Lead Inspection & Risk Assessment Report

FOR THE PROPERTY AT:

1320 Jerome Street

Lansing, MI 48812

Date of Construction: 1913

ETC Job #: 269067

Prepared For

Ingham County Land Bank
3024 Turner Street
Lansing, MI 48906
517-267-5221

Date of Inspection: 05/07/2024

Date of Report: 05/15/2024

Report Prepared and Submitted By:

Brandon Lee

Michigan Certification: P-08246

XRF Serial Number: 1814

etc
environmental testing & consulting

38900 West Huron River Drive
Romulus, MI 48174
734-955-6600
www.2etc.com

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Purpose of Environmental Investigation

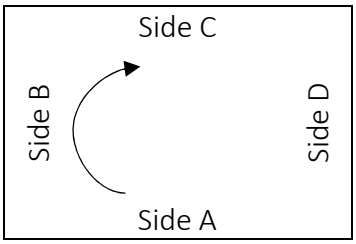
The purpose of this report is to share lead-testing results. *Please refer to Appendix C-3 for your future responsibilities as they relate to this report.* Use the "Key Definitions" below as a guide when reading the results. **Floor plan maps are provided in Appendix B-3 – use these as a guide when reading the results.** See Appendix C for information about lead hazards and abatement versus interim control options.

KEY DEFINITIONS

Component: The surface tested.
Examples: door, door trim, wall, ceiling, exterior siding, etc.

Substrate: The type of material.
Examples: plaster, wood, metal

Side: The location of tested area or item. Side A is always the address side of the building. Sides B, C, and D move in a clockwise direction from Side A.



(Address Side)

Condition: The condition of the paint on the surface tested.
Intact means undamaged or in one piece.
Deteriorated means damaged, worn, or in bad shape.

Color: The color of the surface tested.

Floor: The floor of the building.
Basements identified are "Floor 0."

Room: The room testing occurred. Rooms are identified by a number because room usage may change (i.e., a bedroom may become an office). Kitchens and bathrooms are not numbered.

Result: Indicates if the component/surface tested is Positive or Negative for lead.

Teeth: Indicates if teeth marks are present.

Fric-Imp: Friction-Impact occurs when two components rub or come into contact repeatedly.

Lead Testing

RESULTS & RECOMMENDATIONS

The table below details all of the lead-hazards found in your home.

TABLE 1: ALL LEAD-HAZARDS				
COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Hazards throughout Home				
Dust levels in some window troughs / wells within the home were found to have elevated lead levels. Therefore, all window troughs should be considered to be lead contaminated.	1	1	The risk assessor believes that these high lead levels were caused by other lead hazards dealt with below. Therefore, after having completed all other abatement / interim control options, clean the entire house for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.	The risk assessor believes that these high lead levels were caused by other lead hazards dealt with below. Therefore, after having completed all other abatement / interim control options, clean the entire house for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.
Dust levels in some window sills / stools within the home were found to have elevated lead levels. Therefore, all window sills should be considered to be lead contaminated.	2	2	The risk assessor believes that these high lead levels were caused by other lead hazards dealt with below. Therefore, after having completed all other abatement / interim control options, clean the entire house for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.	The risk assessor believes that these high lead levels were caused by other lead hazards dealt with below. Therefore, after having completed all other abatement / interim control options, clean the entire house for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Dust levels on some floors within the home were found to have elevated lead levels. Therefore, all floors should be considered to be lead contaminated.	2	1	The risk assessor believes that these high lead levels were caused by other lead hazards dealt with below. Therefore, after having completed all other abatement / interim control options, clean the entire house for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.	The risk assessor believes that these high lead levels were caused by other lead hazards dealt with below. Therefore, after having completed all other abatement / interim control options, clean the entire house for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.
The paint chips found in the window troughs throughout the house are hazards.	1	1	Remove all visible paint chips.	Remove all visible paint chips.
Basement # 1				
Sides A & B Walls represent deteriorated lead paint surface hazards.	1	1	1) Enclose with drywall or other suitable wallboard material or 2) wet scrape/sand all surfaces, make necessary repairs, stabilize surfaces and encapsulate with a Michigan approved encapsulant.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side B Stair Stringer represents a deteriorated lead paint surface hazard.	1	1	1) Remove and replace with new components or 2) strip all surfaces bare to the substrate, make necessary repairs and recoat.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side C Closet Door & Casing represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new door systems or 2) replace individual lead painted components or 3) strip all surfaces on both sides of the door bare to the substrate, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Living Room # 3				
Sides A & D Window Wells-Troughs & Jambs represent deteriorated lead paint friction hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Entry # 4				
Side A Door Stop & Jamb Ext. represent deteriorated lead paint Friction/impact surface hazards.	1	1	1) Remove and replace with new door systems or 2) replace individual lead painted components or 3) strip all surfaces on both sides of the door bare to the substrate, stabilize surfaces, and repaint.	1) Refit door to eliminate friction points, wet scrape/sand all surfaces, make necessary repairs, including installation of weatherstripping or other "soft" stop material, stabilize all surfaces and repaint 2) Use friction reduction treatments (jamb liners, weatherstripping, rubber padding, tread covers, etc.) to reduce wear or 3) Wet plane all friction / impact surfaces, wet scrape all remaining surfaces, make necessary repairs, stabilize all surfaces and repaint.
Stairwell # 6				
Sides B & D Walls represent deteriorated lead paint surface hazards.	1	1	1) Enclose with drywall or other suitable wallboard material or 2) wet scrape/sand all surfaces, make necessary repairs, stabilize surfaces and encapsulate with a Michigan approved encapsulant.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Center Stair Stringer, Tread & Riser represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new components or 2) strip all surfaces bare to the substrate, make necessary repairs and recoat.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Kitchen # 7				
Sides A, B & D Walls & the Ceiling represent deteriorated lead paint surface hazards.	1	1	1) Enclose with drywall or other suitable wallboard material or 2) wet scrape/sand all surfaces, make necessary repairs, stabilize surfaces and encapsulate with a Michigan approved encapsulant.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side A All Baseboards represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new components or 2) strip all surfaces bare to the substrate, make necessary repairs and recoat.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Sides A Door Casing represents a deteriorated lead paint surface hazard.	1	1	1) Remove and replace with new door systems or 2) replace individual lead painted components or 3) strip all surfaces on both sides of the door bare to the substrate, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side A Door Jamb & Stop represent deteriorated lead friction/impact surface hazards.	1	1	1) Remove and replace with new door systems or 2) replace individual lead painted components or 3) strip all surfaces on both sides of the door bare to the substrate, stabilize surfaces, and repaint.	1) Refit door to eliminate friction points, wet scrape/sand all surfaces, make necessary repairs, including installation of weatherstripping or other "soft" stop material, stabilize all surfaces and repaint 2) Use friction reduction treatments (jamb liners, weatherstripping, rubber padding, tread covers, etc.) to reduce wear or 3) Wet plane all friction / impact surfaces, wet scrape all remaining surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Side B Window Well-Trough & Jamb represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side D Closet Door Casing (pantry) represents a deteriorated lead paint surface hazard.	1	1	1) Remove and replace with new components or 2) strip all surfaces bare to the substrate, make necessary repairs and recoat.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side D All Closet Walls represent deteriorated lead paint surface hazards.	1	1	1) Enclose with drywall or other suitable wallboard material or 2) wet scrape/sand all surfaces, make necessary repairs, stabilize surfaces and encapsulate with a Michigan approved encapsulant.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Bathroom # 8				
Side B Window Well-Trough & Jamb represent deteriorated lead paint friction surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Family Room # 9				
Side C1 Window Sash Int. represents a deteriorated lead paint surface hazard.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Sides C1, C2, D1 & D2 Window Jambs represent deteriorated lead paint friction surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side D2 Window Well-Trough represents a deteriorated lead paint surface hazard.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Attic # 17				
Side A1 Window Sash Int. represents a deteriorated lead paint surface hazard.	2	2	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side A All Window Casings & Sills-Stools represent deteriorated lead paint surface hazards.	2	2	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Bedroom # 12				
Sides B & C Window Troughs-Wells & Stops Ext. represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Bedroom # 13				
Side D Window Stops Int., Well-Trough & Jamb represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Bedroom # 11				
Sides A1, A2 & D Window Wells-Troughs, Stops Int. & Jambs represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Stairwell # 5				
Side B Window Well-Trough, Stop Int. & Jamb represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Exterior House # 18				
Side A Porch Ceiling, Soffit & Fascia as well as Side A All Porch Columns & Beams represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new components or 2) strip all surfaces bare to the substrate, make necessary repairs and recoat.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side A Door Casing represents a deteriorated lead paint surface hazard.	1	1	1) Remove and replace with new door systems or 2) replace individual lead painted components or 3) strip all surfaces on both sides of the door bare to the substrate, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Sides A1 & A2 Window Casings & Sills-Stools represent deteriorated lead paint surface hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Side A All Window Sashes Ext. were inaccessible due to Fixed Storm Window. These components were of similar construction and visually exhibited a similar painting history to other components tested. Therefore, they were considered part of a testing combination and must be lead paint hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.

COMPONENT & LOCATION OF HAZARD	SEVERITY*	PRIORITY**	ABATEMENT OPTIONS	INTERIM CONTROL OPTIONS
Side A Window Casing & Sill-Stool were inaccessible due to being out of reach. These components were of similar construction and visually exhibited a similar painting history to other components tested. Therefore, they were considered part of a testing combination and must be lead paint hazards.	1	1	1) Remove and replace with new replacement windows or 2) replace individual lead painted components or 3) enclose all lead painted surfaces or 4) strip all surfaces bare to the substrate, make necessary repairs, stabilize surfaces, and repaint.	Wet scrape / sand all surfaces, make necessary repairs, stabilize all surfaces and repaint.
Entire Home				
After having completed all other abatement and interim control options.	NA	NA	After completing all abatement and interim control options clean the entire home for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.	After completing all abatement and interim control options clean the entire home for lead dust thoroughly using the accepted HEPA-Wash cleaning methods.

** Severity: 1 = most severe; 2 = very severe; 3 = somewhat severe*

***Priority: 1 = high priority; 2 = medium priority; 3 = low priority*

RESULTS OF TESTED SURFACES

The following tables detail levels of lead found in paint, dust, and soil on your property.

Positive Lead-Paint Results

All paint testing results in Appendix D.

TABLE 2: POSITIVE LEAD-PAINT RESULTS

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FREC-IMP	TEETH
4	1	Positive	Wall	A	-	White	Deteriorated	Concrete	Basement	1	Moisture	No	No
5	16.4	Positive	Wall	B	-	White	Deteriorated	Concrete	Basement	1	Moisture	No	No
9	10.9	Positive	Stair Stringer	B	-	Beige	Deteriorated	Wood	Basement	1	Impact	Yes	No
10	1.3	Positive	Clos. Door Casing	C	-	Grey	Deteriorated	Wood	Basement	1	Impact	Yes	No
11	2.3	Positive	Clos. Door Stop	C	-	Grey	INTACT	Wood	Basement	1	-	-	-
14	1.7	Positive	Clos. Door	C	-	Grey	Deteriorated	Wood	Basement	1	Impact	Yes	No
36	19.4	Positive	Win. Well-Trough	A	-	White	Deteriorated	Wood	Living Room	3	Weather	Yes	No
37	15.2	Positive	Win. Jamb	A	-	White	Deteriorated	Wood	Living Room	3	Friction	Yes	No
38	14.6	Positive	Win. Jamb	D	-	White	Deteriorated	Wood	Living Room	3	Friction	Yes	No
39	22.8	Positive	Win. Well-Trough	D	-	White	Deteriorated	Wood	Living Room	3	Weather	Yes	No
52	15.7	Positive	Door Stop	A	-	White	Deteriorated	Wood	Entry	4	Impact	Yes	No
53	18.5	Positive	Door Jamb Ext.	A	-	White	Deteriorated	Wood	Entry	4	Friction	Yes	No
93	1.1	Positive	Wall	B	-	Yellow	Deteriorated	Plaster	Stairwell	6	Moisture	No	No
94	1.1	Positive	Wall	D	-	Yellow	Deteriorated	Wood	Stairwell	6	Moisture	No	No
95	1.5	Positive	Stair Stringer	Center	-	Yellow	Deteriorated	Wood	Stairwell	6	Impact	Yes	No
96	1	Positive	Stair Tread	Center	-	Grey	Deteriorated	Wood	Stairwell	6	Friction	Yes	No
97	1.4	Positive	Stair Riser	Center	-	Grey	Deteriorated	Wood	Stairwell	6	Impact	Yes	No
100	1.5	Positive	Ceiling	-	-	White	Deteriorated	Drywall	Kitchen	7	Moisture	No	No

