st.	Bedroom 1	D	Door Casing	Wood	Deteriorated	Beige	Negative	0.4	mg/cm2
121	1908 East 5th st.	Bedroom 1	A	Window Casing	Wood	Intact	Beige	Negative	0.2	mg/cm2
122	1908 East 5th st.	Bedroom 1	A	Window Sill	Wood	Intact	Beige	Negative	0.1	mg/cm2
123	1908 East 5th st.	Bedroom 1	A	Window Sash	Wood	Deteriorated	White	Negative	0.0	mg/cm2
124	1908 East 5th st.	Bedroom 2	A	Wall	Drywall	Deteriorated	White	Negative	0.0	mg/cm2
125	1908 East 5th st.	Bedroom 2	A	Ceiling	Drywall	Deteriorated	White	Negative	0.1	mg/cm2
126	1908 East 5th st.	Bedroom 2	A	Baseboard	Wood	Intact	White	Negative	0.4	mg/cm2
127	1908 East 5th st.	Bedroom 2	A	Door	Wood	Intact	Grey	Negative	0.3	mg/cm2
128	1908 East 5th st.	Bedroom 2	A	Door Jamb	Wood	Deteriorated	Grey	Negative	0.3	mg/cm2
129	1908 East 5th st.	Bedroom 2	A	Door Casing	Wood	Deteriorated	Grey	Negative	0.0	mg/cm2
130	1908 East 5th st.	Bathroom	A	Wall	Drywall	Deteriorated	Tan	Positive	4.2	mg/cm2
131	1908 East 5th st.	Bathroom	B	Wall	Drywall	Deteriorated	Tan	Negative	0.2	mg/cm2
132	1908 East 5th st.	Bathroom	B	Ceiling	Drywall	Deteriorated	White	Negative	0.1	mg/cm2
133	1908 East 5th st.	Bathroom	D	Wall	Drywall	Deteriorated	Tan	Negative	0.1	mg/cm2
134	1908 East 5th st.	Bathroom	A	Door	Wood	Deteriorated	White	Negative	0.1	mg/cm2
135	1908 East 5th st.	Bathroom	A	Door Jamb	Wood	Deteriorated	White	Negative	0.4	mg/cm2
136	1908 East 5th st.	Bathroom	A	Door Casing	Wood	Deteriorated	Tan	Negative	0.5	mg/cm2
137	1908 East 5th st.	Bathroom	C	Window Sash	Wood	Intact	White	Negative	0.0	mg/cm2
138	1908 East 5th st.	Bathroom	C	Window Casing	Wood	Intact	White	Negative	0.1	mg/cm2
139	1908 East 5th st.	Kitchen	B	Wall	Wood	Deteriorated	Tan	Negative	0.3	mg/cm2
140	1908 East 5th st.	Kitchen	C	Wall	Wood	Deteriorated	Tan	Negative	0.2	mg/cm2
141	1908 East 5th st.	Kitchen	C	Ceiling	Wood	Deteriorated	White	Negative	0.4	mg/cm2
142	1908 East 5th st.	Kitchen	C	Crown Molding	Wood	Intact	White	Negative	0.2	mg/cm2
143	1908 East 5th st.	Kitchen	C	Door	Wood	Deteriorated	Tan	Negative	-0.1	mg/cm2
144	1908 East 5th st.	Kitchen	C	Door Jamb	Wood	Deteriorated	Tan	Negative	0.1	mg/cm2
145	1908 East 5th st.	Kitchen	C	Door Casing	Wood	Deteriorated	Tan	Negative	0.2	mg/cm2
146	1908 East 5th st.	Kitchen	D	Window Sash	Wood	Intact	Tan	Negative	0.4	mg/cm2
147	1908 East 5th st.	Kitchen	D	Window Casing	Wood	Intact	Tan	Negative	0.0	mg/cm2
148	1908 East 5th st.	House	A	Door Casing	Wood	Intact	White	Negative	0.2	mg/cm2
149	1908 East 5th st.	House	A	Soffit	Vinyl	Intact	White	Negative	-0.1	mg/cm2
150	1908 East 5th st.	House	A	Fascia	Vinyl	Intact	White	Negative	0.0	mg/cm2
151	1908 East 5th st.	House	A	Window Sash	Wood	Deteriorated	White	Negative	0.0	mg/cm2
152	1908 East 5th st.	House	A	Window Casing	Metal	Intact	White	Negative	0.0	mg/cm2
153	1908 East 5th st.	House	A	Window Sill	Metal	Intact	White	Negative	0.2	mg/cm2
154	1908 East 5th st.	House	B	Window Sill	Metal	Intact	White	Negative	0.1	mg/cm2
155	1908 East 5th st.	House	B	Wall	Vinyl	Intact	Beige	Negative	0.3	mg/cm2
156	1908 East 5th st.	House	C	Wall	Vinyl	Intact	Beige	Negative	0.3	mg/cm2
157	1908 East 5th st.	House	D	Wall	Vinyl	Intact	Beige	Negative	0.0	mg/cm2
158	1908 East 5th st.	Calibration						Positive	1.0	mg/cm2
159	1908 East 5th st.	Calibration						Positive	1.0	mg/cm2
160	1908 East 5th st.	Calibration						Positive	1.0	mg/cm2

