

LEAD BASED PAINT SURVEY



Property Location:

677 W Canfield St

Detroit, MI 48201

Single Family Home

Construction Date: 1875

Prepared for:

LL Custom Contracting

1439 E Eleven Mile Rd

Madison Heights, MI 48071

313.909.0005

sdobbs@llcustomcontracting.com



Date of Inspection: 3/2/2020

Date of Report: 3/3/2020

Prepared by:

Hani Yaqo

Michigan Certification Number P-07331

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3/2/2020

Lead Inspector and Risk Assessor Hani Yaqo (P-07331) conducted a Lead Inspection at:

677 W Canfield St, Detroit, MI 48201 for LL Custom Contracting.

This is a 3 story single family home built in 1875. The home is of brick and frame construction and has wood siding. The interior of the home has been totally gutted down to the studs on all 3 floors and the basement.

Section 1.1 shows a list of all of the painted surfaces that tested positive for lead-based paint. The column "Wall / Side" designates the location of the component that was tested; A side refers to the front of the home, B side is the left side of the home, C side is the rear, and D side is the right side of the home.

Section 2.2 lists all the components and surfaces that were tested.

1. Purpose

The purpose of the lead inspection was to determine the existence of lead-based paint at the subject property and to determine the location, type, and severity of existing or potential health hazards associated with exposures to lead. This report can help Owners develop a plan for eliminating any lead-based paint hazards that were found and aid in establishing an ongoing lead-based paint maintenance and re-evaluation program, if needed.

The following report details the results of the investigation. Please consult section 2.1 for additional information on how to interpret XRF results.

A copy of this report must be provided to each new lessee (tenant) or purchaser of this property under Federal law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to purchasers and made available to tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency (EPA), entitled "Protect Your Family from Lead in Your Home", and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from lead-based paint hazards. For more information regarding your obligations under federal lead-based paint regulations, contact 800-424-LEAD (5323).

1.1 Summary of Lead-Based Paint


Lead-based paint is defined as any surface coating, which contains 1.0 milligrams of lead per square centimeter of surface area (mg/cm²) or greater. This table identifies all of the painted surfaces that tested positive for lead-based paint. The paint condition at the time of testing was determined to be either “intact” or “deteriorated”. All deteriorated paint conditions represent a lead-based paint exposure hazard and are listed in Table 2.1. All deteriorated lead based paint conditions should be corrected immediately. Lead-based paint determined to be intact at the time of testing may become lead-based paint exposure hazardous in the future and therefore require routine monitoring as recommended in Section 6. Use lead safe work practices every time a lead-based paint surface is disturbed.

Floor	Wall / Side	Room and #	Component	Substrate	Visual Condition	Color	mg/cm ² +/- Precision
First	A	Exterior House 1	Door Casing	Wood	Deteriorated	Brown	13 +/- 0.3
First	A	Exterior House 1	Door Casing	Wood	Deteriorated	White	11.9 +/- 0.3
First	A	Exterior House 1	Door Jamb	Wood	Deteriorated	Brown	10.5 +/- 0.3
First	A	Exterior House 1	Door Stop	Wood	Deteriorated	Brown	11 +/- 0.3
First	A	Exterior House 1	Door Lintel	Wood	Deteriorated	Brown	10 +/- 0.3
First	A	Exterior House 1	Win. Casing	Wood	Deteriorated	White	9.9 +/- 0.3
First	A	Exterior House 1	Win. Sill	Wood	Deteriorated	Brown	9.8 +/- 0.3
First	A	Exterior House 1	Win. Sash	Wood	Deteriorated	Brown	3.2 +/- 0.3
First	A	Exterior House 1	Win. Stop	Wood	Deteriorated	Brown	11.6 +/- 0.3
First	A	Exterior House 1	Win. Jamb	Wood	Deteriorated	Brown	8.7 +/- 0.3
First	A	Exterior House 1	Win. Apron	Stone	Deteriorated	White	6.5 +/- 0.4
First	A	Exterior House 1	Porch Beam	Wood	Deteriorated	Brown	11.5 +/- 0.3
First	A	Exterior House 1	Porch Ceiling	Wood	Deteriorated	Brown	11.8 +/- 0.3
First	A	Exterior House 1	Porch Support Column	Wood	Deteriorated	Brown	6.2 +/- 0.3
First	A	Exterior House 1	Porch Trim	Wood	Deteriorated	White	5.5 +/- 0.3
First	A	Exterior House 1	Railing	Wood	Deteriorated	Brown	4.8 +/- 0.3
First	A	Exterior House 1	Lattice	Wood	Deteriorated	White	1.9 +/- 0.3
First	A	Exterior House 1	Wall	Stone	Deteriorated	Grey	7.7 +/- 0.4
First	B	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	6.1 +/- 0.3
First	B	Exterior House 1	Win. Sill	Wood	Deteriorated	Brown	6.6 +/- 0.3
First	B	Exterior House 1	Win. Sash	Wood	Deteriorated	Brown	4 +/- 0.3
First	B	Exterior House 1	Win. Stop	Wood	Deteriorated	Brown	6.2 +/- 0.3
First	B	Exterior House 1	Win. Jamb	Wood	Deteriorated	Brown	6.6 +/- 0.3
Second	A	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	29.6 +/- 0.3
Second	A	Exterior House 1	Ext. Fascia	Wood	Deteriorated	Brown	28.2 +/- 0.3
Second	A	Exterior House 1	Ext. Soffit	Wood	Deteriorated	Brown	29.7 +/- 0.3
First	D	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	14.5 +/- 0.3
First	C	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	2.6 +/- 0.3