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FREC-IMP	TEETH
101	8.3	Positive	Wall	A	-	Yellow	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
102	7.3	Positive	Wall	B	-	Yellow	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
104	11.6	Positive	Wall	D	-	Yellow	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
105	1.5	Positive	Baseboard	A	(All)	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
106	1.3	Positive	Door Casing	A	-	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
107	1.6	Positive	Door Jamb	A	-	White	Deteriorated	Wood	Kitchen	7	Friction	Yes	No
108	2.1	Positive	Door Stop	A	-	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
113	1.5	Positive	Win. Sash Int.	B	-	White	INTACT	Wood	Kitchen	7	-	-	-
114	2.9	Positive	Win. Well-Trough	B	-	White	Deteriorated	Wood	Kitchen	7	Weather	Yes	No
115	17.7	Positive	Win. Jamb	B	-	White	Deteriorated	Wood	Kitchen	7	Friction	Yes	No
120	1.6	Positive	Clos. Door Casing	D	-	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
121	1.9	Positive	Clos. Shelf	D	-	White	INTACT	Wood	Kitchen	7	-	-	-
122	4	Positive	Clos. Wall	D	(All)	White	Deteriorated	Drywall	Kitchen	7	Impact	No	No
123	2	Positive	Shelf Bracket	D	-	White	INTACT	Wood	Kitchen	7	-	-	-
143	11.7	Positive	Win. Well-Trough	B	-	White	Deteriorated	Wood	Bathroom	8	Weather	Yes	No
144	5.7	Positive	Win. Jamb	B	-	White	Deteriorated	Wood	Bathroom	8	Friction	Yes	No
169	1.4	Positive	Win. Sash Int.	C	1	White	Deteriorated	Wood	Family Room	9	Friction	Yes	No
171	7.8	Positive	Win. Jamb	C	1	White	Deteriorated	Wood	Family Room	9	Friction	Yes	No
174	7.3	Positive	Win. Jamb	C	2	White	Deteriorated	Wood	Family Room	9	Friction	Yes	No
181	12.2	Positive	Win. Well-Trough	D	2	White	Deteriorated	Wood	Family Room	9	Weather	Yes	No
182	7.8	Positive	Win. Jamb	D	1	White	Deteriorated	Wood	Family Room	9	Friction	Yes	No
183	6.2	Positive	Win. Jamb	D	2	White	Deteriorated	Wood	Family Room	9	Friction	Yes	No
201	26.1	Positive	Win. Well-Trough	D	1	White	INTACT	Wood	Dining Room	10	-	-	-
202	21.2	Positive	Win. Well-Trough	D	2	White	INTACT	Wood	Dining Room	10	-	-	-
203	21.6	Positive	Win. Well-Trough	D	3	White	INTACT	Wood	Dining Room	10	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FREC-IMP	TEETH
204	20	Positive	Win. Jamb	D	1	White	INTACT	Wood	Dining Room	10	-	-	-
205	20.5	Positive	Win. Jamb	D	2	White	INTACT	Wood	Dining Room	10	-	-	-
206	20.9	Positive	Win. Jamb	D	3	White	INTACT	Wood	Dining Room	10	-	-	-
209	11.8	Positive	Porch Ceiling	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
210	14.5	Positive	Porch Column	A	(All)	White	Deteriorated	Wood	Exterior House	18	Weather	Yes	No
211	10.4	Positive	Porch Beam	A	(All)	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
212	14.6	Positive	Soffit	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
213	15.1	Positive	Fascia	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
218	17.3	Positive	Door Casing	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
219	11.5	Positive	Win. Casing	A	1	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
220	11.2	Positive	Win. Sill-Stool	A	1	White	Deteriorated	Wood	Exterior House	18	Weather	Yes	No
221	10.8	Positive	Win. Casing	A	2	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
222	13.5	Positive	Win. Sill-Stool	A	2	White	Deteriorated	Wood	Exterior House	18	Weather	Yes	No
223	1.4	Positive	Win. Sash Int.	A	1	Grey	Deteriorated	Wood	Attic	17	Friction	Yes	No
224	1.6	Positive	Win. Casing	A	(All)	Brown	Deteriorated	Wood	Attic	17	Impact	Yes	No
225	11.2	Positive	Win. Sill-Stool	A	(All)	Grey	Deteriorated	Wood	Attic	17	Impact	Yes	No
243	30	Positive	Win. Well-Trough	B	-	White	Deteriorated	Wood	Bedroom	12	Weather	Yes	No
244	18	Positive	Win. Stop Ext.	B	-	White	Deteriorated	Wood	Bedroom	12	Weather	Yes	No
245	26.1	Positive	Win. Stop Ext.	C	-	White	Deteriorated	Wood	Bedroom	12	Weather	Yes	No
247	1.5	Positive	Win. Well-Trough	C	-	White	Deteriorated	Wood	Bedroom	12	Weather	Yes	No
265	1.1	Positive	Win. Stop Int.	D	-	White	Deteriorated	Wood	Bedroom	13	Impact	Yes	No
267	1.9	Positive	Win. Well-Trough	D	-	White	Deteriorated	Wood	Bedroom	13	Weather	Yes	No
269	3.1	Positive	Win. Jamb	D	-	White	Deteriorated	Wood	Bedroom	13	Friction	Yes	No
270	13.3	Positive	Win. Stop Int.	D	-	White	Deteriorated	Wood	Bedroom	13	Impact	Yes	No
303	30	Positive	Win. Well-Trough	D	-	White	Deteriorated	Wood	Bedroom	11	Weather	Yes	No

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FREC-IMP	TEETH
304	30	Positive	Win. Stop Int.	D	-	White	Deteriorated	Wood	Bedroom	11	Impact	Yes	No
305	12.5	Positive	Win. Jamb	D	-	White	Deteriorated	Wood	Bedroom	11	Friction	Yes	No
306	2.7	Positive	Win. Jamb	A	1	White	Deteriorated	Wood	Bedroom	11	Friction	Yes	No
307	29.9	Positive	Win. Stop Int.	A	1	White	Deteriorated	Wood	Bedroom	11	Impact	Yes	No
308	28.8	Positive	Win. Well-Trough	A	1	White	Deteriorated	Wood	Bedroom	11	Weather	Yes	No
314	35	Positive	Win. Well-Trough	A	2	White	Deteriorated	Wood	Bedroom	11	Weather	Yes	No
315	24.4	Positive	Win. Jamb	A	2	White	Deteriorated	Wood	Bedroom	11	Friction	Yes	No
316	27.5	Positive	Win. Stop Int.	A	2	White	Deteriorated	Wood	Bedroom	11	Impact	Yes	No
317	37	Positive	Win. Well-Trough	A	2	White	Deteriorated	Wood	Bedroom	11	Weather	Yes	No
336	29.1	Positive	Win. Well-Trough	B	-	White	Deteriorated	Wood	Stairwell	5	Weather	Yes	No
337	33	Positive	Win. Stop Int.	B	-	White	Deteriorated	Wood	Stairwell	5	Impact	Yes	No
338	23.9	Positive	Win. Jamb	B	-	White	Deteriorated	Wood	Stairwell	5	Friction	Yes	No
A-1	assumed	Positive	Win. Sash Ext.	A	(All)	-	Deteriorated	Wood	Exterior House	18	Weather	Yes	No
A-2	assumed	Positive	Win. Casing	A	-	-	Deteriorated	Wood	Exterior House	18	Weather	No	No
A-3	assumed	Positive	Win. Sill-Stool	A	-	-	Deteriorated	Wood	Exterior House	18	Weather	Yes	No

HUD reporting limits for positive XRF results are ≥ 1.0 mg/cm² (milligrams per square centimeter) for painted or glazed surfaces.

Dust Wipe Sample Results

TABLE 3: DUST WIPE SAMPLE RESULTS				
SAMPLE #	ROOM/ WIPE LOCATION	SURFACE TESTED HF Hard Floor CF Carpet Floor T Trough S Stool/Sill O Other	LEAD HAZARD?	LAB RESULT (µG/FT²)
FB1	Field Blank	N/A	No	N/D
DW01	Living Room 3	HF	Yes	18.5
DW02	Living Room 3 Side A	S	Yes	154
DW03	Dining Room 10	HF	Yes	21.2
DW04	Dining Room 10 Side D3	T	Yes	910
DW05	Family Room 9	CF	Yes	24.7
DW06	Family Room 9 Side C1	S	Yes	241
DW07	Kitchen 7	HF	Yes	46.7
DW08	Kitchen 7 Side B	T	Yes	1910
DW09	Kitchen 7 Side B	S	No	69.4
DW10	Bedroom 12	CF	Yes	65.0
DW11	Bedroom 12 Side B	T	Yes	576
DW12	Bedroom 13	CF	No	9.08
DW13	Bedroom 13 Side D2	S	Yes	315
DW14	Front Porch	HF	No	34.2
DW15	Back Porch	HF	No	18.0

For all HUD/Medicaid projects lead action levels for dust: Floors = 10 µg/ft² (micrograms per square feet); Porches = 40 µg/ft²; Window stools/interior sills = 100 µg/ft²; Window troughs = 100 µg/ft². BRL = Below Reporting Limits. N/D = Not Detected.

Soil Sample Results

TABLE 4: SOIL SAMPLE RESULTS				
SAMPLE #	LOCATION OF BARE SOIL AREA	APPROXIMATE AREA IN SQUARE-FEET (FT^2)	LEAD HAZARD?	LAB RESULT IN PARTS PER MILLION (PPM)
SS-1	Front Yard Bare Soil	18	No	460
SS-2	House Dripline Side A	20	No	81.4
SS-3	House Dripline Side C	12	No	422
SS-4	Backyard Bare Soil	24	No	483

EPA and HUD lead action levels: Soil – at 1,200 ppm; Child play areas and gardens – at 400 ppm or more. BRL = Below Reporting Limits. N/D = Not Detected.

Other Surface Sample Results

The table below details all non-painted surfaces that were tested. Testing these surfaces can help find other sources of lead-exposure. These surfaces are not required to be tested.

TABLE 5: OTHER SURFACE SAMPLE RESULTS			
SURFACE/ITEM DESCRIPTION	LOCATION	MATERIAL	RESULT (MG/CM^2)
N/A	N/A	N/A	N/A

Items listed above were tested using an XRF. The results are limited because the surfaces tested do not comply with the devices testing ability. ***Positive lead results are in bold.*** *These items may be a potential source of lead exposure. [mg/cm^2 = milligrams per square centimeter]*

SURFACES UNABLE TO BE TESTED

A lead investigation requires testing all painted surfaces. Some painted surfaces in your home may be out of reach. These surfaces are not tested. Surfaces out of reach that are not tested are assumed to contain lead-based paint. If the paint looks deteriorated, the surface is assumed to be a lead-based paint hazard. The table below details all of the untested painted surfaces. It also details why the surface was not tested.

TABLE 6: SURFACES UNABLE TO TEST

ROOM	COMPONENT	REASON NOT TESTED
Balcony	All Components	No Access – Door Wouldn't Open
Exterior House 18 – (Side A)	Window Casing & Sill-Stool	Out of Reach
Exterior House 18 – (Side A)	Window Sash Ext.	Fixed Storm window

HUD reporting limits for positive XRF results are ≥1.0 mg/cm^2 (milligrams per square centimeter) for painted or glazed surface.

POTENTIAL HAZARDS

Lead can exist in your home and not be a hazard. The table below details all surfaces found to contain lead but are not current hazards. Please make a note of these surfaces and remember to monitor them for changes. Any changes could make the surface a lead-hazard, which will alter severity and priority levels and require lead hazard control options. Refer to Appendix C-3 for ways to monitor.

TABLE 7: POTENTIAL HAZARDS

READING #	MG/CM^2	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FREC-IMP	TEETH
11	2.3	Positive	Clos. Door Stop	C	-	Grey	INTACT	Wood	Basement	1	-	-	-
113	1.5	Positive	Win. Sash Int.	B	-	White	INTACT	Wood	Kitchen	7	-	-	-
121	1.9	Positive	Clos. Shelf	D	-	White	INTACT	Wood	Kitchen	7	-	-	-
123	2	Positive	Shelf Bracket	D	-	White	INTACT	Wood	Kitchen	7	-	-	-
201	26.1	Positive	Win. Well-Trough	D	1	White	INTACT	Wood	Dining Room	10	-	-	-
202	21.2	Positive	Win. Well-Trough	D	2	White	INTACT	Wood	Dining Room	10	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FREC-IMP	TEETH
203	21.6	Positive	Win. Well-Trough	D	3	White	INTACT	Wood	Dining Room	10	-	-	-
204	20	Positive	Win. Jamb	D	1	White	INTACT	Wood	Dining Room	10	-	-	-
205	20.5	Positive	Win. Jamb	D	2	White	INTACT	Wood	Dining Room	10	-	-	-
206	20.9	Positive	Win. Jamb	D	3	White	INTACT	Wood	Dining Room	10	-	-	-

HUD reporting limits for positive XRF results are ≥1.0 mg/cm² (milligrams per square centimeter) for painted or glazed surfaces.

Inspector Certification

The information contained in this report is a true and accurate representation of the conditions and activities at this property at the time of this investigation, based on the professional judgment of the person(s) who conducted and reported this Environmental Investigation. If soil samples were not collected as indicated in Table 4 due to snow, these samples will be collected at the earliest opportunity. An amended report will be sent with any soil hazards found and corrective action options.

Brandon Lee

Michigan Certified Lead Inspector/Risk Assessor: P-08246

Risk Assessor E-Mail: Brandon.Lee@2etc.com

Appendices

APPENDIX A – RESIDENT INTERVIEW

The purpose of this interview is to help find where to take dust and soil samples. Questions will help find:

- Most frequently used entrances and windows.
- Areas where children sleep, eat, and play.
- Recent renovations.
- Etc.

Resident Interview Questions & Responses:

This house is currently: Not Occupied
Person interviewed: N/A
Relationship to child: N/A

FAMILY USE PATTERNS	
QUESTION	RESPONSE
Which entrances are used most frequently?	N/A
Are there floor mats at entrances to the home?	No
Do occupants take shoes off at the door?	N/A
Which windows are opened most frequently?	N/A
Is there a window fan that is used during summer months?	N/A
Are window air conditioner used?	No
I need to dust test the window sill in this room for lead. When was the last time it was wiped down?	N/A
Does your family eat food grown in a garden?	N/A
Does your child play in this garden?	N/A
What cleaning methods do you use at home?	N/A
Which areas of the home get cleaned regularly?	N/A
Which areas of the home do NOT get cleaned regularly?	N/A

OTHER HOUSEHOLD RISK FACTORS	
QUESTION	RESPONSE
Do you have a dog, cat, or other pet that could track soil or dust inside?	N/A
Does your child have access to any of the following?	
☐ Industrial (big) crayons or markers ☐ Paints ☐ Detergents ☐ Shellacs ☐ Dyes ☐ Batteries ☐ Lacquers ☐ Coloring pigments ☐ Gear oil ☐ Epoxy resins ☐ Putty ☐ Pipe sealants ☐ Pesticides	N/A

FREQUENT AREAS CHILD VISITS

QUESTION	RESPONSE
Is your child cared for away from home?	N/A

Child Name	Type of Care	Location of Care/Address	Number of Hours/Weeks at Location
N/A	N/A	N/A	N/A

Where does your child like to sleep, eat, and play?

Child	Age	Bedrooms	Eats	Plays Indoors	Plays Outdoors
N/A	N/A	N/A	N/A	N/A	N/A

ELEVATED BLOOD LEAD LEVEL INFORMATION

QUESTION	RESPONSE
Do any of the above children have a known elevated blood lead level test?	N/A

Child	Test Results (µg/dL)	Venous (V) or Capillary (C)	Date of Tests	Notes
N/A	N/A	N/A	N/A	N/A

CHILD BEHAVIOR RISK FACTORS

QUESTION	RESPONSE
Does your child suck his/her fingers or thumb?	N/A
Does your child put painted objects into their mouth?	N/A
Are there any areas of peeling paint on walls, ceilings, stairs, woodwork, furniture or toys?	Yes
Does your child chew on painted surfaces, such as painted cribs, window sills, furniture edges, railings, door moldings, or broom handles?	N/A
Are there bite marks found anywhere in the home, such as child's crib, furniture or window sills?	No
Does your child chew or eat paint chips or pick at painted surfaces?	N/A
Does your child put soft metal objects in the mouth? (Ex: pewter, metal toy soldiers, jewelry, gunshot, bullets, beads, fishing sinkers, electronics)	N/A
Does your child put printed material (newspapers, magazines) in their mouth?	N/A
Does your child eat without washing hands before meals or snacks?	N/A
When was the last time the toys were washed? Pacifiers?	N/A N/A
Are there bare soil areas where the child likes to play?	N/A
On a typical week this past summer, how much time did your child play outside in your yard?	N/A
Has the child been seen eating soil?	N/A
Does child use or play in common areas shared with other units?	N/A

APPENDIX B – SITE INFORMATION

B-1: General Property Description:

The overall condition of the house is fair. The exterior is cinderblock and vinyl sided with aluminum/vinyl wrapped trim. The windows are glass block, vinyl and wood. There are fixed windows in Entry 4 and Stairwell 5 Side B1. The entry doors are post 1978 pre-hung and steel pre-hung. Kitchen 7 and Bathroom 8 Cabinets are prefabricated. The sliding are vinyl. The exterior porches/decks are cinderblock and pressure treated lumber.