Photo Log - APP-10101

	
Elevation A	Elevation B
	
Elevation C	Elevation D

LAB RESULTS

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer The EI Group, Inc. (NC) (5126)
Address 2101 Gateway Centre Blvd Suite 200
Morrisville, NC 27560

Order #: 473055

Matrix Wipe
Received 05/11/22
Analyzed 05/12/22
Reported 05/12/22

Project Dewberry APP 10101
Location 1908 E 5th St
Number IHMO220083.00

Sample ID / Parameter	Cust. Sample ID	Location / Method	Sample Date / Area	Total	Conc.	RL*
473055-001	1	Living Room Floor	05/05/22			
Lead		EPA 7000B	1.00 ft2	<5.00 µg/wipe	**<5.00 µg/ft2**	5.00 µg/ft2
473055-002	2	Living Room W Sill	05/05/22			
Lead		EPA 7000B	0.250 ft2	15.8 µg/wipe	**63.2 µg/ft2**	20.0 µg/ft2
473055-003	3	Bed 1 Floor	05/05/22			
Lead		EPA 7000B	1.00 ft2	52.5 µg/wipe	**52.5 µg/ft2**	5.00 µg/ft2
473055-004	4	Bed 1 W Sill	05/05/22			
Lead		EPA 7000B	0.250 ft2	13.1 µg/wipe	**52.2 µg/ft2**	20.0 µg/ft2
473055-005	5	Bath Floor	05/05/22			
Lead		EPA 7000B	1.00 ft2	<5.00 µg/wipe	**<5.00 µg/ft2**	5.00 µg/ft2
473055-006	6	Kitchen Floor	05/05/22			
Lead		EPA 7000B	1.00 ft2	<5.00 µg/wipe	**<5.00 µg/ft2**	5.00 µg/ft2
473055-007	7	Bed 2 Floor	05/05/22			
Lead		EPA 7000B	1.00 ft2	11.2 µg/wipe	**11.2 µg/ft2**	5.00 µg/ft2
473055-008	8	Living Room Sill	05/05/22			
Lead		EPA 7000B	0.250 ft2	9.39 µg/wipe	**37.6 µg/ft2**	20.0 µg/ft2
473055-010	B	QC	05/05/22			
Lead		EPA 7000B		<5.00 µg/wipe		5.00 µg/wipe

Minimum Total Reporting Limit: 5.0 µg/wipe. All internal QC parameters were met. Unusual sample conditions, if any, are described. Do not reproduce this report except in full. Concentration and *Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. The test results apply to the sample as received. AIHA-LAP, LLC accredited for Lead (Lab ID 100527).

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer The EI Group, Inc. (NC) (5126)
Address 2101 Gateway Centre Blvd Suite 200
Morrisville, NC 27560

Order #: 473055

Matrix Wipe
Received 05/11/22
Analyzed 05/12/22
Reported 05/12/22

Project Dewberry APP 10101
Location 1908 E 5th St
Number IHMO220083.00

Sample ID	Cust. Sample ID	Location	Sample Date			
Parameter		Method	Area	Total	Conc.	RL*

Analyst DM
473055-05/12/22 02:34 PM

Reviewed By **Maggie Yokley**
Analyst

EPA Lead Clearance

Location	Level	Unit
Floors	< 10.0	µg/ft2
Interior Window Sills	< 100	µg/ft2
Window Troughs	< 400	µg/ft2

HUD Lead Clearance

Location	Level	Unit
Interior Floors	< 10.0	µg/ft2
Porch Floors	< 40.0	µg/ft2
Interior Window Sills	< 100	µg/ft2
Window Troughs	< 100	µg/ft2

Minimum Total Reporting Limit: 5.0 µg/wipe. All internal QC parameters were met. Unusual sample conditions, if any, are described. Do not reproduce this report except in full. Concentration and *Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. The test results apply to the sample as received. AIHA-LAP, LLC accredited for Lead (Lab ID 100527).