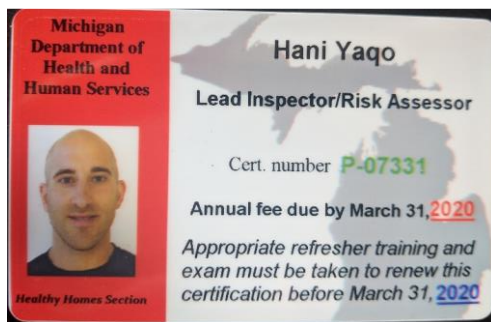
First	A	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	19.8 +/- 0.3
First	D	Exterior House 1	Win. Casing	Wood	Deteriorated	White	5.8 +/- 0.3
First	D	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	5.3 +/- 0.3
First	C	Exterior House 1	Win. Casing	Wood	Deteriorated	White	11.3 +/- 0.3
First	C	Exterior House 1	Door Casing	Wood	Deteriorated	Brown	12.5 +/- 0.3
First	C	Exterior House 1	Door Stop	Wood	Deteriorated	Brown	11.6 +/- 0.3
First	C	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	11.5 +/- 0.3
First	C	Exterior House 1	Win. Sash	Wood	Deteriorated	Brown	10 +/- 0.3
First	C	Exterior House 1	Win. Stop	Wood	Deteriorated	Brown	13 +/- 0.3

2. Certification

The information contained in this report is a true and accurate representation of the lead-based paint conditions at the subject property at the time of the investigation, based on the professional judgment of the person(s) who conducted and reported this lead-based paint inspection and risk assessment:


(Hani Yaqo)

Michigan Registered Lead Inspector and Risk Assessor, P-7331



2.1 Interpretation of XRF Readings

Column 1 - Sample No: This is the sample number assigned by the instrument of the test taken during the inspection.

Column 2 - Floor: This simply corresponds to the floor of the building. Basements are identified as "floor 0".

Column 3 - Side: This column determines where the item being tested is located in the room. Side A is always the address side of the building. Then, proceeding in a clockwise direction the adjacent sides are labeled B, C and D. Sides A, B, C and D are identified on the Floor Plan in Section 9.2. For example, if you were standing in a bedroom that had two windows on different walls these windows would be identified by the side location such as Window Side A and Window Side B.

Column 4 - Room: This column identifies the room where XRF testing occurred. Rooms are always identified by a number. Numbers are used because room usage may change i.e. a bedroom may become an office.

Column 5 - Component: This column identifies the surface that was tested. Some examples are doors, door trim, walls, ceiling, exterior siding etc.

Column 6 - Substrate: This column defines what material the paint was applied to. Substrates are most commonly plaster or wood but could be other material such as metal.

Column 7 - Condition: This column identifies the condition of the paint on the surface being tested. Intact or deteriorated are used to describe the paint condition.

Column 8 - Color: This is the color of the coating on the surface of the component being tested.

Column 9 - Depth Index: The XRF has the capability to detect lead in many layers of paint, not just surface layers. A depth index reading of less than 1.5 indicates that lead is near the surface of the material tested. A depth index reading between 1.6 and 4 indicates that lead was found at a moderate depth. A depth index reading of 4 or higher indicates that lead was found deeply buried in the material tested.

Column 10 - Results: This column indicates whether or not the paint tested Positive or Negative for the presence of lead.

Column 11 - Precision: This column indicates "Lead Detected in mg/cm² total".