B-2: Building Condition

Exposure to lead is usually from lead-based paint. Lead-based paint becomes a source of lead exposure when the paint is deteriorated. Deteriorated paint is paint that is chipping or chalking, and may be caused by poor building conditions. A leaky roof is an example of a poor building condition that can cause paint to become deteriorated. Lead work cannot begin before building conditions causing paint to deteriorate are fixed. The building condition survey helps find these areas. "Yes" responses mean the building condition is poor and needs fixing.

BUILDING CONDITION SURVEY QUESTIONS & RESPONSES

GENERAL PROPERTY CONDITION	
QUESTION	RESPONSE
What year was this building built?	1913
Has there been any lead testing done to this property within the last year?	N/A
Were any external renovations done on a neighboring property? Repainting, remodeling, renovation, window replacement, sanding, scraping or power washing painted surfaces inside or outside of the home?	N/A
Have nearby buildings or structures (bridge, water tower, homes, etc.) recently been repainted, demolished or burned?	N/A
Were any home renovations done to your home within the past year?	N/A
Are you planning any building renovations?	N/A
Are you or the landlord planning any landscaping activities?	N/A
Is building debris stored in the yard?	No
Other notable conditions:	None

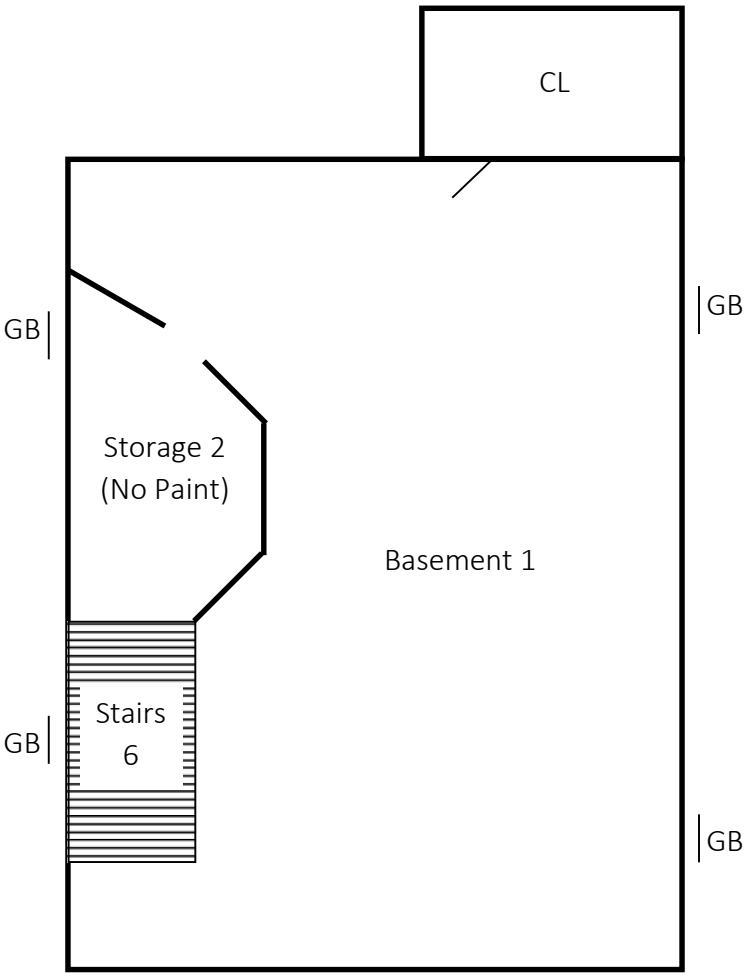
EXTERIOR BUILDING CONDITION	
QUESTION	RESPONSE
Is exterior siding missing components?	No
Is the roof missing parts?	No
Does the roof have holes or large cracks?	No
Are gutters or downspouts broken?	No
Are there two or more windows or doors missing, broken or boarded up?	No
Does the porch or steps have major cracks, missing materials, structural leans, or is it visibly unsound?	No
Do exterior walls have large cracks, or damage requiring more than routine painting?	Yes Rooms 3, 7 & 9-13
Does the foundation have damage, structural leans or is it visibly unsound?	No
Are chimney blocks or masonry joints cracked, with loose or missing components, out of plumb or otherwise deteriorated?	No
Other notable conditions:	None

INTERIOR BUILDING CONDITION	
QUESTION	RESPONSE
Has there been any recent water damage in the home?	N/A
Are there water stains on interior walls or ceilings?	No
Are plaster walls or ceilings deteriorated?	No
Do interior walls have large cracks, or damage requiring more than routine painting?	Yes Rooms 3, 7 & 9-13
Is there any deteriorated paint in the home?	Yes
Are vinyl mini blinds present?	No
*Is the bathtub deteriorated? Does the child bathe in it? **Follow MDHHS Residential Lead Hazard Control-Lead in Water Protocol*	No N/A
Other notable conditions:	None

B-3: Floor Plans

INTERIOR BASEMENT

Side C



Side B

Side D

N

Side A

Window types:
WD = Wood **V** = Vinyl **AL** = Aluminum **M** = Metal **GB** = Glass block
ST = Steel **F** = Fixed **BU** = Boarded-up **W#** = Window Number
BW# = Basement Window Number

Dust wipe sample:
HF = Hard Floor, **CF** = Carpeted Floor
S = Window Sill, **T** = Window Trough, **EPF =** Exterior Porch Floor

Soil samples: SS-1, SS-2, SS-3, etc.

Water samples:
BF = Bathroom Faucet, **KF**=Kitchen Faucet, **EF**=Exterior Faucet,
BTF=Bathroom Tub Faucet, **LF**=Laundry Faucet, **RF**=Refrigerator Faucet
WH = Water Heater **WM** = Water meter

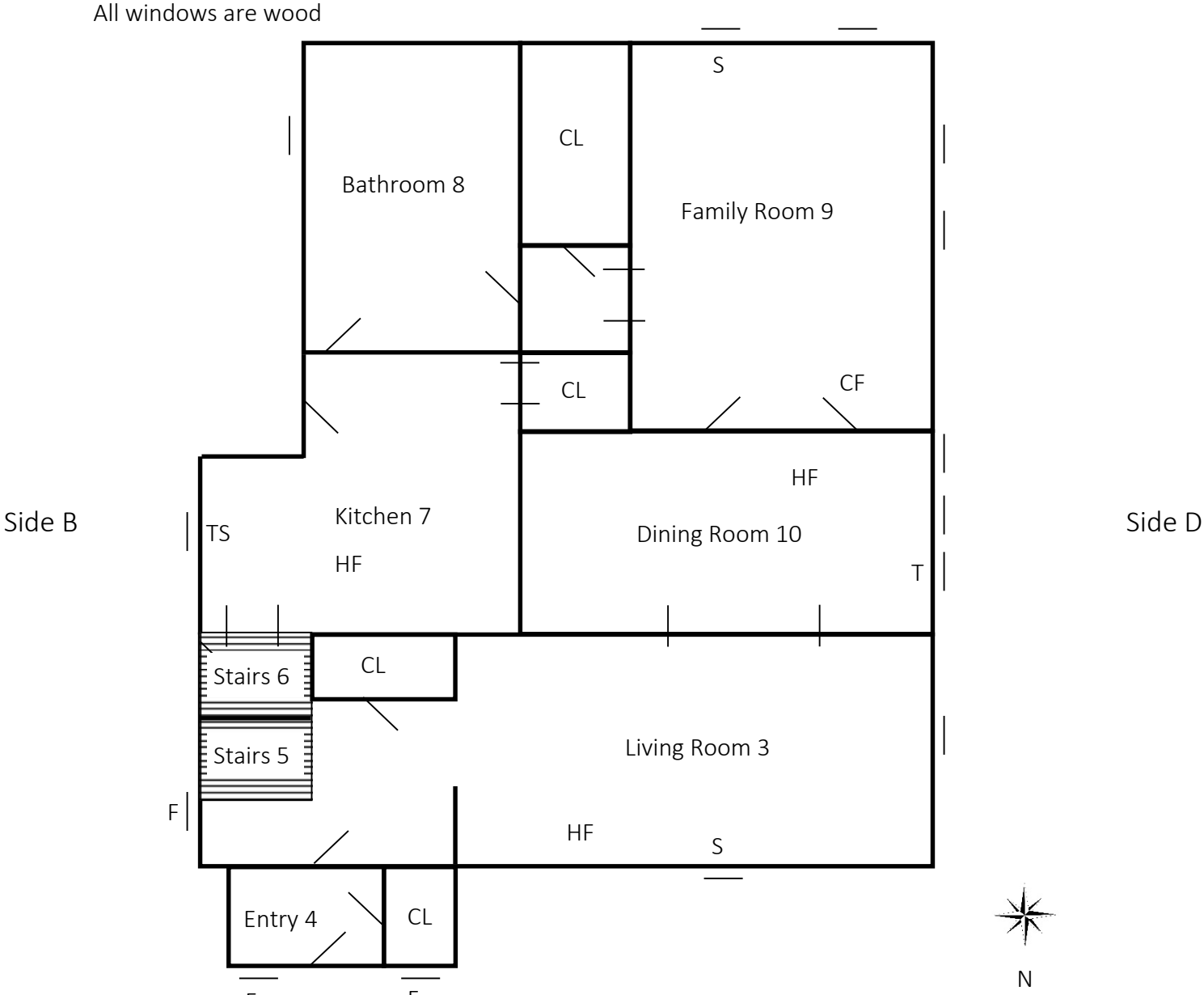
CL=Closet

B-3: Floor Plans

Side C

INTERIOR FIRST FLOOR

All windows are wood



Side A

Window types:
WD = Wood **V** = Vinyl **AL** = Aluminum **M** = Metal **GB** = Glass block
ST = Steel **F** = Fixed **BU** = Boarded-up **W#** = Window Number
BW# = Basement Window Number

Dust wipe sample:
HF = Hard Floor, **CF** = Carpeted Floor
S = Window Sill, **T** = Window Trough, **EPF =** Exterior Porch Floor

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WH = Water Heater **WM** = Water meter

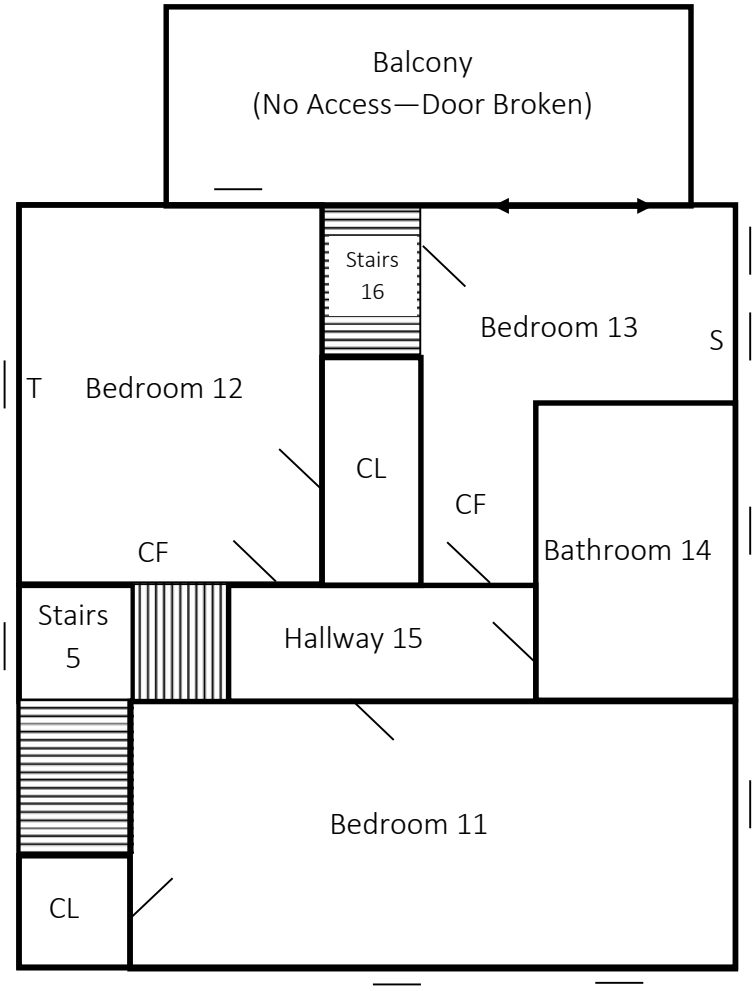
CL=Closet

B-3: Floor Plans

Side C

INTERIOR SECOND FLOOR

All windows are wood



Side B

Side D

N

Side A

Window types:
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ST = Steel **F** = Fixed **BU** = Boarded-up **W#** = Window Number **BW#** = Basement Window Number

Dust wipe sample:
HF = Hard Floor, **CF** = Carpeted Floor
S = Window Sill, **T** = Window Trough, **EPF =** Exterior Porch Floor

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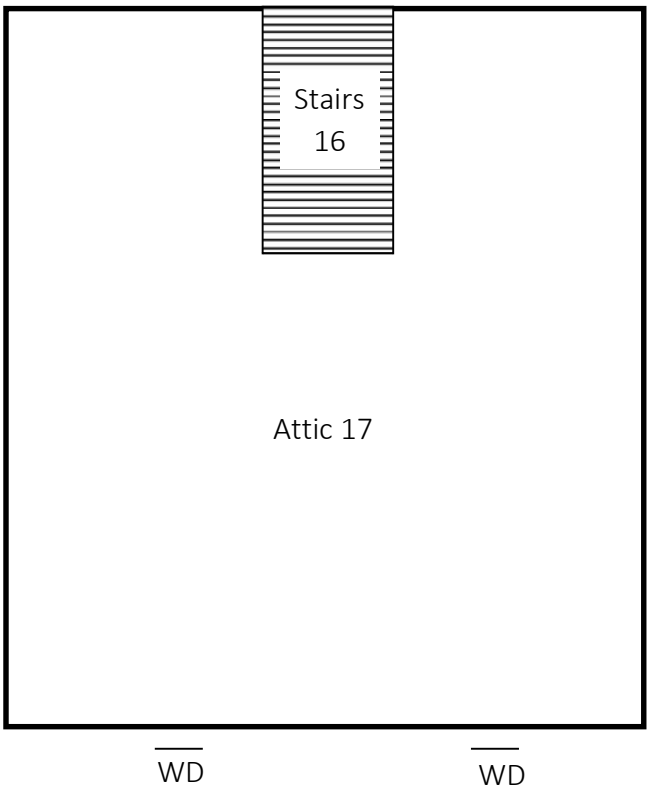
WH = Water Heater **WM** = Water meter

CL=Closet

B-3: Floor Plans

INTERIOR ATTIC

Side C



Side B

Side D

N

Window types:
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ST = Steel **F** = Fixed **BU** = Boarded-up **W#** = Window Number **BW#** = Basement Window Number

Side A

Dust wipe sample:
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S = Window Sill, **T** = Window Trough, **EPF =** Exterior Porch Floor

Soil samples: SS-1, SS-2, SS-3, etc.