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: The EI Group, Inc. (NC) (5126)
Address: 2101 Gateway Centre Blvd Suite 200
Morrisville, NC 27560

Attn:

Project: Dewberry APP 10101
Location: 1908 E 5th St
Number: IHMO220083.00

Order #: 473055

Matrix Soil
Received 05/11/22
Analyzed 05/12/22
Reported 05/13/22

PO Number:

Sample ID / Parameter	Cust. Sample ID / Method	Location	Sample Date	Weight / Total µg	% / Wt.	Conc.	RL*
473055-009	9	Soil	05/05/22	1010 mg			
Lead		EPA 7000B		55.5 µg	0.00547 %	54.7 mg/kg	9.86 mg/kg

Analyst: DM
473055-05/13/22 09:39 AM

Reviewed By: **Kelly Muncy**
Manager

EPA Lead in Residential Soil

Location	Level	Unit
Play Areas	400	mg/kg
Bare Soil Average	1200	mg/kg

Minimum reporting limit: 10.0 µg. EPA does not distinguish between lead-contaminated soil and soil-lead hazards. All internal QC parameters were met. Unusual sample conditions, if any, are described. Do not reproduce this report except in full. Values are reported to three significant figures. PPM = mg/kg | PPB = µg/kg. The test results apply to the sample as received. AIHA-LAP, LLC accredited for Lead (Lab ID 100527).

SCHNEIDER LABORATORIES GLOBAL, INC.
2512 West Cary Street, Richmond, Virginia 23220-5117
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475
www.slabinc.com • info@slabinc.com

X 10

473055
V:\473\473055
thawks
UPS
5/11/2022 9:47:45 AM
1Z2E2899068005489

Submitting Co.	The EI Group, Inc.	State of Collection	NC	Cert. Required	■ YES ☐ NO
2101 Gateway Centre Blvd. Ste 200		Acct #		Phone	919-459-5291
Morrisville, NC 27560		Email			
Project Name	Dewberry APP- 1010	PO #			
Project Location	1908 E. 5TH ST	Special Instructions: cc to: fsimoni@ei1.com			
Project Number	IHMO220083.00				
Collected By	F. Simoni				

Turn Around Time**
- ☐ 2 Hour*
- ☐ Same day*
- ☐ 1 business day
- ■ 2 business days
- ☐ 3 business days
- ☐ 5 business days

* not available for all tests
** past 3 PM the TAT will begin next business day
Please schedule rush tests in advance

Matrix
- ☐ Air
- ☐ Paint
- ■ Soil
- ■ Wipe
- ☐ Bulk
- ☐ Waste Water
- ☐ Ground Water
- ☐ Drinking Water
- ☐ TSP / PM10
- ☐ _____

Tests/Analytes (Select ALL that Apply) Blank spaces are for additional analytes

Asbestos in Bulk
- ☐ PLM
- ☐ PLM Qualitative
- ☐ 400 Point Count
- ☐ 1000 Point Count
- ☐ Gravimetric Prep

Metals Total
- ■ Lead
- ☐ RCRA 8 Metals
- ☐ Chromium VI
- ☐ Mercury
- ☐ _____

TCLP
- ☐ Lead
- ☐ RCRA 8 Metals
- ☐ Full TCLP (w/ organics 10 Day)

Microbiology
- ☐ BACT (MPN/PA)
- ☐ Mold Direct Exam
- ☐ Allergens

Sub-Contract
- ☐ TEM Chatfield
- ☐ TEM AHERA
- ☐ TEM 7402
- ☐ Silica XRD (7500)

Asbestos in Air
- ☐ PCM
- ☐ PCM-B Rules

Gravimetric
- ☐ Total Dust NIOSH 0500
- ☐ Resp. Dust NIOSH 0600

Miscellaneous
- ☐ Silica FTIR (7602)
- ☐ _____

Sample #	Date Sampled	Time Sampled	Sample Identification (Employee, Bldg,Material, Type[1])	Wipe Area	Time[2] Start	Time[2] Stop	Flow Rate[3] Start	Flow Rate[3] Stop	Total Air[4]
1	5/5/22		LIVING ROOM - FL	144	N/A	N/A	N/A	N/A	N/A
2	↓		↓ - W. SILL	36					
3			BED 2 - FLOOR	144					
4			↓ - W. SILL	36					
5			BATH - FLOOR	144					
6			KITCHEN - FLOOR	144					
7			BED 2 - FLOOR	144					
8			LIVING ROOM - SILL	36					
9			SOIL	N/A					
B	↓		QC	N/A					

For Aqueous and Solid samples ensure enough sample is sent for duplicate and spike analysis

[1]Type: A=Area, B=Blank, P=Personal, E=Excursion [2]Beginning/End of Sample Period [3]Liters/Minute [4]Volume in Liters (time in min × flow in L/min)

Relinquished By: F. Simoni Signature: _____ Date/Time 5/5/22

! ALL SHADED FIELDS MUST BE FILLED TO AVOID DELAYS !