2.2 XRF Results – All Testing Results

WATSON ENVIRONMENTAL SERVICES LLC

APPENDIX 9.1-4 A												
All Paint Samples Taken - In Order Sampled												
Please note: Post 1978 Construction, factory finished and unpainted items were not sampled												
Client:		LL Custom Contracting										
Survey Location:		677 W Canfield St, Detroit, MI 48201										
Survey Date:		03/02/20										
Inspectors:		Hani Yaqo			License #	P-07331			Job#	3220		
Sample #	Floor	Wall / Side	Room and #	Component	Substrate	Visual Condition	Color	Note	Depth Index	Result	mg/cm ² +/- Precision	
1	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1 +/- 0.2	
2	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1 +/- 0.2	
3	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1 +/- 0.2	
4	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1 +/- 0.2	
5	First	A	Exterior House 1	Door	Wood	Intact	Clear/Stain	0	0	Negative	0.1 +/- 0.3	
6	First	A	Exterior House 1	Door Casing	Wood	Deteriorated	Brown	0	0	Positive	13 +/- 0.3	
7	First	A	Exterior House 1	Door Casing	Wood	Deteriorated	White	0	0	Positive	11.9 +/- 0.3	
8	First	A	Exterior House 1	Door Jamb	Wood	Deteriorated	Brown	0	0	Positive	10.5 +/- 0.3	
9	First	A	Exterior House 1	Door Stop	Wood	Deteriorated	Brown	0	0	Positive	11 +/- 0.3	
10	First	A	Exterior House 1	Door Lintel	Wood	Deteriorated	Brown	0	0	Positive	10 +/- 0.3	
11	First	A	Exterior House 1	Door Threshold	Stone	Deteriorated	Brown	0	0	Negative	0.3 +/- 0.4	
12	First	A	Exterior House 1	Door Threshold	Stone	Deteriorated	Brown	0	0	Negative	0.3 +/- 0.4	
13	First	A	Exterior House 1	Win. Casing	Wood	Deteriorated	White	0	0	Positive	9.9 +/- 0.3	
14	First	A	Exterior House 1	Win. Sill	Wood	Deteriorated	Brown	0	0	Positive	9.8 +/- 0.3	
15	First	A	Exterior House 1	Win. Sash	Wood	Deteriorated	Brown	0	0	Positive	3.2 +/- 0.3	
16	First	A	Exterior House 1	Win. Stop	Wood	Deteriorated	Brown	0	0	Positive	11.6 +/- 0.3	
17	First	A	Exterior House 1	Win. Jamb	Wood	Deteriorated	Brown	0	0	Positive	8.7 +/- 0.3	
18	First	A	Exterior House 1	Win. Apron	Stone	Deteriorated	White	0	0	Positive	6.5 +/- 0.4	
19	First	A	Exterior House 1	Porch Beam	Wood	Deteriorated	Brown	0	0	Positive	11.5 +/- 0.3	
20	First	A	Exterior House 1	Porch Ceiling	Wood	Deteriorated	Brown	0	0	Positive	11.8 +/- 0.3	
21	First	A	Exterior House 1	Porch Support Column	Wood	Deteriorated	Brown	0	0	Positive	6.2 +/- 0.3	
22	First	A	Exterior House 1	Porch Trim	Wood	Deteriorated	White	0	0	Positive	5.5 +/- 0.3	
23	First	A	Exterior House 1	Porch Floor	Wood	Deteriorated	Brown	0	0	Negative	0.4 +/- 0.3	
24	First	A	Exterior House 1	Porch Floor	Wood	Deteriorated	Brown	0	0	Negative	0.4 +/- 0.3	
25	First	A	Exterior House 1	Railing	Wood	Deteriorated	Brown	0	0	Positive	4.8 +/- 0.3	
26	First	A	Exterior House 1	Baluster	Wood	Deteriorated	Brown	0	0	Negative	0 +/- 0.3	
27	First	A	Exterior House 1	Newell Post	Wood	Deteriorated	Brown	0	0	Negative	-0.1 +/- 0.3	
28	First	A	Exterior House 1	Newell Post	Wood	Deteriorated	Brown	0	0	Negative	-0.2 +/- 0.3	
29	First	A	Exterior House 1	Stair Riser	Wood	Deteriorated	Brown	0	0	Negative	-0.1 +/- 0.3	
30	First	A	Exterior House 1	Stair Tread	Wood	Deteriorated	Brown	0	0	Negative	-0.1 +/- 0.3	
31	First	A	Exterior House 1	Lattice	Wood	Deteriorated	White	0	0	Positive	1.9 +/- 0.3	
32	First	A	Exterior House 1	Ext. Downspout	Metal	Deteriorated	Brown	0	0	Negative	0.1 +/- 0.3	
33	First	A	Exterior House 1	Wall	Stone	Deteriorated	Grey	0	0	Positive	7.7 +/- 0.4	
34	First	B	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	0	0	Positive	6.1 +/- 0.3	
35	First	B	Exterior House 1	Win. Sill	Wood	Deteriorated	Brown	0	0	Positive	6.6 +/- 0.3	
36	First	B	Exterior House 1	Win. Sash	Wood	Deteriorated	Brown	0	0	Positive	4 +/- 0.3	
37	First	B	Exterior House 1	Win. Stop	Wood	Deteriorated	Brown	0	0	Positive	6.2 +/- 0.3	
38	First	B	Exterior House 1	Win. Jamb	Wood	Deteriorated	Brown	0	0	Positive	6.6 +/- 0.3	
39	Second	A	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	0	0	Positive	29.6 +/- 0.3	
40	Second	A	Exterior House 1	Ext. Fascia	Wood	Deteriorated	Brown	0	0	Positive	28.2 +/- 0.3	
41	Second	A	Exterior House 1	Ext. Soffit	Wood	Deteriorated	Brown	0	0	Positive	29.7 +/- 0.3	
42	First	D	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	0	0	Positive	14.5 +/- 0.3	
43	First	C	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	0	0	Positive	2.6 +/- 0.3	
44	First	A	Exterior House 1	Ext. Siding	Wood	Deteriorated	Brown	0	0	Positive	19.8 +/- 0.3	
45	First	D	Exterior House 1	Win. Casing	Wood	Deteriorated	White	0	0	Positive	5.8 +/- 0.3	
46	First	D	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	0	0	Positive	5.3 +/- 0.3	
47	First	C	Exterior House 1	Win. Casing	Wood	Deteriorated	White	0	0	Positive	11.3 +/- 0.3	
48	First	C	Exterior House 1	Door	Wood	Deteriorated	Brown	0	0	Negative	0 +/- 0.3	
49	First	C	Exterior House 1	Door Casing	Wood	Deteriorated	Brown	0	0	Positive	12.5 +/- 0.3	
50	First	C	Exterior House 1	Door Stop	Wood	Deteriorated	Brown	0	0	Positive	11.6 +/- 0.3	
51	First	C	Exterior House 1	Door Threshold	Stone	Deteriorated	Brown	0	0	Negative	0.1 +/- 0.4	
52	First	C	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	0	0	Negative	0.1 +/- 0.3	
53	First	C	Exterior House 1	Win. Casing	Wood	Deteriorated	Brown	0	0	Positive	11.5 +/- 0.3	
54	First	C	Exterior House 1	Win. Sash	Wood	Deteriorated	Brown	0	0	Positive	10 +/- 0.3	
55	First	C	Exterior House 1	Win. Stop	Wood	Deteriorated	Brown	0	0	Positive	13 +/- 0.3	
56	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1 +/- 0.2	
57	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1.1 +/- 0.2	
58	First	CALIBRATE	Exterior House 1	CALIBRATE	CALIBRATE	CALIBRATE	CALIBRATE	0	0	Positive	1.1 +/- 0.2	