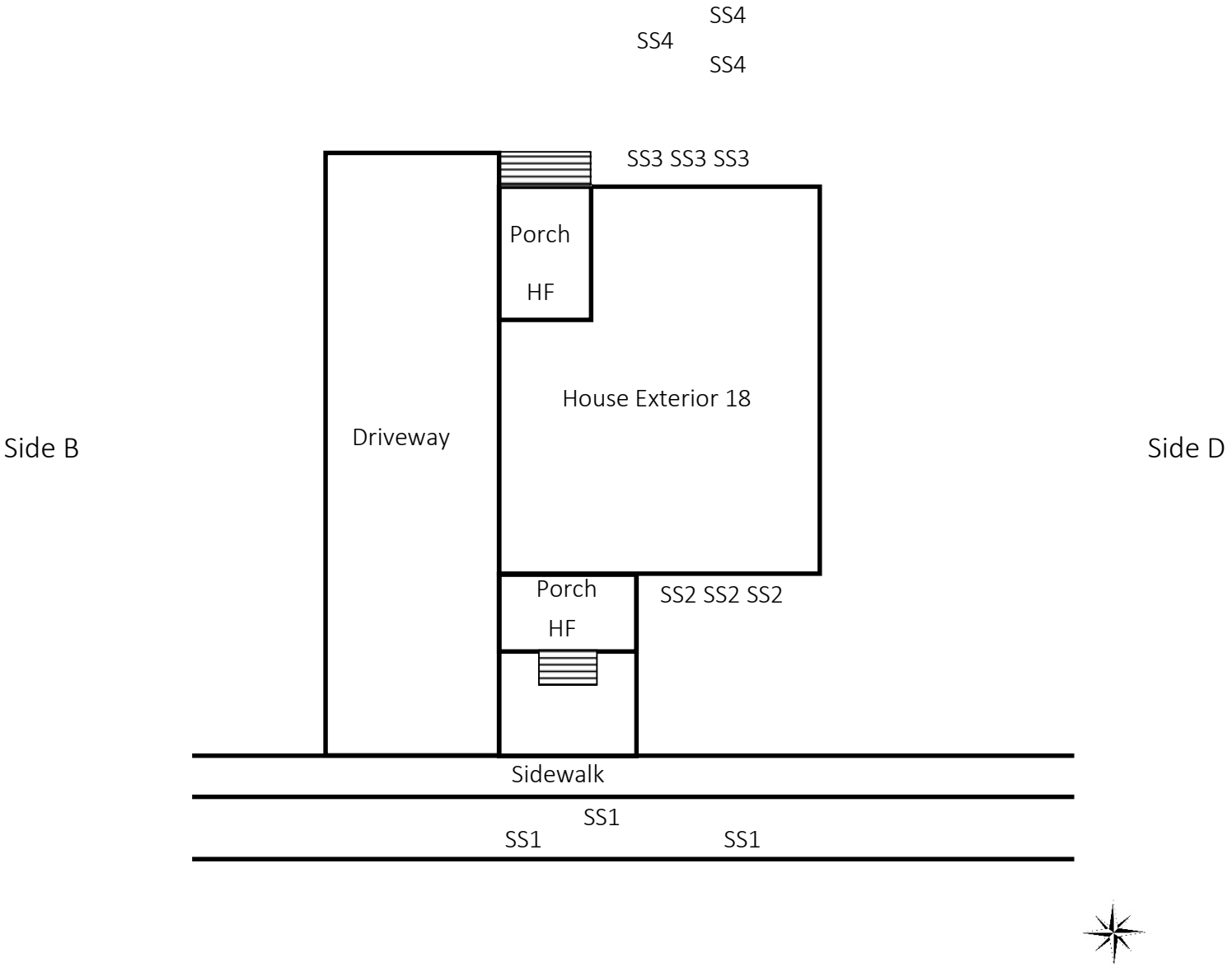
Water samples:
BF = Bathroom Faucet, **KF**=Kitchen Faucet, **EF**=Exterior Faucet,
BTF=Bathroom Tub Faucet, **LF**=Laundry Faucet, **RF**=Refrigerator Faucet
WH = Water Heater **WM** = Water meter

CL=Closet

B-3: Floor Plans

EXTERIOR PROPERTY LAYOUT

Side C



Side A

Window types:
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ST = Steel **F** = Fixed **BU** = Boarded-up **W#** = Window Number
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Dust wipe sample:
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BTF=Bathroom Tub Faucet, **LF**=Laundry Faucet, **RF**=Refrigerator Faucet
WH = Water Heater **WM** = Water meter

CL=Closet

B-4: Photos

Side A

Side B

Side C

Side D

Basement 1

Storage 2

Living Room 3

Entry 4

Stairs 5

Stairs 6

Kitchen 7

Bathroom 8

Family Room 9

Dining Room 10

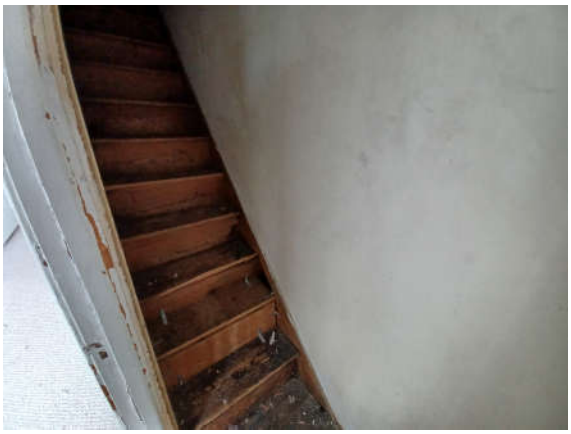
Bedroom 11

Bedroom 12

Bedroom 13

Bathroom 14

Hallway 15



Stairs 16

Attic 17

Attic 17 (2)

Paint Chips in Window Troughs

APPENDIX C – LEAD: EDUCATION, TESTING, RESOURCES & LAWS

C-1: Lead Education

LEAD-BASED PAINT

Lead is a highly toxic metal. When we say paint, it includes:

- Varnishes
- Lacquers
- Stains
- Coatings
- Enamels
- Glazes
- Primers

Lead-based paint is a paint that has lead in it. Lead is used in paint to:

- Brighten the color
- Speed up drying time
- Reduce corrosion (weathering / wear and tear)

Lead was commonly used in household paint in homes built before **1978**. In 1978, the federal government banned the use of lead-based paint in homes (for consumers). The older the home, the more likely it is to have lead-based paint.

Before 1940

1940 – 1959

1960 – 1977

LEAD-HAZARDS

A lead-hazard is when lead is present in a surface and that surface is deteriorating or breaking down. There are specific definitions for different lead-hazards.

- **Lead-Based Paint Hazard –**any lead-based paint, including lead dust and soil that would have an adverse effect on human health.
- **Dust-Lead Hazard –** surface dust in a residence containing an area or mass concentration of lead equal to or in excess of:
    - 10 µg/ft^2(micrograms per square feet) on floors
    - 40 µg/ft^2 on porches
    - 100 µg/ft^{2}on interior window sills
    - 100 µg/ft^{2}on window troughs
- **Soil-Lead Hazard** – bare soil (*soil not covered with grass, sod, some other vegetation, or paving, including the sand in sandboxes*) on a residential property that contains lead in excess of:
    - 400 ppm (parts per million) in play areas (*an area of frequent soil contact by children (e.g., sandboxes, swing sets, etc.))* and vegetable gardens.
    - 1200 ppm in the rest of the yard.

To correct lead-hazards, there are two options:

- Abatement
    - The permanent elimination of lead-based paint hazards. This includes:
        - Removal of building components coated with lead-based paint
        - Removal of dust-lead hazards
        - Removal of soil-lead hazards
        - Overlaying soil with durable covering such as asphalt
        - Enclosing lead-based paint hazards
        - Coating lead-based paint hazards with approved encapsulant ("a thick liquid used to cover lead-based paint")
    - This method requires:
        - Preparation
        - Waste disposal
        - Recordkeeping
        - Cleanup
        - Post abatement clearance testing
        - Monitoring (if applicable)
- Interim Control
    - A temporary measure to reduce exposure to lead-based paint hazards. This includes, but is not limited to:
        - Preparing and painting lead-based paint hazards
        - Treatment of friction and impact surfaces
        - Specialized cleaning
        - Landscaping over soil-lead hazards (e.g., grass or sod)
        - Monitoring (*conducted by property owner or tenant)*
        - Re-evaluation *(conducted by a certified lead professional)*

For further information, please call MDHHS Healthy Homes Section at 517-335-9390.

LEAD EXPOSURE

Exposure to lead happens during the application, removal and failure of integrity (deterioration) of lead-based paint or from soil lead hazards. Deteriorated paint includes:

- Any paint coating that is peeling, chipping, blistering, flaking, worn, chalking, cracking, or otherwise becoming separated from the painted surface.

Lead-based paint breaks down into:

- Paint chips – chips are paint pieces that are detached from the original painted surface. Chips include paint that is peeling, chipping, chalking or cracked.
- Dust – dust is created when lead paint is scraped, dry sanded, heated or burned, or when painted surfaces rub together (opening / closing windows and doors). **Dust is the most common source of lead exposure among children.**
    - Dust from lead-based paint can also contaminate the soil. This can be a source of exposure when children play on the ground, or when people bring soil into the house on their shoes.

Lead chips and dust settle on surfaces and objects people touch. Settled lead dust can re-enter the air when people:

- Vacuum or sweep
- When they or their pet walk through it
- When windows or doors are open and allow air to circulate
- When fans circulate air
- Or any other time air is moving in the home

There are other sources of lead exposure. Lead is found in products that you may have in your home. These household items include:

- Painted toys; painted furniture
- Toy jewelry; cosmetics (makeup)
- Plumbing products like pipes and fixtures
- Food or liquid containers made of lead crystal or lead-glazed pottery or porcelain

Lead is present for some jobs and hobbies. These jobs and hobbies can bring lead home with you on your clothes or hands. Jobs and hobbies include:

- Renovation and painting
- Mining
- Smelting
- Battery recycling
- Refinishing old furniture
- Auto body work
- Shooting ranges
- Hunting (shot)
- Fishing (fishing sinkers and jigs)
- Stained glass (came and solder)
- Stock cars (weights used in stock cars)
- Making pottery (dyes and glazes

To reduce lead exposure from your job or hobby:

- Do not put leaded items in your mouth (fishing sinkers, etc.)
- Wash hands before eating or drinking
- Avoid touching your face while working with lead materials
- Change clothes before entering home
- Wash clothes separately from other family members clothes

To reduce lead exposure in the home:

- Regularly wash hands, toys, and horizontal surfaces with wet methods. This method of cleaning includes:
    - Washing surfaces with soapy water
    - Using disposable cleaning materials (paper towel)
- Vacuum with a High Efficiency Particulate Air (HEPA) filtered vacuum
- Take shoes off before entering the home or living areas
- Cover lead exposed soil with fruitless plant materials

HEALTH EFFECTS OF LEAD EXPOSURE

Lead is a highly toxic metal. There is no safe level of lead exposure. Lead poisoning occurs when lead enters into the body through either: inhalation (breathing in) or ingestion (eating). Children under the age of six (6) are especially vulnerable to lead poisoning. They have a greater exposure to lead through:

- Frequent hand-to-mouth activity (mouthing objects).
- Consuming more food and drink, and breathing more air per kilogram of body weight than adults.
- Digesting 4-5 times more lead from the gut than adults.
- Nutritional deficiencies, such as an iron deficiency (which increases the bioavailability of lead – meaning it makes lead more available to enter the body).

Children under the age of six (6), their bodies and nervous system is not fully developed. One of the systems lead affects is the nervous system. Lead is a multi-system toxicant, causing:

- Brain and nervous system damage
- Decreased IQ
- Learning difficulties
- Speech, language, and behavior problems
- Hearing problems
- Slow or reduced growth
- Muscle or joint pain
- Reproductive problems (adult)
- Digestive problems
- Kidney damage
- Anemia
- High blood pressure

C-2: Lead Testing Procedures

PAINT

To test for lead in paint, an XRF instrument is used. XRF stands for "X-Ray Fluorescence."

To measure lead, this device uses low level radiation. The radiation excites atoms within painted surfaces. Excitement, or movement, of atoms causes radiation to rebound back to the device. This rebound tells the device if lead is present. Lead is determined present if the level is 1 microgram per square centimeter ($\mu g/cm^2$) or more.

Appendix D-2 details the XRF device used.

DUST

Dust is collected using dust wipes. Dust wipes are disposable cloths used to collect dust. The United States Department of Housing and Urban Development (HUD) provides dust wipe best practices. HUD requests inspectors to:

- Use one dust wipe per sample area.
- Collect dust in a measured area. The measured area is 12" x 12" on a floor or a minimum of 14.4 square inches on a window or window trough.
- Open the dust wipe with a gloved hand.
- Perform dust wipe using "S" motions in sample area.
- Put the dust wipe sample into a labeled tube or container.
- Label states property location, sample location, and size of sample area.
- Send samples to trace metals laboratory.
- Report results in micrograms per square foot ($\mu g/ ft^2$).