Chain-of-Custody documentation continued internally

METHODOLOGY

XRF INSPECTION METHODOLOGY

According to HUD/EPA/NCHHCU Guidelines, lead in quantities equal to and greater than 1.0 mg/cm^2 must be present to be considered a lead-based paint. However, detectable lead in quantities less than 1.0 mg/cm^2 may contribute to the development of lead dust hazards even though it is not a lead-based paint hazard according to the HUD/EPA/NCHHCU definition of a lead-based paint**.**

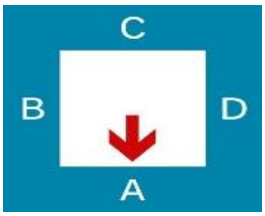
The XRF inspection portion of the risk assessment was accomplished through the measurement of the concentration of lead in paint on any surface determined to have deteriorated paint, be impacted by future renovation activities, and friction surfaces within each room equivalent on both inside the residence and on the exterior surfaces of the residence using an XRF. Determination of paint condition is described below. Only accessible painted and/or varnished surfaces meeting the mentioned criteria were tested using the direct read spectrum analyzer. The inspection was conducted following EPA's work practice standards for conducting lead-based paint activities (40 CFR 745.227), the U.S. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Guidelines) with the June 2012 revisions, and all State and local regulations except that a different visible color shall, by itself, result in a separate testing combination for a room equivalent. Samples are taken to represent component types; therefore, it should be assumed that similar component types in the rest of that room or room equivalent also contain lead-based paint. The same is true for negative readings. In addition, all requirements on XRF usage contained in the Performance Characteristics Sheet for the specific XRF being used were followed.

VIKEN DETECTION PB200I LEAD ANALYZER

The sampling strategy adheres to the EPA Performance Characteristic Sheet for the XRF instrument used, as well as the manufacturer's modifications and recommendations. The XRF used for detection of lead-based paint is the Viken Detection Analyzer. It was manufactured by Viken Detection, headquartered at 21 North Avenue in Burlington, MA, 01803.

Samples may be classified as POS (Positive), NEG (Negative), or NULL (Incomplete). Positive results indicate lead in quantities equal to or greater than 1.0 mg/cm2 and are considered lead-based paint. Negative results indicate lead in quantities less than 1.0 mg/cm2 and are not considered lead-based paint. However, detectable lead quantities less than 1.0 mg/cm2 may lead to the development of lead dust hazards even though it is not a lead-based paint according to the HUD/EPA standard. Incomplete/Null results should be ignored as insufficient data was collected by the XRF during the sample time to determine if the sample is positive or negative (i.e. the instrument slipped or was removed prematurely, terminating the test).

When standing in any four-sided room facing side A, which coincides with the front of the dwelling, side B will be to the right, side C will be to the rear, and side D will be to the left (clockwise from side A).



RISK ASSESSMENT METHODOLOGY

The lead-based paint risk assessment was performed to determine if the lead-based paint present in the residence presents an immediate hazard. This was accomplished through combining measurements of lead in dust, lead in soil, XRF paint analysis, visual assessment of the residence, assessment of paint condition, and by collecting occupant use information to identify and address lead-based paint hazards.

The risk assessment was performed in accordance with the EPA's work practice standards for conducting lead-based paint activities (40 CFR 745.227), and the U.S. Department of Housing and Urban Development (HUD) Chapter 5, Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Guidelines) with the 2012 revisions.

DESCRIPTION OF PAINT CONDITION HAZARD RANKINGS

The paint condition is placed into one of two categories using the risk assessor's professional judgement. These categories are: intact and deteriorated. Based on the approximate surface area of deteriorated paint, the risk assessor then assesses the paint condition as intact or deteriorated.

Hazard ranking protocol was assessed following the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, dated June 2012. This information is summarized below.

Type of Building Component[1]	Total Area of Deteriorated Paint on Each Component	
	Intact[1]	**Deteriorated**[2]
Interior/ Exterior building components	Entire surface area is intact	Entire surface area is **NOT** intact
Interior components with large surface area	Entire surface area is intact	Entire surface area is **NOT** intact
Interior and exterior components w/ small surface areas	Entire surface area is intact	Entire surface area is **NOT** intact

Notes:
1. Indicates each individual building component or side of the building, not the combined surface area of similar components in a room.

2. Indicates surfaces in deteriorated condition are considered to be lead-based paint hazards as defined by Title X and should be addressed through abatement or interim controls which are described in the recommendations in this report.

DUST WIPE SAMPLE METHODOLOGY

Dust wipe samples were collected from single surfaces throughout the residence to identify lead dust hazards. Lead dust hazards can be created from deteriorated lead-based paint on the interior and exterior of the residence, specifically from friction and impact surfaces. Lead dust generated from surfaces on the exterior of the residence can also be tracked inside the residence. These samples were collected from areas where children are most likely to be exposed to dust that may present a lead hazard. Samples from the residence were collected from floors and windowsills/ stools/ troughs throughout the residence.

The EPA has established lead hazard standards for lead in dust under TSCA Section 403 (Residential Lead Hazards). The following level of lead in dust should be considered hazardous and may result in excessive lead exposure and elevated blood lead levels:

10 micrograms per square foot (µg/ft2) for floors, including carpeted floors
100 µg/ft2 for interior windowsills/window stools
400 µg/ft2 for interior window troughs (clearance only)

SOIL SAMPLE METHODOLOGY

Soil samples were collected and analyzed to determine the concentration of lead in composite soil samples. The soil samples were collected from areas of bare soil on the property. Each composited soil sample consisted of multiple sub-samples collected over the entire area of bare soil. Soil samples were analyzed by an accredited analytical laboratory and subsequently reported to EI.