2.3 Performance Characteristic Sheet

HEURESIS PCS December 2015

Performance Characteristic Sheet

EFFECTIVE DATE: December 1, 2015

MANUFACTURER AND MODEL:

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

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Action Level mode

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm² (inclusive)

SUBSTRATE CORRECTION:

Not applicable

INCONCLUSIVE RANGE OR THRESHOLD:

ACTION LEVEL MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm²)
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in November 2015, with two separate instruments running software version 2.1-2 in Action Level test mode. The actual source strength of each instrument on the day of testing was approximately 2.0 mCi; source ages were approximately one year.

OPERATING PARAMETERS

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

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If 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.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm² for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm² at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm². Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

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

For each substrate type (the 1.02 mg/cm² NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

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

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

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

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

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

Compute the Retest Tolerance Limit by the following steps:

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

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

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

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

In the Action Level paint test mode, the instrument takes the longest time to complete readings close to the Federal standard of 1.0 mg/cm². The table below shows the mean and standard deviation of actual reading times by reading level for paint samples during the November 2015 archive testing. The tested instruments reported readings to one decimal place. No significant differences in reading times by substrate were observed. These times apply only to instruments with the same source strength as those tested (2.0 mCi). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times, than those in the table.

Mean and Standard Deviation of Reading Times in Action Level Mode by Reading Level		
Reading (mg/cm²)	Mean Reading Time (seconds)	Standard Deviation (seconds)
< 0.7	3.48	0.47
0.7	7.29	1.92
0.8	13.95	1.78
0.9 – 1.2	15.25	0.66
1.3 – 1.4	6.08	2.50
≥ 1.5	3.32	0.05

CLASSIFICATION OF RESULTS:

XRF results are classified as **positive** if they are **greater than or equal** to the stated threshold for the instrument (1.0 mg/cm²), and *negative* if they are *less than* the threshold.

DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at <http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997>.

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

2.4 Housing Component Identification