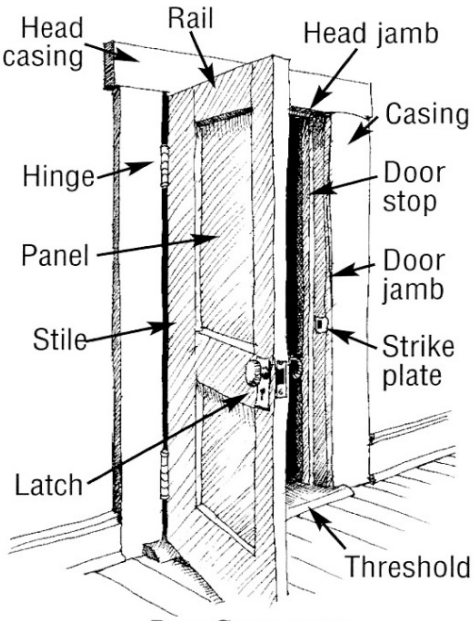
SOIL

Soil is collected using HUD best practices.

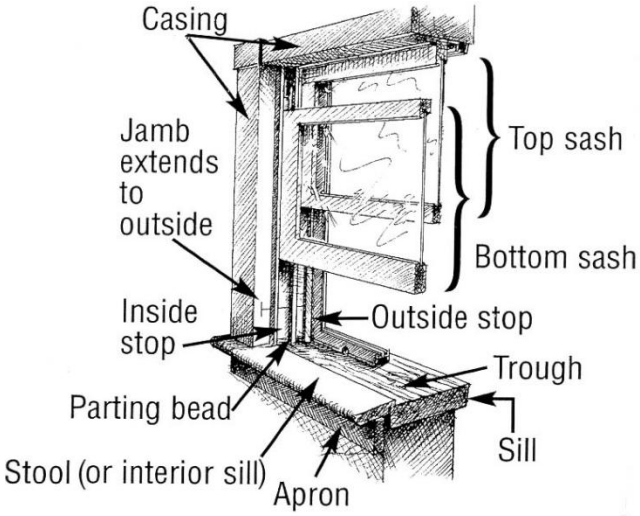
A soil sample comes from the upper ½ inch of soil. Garden soil is tested 4-6" (inches) down. All soil must come from soil on the property. Areas may include sandboxes, child play areas, and the roof drip line. A trace metals laboratory analyzes the soil for lead. Soil sample results are reported in parts per million (ppm).

HOUSING COMPONENT IDENTIFICATION

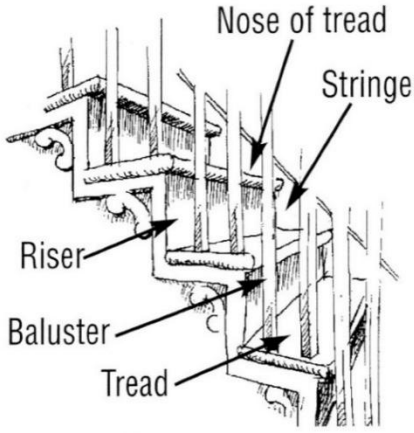
Please use the photos/diagrams below as a guide to help identify housing components noted in this report. Diagrams adopted from Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work, U.S. Department of Housing and Urban Development, Office of Lead Hazard Control, June 1999.



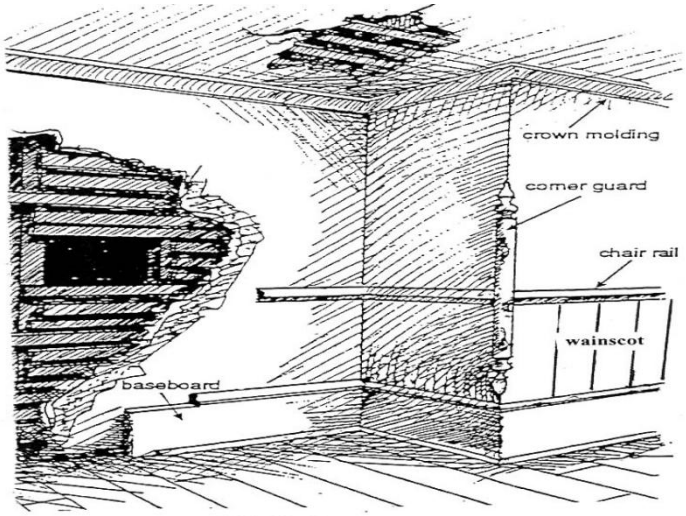
Door Components



Window Components



Stair Components



Wall Components

LEAD HAZARD CORRECTION COST ESTIMATES

Window replacement	$500 - $600
Wood window replacement	$900 - $1200
Window jamb liners	$350 - $500
Siding exterior	$400 - $600 square (square = 100 square feet)
Painting exterior	$275 - $400 square
Exterior door replacement	$750 - $900
Interior door replacement	$300 - $450
Friction/impact door	$250 - $400
E-cap baseboards	$200 - $400 per room
Paint baseboards	$200 - $300 per room
Stair system w/rubber	$400 - $800
Lead cleaning	$100 - $200 per room

C-3: Your Responsibilities

RE-EVALUATION & MONITORING SCHEDULE

Monitor Potential Lead Hazards Two Ways After Abatement/Interim Controls Completed:

Visual Survey: Perform one month and six months after lead hazard work. Perform once each year if no problems found. **Visual survey is completed by homeowner**.

Visual survey includes:

- Looking at painted surfaces known to have lead and see if paint is in good repair.
- Looking at areas lead hazards fixed to see if in good repair.
- Finding problems with the building that could cause new lead hazards.

Re-Evaluate: Every two years **a certified risk assessor** re-evaluates the building.

This includes:

- Measuring dust for lead.
- Measuring soil for lead.
- Assessing potential lead-based paint hazards.

FUTURE OWNERS OF THIS PROPERTY

A summary of this report must be shared with future tenants or owners of a pre-1978 property. Federal law (24 CFR part 35 and 40 CFR part 745) requires this report be shared before they become obligated under a lease or sales contract.

Landlords (lessors) and sellers are required to:

- Distribute an educational pamphlet. This pamphlet is approved from the U.S. Environmental Protection Agency (EPA). The document is: "*Protect Your Family from Lead in Your Home.*"
- Include standard warning language in lease or sale contracts. This is to ensure parents have information they need to protect their children from lead hazards.

Contact 800-424-LEAD (5323) for information about your obligations under federal regulations.

NOTICE TO LANDLORDS

Landlord Penalty Law

If a child with an elevated blood lead level is identified in your rental unit you are responsible for ensuring that lead hazards identified in the elevated blood lead level report have been properly addressed. The following must be followed to avoid receiving penalties assessed through the Michigan Lead Abatement Act.

- If you conduct the work on your rental unit you must be certified through the EPA RRP Program or certified through the Michigan Lead Abatement Program. Depending on the method used to correct the hazard, you must follow applicable laws to ensure appropriate work practices are followed.
- Hire a lead abatement contractor; please see the certified list located at www.michigan.gov/leadsafe.
- Check eligibility for work through the Lead Safe Home Program, please see webpage for details.

Any questions regarding compliance with the Landlord Penalty Act please email HHSInfo@michigan.gov or call 517-335-9390.

APPENDIX D – ALL XRF RESULTS & DEVICE USED

D-1: Results

ALL XRF RESULTS

TABLE 8: ALL XRF RESULTS

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
1	1	Positive	Calibrate	-	-	-	-	-	-	-	-	-	-
2	1	Positive	Calibrate	-	-	-	-	-	-	-	-	-	-
3	1	Positive	Calibrate	-	-	-	-	-	-	-	-	-	-
4	1	Positive	Wall	A	-	White	Deteriorated	Concrete	Basement	1	Moisture	No	No
5	16.4	Positive	Wall	B	-	White	Deteriorated	Concrete	Basement	1	Moisture	No	No
6	0.3	Negative	Wall	C	-	Beige	Deteriorated	Concrete	Basement	1	-	-	-
7	0.4	Negative	Wall	D	-	Beige	Deteriorated	Concrete	Basement	1	-	-	-
8	0.5	Negative	Column	Center	-	Beige	Deteriorated	Brick	Basement	1	-	-	-
9	10.9	Positive	Stair Stringer	B	-	Beige	Deteriorated	Wood	Basement	1	Impact	Yes	No
10	1.3	Positive	Clos. Door Casing	C	-	Grey	Deteriorated	Wood	Basement	1	Impact	Yes	No
11	2.3	Positive	Clos. Door Stop	C	-	Grey	INTACT	Wood	Basement	1	-	-	-
12	0	Negative	Clos. Door Jamb	C	-	White	INTACT	Wood	Basement	1	-	-	-
14	1.7	Positive	Clos. Door	C	-	Grey	Deteriorated	Wood	Basement	1	Impact	Yes	No
15	0.1	Negative	Win. Casing	B	1	White	INTACT	Wood	Basement	1	-	-	-
16	0.1	Negative	Win. Casing	D	2	White	INTACT	Wood	Basement	1	-	-	-
17	0.2	Negative	Wall	B	-	White	INTACT	Wood	Basement	1	-	-	-
18	0.5	Negative	Duct	Ceiling	-	Beige	Deteriorated	Metal	Basement	1	-	-	-
19	0.1	Negative	Ceiling	-	-	White	Deteriorated	Plaster	Living Room	3	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
20	0.1	Negative	Wall	A	-	Green	INTACT	Plaster	Living Room	3	-	-	-
21	0.2	Negative	Wall	B	-	Green	INTACT	Plaster	Living Room	3	-	-	-
22	0	Negative	Wall	C	-	Green	INTACT	Plaster	Living Room	3	-	-	-
23	0.3	Negative	Wall	D	-	Green	INTACT	Plaster	Living Room	3	-	-	-
24	0.2	Negative	Wall Register	B	-	Black	INTACT	Metal	Living Room	3	-	-	-
25	0.2	Negative	Floor	-	-	Stain	INTACT	Wood	Living Room	3	-	-	-
26	0.2	Negative	Crown Molding	D	(All)	White	INTACT	Wood	Living Room	3	-	-	-
27	0.1	Negative	Win. Casing	D	-	Stain	INTACT	Wood	Living Room	3	-	-	-
28	0.2	Negative	Win. Sash Int.	D	-	Stain	INTACT	Wood	Living Room	3	-	-	-
29	0.4	Negative	Win. Apron	D	-	Stain	INTACT	Wood	Living Room	3	-	-	-
30	0.2	Negative	Win. Sill-Stool	D	-	Stain	INTACT	Wood	Living Room	3	-	-	-
31	0.4	Negative	Baseboard	D	(All)	Stain	INTACT	Wood	Living Room	3	-	-	-
32	0.2	Negative	Win. Casing	A	-	Stain	INTACT	Wood	Living Room	3	-	-	-
33	0.3	Negative	Win. Sill-Stool	A	-	Stain	INTACT	Wood	Living Room	3	-	-	-
34	0.3	Negative	Win. Apron	A	-	Stain	INTACT	Wood	Living Room	3	-	-	-
35	0.2	Negative	Win. Sash Int.	A	-	Stain	INTACT	Wood	Living Room	3	-	-	-
36	**19.4**	**Positive**	**Win. Well-Trough**	**A**	**-**	**White**	**Deteriorated**	**Wood**	**Living Room**	**3**	**Weather**	**Yes**	**No**
37	**15.2**	**Positive**	**Win. Jamb**	**A**	**-**	**White**	**Deteriorated**	**Wood**	**Living Room**	**3**	**Friction**	**Yes**	**No**
38	**14.6**	**Positive**	**Win. Jamb**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Living Room**	**3**	**Friction**	**Yes**	**No**
39	**22.8**	**Positive**	**Win. Well-Trough**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Living Room**	**3**	**Weather**	**Yes**	**No**
40	0.2	Negative	Door Casing	B	-	Stain	INTACT	Wood	Living Room	3	-	-	-
41	0.2	Negative	Door Jamb	B	-	Stain	INTACT	Wood	Living Room	3	-	-	-
42	0.2	Negative	Door Stop	B	-	Stain	INTACT	Wood	Living Room	3	-	-	-
43	0.1	Negative	Door	B	-	Stain	INTACT	Wood	Living Room	3	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
44	0.2	Negative	Ceiling	-	-	White	INTACT	Plaster	Entry	4	-	-	-
45	0.1	Negative	Wall	A	-	White	INTACT	Plaster	Entry	4	-	-	-
46	0.3	Negative	Wall	B	-	White	Deteriorated	Plaster	Entry	4	-	-	-
47	0.1	Negative	Wall	C	-	White	Deteriorated	Plaster	Entry	4	-	-	-
48	0.3	Negative	Wall	D	-	White	INTACT	Plaster	Entry	4	-	-	-
49	0.2	Negative	Door Casing	A	-	Stain	INTACT	Wood	Entry	4	-	-	-
50	0.1	Negative	Door	A	-	Stain	INTACT	Wood	Entry	4	-	-	-
51	0.2	Negative	Door Jamb Int.	A	-	Stain	INTACT	Wood	Entry	4	-	-	-
52	**15.7**	**Positive**	**Door Stop**	**A**	**-**	**White**	**Deteriorated**	**Wood**	**Entry**	**4**	**Impact**	**Yes**	**No**
53	**18.5**	**Positive**	**Door Jamb Ext.**	**A**	**-**	**White**	**Deteriorated**	**Wood**	**Entry**	**4**	**Friction**	**Yes**	**No**
54	0.1	Negative	Door	A	-	Stain	INTACT	Wood	Entry	4	-	-	-
55	0.2	Negative	Door Casing	C	-	Stain	INTACT	Wood	Entry	4	-	-	-
56	0.1	Negative	Door Jamb	C	-	Stain	INTACT	Wood	Entry	4	-	-	-
57	0.1	Negative	Door Stop	C	-	Stain	INTACT	Wood	Entry	4	-	-	-
58	0.2	Negative	Door	C	-	Stain	INTACT	Wood	Entry	4	-	-	-
59	0.2	Negative	Clos. Door Casing	D	-	Stain	INTACT	Wood	Entry	4	-	-	-
60	0.1	Negative	Clos. Door	D	-	Stain	INTACT	Wood	Entry	4	-	-	-
61	0.3	Negative	Clos. Door Jamb	D	-	Stain	INTACT	Wood	Entry	4	-	-	-
62	0.2	Negative	Clos. Door Stop	D	-	Stain	INTACT	Wood	Entry	4	-	-	-
63	0.2	Negative	Clos. Wall	All	-	Grey	Deteriorated	Plaster	Entry	4	-	-	-
64	0.1	Negative	Win. Casing	A	1	Stain	INTACT	Wood	Entry	4	-	-	-
65	0.3	Negative	Win. Sash Int.	A	1	Stain	INTACT	Wood	Entry	4	-	-	-
66	0.2	Negative	Win. Sash Int.	A	2	Stain	INTACT	Wood	Entry	4	-	-	-
67	0.1	Negative	Win. Casing	A	2	Stain	INTACT	Wood	Entry	4	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
68	0.2	Negative	Ceiling	-	-	White	INTACT	Plaster	Stairwell	5	-	-	-
69	0.3	Negative	Wall	A	-	White	INTACT	Plaster	Stairwell	5	-	-	-
70	0.3	Negative	Wall	B	-	White	INTACT	Plaster	Stairwell	5	-	-	-
71	0.3	Negative	Wall	C	-	White	INTACT	Plaster	Stairwell	5	-	-	-
72	0.2	Negative	Wall	D	-	White	INTACT	Plaster	Stairwell	5	-	-	-
73	0.2	Negative	Baseboard	D	(All)	Stain	INTACT	Plaster	Stairwell	5	-	-	-
74	0.1	Negative	Door Casing	A	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
75	0.2	Negative	Door	A	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
76	0.1	Negative	Door Jamb	A	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
77	0.2	Negative	Door Casing	D	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
78	0.2	Negative	Floor	-	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
79	0.2	Negative	Stair Stringer	Center	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
80	0.1	Negative	Railing	Center	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
81	0.2	Negative	Win. Casing	B	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
82	0.1	Negative	Win. Sill-Stool	B	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
83	0.3	Negative	Win. Apron	B	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
84	0.2	Negative	Win. Sash Int.	B	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
85	0.2	Negative	Clos. Door Casing	C	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
86	0.3	Negative	Clos. Door	C	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
87	0.2	Negative	Clos. Door Jamb	C	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
88	0.1	Negative	Clos. Door Stop	C	-	Stain	INTACT	Wood	Stairwell	5	-	-	-
89	0.1	Negative	Clos. Wall	C	(All)	Grey	Deteriorated	Plaster	Stairwell	5	-	-	-
90	0.8	Negative	Ceiling	-	-	Yellow	INTACT	Wood	Stairwell	6	-	-	-
91	0.6	Negative	Stair Stringer	Ceiling	-	Yellow	Deteriorated	Wood	Stairwell	6	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
92	0.9	Negative	Wall	D	-	Yellow	Deteriorated	Plaster	Stairwell	6	-	-	-
93	1.1	Positive	Wall	B	-	Yellow	Deteriorated	Plaster	Stairwell	6	Moisture	No	No
94	1.1	Positive	Wall	D	-	Yellow	Deteriorated	Wood	Stairwell	6	Moisture	No	No
95	1.5	Positive	Stair Stringer	Center	-	Yellow	Deteriorated	Wood	Stairwell	6	Impact	Yes	No
96	1	Positive	Stair Tread	Center	-	Grey	Deteriorated	Wood	Stairwell	6	Friction	Yes	No
97	1.4	Positive	Stair Riser	Center	-	Grey	Deteriorated	Wood	Stairwell	6	Impact	Yes	No
98	0	Negative	Door Jamb Int.	B	-	White	INTACT	Wood	Stairwell	6	-	-	-
99	0.1	Negative	Door	B	-	White	INTACT	Metal	Stairwell	6	-	-	-
100	1.5	Positive	Ceiling	-	-	White	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
101	8.3	Positive	Wall	A	-	Yellow	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
102	7.3	Positive	Wall	B	-	Yellow	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
103	0.7	Negative	Wall	C	-	Yellow	Deteriorated	Drywall	Kitchen	7	-	-	-
104	11.6	Positive	Wall	D	-	Yellow	Deteriorated	Drywall	Kitchen	7	Moisture	No	No
105	1.5	Positive	Baseboard	A	(All)	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
106	1.3	Positive	Door Casing	A	-	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
107	1.6	Positive	Door Jamb	A	-	White	Deteriorated	Wood	Kitchen	7	Friction	Yes	No
108	2.1	Positive	Door Stop	A	-	White	Deteriorated	Wood	Kitchen	7	Impact	Yes	No
109	0.1	Negative	Wall Register	D	-	Black	INTACT	Metal	Kitchen	7	-	-	-
110	0.2	Negative	Floor	-	-	Stain	INTACT	Wood	Kitchen	7	-	-	-
111	0.2	Negative	Win. Casing	B	-	White	INTACT	Wood	Kitchen	7	-	-	-
112	0.1	Negative	Win. Sill-Stool	B	-	White	INTACT	Wood	Kitchen	7	-	-	-
113	1.5	Positive	Win. Sash Int.	B	-	White	INTACT	Wood	Kitchen	7	-	-	-
114	2.9	Positive	Win. Well-Trough	B	-	White	Deteriorated	Wood	Kitchen	7	Weather	Yes	No
115	17.7	Positive	Win. Jamb	B	-	White	Deteriorated	Wood	Kitchen	7	Friction	Yes	No