The EPA has established lead hazard standards for lead in soil under TSCA Section 403 (Residential Lead Hazards). The following level of lead in soil should be considered hazardous and may result in excessive lead exposure and elevated blood lead levels:

- 400 milligrams per kilogram (mg/Kg) in children's play areas with bare residential soil (e.g., sandboxes, gardens)
- 1,200 mg/Kg (average) in bare soil for the remainder of the yard

LABORATORY ANALYSIS

Samples were shipped to an accredited laboratory via chain of custody protocol. Laboratory analysis of dust wipes samples and soil samples were performed by an EPA NLLAP (National Lead Laboratory Accreditation Program) approved laboratory. Laboratory analysis of the dust wipe samples, and soil samples was performed based on the EPA SW846-7420/ HUD – Flame Atomic Absorption Method.

LEAD HAZARD CONTROL OPTIONS

Under HUD Guidelines, there are a range of lead hazard control methods that maybe implemented at the property. It is only the responsibility of the Lead-Based Paint Risk Assessor, and The EI Group, Inc. to provide these recommended lead hazard control options. These control measures range from various interim controls (e.g., specialized cleaning, minor wet scraping, and repainting) to abatement measures (e.g., building component replacement, enclosure, and paint removal) that may not, for such reasons as funding limitations, be conducted for some time. EI has endeavored to provide information that will assist the rehabilitating organization and the homeowner in making an informed decision on this complex issue. Ultimately, the rehabilitation program and the homeowner must make the final decision.

HUD AND EPA DEFINED LEAD HAZARD CONTROL METHODS

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

Cleaning: The process of using a vacuum and wet cleaning agent(s) to remove leaded dust; the process includes the removal of bulk debris from the work area.

Dust removal: A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Encapsulation: Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See, also, Enclosure.

Enclosure: The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

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

High Efficiency Particulate Air (HEPA) filter: A filter capable of removing particles of 0.3 microns or larger from air at 99.97 percent or greater efficiency.

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

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and

resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

Lead-based paint hazard control: Activities intended to control and eliminate lead-based paint hazards, including but not limited to interim controls and abatement.

Lead-specific detergent: A cleaning agent manufactured specifically for cleaning and removing leaded dust or other lead contamination.

Maintenance: In the context of lead hazard control, work intended to maintain adequate living or occupancy conditions in target housing or a pre-1978 child-occupied facility; it may have the potential to disturb known or presumed lead-based paint.

Paint stabilization: The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint. Paint stabilization also includes eliminating the cause(s) of paint deterioration, cleanup and clearance.

Paint removal: The removal of lead-based paint from surfaces; this may be an abatement strategy, or it may occur as a part of a renovation project.

Replacement: A strategy of abatement that involves the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Treatment: A method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trisodium phosphate (TSP) detergent: A detergent that contains trisodium phosphate. These guidelines do not recommend using TSP.

Useful life: The life expectancy of a coating before it requires refinishing or some other form of maintenance.

Vacuum/wet cleaning/vacuum cycle: The cleaning cycle that begins with HEPA vacuuming, followed by a wet cleaning with a detergent, followed by a final pass with a HEPA vacuum over the surface.

DEFINITIONS

Lead-Based Paint: Paint that contains 1.0 milligram per centimeter square (mg/cm^2) of lead or greater. Also measured as greater than 0.5 percent lead or has 5,000 parts per million (ppm) lead by dry weight.

Lead-Based Paint Hazards: Housing conditions that cause human exposure to unsafe levels of lead from paint. These conditions include deteriorated lead-based paint; friction, impact or chewable painted surfaces; lead-contaminated dust; or lead-contaminated soil.

LEAD HAZARD EVALUATION

Paint Testing: Testing of specific surfaces, by XRF (x-ray fluorescence) or lab analysis, to determine the lead content of these surfaces, performed by a certified lead-based paint inspector or certified lead-based paint risk assessor.

Risk Assessment: A comprehensive evaluation for lead-based paint hazards that includes paint testing, dust and soil sampling, and a visual evaluation. The risk assessment report identifies lead hazards and appropriate lead hazard reduction methods. A certified lead-based paint risk assessor must conduct the assessment.

Lead Hazard Screen: A limited risk assessment activity that can be performed instead of a risk assessment in units that meet certain criteria (e.g. good condition). The screen must be performed by a certified lead-based paint risk assessor. If the unit fails the lead hazard screen, a full risk assessment must be performed.

Clearance Examination: Clearance is performed after hazard reduction, rehabilitation or maintenance activities to determine if a unit is safe for occupancy. It involves a visual assessment, analysis of dust and soil samples, and preparation of report. A certified lead-based paint risk assessor, lead-based paint inspector, or clearance technician (independent from entity/individual conducting paint stabilization or hazard reduction) conducts clearance.