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
116	0.4	Negative	Door Casing	B	-	White	INTACT	Wood	Kitchen	7	-	-	-
117	0.1	Negative	Door Jamb Int.	B	-	Black	INTACT	Wood	Kitchen	7	-	-	-
118	0.2	Negative	Door Jamb Ext.	B	-	Black	Deteriorated	Wood	Kitchen	7	-	-	-
119	0	Negative	Door	B	-	White	INTACT	Metal	Kitchen	7	-	-	-
120	**1.6**	**Positive**	**Clos. Door Casing**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Kitchen**	**7**	**Impact**	**Yes**	**No**
121	**1.9**	**Positive**	**Clos. Shelf**	**D**	**-**	**White**	**INTACT**	**Wood**	**Kitchen**	**7**	**-**	**-**	**-**
122	**4**	**Positive**	**Clos. Wall**	**D**	**(All)**	**White**	**Deteriorated**	**Drywall**	**Kitchen**	**7**	**Impact**	**No**	**No**
123	**2**	**Positive**	**Shelf Bracket**	**D**	**-**	**White**	**INTACT**	**Wood**	**Kitchen**	**7**	**-**	**-**	**-**
124	0.5	Negative	Door Casing	C	-	White	INTACT	Wood	Kitchen	7	-	-	-
125	0.4	Negative	Door Stop	C	-	White	INTACT	Wood	Kitchen	7	-	-	-
126	0.5	Negative	Door	C	-	White	Deteriorated	Wood	Kitchen	7	-	-	-
127	0.1	Negative	Ceiling	C	-	White	INTACT	Wood	Bathroom	8	-	-	-
128	0.2	Negative	Wall	A	-	Beige	INTACT	Drywall	Bathroom	8	-	-	-
129	0.2	Negative	Wall	B	-	Beige	INTACT	Drywall	Bathroom	8	-	-	-
130	0.2	Negative	Wall	C	-	Beige	Deteriorated	Drywall	Bathroom	8	-	-	-
131	0.1	Negative	Wall	D	-	Beige	Deteriorated	Drywall	Bathroom	8	-	-	-
132	0.2	Negative	Wall Register	D	-	White	Deteriorated	Metal	Bathroom	8	-	-	-
133	0.5	Negative	Door Casing	D	-	White	INTACT	Wood	Bathroom	8	-	-	-
134	0.5	Negative	Door	D	-	White	Deteriorated	Wood	Bathroom	8	-	-	-
135	0.4	Negative	Door Jamb	D	-	White	Deteriorated	Wood	Bathroom	8	-	-	-
136	0.4	Negative	Door Stop	D	-	White	INTACT	Wood	Bathroom	8	-	-	-
137	0.4	Negative	Door Casing	A	-	White	Deteriorated	Wood	Bathroom	8	-	-	-
138	0.4	Negative	Door Jamb	A	-	White	Deteriorated	Wood	Bathroom	8	-	-	-
139	0.4	Negative	Door	A	-	White	Deteriorated	Wood	Bathroom	8	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
140	0.5	Negative	Win. Casing	B	-	White	INTACT	Wood	Bathroom	8	-	-	-
141	0.1	Negative	Win. Sill-Stool	B	-	White	INTACT	Wood	Bathroom	8	-	-	-
142	0.5	Negative	Win. Apron	B	-	White	INTACT	Wood	Bathroom	8	-	-	-
143	**11.7**	**Positive**	**Win. Well-Trough**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Bathroom**	**8**	**Weather**	**Yes**	**No**
144	**5.7**	**Positive**	**Win. Jamb**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Bathroom**	**8**	**Friction**	**Yes**	**No**
145	0.6	Negative	Win. Sash Int.	B	-	White	Deteriorated	Wood	Bathroom	8	-	-	-
146	0.1	Negative	Ceiling	-	-	White	Deteriorated	Drywall	Family Room	9	-	-	-
147	0.2	Negative	Wall	A	-	Beige	Deteriorated	Drywall	Family Room	9	-	-	-
148	0.1	Negative	Wall	B	-	Beige	Deteriorated	Drywall	Family Room	9	-	-	-
149	0.2	Negative	Wall	C	-	Beige	Deteriorated	Drywall	Family Room	9	-	-	-
150	0.2	Negative	Wall	D	-	Beige	Deteriorated	Drywall	Family Room	9	-	-	-
151	0.5	Negative	Baseboard	A	(All)	White	INTACT	Wood	Family Room	9	-	-	-
152	0.6	Negative	Wall Register	A	-	Black	INTACT	Metal	Family Room	9	-	-	-
153	0.5	Negative	Door Casing	A	-	White	INTACT	Wood	Family Room	9	-	-	-
154	0.3	Negative	Door	A	-	Stain	INTACT	Wood	Family Room	9	-	-	-
155	0.2	Negative	Door Jamb	A	-	Stain	INTACT	Wood	Family Room	9	-	-	-
156	0.1	Negative	Door Stop	A	-	Stain	INTACT	Wood	Family Room	9	-	-	-
157	0.4	Negative	Cabinet Door	A	-	White	INTACT	Wood	Family Room	9	-	-	-
158	0.2	Negative	Cabinet Drawer	A	-	Brown	INTACT	Wood	Family Room	9	-	-	-
159	0.1	Negative	Cabinet Shelf	A	-	Grey	INTACT	Wood	Family Room	9	-	-	-
160	0.4	Negative	Cabinet In	B	-	White	INTACT	Wood	Family Room	9	-	-	-
161	0.4	Negative	Clos. Door Casing	C	-	White	INTACT	Wood	Family Room	9	-	-	-
162	0.4	Negative	Clos. Door	C	-	White	INTACT	Wood	Family Room	9	-	-	-
163	0.4	Negative	Clos. Door Jamb	C	-	White	INTACT	Wood	Family Room	9	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
164	0.6	Negative	Clos. Door Stop	C	-	White	INTACT	Wood	Family Room	9	-	-	-
165	0.5	Negative	Clos. Wall	D	(All)	White	INTACT	Drywall	Family Room	9	-	-	-
166	0.4	Negative	Win. Casing	C	(All)	White	INTACT	Wood	Family Room	9	-	-	-
167	0.1	Negative	Win. Sill-Stool	C	(All)	White	INTACT	Wood	Family Room	9	-	-	-
168	0.1	Negative	Win. Apron	C	(All)	White	INTACT	Wood	Family Room	9	-	-	-
169	**1.4**	**Positive**	**Win. Sash Int.**	**C**	**1**	**White**	**Deteriorated**	**Wood**	**Family Room**	**9**	**Friction**	**Yes**	**No**
170	0.3	Negative	Win. Well-Trough	C	1	White	Deteriorated	Wood	Family Room	9	-	-	-
171	**7.8**	**Positive**	**Win. Jamb**	**C**	**1**	**White**	**Deteriorated**	**Wood**	**Family Room**	**9**	**Friction**	**Yes**	**No**
172	0.1	Negative	Win. Sash Int.	C	2	White	Deteriorated	Wood	Family Room	9	-	-	-
173	0.1	Negative	Win. Well-Trough	C	2	White	Deteriorated	Wood	Family Room	9	-	-	-
174	**7.3**	**Positive**	**Win. Jamb**	**C**	**2**	**White**	**Deteriorated**	**Wood**	**Family Room**	**9**	**Friction**	**Yes**	**No**
175	0.4	Negative	Win. Casing	D	(All)	White	INTACT	Wood	Family Room	9	-	-	-
176	0.4	Negative	Win. Sill-Stool	D	(All)	White	INTACT	Wood	Family Room	9	-	-	-
177	0.4	Negative	Win. Apron	D	(All)	White	INTACT	Wood	Family Room	9	-	-	-
178	0.1	Negative	Win. Sash Int.	D	1	White	INTACT	Wood	Family Room	9	-	-	-
179	0.2	Negative	Win. Sash Int.	D	2	White	INTACT	Wood	Family Room	9	-	-	-
180	0.2	Negative	Win. Well-Trough	D	1	White	Deteriorated	Wood	Family Room	9	-	-	-
181	**12.2**	**Positive**	**Win. Well-Trough**	**D**	**2**	**White**	**Deteriorated**	**Wood**	**Family Room**	**9**	**Weather**	**Yes**	**No**
182	**7.8**	**Positive**	**Win. Jamb**	**D**	**1**	**White**	**Deteriorated**	**Wood**	**Family Room**	**9**	**Friction**	**Yes**	**No**
183	**6.2**	**Positive**	**Win. Jamb**	**D**	**2**	**White**	**Deteriorated**	**Wood**	**Family Room**	**9**	**Friction**	**Yes**	**No**
184	0.2	Negative	Ceiling	-	-	White	Deteriorated	Drywall	Dining Room	10	-	-	-
185	0.4	Negative	Wall	A	-	Green	Deteriorated	Drywall	Dining Room	10	-	-	-
186	0.4	Negative	Wall	B	-	Green	Deteriorated	Drywall	Dining Room	10	-	-	-
187	0.3	Negative	Wall	C	-	Green	Deteriorated	Drywall	Dining Room	10	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
188	0.3	Negative	Wall	D	-	Green	Deteriorated	Drywall	Dining Room	10	-	-	-
189	0.1	Negative	Baseboard	D	(All)	Stain	INTACT	Wood	Dining Room	10	-	-	-
190	0.3	Negative	Wall Register	B	-	Black	INTACT	Metal	Dining Room	10	-	-	-
191	0.3	Negative	Floor	-	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
192	0.2	Negative	Door Casing	B	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
193	0.1	Negative	Door Casing	C	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
194	0.1	Negative	Door Jamb	C	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
195	0.1	Negative	Door	C	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
196	0.2	Negative	Win. Casing	D	(All)	Stain	INTACT	Wood	Dining Room	10	-	-	-
197	0.2	Negative	Win. Sill-Stool	D	(All)	Stain	INTACT	Wood	Dining Room	10	-	-	-
198	0.2	Negative	Win. Sash Int.	D	1	Stain	INTACT	Wood	Dining Room	10	-	-	-
199	0.3	Negative	Win. Sash Int.	D	2	Stain	INTACT	Wood	Dining Room	10	-	-	-
200	0.2	Negative	Win. Sash Int.	D	3	Stain	INTACT	Wood	Dining Room	10	-	-	-
201	**26.1**	**Positive**	**Win. Well-Trough**	**D**	**1**	**White**	**INTACT**	**Wood**	**Dining Room**	**10**	**-**	**-**	**-**
202	**21.2**	**Positive**	**Win. Well-Trough**	**D**	**2**	**White**	**INTACT**	**Wood**	**Dining Room**	**10**	**-**	**-**	**-**
203	**21.6**	**Positive**	**Win. Well-Trough**	**D**	**3**	**White**	**INTACT**	**Wood**	**Dining Room**	**10**	**-**	**-**	**-**
204	**20**	**Positive**	**Win. Jamb**	**D**	**1**	**White**	**INTACT**	**Wood**	**Dining Room**	**10**	**-**	**-**	**-**
205	**20.5**	**Positive**	**Win. Jamb**	**D**	**2**	**White**	**INTACT**	**Wood**	**Dining Room**	**10**	**-**	**-**	**-**
206	**20.9**	**Positive**	**Win. Jamb**	**D**	**3**	**White**	**INTACT**	**Wood**	**Dining Room**	**10**	**-**	**-**	**-**
207	0.1	Negative	Cabinet Drawer	D	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
208	0.2	Negative	Cabinet Front	D	-	Stain	INTACT	Wood	Dining Room	10	-	-	-
209	**11.8**	**Positive**	**Porch Ceiling**	**A**	**-**	**White**	**Deteriorated**	**Wood**	**Exterior House**	**18**	**Weather**	**No**	**No**
210	**14.5**	**Positive**	**Porch Column**	**A**	**(All)**	**White**	**Deteriorated**	**Wood**	**Exterior House**	**18**	**Weather**	**Yes**	**No**
211	**10.4**	**Positive**	**Porch Beam**	**A**	**(All)**	**White**	**Deteriorated**	**Wood**	**Exterior House**	**18**	**Weather**	**No**	**No**

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
212	14.6	Positive	Soffit	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
213	15.1	Positive	Fascia	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
214	0.6	Negative	Foundation	A	-	Grey	Deteriorated	Concrete	Exterior House	18	-	-	-
215	0.6	Negative	Foundation	B	-	Grey	Deteriorated	Concrete	Exterior House	18	-	-	-
216	0.2	Negative	Foundation	C	-	Grey	Deteriorated	Concrete	Exterior House	18	-	-	-
217	0.7	Negative	Foundation	D	-	Grey	Deteriorated	Concrete	Exterior House	18	-	-	-
218	17.3	Positive	Door Casing	A	-	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
219	11.5	Positive	Win. Casing	A	1	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
220	11.2	Positive	Win. Sill-Stool	A	1	White	Deteriorated	Wood	Exterior House	18	Weather	Yes	No
221	10.8	Positive	Win. Casing	A	2	White	Deteriorated	Wood	Exterior House	18	Weather	No	No
222	13.5	Positive	Win. Sill-Stool	A	2	White	Deteriorated	Wood	Exterior House	18	Weather	Yes	No
223	1.4	Positive	Win. Sash Int.	A	1	Grey	Deteriorated	Wood	Attic	17	Friction	Yes	No
224	1.6	Positive	Win. Casing	A	(All)	Brown	Deteriorated	Wood	Attic	17	Impact	Yes	No
225	11.2	Positive	Win. Sill-Stool	A	(All)	Grey	Deteriorated	Wood	Attic	17	Impact	Yes	No
226	1.1	Positive	Calibrate	-	-	-	-	-	-	-	-	-	-
227	1	Positive	Calibrate	-	-	-	-	-	-	-	-	-	-
228	1	Positive	Calibrate	-	-	-	-	-	-	-	-	-	-
229	0.9	Negative	Calibrate	-	-	-	-	-	-	-	-	-	-
230	0.9	Negative	Calibrate	-	-	-	-	-	-	-	-	-	-
231	0.9	Negative	Calibrate	-	-	-	-	-	-	-	-	-	-
232	0	Negative	Wall	A	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-
233	0	Negative	Wall	B	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-
234	0.3	Negative	Wall	C	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-
235	0	Negative	Wall	D	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
236	0	Negative	Ceiling	Ceiling	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-
237	0.4	Negative	Wall Register	D	-	White	Deteriorated	Metal	Bedroom	12	-	-	-
238	0.1	Negative	Baseboard	A	(All)	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
239	0	Negative	Win. Casing	B	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
240	0.2	Negative	Win. Sill-Stool	B	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
241	0	Negative	Win. Stop Int.	B	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
242	0.1	Negative	Win. Sash Int.	B	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
243	**30**	**Positive**	**Win. Well-Trough**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**12**	**Weather**	**Yes**	**No**
244	**18**	**Positive**	**Win. Stop Ext.**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**12**	**Weather**	**Yes**	**No**
245	**26.1**	**Positive**	**Win. Stop Ext.**	**C**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**12**	**Weather**	**Yes**	**No**
246	0.1	Negative	Win. Well-Trough	C	-	White	Deteriorated	Wood	Bedroom	12	-	-	-
247	**1.5**	**Positive**	**Win. Well-Trough**	**C**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**12**	**Weather**	**Yes**	**No**
248	0	Negative	Win. Sash	C	-	White	Deteriorated	Wood	Bedroom	12	-	-	-
249	0.2	Negative	Clos. Wall	D	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-
250	0	Negative	Clos. Shelf	D	-	White	Deteriorated	Plaster	Bedroom	12	-	-	-
251	0.1	Negative	Shelf Bracket	D	-	White	Deteriorated	Wood	Bedroom	12	-	-	-
252	0	Negative	Clos. Door	D	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
253	0	Negative	Clos. Door Casing	D	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
254	0	Negative	Door	A	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
255	0	Negative	Door Casing	A	-	Brown	Deteriorated	Wood	Bedroom	12	-	-	-
256	0.1	Negative	Wall	A	-	White	Deteriorated	Plaster	Bedroom	13	-	-	-
257	0.2	Negative	Wall	B	-	White	Deteriorated	Plaster	Bedroom	13	-	-	-
258	0	Negative	Wall	C	-	White	Deteriorated	Plaster	Bedroom	13	-	-	-
259	0.5	Negative	Wall	D	-	White	Deteriorated	Plaster	Bedroom	13	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
260	0.6	Negative	Ceiling	Ceiling	-	White	Deteriorated	Plaster	Bedroom	13	-	-	-
261	0	Negative	Baseboard	A	(All)	White	Deteriorated	Wood	Bedroom	13	-	-	-
262	0.2	Negative	Wall Register	B	-	White	Deteriorated	Metal	Bedroom	13	-	-	-
263	0.1	Negative	Win. Casing	D	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
264	0.1	Negative	Win. Sill-Stool	D	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
265	**1.1**	**Positive**	**Win. Stop Int.**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**13**	**Impact**	**Yes**	**No**
266	0	Negative	Win. Apron	D	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
267	**1.9**	**Positive**	**Win. Well-Trough**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**13**	**Weather**	**Yes**	**No**
268	0.7	Negative	Win. Sash Ext.	D	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
269	**3.1**	**Positive**	**Win. Jamb**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**13**	**Friction**	**Yes**	**No**
270	**13.3**	**Positive**	**Win. Stop Int.**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**13**	**Impact**	**Yes**	**No**
271	0	Negative	Door Casing	C	-	White	INTACT	Wood	Bedroom	13	-	-	-
272	0	Negative	Door Stop	C	-	White	INTACT	Wood	Bedroom	13	-	-	-
273	0	Negative	Door Jamb	C	-	White	INTACT	Wood	Bedroom	13	-	-	-
274	0.3	Negative	Attic Dr. Casing	B	-	White	INTACT	Plaster	Bedroom	13	-	-	-
275	0	Negative	Door	B	-	White	INTACT	Plaster	Stairwell	16	-	-	-
276	0	Negative	Door Casing	B	-	White	INTACT	Plaster	Stairwell	16	-	-	-
277	0.4	Negative	Door Stop	B	-	White	INTACT	Plaster	Stairwell	16	-	-	-
278	0.1	Negative	Door Jamb	B	-	White	INTACT	Plaster	Stairwell	16	-	-	-
279	0.5	Negative	Wall	B	(All)	White	Deteriorated	Plaster	Stairwell	16	-	-	-
280	0	Negative	Bookcase Shelf	B	-	White	Deteriorated	Wood	Stairwell	16	-	-	-
281	0	Negative	Door	A	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
282	0.6	Negative	Door Casing	A	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
283	0	Negative	Door Stop	A	-	White	Deteriorated	Wood	Bedroom	13	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
284	0	Negative	Door Jamb	A	-	White	Deteriorated	Wood	Bedroom	13	-	-	-
285	0	Negative	Crown Molding	A	(All)	White	Deteriorated	Wood	Bathroom	14	-	-	-
286	0	Negative	Baseboard	A	(All)	White	Deteriorated	Wood	Bathroom	14	-	-	-
287	0	Negative	Win. Casing	D	-	White	INTACT	Wood	Bathroom	14	-	-	-
288	0	Negative	Win. Casing	D	-	White	INTACT	Wood	Bathroom	14	-	-	-
289	0	Negative	Win. Sill-Stool	D	-	White	INTACT	Wood	Bathroom	14	-	-	-
290	0	Negative	Win. Jamb	D	-	White	INTACT	Wood	Bathroom	14	-	-	-
291	0	Negative	Door Casing	D	-	White	INTACT	Wood	Bathroom	14	-	-	-
292	0	Negative	Door	B	-	White	INTACT	Wood	Bathroom	14	-	-	-
293	0	Negative	Door Casing	B	-	White	INTACT	Wood	Bathroom	14	-	-	-
294	0	Negative	Door Stop	B	-	White	INTACT	Wood	Bathroom	14	-	-	-
295	0	Negative	Door Jamb	B	-	White	INTACT	Wood	Bathroom	14	-	-	-
296	0.2	Negative	Wall	A	-	White	Deteriorated	Plaster	Bedroom	11	-	-	-
297	0	Negative	Wall	B	-	White	Deteriorated	Plaster	Bedroom	11	-	-	-
298	0	Negative	Wall	C	-	White	Deteriorated	Plaster	Bedroom	11	-	-	-
299	0.1	Negative	Wall	D	-	White	Deteriorated	Plaster	Bedroom	11	-	-	-
300	0	Negative	Ceiling	Ceiling	-	White	Deteriorated	Plaster	Bedroom	11	-	-	-
301	0	Negative	Win. Sash Int.	D	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
302	0.1	Negative	Win. Jamb	D	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
303	**30**	**Positive**	**Win. Well-Trough**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Weather**	**Yes**	**No**
304	**30**	**Positive**	**Win. Stop Int.**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Impact**	**Yes**	**No**
305	**12.5**	**Positive**	**Win. Jamb**	**D**	**-**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Friction**	**Yes**	**No**
306	**2.7**	**Positive**	**Win. Jamb**	**A**	**1**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Friction**	**Yes**	**No**
307	**29.9**	**Positive**	**Win. Stop Int.**	**A**	**1**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Impact**	**Yes**	**No**

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
308	**28.8**	**Positive**	**Win. Well-Trough**	**A**	**1**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Weather**	**Yes**	**No**
309	0	Negative	Win. Sash	A	1	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
310	0	Negative	Win. Sill-Stool	A	1	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
311	0	Negative	Win. Casing	A	1	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
312	0	Negative	Win. Casing	A	2	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
313	0	Negative	Win. Sash Int.	A	2	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
314	**35**	**Positive**	**Win. Well-Trough**	**A**	**2**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Weather**	**Yes**	**No**
315	**24.4**	**Positive**	**Win. Jamb**	**A**	**2**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Friction**	**Yes**	**No**
316	**27.5**	**Positive**	**Win. Stop Int.**	**A**	**2**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Impact**	**Yes**	**No**
317	**37**	**Positive**	**Win. Well-Trough**	**A**	**2**	**White**	**Deteriorated**	**Wood**	**Bedroom**	**11**	**Weather**	**Yes**	**No**
318	0.9	Negative	Clos. Wall	A	(All)	White	Deteriorated	Plaster	Bedroom	11	-	-	-
319	0	Negative	Clos. Door Jamb	A	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
320	0	Negative	Clos. Door Stop	A	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
321	0	Negative	Clos. Door	A	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
322	0	Negative	Door	C	-	White	Deteriorated	Wood	Bedroom	11	-	-	-
323	0	Negative	Door Casing	C	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
324	0	Negative	Door Stop	C	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
325	0	Negative	Door Jamb	C	-	Brown	Deteriorated	Wood	Bedroom	11	-	-	-
326	0	Negative	Wall	A	-	Beige	Deteriorated	Plaster	Hallway	15	-	-	-
327	0.1	Negative	Wall	B	-	Beige	Deteriorated	Plaster	Hallway	15	-	-	-
328	0	Negative	Wall	C	-	Beige	Deteriorated	Plaster	Hallway	15	-	-	-
329	0	Negative	Ceiling	Ceiling	-	Beige	Deteriorated	Plaster	Hallway	15	-	-	-
330	0	Negative	Door Casing	B	-	White	Deteriorated	Plaster	Hallway	15	-	-	-
331	0	Negative	Door Stop	B	-	White	Deteriorated	Plaster	Hallway	15	-	-	-