LEAD HAZARD REDUCTION

Paint Film Stabilization: An interim control method that stabilizes painted surfaces and addressed the underlying cause of deterioration. Steps include repairing defective surfaces, removing loose paint and applying new paint.

Interim Controls: Set of measures to temporarily control lead-based paint hazards. Interim control methods must be completed by qualified workers using safe work practices. Follow-up monitoring is needed.

Standard Treatments: A complete set of interim control methods that when used together temporarily control all potential lead hazards in a unit. Because they address all conditions, a risk assessment or

other evaluation is not needed. Standard treatments must be completed by qualified workers using safe work practices. As with interim controls, follow-up monitoring is needed.

Abatement: Measures to permanently control (i.e. 20 years or more) lead-based paint or lead-based paint hazards.

LBP – KEY UNITS OF MEASUREMENT

µg (microgram): A Microgram is $1/1000^{th}$ of a milligram (or one millionth of a gram). To put this unit into perspective, 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.

ft^2 (Square Foot): One square foot is equal to an area that has a length of one foot (12 inches) and a width of one foot (12 inches).

µg/dL: Micrograms per deciliter is used to measure the level of lead in children's blood to establish whether intervention is needed. A deciliter ($1/10^{th}$ of liter) is a little less than half a cup. As noted above, a microgram is the same weight as one penny divided into two million parts.

mg/cm^2: Milligrams per square centimeter, used for measuring lead in finished surfaces by XRF machines.

Percent (%): Percent by dry weight, a unit of measuring lead in finished surfaces via paint chip sample analysis.

ppm: Parts per million, by weight, equivalent to µg/gram (10,000 ppm = 1 percent). Used to measure lead content in paint and soil.

LEAD-BASED PAINT STANDARDS

Definition of Lead-Based Paint – Paint or surface coating that contains at least:

- 1 milligram per centimeters square (mg/cm^2) of lead;
- 0.5 percent lead; or
- 5,000 parts per million (ppm) lead by dry weight.

DUST – THRESHOLDS FOR LEAD-CONTAMINATION (RISK ASSESSMENT/CLEARANCE)

- Floors: 10 $\mu g/ft^2$ (Risk Assessment), 40 $\mu g/ft^2$ (Clearance Only)
- Porch Floors (Clearance Only): 40 $\mu g/ft^2$
- Interior Windowsills: 100 $\mu g/ft^2$ (Risk Assessment), 250 $\mu g/ft^2$ (Clearance Only)
- Window Troughs (Clearance Only): 400 $\mu g/ft^2$

SOIL – THRESHOLDS FOR SOIL CONTAMINATION

- Play areas used by children under age 6: 400 mg/Kg
- Average for other sampled areas:1,200 mg/K

LEAD-BASED PAINT ACTIVITY SUMMARY

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
HEALTH HAZARDS CONTROL UNIT

LEAD-BASED PAINT ACTIVITY SUMMARY

Please type or print in ink.

I. TYPE OF ACTIVITY:

_____ **Inspection** __x__ **Risk Assessment** _____ **Lead Hazard Screen**

II. DATE ACTIVITY COMPLETED: May 05, 22

III. ACTIVITY LOCATION: 1908 East 5th st.

Address: 1908 East 5th st.

City: Lumberton **State:** NC **Zip Code:** 28358 **County:** Robeson

Contact Person: Charles Aly **Contact Phone:** 678-205-6903

IV. ACTIVITY SUMMARY (attach additional pages as needed):

Table 1: Lead-Based Paint[1]					
Room	Side	Component[2]	Substrate	Condition	Color
Bathroom	A	Wall	Drywall	Deteriorated	Tan

Note(s):

1. Positive results indicate lead in quantities equal to or greater than 1.0 mg/cm² and are considered lead-based paint.
2. Samples are taken to represent component types; therefore, it should be assumed that similar component types in the rest of that room of room equivalent also contain lead-based paint.

Table 2: Deteriorated Lead-Based Paint[1]					
Room	Side	Component[2]	Substrate	Condition	Color
Bathroom	A	Wall	Drywall	Deteriorated	Tan

Note(s):

1. Surfaces in deteriorated condition are considered to be lead-based paint hazards as defined by Title X and should be addressed through abatement or interim controls which are described in Table 6.

Table 3: Lead Containing Materials[2]					
Room	Side	Component[2]	Substrate	Condition	Color
None Found	N/A	N/A	N/A	N/A	N/A

Note(s):

2. Although not considered to be lead-based paint, these materials when disturbed through destructive measures such as sanding, chipping, grinding, and other sourceds of friction, can create dust hazards and should be treated through control described in Table 6.