READING #	MG/CM²	RESULT	COMPONENTS	SIDE	SIDE #	COLOR	CONDITION	SUBSTRATE	ROOM TYPE	ROOM #	COND CAUSE	FRIC- IMP	TEETH
332	0	Negative	Door Jamb	B	-	White	Deteriorated	Plaster	Hallway	15	-	-	-
333	0.3	Negative	Win. Casing	B	-	Brown	Deteriorated	Plaster	Stairwell	5	-	-	-
334	0	Negative	Win. Sill-Stool	B	-	Brown	Deteriorated	Plaster	Stairwell	5	-	-	-
335	0	Negative	Win. Sash Int.	B	-	Brown	Deteriorated	Plaster	Stairwell	5	-	-	-
336	**29.1**	**Positive**	**Win. Well-Trough**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Stairwell**	**5**	**Weather**	**Yes**	**No**
337	**33**	**Positive**	**Win. Stop Int.**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Stairwell**	**5**	**Impact**	**Yes**	**No**
338	**23.9**	**Positive**	**Win. Jamb**	**B**	**-**	**White**	**Deteriorated**	**Wood**	**Stairwell**	**5**	**Friction**	**Yes**	**No**
339	0.8	Negative	Calibrate	-	-	-	-	-	-	-	-	-	-
340	0.9	Negative	Calibrate	-	-	-	-	-	-	-	-	-	-
341	0.8	Negative	Calibrate	-	-	-	-	-	-	-	-	-	-
A-1	**assumed**	**Positive**	**Win. Sash Ext.**	**A**	**(All)**	**-**	**Deteriorated**	**Wood**	**Exterior House**	**18**	**Weather**	**Yes**	**No**
A-2	**assumed**	**Positive**	**Win. Casing**	**A**	**-**	**-**	**Deteriorated**	**Wood**	**Exterior House**	**18**	**Weather**	**No**	**No**
A-3	**assumed**	**Positive**	**Win. Sill-Stool**	**A**	**-**	**-**	**Deteriorated**	**Wood**	**Exterior House**	**18**	**Weather**	**Yes**	**No**

** HUD reporting limits for positive XRF results are ≥1.0 mg/cm² for painted or glazed surfaces.*

D-2: XRF Device Used

Viken Pb200i

Viken Detection PCS December 2020

Performance Characteristic Sheet

EFFECTIVE DATE: December 1, 2020

MANUFACTURER AND MODEL:

Make: **Viken Detection** (previously Heuresis)

Models: ***Model Pb200i***

Source: ***^{57}Co, 5 mCi (nominal – new source)***

FIELD OPERATION GUIDANCE

Action Level Setting:

0.5 mg/cm^2

OPERATING PARAMETERS:

Action Level mode

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive) at Action Level setting = 1.0 mg/cm^2

SUBSTRATE CORRECTION:

Not applicable

INCONCLUSIVE RANGE OR THRESHOLD:

ACTION LEVEL MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
Results not corrected for substrate bias on any substrate	Brick	0.4 – 0.6
	Concrete	0.4 – 0.6
	Drywall	0.4 – 0.6
	Metal	0.4 – 0.6
	Plaster	0.4 – 0.6
	Wood	0.4 – 0.6

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, 2012 Edition ("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 January 2020, with two separate instruments running software version Pb200i 5.0 (DEBUG version) in Action Level test mode. The actual source strength of each instrument on the day of testing was approximately 2.9 mCi; source ages were approximately 9 months.

OPERATING PARAMETERS

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

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked ***with the Action Level set to 1.0 mg/cm^2*** 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; for NIST SRM 2579a, use the 1.04 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.

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. 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.

TESTING TIMES:

The instrument time to take a reading varied within a narrow range from 5 to 6 seconds, with a small number (3%) of longer times from 7 to 11 seconds. The longer readings were almost all on wood substrates. This range of reading times applies only to instruments with the same source strength as those tested (2.9 mCi at the time of PCS testing). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times.

CLASSIFICATION OF RESULTS:

XRF results are classified as **positive** if they are **greater than or equal** to 0.6 mg/cm^2, ***negative*** if they are ***less than or equal*** *to* 0.4 mg/cm^2 and ***inconclusive*** if they are ***equal*** to 0.5 mg/ cm^2.

DOCUMENTATION:

This XRF Performance Characteristic Sheet (PCS) was developed by QuanTech, Inc., under a contract with the U.S. Department of Housing and Urban Development, Office of Lead Hazard Control and Healthy Homes.

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to develop Performance Characteristic Sheets at the Federal standard (Action Level) of 1.0 mg/cm^2, 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. The methodology was subsequently generalized by QuanTech for application to other Action Levels.

APPENDIX E – LABORATORIES USED & ORIGINAL LABORATORY ANALYSIS REPORTS

E-1: Laboratories Used

Trace Metals Laboratory used to test dust and soil samples:

ACCURATE Analytical Testing LLC
30105 Beverly Road
Romulus, MI 48174
1-734-629-8161

E-2: Original Laboratory Analysis Reports

All of the original laboratory analysis reports for any samples that were sent for testing are included in the following pages.

ACCURATE ANALYTICAL TESTING LLC

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

Certificate of Analysis: Lead In Dust Wipe by EPA Method 7000B/NIOSH 7082*

Client : Environmental Testing and Consulting R
38900 Huron River Drive
Romulus, MI 48174
Attn : ETC **Email :** labresults@2etc.com
Phone : 734-955-6600 **Fax :** 734-955-6604

Client Project : 269067

Project Location : 1320 Jerome, Lansing, MI 48912

AAT Project : 1026992
Sampling Date : 05/07/2024
Date Received : 05/09/2024
Date Analyzed : 05/10/2024
Date Reported : 05/13/2024

Lab Sample ID	Client Code	Sample Description	Length (inch)	Width (inch)	Area (Sq ft)	Results Lead µg/ft2 *
9393638	FB1	NA Field Blank	N/A	N/A	N/A	N/D
9393639	DW01	HF Living Room 3	12	12	1.00	18.5
9393640	DW02	S Living Room 3 A	43.2	3.5	1.05	154
9393641	DW03	HF Dining Room 10	12	12	1.00	21.2
9393642	DW04	T Dining Room 10 D 3	17.5	6	0.73	910
9393643	DW05	CF Family Room 9	12	12	1.00	24.7
9393644	DW06	S Family Room 9 C1	27	3.25	0.61	241
9393645	DW07	HF Kitchen 7	12	12	1.00	46.7
9393646	DW08	T Kitchen 7 B	18	6.5	0.81	1910
9393647	DW09	S Kitchen 7 B	17	2.8	0.33	69.4
9393648	DW10	CF Bedroom 12	12	12	1.00	65.0
9393649	DW11	T Bedroom 12 B	13	6.5	0.59	576
9393650	DW12	CF Bedroom 13	12	12	1.00	9.08
9393651	DW13	S Bedroom 13 D2	12	3.5	0.29	315
9393652	DW14	HF Front Porch	12	12	1.00	34.2
9393653	DW15	HF Back Porch	12	12	1.00	18.0

ND = Not Detected, N/A = Not Available, RL = Reporting Limit, Analytical Reporting Limit is 5 ug/sample. For true values assume (3) significant figures. AAT internal SOP S205. The method and batch QC are acceptable unless otherwise stated. EPA Regulatory Limits: 10 ug/ft2 (Floors, Carpeted/Uncarpeted), 100 ug/ft2 (Window Sill/Stools), 400 ug/ft2 (Window Trough/Well/Ext Concrete Surfaces). HUD Grantee Regulatory Limits: 10 ug/ft2 (Interior Floors), 40 ug/ft2 (Porch Floors), 100 ug/ft2 (Window Sills), 100 ug/ft2 (Window Troughs). The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA-LAP 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. AAT does not blank correct reported values. Sample data apply only to items analyzed. Results are calculated with wipe dimensions supplied by client. Reproduction of this document other than in its entirety is not authorized by AAT, LLC. * = Validated modified method. Samples are stored for 15 days following report date.

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

Lab Sample ID	Client Code	Sample Description	Length (inch)	Width (inch)	Area (Sq ft)	Results Lead µg/ft2 *

Analyst Signature 

Alexis Pheeney

ND = Not Detected, N/A = Not Available, RL = Reporting Limit, Analytical Reporting Limit is 5 ug/sample. For true values assume (3) significant figures. AAT internal SOP S205. The method and batch QC are acceptable unless otherwise stated. EPA Regulatory Limits: 10 ug/ft2 (Floors, Carpeted/Uncarpeted), 100 ug/ft2 (Window Sill/Stools), 400 ug/ft2 (Window Trough/Well/Ext Concrete Surfaces). HUD Grantee Regulatory Limits: 10 ug/ft2 (Interior Floors), 40 ug/ft2 (Porch Floors), 100 ug/ft2 (Window Sills), 100 ug/ft2 (Window Troughs). The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA-LAP 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. AAT does not blank correct reported values. Sample data apply only to items analyzed. Results are calculated with wipe dimensions supplied by client. Reproduction of this document other than in its entirety is not authorized by AAT, LLC. * = Validated modified method. Samples are stored for 15 days following report date.

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

Date Printed: 05/13/2024

AAT Project: 1026992

ACCURATE ANALYTICAL TESTING LLC

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

Certificate of Analysis: Lead In Soil by EPA SW-846 7000B and 3050B Method*

Client : Environmental Testing and Consulting R
38900 Huron River Drive
Romulus, MI 48174
Attn : ETC **Email :** labresults@2etc.com
Phone : 734-955-6600 **Fax :** 734-955-6604

Client Project : 269067

Project Location : 1320 Jerome, Lansing, MI 48912

AAT Project : 1026992
Sampling Date : 05/07/2024
Date Received : 05/09/2024
Date Analyzed : 05/10/2024
Date Reported : 05/13/2024

Lab Sample ID	Client Code	Sample Description	Results Lead µg/g (PPM)	Calculated RL µg/g *
9393654	SS-1	soil Front Yard	460	10.3
9393655	SS-2	soil Dripline A	81.4	10.4
9393656	SS-3	soil Dripline C	422	10.5
9393657	SS-4	soil Back Yard	483	9.77

Analyst Signature

Alexis Pheeney

*RL= Reporting Limit * For true values assume (3) 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 Perimters 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-LAP 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. AAT does not blank correct reported values. Sample data apply only to items analyzed. Samples are stored for 15 days following report date. *= Validated modified method

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

ACCURATE ANALYTICAL TESTING LLC

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

To : Environmental Testing and Consulting R
38900 Huron River Drive
Romulus, MI 48174

Attn : ETC **Email :** labresults@2etc.com
Phone : 734-955-6600

Project Location : 1320 Jerome, Lansing, MI 48912

AAT Project : 1026992
Client Project : 269067
Date Reported : 05/13/2024

Sample	Client Code	Analysis Requested	Completed	Analyst
9393638	FB1	Dust Wipe	05/10/2024	Alexis Pheeney
9393639	DW01	Dust Wipe	05/10/2024	Alexis Pheeney
9393640	DW02	Dust Wipe	05/10/2024	Alexis Pheeney
9393641	DW03	Dust Wipe	05/10/2024	Alexis Pheeney
9393642	DW04	Dust Wipe	05/10/2024	Alexis Pheeney
9393643	DW05	Dust Wipe	05/10/2024	Alexis Pheeney
9393644	DW06	Dust Wipe	05/10/2024	Alexis Pheeney
9393645	DW07	Dust Wipe	05/10/2024	Alexis Pheeney
9393646	DW08	Dust Wipe	05/10/2024	Alexis Pheeney
9393647	DW09	Dust Wipe	05/10/2024	Alexis Pheeney
9393648	DW10	Dust Wipe	05/10/2024	Alexis Pheeney
9393649	DW11	Dust Wipe	05/10/2024	Alexis Pheeney
9393650	DW12	Dust Wipe	05/10/2024	Alexis Pheeney
9393651	DW13	Dust Wipe	05/10/2024	Alexis Pheeney
9393652	DW14	Dust Wipe	05/10/2024	Alexis Pheeney
9393653	DW15	Dust Wipe	05/10/2024	Alexis Pheeney
9393654	SS-1	Lead Soil	05/10/2024	Alexis Pheeney
9393655	SS-2	Lead Soil	05/10/2024	Alexis Pheeney
9393656	SS-3	Lead Soil	05/10/2024	Alexis Pheeney
9393657	SS-4	Lead Soil	05/10/2024	Alexis Pheeney

Sample	Client Code	Analysis Requested	Completed	Analyst

Reviewed By Elyse Bidle
Quality Assurance Coordinator

Electronic Chain of Custody

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

Submitting Company :

Environmental Testing and Consulting R
38900 Huron River Drive
Romulus, MI - 48174

AAT Project : 1026992

Turn Around:

Project Location: 1320 Jerome, Lansing, MI 48912

Client Job: 269067

Lab Sample	Sample Description	Barcode	Client Code	Sample Type	Dimension	Field Blank	Other Analysis
9393638	N/A Field Blank	1664303	FB1	Dust Wipe	0 x 0	Yes	None
9393639	HF Living Room 3	1664304	DW01	Dust Wipe	12 x 12	No	None
9393640	S Living Room 3 A	1664305	DW02	Dust Wipe	43.2 x 3.5	No	None
9393641	HF Dining Room 10	1664306	DW03	Dust Wipe	12 x 12	No	None
9393642	T Dining Room 10 D 3	1664307	DW04	Dust Wipe	17.5 x 6	No	None
9393643	CF Family Room 9	1664308	DW05	Dust Wipe	12 x 12	No	None
9393644	S Family Room 9 C1	1664309	DW06	Dust Wipe	27 x 3.25	No	None
9393645	HF Kitchen 7	1664310	DW07	Dust Wipe	12 x 12	No	None
9393646	T Kitchen 7 B	1664311	DW08	Dust Wipe	18 x 6.5	No	None
9393647	S Kitchen 7 B	1664312	DW09	Dust Wipe	17 x 2.8	No	None
9393648	CF Bedroom 12	1664313	DW10	Dust Wipe	12 x 12	No	None

Lab Sample	Sample Description	Barcode	Client Code	Sample Type	Dimension	Field Blank	Other Analysis
9393649	T Bedroom 12 B	1664314	DW11	Dust Wipe	13 x 6.5	No	None
9393650	CF Bedroom 13	1664315	DW12	Dust Wipe	12 x 12	No	None
9393651	S Bedroom 13 D2	1664316	DW13	Dust Wipe	12 x 3.5	No	None
9393652	HF Front Porch	1664317	DW14	Dust Wipe	12 x 12	No	None
9393653	HF Back Porch	1664318	DW15	Dust Wipe	12 x 12	No	None
9393654	soil Front Yard	1664319	SS-1	Lead Soil	0 x 0	No	None
9393655	soil Dripline A	1664320	SS-2	Lead Soil	0 x 0	No	None
9393656	soil Dripline C	1664321	SS-3	Lead Soil	0 x 0	No	None
9393657	soil Back Yard	1664322	SS-4	Lead Soil	0 x 0	No	None

Seal Intact: **Yes**

Preservative (if required): **Yes**

Containers Labled : **Yes**

Sampled By: Brandon Lee

Received By: Peter Tirpak

Received Date: 05/09/2024 08:00

Analyst: Alexis Pheeney

Relinquished By: Elyse Bidle

Relinquished Date: 05/13/2024 07:06