Table 4: Dust Wipe Sample Analysis				
Sample #	Location	Surface Type	Concentration (ug/ft^2)	Lead Hazard[1]
DW1	Living Room	Floor	<5.00	No
DW2	Living Room	Windowsill	63.2	No
DW3	Bedroom	Floor	52.5	Yes
DW4	Bedroom	Windowsill	52.2	No
DW5	Bathroom	Floor	<5.00	No
DW6	Kitchen	Floor	<5.00	No
DW7	Bedroom	Floor	11.2	Yes
DW8	Living Room	Windowsill	37.6	No
DW9	Q/C	Blank Wipe	<5.00 µg/wipe	No

Note(s):

1. EPA Lead Dust Hazard for Floors: 10 µg/ft²; Window Sills: 100 µg/ft²

Table 5: Soil Sample Analysis				
Sample #	Location	Bare/Covered	Concentration (mg/kg)	Lead Hazard[1]
S-1	Soil	Bare	54.7	No

Note(s):

1. EPA Lead in Soil Hazard for children's play areas with bare residential soil: 400 mg/Kg; bare soil for the remainder of the yard: 1,200 mg/Kg

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Table 6: Lead Hazard Control Options[1]			
Hazard Type	Location	Description	Control[2–5]
Lead Dust Hazard	Bedroom	Floor	Cleaning- Clean surfaces using HEPA filtered vacuum and wet cleaning agents to remove leaded dust

Note(s):

1. Lead hazard control options include abatement and interim controls.
2. Paint film stabilization: Wet scrape and prime building comopnents where chipping or peeling is present following acceptable methods.
3. Replace: Remove and dispose of components in accordance with applicable federal, state and local regulations. Prime coat any new unpainted wood components.
4. Enclosure: Enclose lead-based paint coated building components with a material that is structurally affixed and deemed to last 20 years.
5. General Cleaning-Clean using HEPA filtered vacuum and wet wipe impacted surfaces to remove paint chips and lead-dust hazards.

V. CERTIFIED INSPECTOR OR RISK ASSESSOR

Name: Fabrizzio Simoni **NC Lead Cert No.:** 120304

Title: Industrial Hygienist

Certified Firm: The EI Group, Inc **NC Cert. No:** FPB-OO18

Address: 2101 Gateway Centre Blcd. Suite 200 **State:** NC **Zip:** 27560

Telephone: 919-657-7500

Signature: _____ **Date:** May 05, 22

SUBMIT TO: NC DHHS - HEALTH HAZARDS CONTROL UNIT
1912 MAIL SERVICE CENTER
RALEIGH, NC 27699-1912

INSTRUCTIONS

FOR COMPLETION OF LEAD-BASED PAINT ACTIVITY SUMMARY

PURPOSE

A Lead-Based Paint Activity Summary shall be submitted to the North Carolina Lead-Based Paint Hazard Management Program (LHMP) by the certified inspector or risk assessor for each inspection, risk assessment, or lead hazard screen conducted within 45 days of the activity on a form provided or approved by the Program per LHMP Rule 10A NCAC 41C .0807(b).

PREPARATION

All information is to be filled out completely, typed or printed in ink. Pencil is not acceptable. Attachments are also to be typed or printed in ink.

INSTRUCTIONS

I. Indicate the type of activity that was conducted.

II. Enter the date the activity was completed.

III. Enter complete information about the facility where the activity occurred, including facility name, address, city, state, zip code, county, the name of the facility contact, and the contact's telephone number, including area code.

IV. Summarize the activities that were conducted at the site, including the results of the inspection, risk assessment, or lead hazard screen, and any recommendations resulting from the activity.

V. Enter the name, NC Lead Certification Number, and title of the individual conducting the activity.

Enter the name of the NC Certified Firm, the NC Firm Certification Number, the firm's address, state, zip code, and telephone number, including area code.

Enter the original signature of the inspector or risk assessor who conducted the activity and the date the Lead-Based Paint Activity Summary was signed.

Completed Activity Summary with any attachments should be mailed to:

NC Department of Health and Human Services
Health Hazards Control Unit
1912 Mail Service Center
(919)707-5950

For Overnight/Express Mail:

NC Department of Health and Human Services
Health Hazards Control Unit
5505 Six Forks Rd, 2nd Floor, Room D-1 Raleigh, NC 27609

XRF ANALYZER PERFORMANCE CHARACTERISTICS SHEET

Performance Characteristic Sheet

6. EFFECTIVE DATE: December 1, 2015

MANUFACTURER AND MODEL:

Make: ***Heuresis***
Models: ***Model Pb200i***
Source: ***^{57}Co, 5 mCi (nominal – new source)***

FIELD OPERATION GUIDANCE

7. **OPERATING PARAMETERS**:

Action Level mode

8. **XRF CALIBRATION CHECK LIMITS**:

0.8 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

Not applicable

9. INCONCLUSIVE RANGE OR THRESHOLD:

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

HEURESIS PCS December 2015

BACKGROUND INFORMATION

10. 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 using test results on building components in the HUD archive. Testing was conducted on 146 test samples in November 2015, with two separate instruments running software version 2.1-2 in Action Level test mode. The actual source strength of each instrument on the day of testing was approximately 2.0 mCi; source ages were approximately one year.

11. 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.

12. XRF CALIBRATION CHECK:

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

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

13. SUBSTRATE CORRECTION VALUE COMPUTATION:

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

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

For each substrate type (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

Correction value = (1st + 2nd + 3rd + 4th + 5th + 6th *Reading*)/6 - 1.02 mg/cm^2

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

14. 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.

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

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

Compute the Retest Tolerance Limit by the following steps:

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

Calculate the average of the original XRF result and the 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 readings.

Compute the average of all ten re-test XRF readings.

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.

15. TESTING TIMES:

In the Action Level paint test mode, the instrument takes the longest time to complete readings close to the Federal standard of 1.0 mg/cm^2. The table below shows the mean and standard deviation of actual reading times by reading level for paint samples during the November 2015 archive testing. The tested instruments reported readings to one decimal place. No significant differences in reading times by substrate were observed. These times apply only to instruments with the same source strength as those tested (2.0 mCi). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times, than those in the table.

Mean and Standard Deviation of Reading Times in Action Level Mode by Reading Level		
Reading (mg/cm^2)	**Mean Reading Time (seconds)**	**Standard Deviation (seconds)**
< 0.7	3.48	0.47
0.7	7.29	1.92
0.8	13.95	1.78
0.9 – 1.2	15.25	0.66
1.3 – 1.4	6.08	2.50
> 1.5	3.32	0.05

16. CLASSIFICATION OF RESULTS:

XRF results are classified as **positive** if they are **greater than or equal** to the stated threshold for the instrument (1.0 mg/cm^2), and *negative* if they are *less than* the threshold.

17. DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) 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. The report may be downloaded at http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95- 008-september-1997.

This XRF Performance Characteristic Sheet (PCS) was developed by QuanTech, Inc., under a contract with the XRF manufacturer.

CERTIFICATIONS AND LICENSURE

NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES

ROY COOPER • Governor

MANDY COHEN, MD, MPH • Secretary

MARK T. BENTON • Assistant Secretary for Public Health,
Division of Public Health

December 21, 2020

Fabrizzio Simoni
1910 Walker Ave
Greensboro, NC 27403

Dear Mr. Simoni:

You have successfully passed the North Carolina Lead Risk Assessor Certification examination. Based on these results, the Health Hazards Control Unit (HHCU) has determined that you have fulfilled the examination requirement and are eligible for lead certification as a(n) RISK ASSESSOR. Your assigned Risk Assessor certification number is 120304, which is reflected on your enclosed North Carolina Lead Certification card. The State requires that all persons conducting regulated lead-based paint activities be certified and have their identification card on-site.

A "Lead-Based Paint Activity Summary" shall be submitted to the HHCU by the certified inspector or risk assessor within 45 days of each inspection, risk assessment, or lead hazard screen conducted. The information shall be submitted on a form provided or approved by the Program, per 10A NCAC 41C .0807(b), Lead-Based Paint Hazard Management Program Rules.

Accredited refresher training must be completed at least every 24 months from the date of the last accredited training course **AND** within twelve months prior to applying for certification. The HHCU strongly recommends that individuals note the date of certification expiration and ensure all refresher training meets the above requirements.

Your North Carolina Risk Assessor certification will expire on DECEMBER 31, 2021. It is NOT the policy of the HHCU to issue renewal notices. If you wish to continue working as a(n) Risk Assessor after this expiration date, you must successfully complete the required training and submit a completed application to this office prior to December 31, 2021. If you should perform lead-based paint activities as a(n) Risk Assessor without a valid North Carolina certification, you will be in violation of State regulations and may be cited for noncompliance.

If you have any questions, please contact our office at (919) 707-5954.

NORTH CAROLINA
LEAD CERTIFICATION

Fabrizzio Simoni
1910 Walker Ave
Greensboro, NC 27403

DOB	SEX	HT	WT
01-07-1975	M	5'10"	170

DISCIPLINE	#	LAST COURSE	EXPIRATION
RISK ASSESSOR	120304	INS 10-20-2020 RIS 10-21-2020	12-31-2021

Sincerely,

Ed Norman
Program Manager
Health Hazards Control Unit

'H AND HUMAN SERVICES . DIVISION OF PUBLIC HEALTH

505 Six Forks Road, Building 1, Raleigh, NC 27609
MAILING ADDRESS: 1912 Mail Service Center, Raleigh, NC 27699-1912
www.ncdhhs.gov . TEL: 919-707-5950 . FAX: 919-870-4808

North Carolina Department of Health and Human Services
Division of Public Health

Health Hazards Control Unit

Lead-Based Paint Hazard Management Program

The EI Group Inc

Is Issued Lead Firm Certification

Lead Certification Number - FPB-0018

Valid between December 01, 2021 and December 31, 2022

Program Manager

NC Health Hazards Control Unit
1912 Mail Service Center, Raleigh, NC 27699-1912
Phone 919-707-5950